Wolf (Ma'iingan) Management Plan Red Lake Band of Chippewa Indians

EXECUTIVE SUMMARY

This plan was developed using information collected during gray wolf (*Canis lupus*) population surveys, literature reviews, and public surveys. Minnesota Department of Natural Resources (MNDNR) wolf management information, as well as information from the U.S. Fish and Wildlife Service, Wisconsin, and Michigan, was reviewed and incorporated when pertinent.

A main goal of this plan is to outline management options that help ensure longterm survival of wolves on Red Lake lands and protect them from adverse effects that could lead to population declines. The wolf represents a "minor" Clan of the Red Lake Band of Chippewa and the importance of wolves in Chippewa culture is highlighted in legends and oral history. Tribal Spiritual leaders and elders speak of the parallel fates of wolves and native people. Many believe that if wolves prosper, the people of Red Lake will prosper, and if wolf populations suffer, so will the Red Lake Nation.

Thus, management of wolves on Red Lake lands shall be driven by the great respect that the Red Lake Band of Chippewa have for this important tribal resource. Red Lake lands shall remain a sanctuary for wolves, with management scenarios designed to promote and preserve them. Support from tribal members will be a key component to survival of wolves at Red Lake.

Wolves at Red Lake

Wolves have always inhabited remote portions of Red Lake Lands, even during periods of exploitation and persecution throughout Minnesota and the United States. Red Lake's unique legal status and direct government to government relationship with the federal government allows independent management of all tribal resources. Because Red Lake recognizes that its land holdings are a part of a larger ecological landscape, comprised of federal, state, and private land holdings, tribal management activities are often designed to complement regional efforts.

Due to abundant prey and improved public perception, wolf numbers in the state may be higher today than they have ever been. Increased human-wolf conflicts may occur as wolves continue to move into agricultural areas and incidents of livestock and pet depredations increase. Addressing human-wolf interactions has been deemed critical for the long-term sustainability of Minnesota wolves. Minnesota's Wolf Management Plan describes the state's plan for dealing with wolf depredations on livestock and pets, and addresses public safety concerns. On Red Lake lands, wolves were not subjected to the same level of persecution as the rest of the state. Historical accounts suggest wolves were always important in tribal customs, ceremony, and spirituality, and directed removal efforts by tribal members probably did not occur. Subsistence harvest of game and fish is still very important at Red Lake and although wolves could be perceived as competition for some game species (e.g. deer), this perception has not generated major concern at Red Lake. Local wolf numbers may have experienced a decline during years of active removal in the rest of the state, but Red Lake's large, remote land holdings probably always supported sustainable populations.

Currently, considering wolf social organization and their habitat and prey requirements, Red Lake lands are probably saturated with wolves, and have been for some time. In the short term, natural processes, such as weather, disease, and fluctuations in prey density will likely have more of an impact on wolf numbers than direct human interaction. The long-term effects of logging activities will continue to favor wolves by promoting vegetation types that support prey species, but increased demands for natural resources and space by the Band could reduce habitat availability and/or quality.

When wolf management authority is given back to the state of Minnesota, Red Lake will have final authority over the management of wolves that occur on Red Lake lands. Tribal Council resolutions and tribal game codes will supersede state laws on reservation lands. Specific guidelines that describe the relationship between the Red Lake Band and the U.S. Fish and Wildlife Service, in regards to management of natural resources on Red Lake's lands, are not well defined. In the past, tribal activities that involve federal endangered species or other federally-protected species have been dealt with on a case-by-case basis.

ACKNOWLEDGEMENTS

The Red Lake Department of Natural Resources (RLDNR) – Wildlife Program thanks Chairman Jourdain and Red Lake's Tribal Council for their guidance during development of this plan, and the many tribal members that gave comments and opinions during public surveys and meetings. We would also like to thank the many contributors to this management plan including Margaret Anderson, Jeff Dittrich, John Erb, and Gretchen Mehmel. Editorial comments were provided by Margaret Anderson, Jeff Dittrich, Gregg Knutsen and Gretchen Mehmel.

We offer a special thank you to Mr. Eugene Stillday, Tribal Elder and Spiritual Leader, for providing guidance and insight during the development of this plan.

RLDNR - Wildlife

Jay T. Huseby, Wildlife Program Director David E. Price, Wildlife Biologist Sarah J. Ruffing, Wildlife Biologist Frank L. DeFoe, Wildlife Technician Stephen S. Strong, Wildlife Technician

