MATERIALS RELATED TO THE CO-MANAGEMENT OF THE CHIPPEWA NATIONAL FOREST



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PREFACE

This booklet is designed to give a brief overview of the historical events and Treaties that shape the Leech Lake Reservation and Government today along with our relationships with some local and federal agencies. Through providing this background and analysis, we hope to prepare our staff and citizens with the necessary understanding of self-governance and what role we play in furthering

the Leech Lake Band of Ojibwe. Without understanding where we come from, it is impossible to know where we are going. This booklet we hope, provides a glimpse of the work and hardships our ancestors endured to get us to where we are now and sets the stage for conversations about our role in creating Leech Lake's future.



INTRODUCTION

Often people think Treaties signed by Native Americans with the United States Government "gave" rights to native peoples. This is a misconception. In fact, most treaties traded away rights and lands for a smaller, limited land base with

promises that Native peoples could practice their inherent rights there permanently. *Treaties* extinguished Indian title to the land and made it possible for the US government to settle and govern former Indian Lands. The rights that Natives retain are called "Reserved Rights," a fundamental doctrine of Indian Law today. Under this doctrine of reserved rights the courts have consistently ruled that any right not explicitly

Treaties outline the specific rights that Tribes gave up, not those that they retain.

extinguished by a treaty or federal statute is considered to be "reserved" to the

Usufructuary – in civil law this refers to a person who has the right to the benefits of another's' property Tribe. These reserved rights are called usufructuary rights. Learning the history and the Treaties that Leech Lake signed is instrumental in understanding the *'usufructuary'* rights that we share as Leech Lake Tribal Citizens, our natural right to self-govern and our responsibility to live as Anishinaabeg in ways that make our Reservation stronger.

HISTORY OF LEECH LAKE RESERVATION LANDS

TREATY WITE THE CHIPPEWA, 185

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Treaty Making Era – Formation of Ojibwe Reservations in Northern Minnesota

When the first settlers arrived in this area, the Ojibwe had been living throughout northern Minnesota for several hundred years. The US Federal Government recognized that lands in what would become north central and northern Minnesota were owned and managed by the Ojibwe. At this time, the United States was focused on obtaining Indian Lands for settlement and removing the Indians to Reservations without causing wars and uprisings. Interactions with Native people were executed by the President of United States and Tribal leaders through the negotiation of Treaties. These Treaties were then

ratified by congress and implemented by the Bureau of Indian Affairs (BIA) which was then housed in the War Department of the United States.

To obtain territory that would form the northern portion of Minnesota and open up those lands to logging industry, a series of Treaties were negotiated with the

Ojibwe to cede their occupancy rights and allow the federal government to acquire these lands. The first Treaty with the Ojibwe that ceded lands was the Treaty of St. Peters in 1837. This treaty formed what later became Wisconsin and Eastern Minnesota, including the land around Mille Lacs Lake. In 1854 the Lake Superior Band of Chippewa Indians ceded lands in the Northeastern part of Minnesota through the Treaty with the Chippewa and established Reservations for the Grand Portage and Fond du Lac Bands.





In 1855 the Chippewa of the Mississippi, including the Pillager, Winnibigoshish and Leech Lake Bands, ceded lands immediately to the west of the 1854 cessation that stretch to the Dakota border and established Reservations to be retained at Mille Lacs, Rabbit Lake, Gull Lake, Pokegama Lake, Sandy Lake, Rice Lake, Leech Lake, Lake Winnibigoshish and Cass Lake. From this Treaty,

commonly called the 1855 Treaty of Washington, the Reservations of Leech Lake and Mille Lacs still remain but the landscape of Indian ownership continued to shift in subsequent treaties.

The 1864 Treaty, which superseded a similar Treaty in 1863 involved the cessassion of the Reservations at Mille Lacs, Rabbit Lake, Gull Lake, Pokegama Lake, Sandy Lake and Rice Lake to restore lands ceded that were ceded in the 1855 treaty to enlarge the remaining Reservations. The goal of this treaty was to consolidate all of the Mississippi Bands around Lake Winnibigoshish and Leech

Lake. The thought in 1864 was to