TABLE OF CONTENTS

EXECUTIVE SUMMARY	2
WOLVES AT RED LAKE	2
ACKNOWLEDGEMENTS	4
TABLE OF CONTENTS	4
INTRODUCTION	6
RESOURCE MANAGEMENT AT RED LAKE Description of Land Holdings	
MAJOR FACTORS AFFECTING WOLVES ON RED LAKE LANDS	8
VEGETATION FORESTRY Prey Human Development Injuries, Diseases, and Parasites	
WOLF DISTRIBUTION AND A CURRENT POPULATION ESTIMATE	12
METHODS Diminished Reservation Ceded Lands Northwest Angle	
PUBLIC PERCEPTIONS	14
Public Meetings Public Opinion Survey Survey and Public Input Results	14
MANAGEMENT CONSIDERATIONS	14
POPULATION MONITORING INFORMATION AND EDUCATION LAW ENFORCEMENT HABITAT MANAGEMENT HUMAN – WOLF INTERACTIONS Public Safety Depredations Illegal Killing/Possession Harvest Incidental Take COOPERATIVE MANAGEMENT OPPORTUNITIES	15 15 16 16 16 16 16 16 16 16
APPENDICES	
SELECTED REFERENCES	21

INTRODUCTION

A primary goal of this management plan is to maintain gray wolf (*Canis lupus*) numbers at levels that will contribute to the long-term survival of the species, and that are widely accepted by tribal members. Habitat management and public education are key components of the plan, allowing humans and wolves to coexist, in accordance with Red Lake's tribal traditions and customs.

This document describes habitat conditions and management guidelines for wolves inhabiting lands of the Red Lake Band of Chippewa Indians. Wolves were first given limited protection on federal lands with the passing of the federal Endangered Species Preservation Act of 1966. The federal Endangered Species Act of 1973 provided protection for wolves throughout the lower 48 states, marking the beginning of population recovery efforts and wolf range expansion in Minnesota. The Eastern Timber Wolf Recovery Plan was published in 1978 and wolves were reclassified as threatened. A population recovery goal of 1251-1400 wolves, listed in the 1992 revised federal Recovery Plan, was met and wolf numbers reached an estimated 2,500 animals in the late 1990s. Evidence suggests wolves inhabited most of the northern half of the state at that time. Wolves were removed from the federal Endangered Species List in 2007, but relisted again in 2008, despite populations exceeding the recovery criteria for the past 10 years. This changing status has been a result of lawsuits that were filed to prevent or delay delisting. Authorities are currently in the process of removing wolves from the federal Endangered Species List. Following de-listing, the U.S. Fish and Wildlife Service will continue to closely monitor the status of wolves for five years to ensure that recovery goals are being met and that states are managing wolves in ways that do not allow numbers to fall below 1992 Recovery Plan goals.

Wolves were often feared or viewed as competition for food by European settlers. In Minnesota, there was a bounty on them until 1965. Prior to the Endangered Species Act of 1973, wolves in Minnesota were unprotected and public hunting and trapping was unrestricted. Wolves were listed as a state threatened species by Minnesota in 1984 and removed from the state list after meeting recovery criteria in 1996.

Resource Management at Red Lake

The RLDNR is comprised of seven primary programs: Wildlife, Fisheries, Forestry, Water Resources, Wetlands, Environmental Protection, and Cultural and Traditional Resources. Early resource management at Red Lake focused on timber harvest and commercial fishing, with other programs starting in the 1990's. Although wildlife-promoting activities occurred previously, an "official" Wildlife Program began in 1997, with the hiring of a full-time Wildlife Biologist. Currently Red Lake's Wildlife Program consists of three full-time Biologists, two full-time Technicians, and a number of seasonal and temporary staff. The RLDNR developed an Integrated Resource Management Plan (IRMP) in 2000 (updates are currently in progress) to promote communication and facilitate cooperative management efforts amongst programs.

Red Lake Tribal Game Wardens are a component of Red Lake's Department of Public Safety. Generally, harvest of wildlife on Red Lake lands is regulated in two ways: (1) the Red Lake Code of Indian Offences, Title X Game and Fish, Chapter 1000, Game and Fish Code, and (2) through specific resolutions of the Tribal Council. The Game and Fish Code lays out the framework for what constitutes an illegal activity, legal jurisdiction, and penalties. Seasons and limits for Band members and non-Band members, as well as species-specific regulations, are typically set via Tribal Council resolutions.

In preparation for delisting, the state of Minnesota published their management plan for gray wolves in 2001. This document recognizes that some tribal governments have authority to independently manage wolves on their land holdings. The Red Lake Band of Chippewa Indians controls over 800,000 acres of land within Minnesota's wolf range and is not subject to state jurisdiction. Thus, a considerable number of wolves in the state are dependent upon habitats found on land holdings managed by the Red Lake Band and are subject to the Band's management authority. Because wolves are a wideranging species, with large home ranges and strong tendencies for juvenile dispersal, individual wolf packs will maintain home ranges that include multiple political jurisdictions. To effectively manage wolves in the state, it is important for all jurisdictions to develop science-based management plans that recognize a need for interagency communication and cooperative management efforts.

In 2008, the Band was awarded a grant through the U. S. Fish and Wildlife Service – Tribal Wildlife Grants (TWG) Program. The primary goals of this project were to conduct intensive monitoring efforts to identify important wolf areas, document habitat use and generate current estimates of wolf distribution and abundance on Red Lake lands. Survey data were used to develop this Wolf Management Plan and guide development of Tribal Council approved regulations and ordinances governing management of wolves on Red Lake lands.

Description of Land Holdings

The Red Lake Band has political status that is very different than other tribes in the United States. Red Lake chiefs chose not to participate in the Nelson Act of 1889 (Minnesota's application of the Dawe's Allotment Act of 1887). The goal of these actions was to parcel out Indian reservation lands to tribal members, with "left-over" lands ceded to the federal government. Ultimately, participation by most tribes resulted in checkerboard patterns of Indian land holdings within original reservation boundaries. Today, much of the land within the boundaries of other reservations is in private (or other non-Indian) ownership. While the size of the Red Lake Reservation has been reduced through the treaties and agreements of 1863 (amended in 1864), 1889, 1892, 1904, and 1905, the "Diminished" Red Lake Reservation has never been broken apart or allotted to individuals. The Red Lake Reservation is often referred to as a "closed reservation", one of few in the United States. The term "closed" refers to the large contiguous blocks of tribally-owned land, where public access is restricted and the tribal government has full sovereignty, subject only to federal legislation. The Tribe has the right to limit who can live on, or visit the reservation. It has never been subjected to the criminal or civil jurisdiction of the State of Minnesota, and has a unique government-to-government relationship with the United States government. Decisions involving tribal resources are ultimately made by Red Lake's Tribal Council, the governing body for the Red Lake Band of Chippewa.

Based on location and ownership history, the Red Lake Band's land holdings are grouped into three general categories. Much of Red Lake's land is contained within a contiguous block surrounding Lower Red Lake and the west half of Upper Red Lake. This 649,082 acre block of land and water is often called the "Diminished Reservation". The label "Diminished Reservation" is based on treaty history, and describes lands that Red Lake retained following treaties and agreements with the federal government. This land was never ceded to the federal government. The other two general categories of land were ceded to the U.S. government by treaty, but subsequently restored to the Band. The largest contiguous block of these restored territories is located at the Northwest Angle (53,304 acres), and is only accessible by land through Manitoba, Canada. The other restored ceded lands (132,808 acres) are commonly termed the "Ceded Lands". These lands are scattered acreages of varying size between the Diminished Reservation and Canada. The largest contiguous blocks amount to several thousand acres.

The present-day Red Lake Indian Reservation, located in north-central Minnesota, has total land holdings of over 843,000 acres. It is the largest Reservation in the U. S. Bureau of Indian Affairs' (BIA) Midwest Region, accounting for 55 percent of all Indian land. Holdings are distributed across more than 10,000 square miles, in eight counties (Figure 1).

MAJOR FACTORS AFFECTING WOLVES ON RED LAKE LANDS

Vegetation

Red Lake's land holdings include approximately 342,000 acres of forest (includes forested wetlands), 240,000 acres of lakes, 466,043 acres of wetlands (includes forested wetlands), and 371 miles of rivers and streams. The Red Lake Reservation contains much of northern Minnesota's patterned peatland, which has received worldwide scientific recognition because it is the largest peatland resource outside of Alaska and because it supports many rare and endangered species. About 78% of the landscape is at or near water table levels. The Reservation is named after Red Lake, the sixth largest natural freshwater lake in the United States.

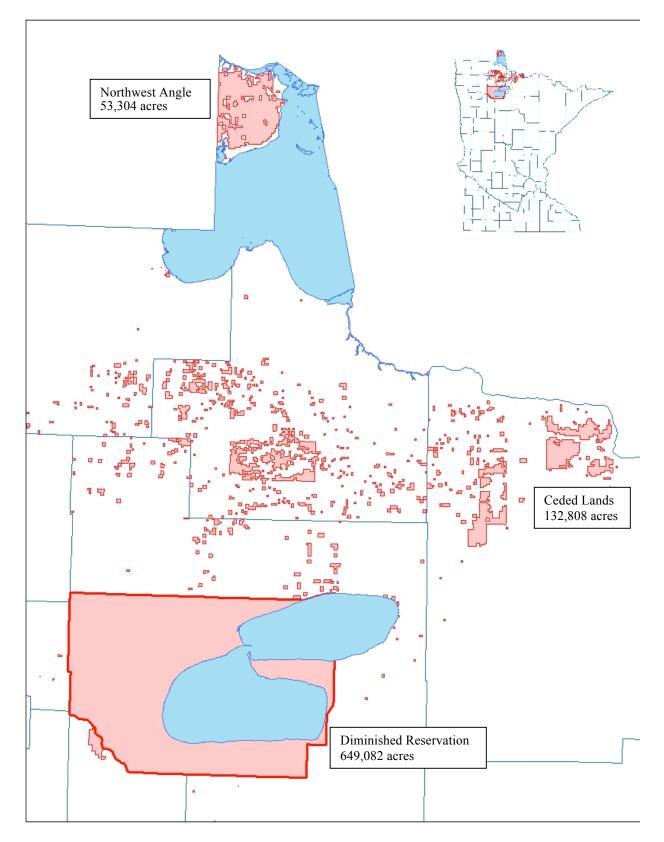


Figure 1. Red Lake Band land holdings; including the Diminished Reservation, Ceded Lands and Northwest Angle.

Three major vegetation zones occur on the Diminished Red Lake Reservation. These zones are second growth deciduous and pine forest, marsh/wet prairie/oak savannah, and boreal swamp conifer and bog. The second growth deciduous and pine forest characterizes the Ponemah peninsula, a point of land jutting between Upper and Lower Red Lakes from the east, and the areas to the south of Lower Red Lake. This zone tends to be very biologically diverse, both in the number of vegetation types and the diversity of wildlife it supports. These areas have also sustained the greatest amount of human impact. To the west lie the marsh/wet prairie/oak savannah types. Sedges and wet grass species typify the zone, with some areas of lowland brush. Upland islands commonly support aspen associations. Fires frequently occur in this region, especially in drier years. Boreal swamp conifer and bog associations predominate in northern portions of the reservation. Upland islands are often nearly monotypic stands of aspen or jack pine. Access to much of the north and western portions of the Diminished Reservation is limited. Many areas can only be reached during winter or by all-terrain vehicle or snow machine.

The Ceded Lands lie largely on the old beds of glacial Lake Agassiz. This area, as well as the Northwest Angle, is mostly comprised of upland ridges and islands of pure aspen and jack pine interspersed with boreal swamp conifer and bog associations. Most of the Ceded Lands and Northwest Angle is limited to winter-only access.

Forestry

Extensive harvest of hardwoods during the past 20 years has promoted early-stage successional vegetation communities on many upland sites that favor several key prey species, particularly white-tailed deer (*Odocoileus virginianus*). On the Diminished Reservation, approximately 38% of the forested acreage is classified as young aspen. Timber harvest in many areas has slowed, but will continue to be a major factor affecting Red Lake's forested areas. Although logging activities may have short-term impacts on pack and/or individual wolf use of an area, these effects should be absorbed by the long term benefits of increased forage and cover that will promote increased prey abundance.

A major pine restoration effort is underway on Red Lake's Diminished Reservation. Many upland sites that are currently dominated by hardwood communities will be cleared and replaced by coniferous forest cover types. The restoration effort involves reestablishing 50,000 acres of pine by the year 2057. Although conversion to pine communities might reduce local prey availability (within plantations) overall landscape effects to the prey base should be small. Establishment has been occurring at a rate of about 300 acres per year. The size of individual plantations will range from approximately five to 300 acres and they will be placed in suitable sites across Red Lake's Diminished Reservation and restored ceded lands. It is expected that 70% of the plantations will be red pine, 15% white pine, and 15% jack pine.

Prey

Availability of prey and adequate amounts of quality habitat are key components to maintaining regional wolf numbers. Wolf social organization is complex, with individuals typically living in packs that can vary in size from a pair, to over 15 animals. Within a pack, only two animals are reproductively active, and a pack will generally produce a litter of four to seven pups per year. Although reproductive potential appears high, pup survival is highly dependent on food availability. Generally, wolf packs compete for food resources and defend territories against use by other packs. Territory size is often related to prey density and can range from 25 to 200 square miles. Thus, the number of packs (and wolves) that can inhabit a region is affected by wolf social constraints, as well as habitat quality and prey density.

Large expanses of relatively inaccessible land comprise much of Red Lake's land holdings. Increased logging activities during the past 20 years has produced early stage successional vegetation communities that favor a number of prey species used by wolves: white-tailed deer, moose (*Alces alces*), snowshoe hares (*Lepus americanus*), beavers (*Castor canadensis*), and muskrats (*Ondatra zibethica*). With a regional decline in moose numbers, white-tailed deer are the primary food source for wolves in most of Minnesota. It has been suggested that each adult wolf requires the food equivalent of 15 to 19 deer per year for survival, so management activities that improve habitat for deer will contribute to the maintenance of regional wolf numbers. Mild winters since 1996 have helped maintain and promote high deer numbers across the state.

Human Development

Increased habitat fragmentation due to human developments may lead to reduced capability of some areas to support wolves. There are four main areas of concentrated human development on Red Lake lands, including the villages of Little Rock, Ponemah, Redby, and Red Lake.

Wolves may prefer areas with limited human access. Increased use of all-terrain vehicles and snow machines during the past 20 years has allowed or increased human use of natural resources in remote Red Lake land holdings. The long-term effects of these types of activities on wolves will be monitored and future restrictions may become necessary to protect wolves and other natural resources.

Recent detection of tuberculosis in cattle and white-tailed deer in northern Minnesota has resulted in efforts designed to temporarily reduce or eliminate local deer and cattle herds to slow transmission of this disease. Reduced deer numbers in the "deer reduction zone" undoubtedly has had an effect on local wolf packs, promoting their use of alternate prey and or promoting greater use of areas outside of the "deer reduction zone". Deer numbers in this region should quickly recover once reduction efforts end.

Injuries, Diseases, and Parasites

Wolves are susceptible to a variety of injuries, diseases and parasites. Due to their territorial nature and predatory lifestyle, it is not uncommon for individual animals to succumb (directly or indirectly) to injuries incurred as a result of territorial disputes, fighting, or handling of prey. Human-related injuries (e.g. car collisions, hunting and trapping activities) can also lead to injuries that have negative impacts on survival of individual animals. Similarly, parasites usually act at the level of individual animals, often having the greatest impact on subgroups within a local population (e.g. young animals or those weakened from other causes).

In contrast, disease outbreaks can have dramatic effects on wildlife populations at local, and sometimes landscape levels. Wolves are susceptible to a number of diseases that can reduce numbers at a local scale. Well known diseases, such as mange, canine distemper, lyme disease, and rabies can spread rapidly within local populations, with dramatic effects on distribution and abundance.

WOLF DISTRIBUTION AND A CURRENT POPULATION ESTIMATE

Methods

Data collected during intensive inventory and monitoring (2008 – 2010), combined with existing data sets, helped us develop a baseline for wolf distribution and abundance on Red Lake lands. During 2008 - 2010, a total of 30 scent post surveys per year were conducted (10 each: Diminished Reservation, Ceded Lands, and Northwest Angle), 30 one-mile winter track survey routes were established and surveyed on the Diminished Reservation each year, and 100 miles of remote trails were traversed each year in search of wolf sign (Diminished Reservation and Northwest Angle). Incidental sightings of wolves or wolf sign by field personnel were also recorded. Attempts were made to survey a representative portion of Red Lake lands, but surveys were often limited to areas accessible by ATV or snowmobile.

Scent post surveys were conducted in late summer and fall during snow-free periods using procedures similar to those used during MNDNR's annual "predator-furbearer scent post survey". Survey routes were selected by locating accessible areas of likely habitat (e.g. remote wooded uplands), with gravel or dirt roads through them. Each survey route consisted of 10 scent stations spaced 0.3 mile apart, on alternating sides of the roadway, for a total of 2.7 miles per route. Each station consisted of a three - foot diameter circle of fine soil (or other track medium) at the road edge. A fatty acid impregnated scent disc was placed in the center of each circle and elevated on a small rock to maximize scent dispersal. Each survey route was left unattended for 24 hours and then checked to document species that visited the sites.

Winter track surveys and reconnaissance surveys were conducted when there was adequate snow cover (late November through February) and following a new snow fall. Each winter track survey was one mile long. Each species and estimated number of individuals was identified by track, scat and other sign. Wolf rendezvous sites were documented and numbers of individuals using these sites were estimated. Whenever possible, trail cameras were placed at these sites to help document pack size and composition.

To investigate the effects of mineral availability on deer size and antler characteristics, a mineral supplement study has been conducted at the Northwest Angle since 2005. Mineral sites are located in areas of moderate to heavy deer use. To better document use of blocks and monitor deer numbers, trail cameras are placed overlooking high use sites. Probably due to increased deer numbers, wolves are frequently recorded at or near these sites and tracks, scat, and photos provided additional wolf distribution and abundance information for these areas.

All wolf sign and estimates of group size (where enough sign was observed), were recorded and plotted on maps to identify high-use areas and to generate an estimate of occupied wolf territory. Following MNDNR population estimation procedures, population size was estimated using occupied range estimates and assuming average territory size equal to 100 square miles and average pack size of five to six animals in spring. We assumed the proportion of lone wolves in a population averaged 10-15%, and that pack territorial boundaries do not vary from year to year. We assumed all useable area was occupied by wolves.

Estimates of areas occupied by wolf packs were derived using Geographical Information Systems (GIS). GIS was used to document habitat types that wolves used during surveys. This information was then used to estimate total acres of useable wolf habitat on the Diminished Reservation, Ceded Lands and Northwest Angle. Most wolf sign was recorded in and around mixed forest types, large tracts of uninhabited land, and wooded wetlands. Water and areas with high concentrations of human populations were not considered as potential wolf habitat.

Diminished Reservation

A total of 383,337 acres (599 square miles) was labeled as "suitable habitat" during GIS analysis. Using assumptions of average pack size during spring and pack territorial requirements, the Diminished Reservation potentially supports six wolf packs, or about 30 - 36 individual wolves in spring, with an additional five lone wolves. Fall wolf numbers could potentially reach 60 - 72 individual wolves depending on fecundity and pup survival. These estimates are supported by our surveys and other incidental sightings. However, the number of wolves on the Diminished Reservation could vary depending on the location of wolf pack territories along borders with other jurisdictions.

Ceded Lands

A total of 37,336 acres (58 square miles) of tribal land was determined to be "suitable wolf habitat" in the Ceded Lands. Since this area is a checkerboard pattern of land ownership, we know that all wolves recorded on tribal land also occupy adjacent lands under different jurisdictions. Radio telemetry work on radio-collared wolves, conducted by the MNDNR (2007 - 2008), suggests at least six wolf packs in this (924 square miles) area. Our surveys and incidental sightings support this estimate. Although wolf pack territories (identified by MNDNR) encompass many tribal parcels, tribal lands only comprised about 20% of individual pack territories in the Ceded Lands.

Northwest Angle

A total of 51,194 acres (80 square miles) was determined to be "suitable wolf habitat" on the Northwest Angle. Using assumptions of average pack size during spring and pack territorial requirements; the Northwest Angle probably supports one or two wolf packs for a total of 10 - 12 individual wolves. However, surveys and observations by residents and deer hunters in winter of 2010 indicated a pack with 10 - 15 wolves. Since

wolf packs can easily cross the border to and from Canada, seasonal wolf numbers on the Northwest Angle could vary widely depending on locations of "Canadian" packs that have territories along the border between the Northwest Angle and Canada.

PUBLIC PERCEPTIONS

Public Meetings

Wolf information was distributed to Band members via the internet, newspaper articles and flyers. Public meetings were held to collect Band member opinion on wolf issues and provide direction to management plan development.

Public Opinion Survey

A brief questionnaire was developed and distributed to the Red Lake membership to investigate their views of wolves and their opinions about various management options. Of primary concern were cultural, regulatory and public safety aspects. Support from Red Lake tribal members is essential to the long-term survival of wolves on Red Lake lands.

Survey and Public Input Results

A total of 56 Red Lake residents submitted completed survey forms. Participants ranged in age from 21 to 70 and were represented by about equal numbers of males and females.

In general, many had observed wolves in the wild, but most were not aware of current wolf numbers or whether they are too high or low. Only two thought wolf numbers were too high and only one had a negative perception of wolves. Most think that Red Lake lands hold plenty of deer to support wolf populations and most do not consider wolves a threat to people, pets or livestock. Eighty percent would not support harvest of wolves (hunting or trapping) and most support strict punishment (monetary fines and confiscation of equipment) for those convicted of illegally killing a wolf on Red Lake lands. Some expressed interest in receiving a wolf pelt, if a distribution program were in place.

MANAGEMENT CONSIDERATIONS

Population Monitoring

A primary goal of this management plan is to ensure the long-term survival of wolves on the Red Lake Reservation, while addressing wolf-human conflicts. Red Lake will continue to participate in state-wide monitoring efforts and use regional trends to make inferences about wolves on Red Lake lands. Data collected from 2008 - 2010 helped us establish a baseline to compare with data that will be collected in the future. Population monitoring will continue; utilizing and enhancing current methodologies to estimate wolf population densities and distribution, and detect changes in both. Habitat changes due to logging or human encroachment will also be monitored to determine effects on wolf populations and prey base. Wolf health and diseases will continue to be monitored to determine impacts on populations occupying Red Lake lands. The remains

of wolves that died from unknown or potential disease-related causes will be collected and submitted to a certified laboratory for evaluation.

Photographs from remote cameras, carcass assessments, and direct observations of live animals suggest that many wolves on the Northwest Angle are showing symptoms (e.g., lethargy, moderate to severe hair loss) of sarcoptic mange. At present, this disease may affect up to 50% of the wolves on the Northwest Angle, and it has the potential to considerably reduce local populations during the next few years.

Changes in the public's perception of wolves may change how wolves are managed on Red Lake lands in the future. The Tribal Council will ultimately determine management strategies.

Information and Education

Information about wolves and wolf management will be made available to the public. A wide variety of methods will be utilized to keep the public informed on wolf population trends, management activities and pertinent regulations. The RLDNR website will be used to describe ongoing management activities and announce educational opportunities.

Law Enforcement

Tribal conservation codes supersede state laws on Red Lake lands. Red Lake's Department of Public Safety includes Conservation Officers that are responsible for enforcing Tribal Council Resolutions and tribal fish and game codes. This management plan has resulted in the development of Tribal Council approved regulations and/or codes that will guide management of wolves on Red Lake lands.

Habitat Management

White-tailed deer are the primary food source for Red Lake wolves, and generally, in Red Lake's remote, inaccessible land holdings, habitats that favor whitetailed deer will also favor wolves. Habitat manipulation has the greatest potential to affect wolves inhabiting Red Lake lands. Wolves are adapted to survive in many habitat types, but cannot exist in areas without an adequate prey base, regardless of the habitat type. An increase in hunting pressure of white-tailed deer, due to increased hunter access to remote areas, may reduce the prey base for wolves.

Increased logging and cutting in remote areas will also increase public access and break-up contiguous blocks of habitat. This can impact habitat and prey composition and distribution. Most wildlife species do not immediately adapt or sometimes recover from severe population setbacks caused by loss of habitat or forage base. A successful management plan should remain fluid, allowing for strategies that acknowledge "lag times", often associated with factors that can influence wolf numbers over time. The plan should also account for secondary factors affecting wolf productivity and mortality such as timber harvest and human encroachment.

Human – Wolf Interactions

<u>**Public Safety</u>** - Wolves thought to be a threat to public safety may be harassed at any time. In the event that a wolf is deemed a threat to human safety, and must be killed, the incident must be reported to tribal law enforcement immediately and the carcass shall be turned in to the RLDNR for examination.</u>

Depredations - Agricultural livestock are not common on Red Lake lands, and most tribal members who own livestock have small operations where animals are held close to home sites, reducing the risk of wolf depredations. However, many families own dogs or other pets that may be at risk to predation. Tribal members may protect their livestock and pets from wolf predation, but all reasonable efforts should be made to deter wolves using non-lethal means. Reports of wolf depredations will be investigated by tribal authorities. Currently, a Tribal program to compensate livestock or pet owners, for losses due to wolf predation, is not in place. Reports of wolf-related depredation of domestic animals on Red Lake lands have been negligible during the last 20 years, and it is unlikely to be a major management issue. Depredation incidents will be dealt with on a case-by-case basis.

<u>**Harvest</u>** - Hunting and trapping of wolves on tribal lands is strictly prohibited. The Tribal Council may issue special permission for the harvest of wolves for cultural and ceremonial purpose.</u>

<u>Illegal Killing/Possession</u> - Wolves are hereby protected via Tribal law and are currently protected under federal law. Illegal killing or possession of a wolf is prohibited and regulations will be enforced by tribal law enforcement.

<u>Incidental Take</u> - The remains of wolves killed or collected by tribal law enforcement or DNR officials, killed by vehicles, or taken incidental to authorized hunting or trapping activities shall be salvaged and turned over to the RLDNR for examination and potential distribution.

Cooperative Management Opportunities

Many of the wolf packs that use Red Lake lands also use lands that are managed by other agencies or are owned by private citizens. Thus, management strategies and recommendations made by the MNDNR and implemented in jurisdictions surrounding Red Lake's land holdings will be evaluated and considered when Red Lake makes wolf management decisions. However, Red Lake's Tribal government shall have final authority over all wolf management activities conducted on tribal lands.

Without further action by the Red Lake Tribal Council, Red Lake lands shall be a sanctuary for wolves. All efforts will be made to preserve wolves and the habitats that support them.

Issues involving wolves crossing Red Lake Tribal land boundaries may arise. Wolves may leave reservation lands and become involved in off-reservation livestock depredation incidents. State or federal officials may wish to address the issue, but are not authorized to conduct certain activities on Red Lake lands. Tribal authorities will attempt to coordinate activities with state and federal agencies and cooperate with regional management activities. Situations involving tribal properties and jurisdiction will be evaluated on a case-by-case basis by representatives of the tribal government.

Efforts to retain viable wolf populations in Minnesota will require a cooperative effort by tribal, federal, state, and private land owners. Regional management scenarios should remain flexible to account for different pressures and changing public attitudes. Of utmost importance, is maintenance of habitat and public acceptance of wolves on the landscape. Pressures on natural resources will increase and change over time, with concepts such as "multiple-use" making management and decision-making for a single species more complex.

APPENDICES

Appendix 1.	Points of Contact for	Wolf-Related Issues, 2010.
-------------	-----------------------	----------------------------

Name	Position	Area	Phone
Margaret Anderson	Refuge Manager	Agassiz National Wildlife Refuge USFWS	218-449-4115 x202
Jeff Dittrich	Area Wildlife Manager	Baudette MNDNR	218-634-1705
Shelley Gorham	Area Wildlife Manager	Bemidji MNDNR	218-308-2332
Gretchen Mehmel	Wildlife Area Manager	Red Lake WMA MNDNR	218-783-6861
Tim Patronski	Native American Liaison	USFWS	612-713-5108
Randy Prachar	Wildlife Area Manager	Thief Lake WMA MNDNR	218-222-3747
Paul Telander	Regional Wildlife Manager	Region 1 MNDNR	218-308-2674

Appendix 2. Resolutions and ordinances

RED LAKE BAND of CHIPPEWA INDIANS

RED LAKE NATION HEADQUARTERS

Real HATION

OFFICERS: FLOYD JOURDAIN JR, Chairman DON R. COOK, SR, Secretary DARRELL G. SEKI, SR, Treasumer DISTRICT RIPRESENTATIVES: GARY NELSON GLENDA J. MARTIN JULIUS "IVADAY" THUNDER ALLEN PEMBERTON ROMAN "DUCKER" STATELY DONALD J "DUDIE" MAY WILLIAM BILLY" GREENE RICHARD BARRETT, SR. ADVISORY COUNCIL-

7 HEREDITARY CHIEFS

PO Box 550, Red Lake, MN 56671

Phone 218-679-3341 • Fax 218-679-3378

RESOLUTION NO. 158-10

Upon a motion by Secretary Cook and second by Representative May, the following was enacted:

WHEREAS, the Red Lake Tribal Council has the authority and responsibility to protect all natural resources on all Red Lake lands for the benefit of Red Lake Band members, and to regulate harvest of game and fish through Title X, Chapter 1000 of Red Lake's Game and Fish Code; and

WHEREAS, the Minnesota subspecies of the gray wolf (*Canis lupus*) has reached population levels in Minnesota that has initiated a federally-administered process to remove them from the federal Endangered Species List in the state; and

WHEREAS, the state of Minnesota will assume management authority over wolves across much of the state, once the process of federal "de-listing" (removing wolves from the Federal Endangered Species List) is completed; and

WHEREAS, the Red Lake Band of Chippewa Indians is not subject to state jurisdiction and has always successfully managed wolves on Red Lake lands, even when wolves were driven to extremely low numbers in most of the state; and

WHEREAS, the Red Lake Band of Chippewa Indians' Department of Natural Resources (RLDNR) provides guidance to the Red Lake Tribal Council on matters that involve management of Tribal natural resources, including fish and game species; and

WHEREAS, the RLDNR's Wildlife Program has collected data on wolf numbers and distribution on tribal lands for over 15 years, and was awarded a U.S. Fish and Wildlife Service-administered grant in 2008 to collect current wolf abundance and distribution data from Red Lake lands during intensive surveys and develop a comprehensive Gray Wolf Management Plan; now

THEREFORE BE IT RESOLVED, The Red Lake Band of Chippewa Indians hereby designates all Red Lake lands a wolf sanctuary and recognizes the "Red Lake Band of Chippewa: Gray Wolf Management Plan" as the official tribal guide to managing wolves on Red Lake lands; and

BE IT FURTHER RESOLVED, wolves are a sacred animal and the Red Lake Band of Chippewa assumes all management authority over wolves found on Red Lake lands, and adopts the following regulations and policies relating to future management activities:

- 1. All Red Lake lands shall be a sanctuary for wolves, and all efforts will be made to preserve this important tribal animal and its habitats.
- 2. Hunting and trapping of gray wolves on Red Lake lands by Red Lake Band members is prohibited, unless by special permit issued by the Red Lake Tribal Council. Violation will result in a \$500.00 fine and forfeiture of equipment used during the illegal activity.
- 3. Under rare circumstances, wolves may be killed by Tribal members: when they are thought to be a danger to humans, or when they are thought to be a direct and immediate threat to livestock or pets. Any occurrence of a Red Lake Band member killing a wolf should be reported to Red Lake Tribal Conservation Officers or RLDNR-Wildlife staff immediately, and the wolf carcass shall be turned over to the RLDNR for examination. If an investigation finds that the wolf killing was not justified, individuals who participated in the activity shall be charged with illegal hunting of wolves and will be subject to prosecution in Tribal court.
- 4. A non-member who illegally kills a wolf on Red Lake lands will be fined \$500.00 and will forfeit equipment used during the illegal activity. State and federal authorities may be contacted for additional legal actions.
- 5. RLDNR staff may shoot or trap wolves at any time to achieve management objectives. Wolves that are hit by cars or found dead due to unknown causes shall be collected and examined by RLDNR staff. Diseased animals (or tissue samples from them) may be submitted for laboratory analysis. Useable carcasses shall be distributed to Tribal members for cultural and ceremonial uses at the discretion of the RLDNR.

FOR : 10 AGAINST : 0

We do hereby certify that the foregoing resolution was duly presented and enacted upon at the Regular Meeting of the Tribal Council held on Tuesday, September 14, 2010, with a quorum present, at the Red Lake Nation Headquarters, Red Lake.

FLOYD JOURDAIN, JR., CHAIRMAN

Alooto

DON COOK, SR., SECRETARY

SELECTED REFERENCES

Belongie, C. C. 2008. Using GIS to Create a Gray Wolf Habitat Suitability Model and to Assess Wolf Pack Ranges in the Western Upper Peninsula of Michigan. Volume 10, Papers in Resource Analysis. 15pp. Saint Mary's University of Minnesota Central Services Press. Winona, MN.

Berg, W. E., and D. W. Kuehn. 1982. Ecology of wolves in north-central Minnesota. Pages 4-11 *in* F. H. Harrington and P. C. Paquet, eds. Wolves: a worldwide perspective of their behavior, ecology, and conservation. Noyew Publ., Park Ridge, N.J.

Fuller, T. K. 1997. Guidelines for gray wolf management in the northern Great Lakes Region. 2nd edition. Educational Publication Number IWC97-271, International Wolf Center, Ely, Minn. 20pp.

Mech, L. D., S. H. Fritts, G. L. Radde, and W. J. Paul. 1988. Wolf distribution and road density in Minnesota. Wildlife Society Bulletin 16:85-87.

Michigan Gray Wolf Recovery Team. 1997. Michigan Gray Wolf Recovery and Management Plan. Michigan Department of Natural Resources. Lansing, Michigan. 58pp.

Minnesota Wolf Management Plan. 2001. Minnesota Department of Natural Resources, Division of Wildlife: Minnesota Department of Agriculture, St. Paul, Minnesota, 70p. approx.

U. S. Fish and Wildlife Service. 1992. Recovery Plan for the Eastern Timber Wolf. Twin Cities, Minnesota. 73pp.

Wisconsin Wolf Management Plan. 1999. Wiscinsin Department of Natural Resources, Madison, Wisconsin, PUBL-ER-099, 74pp.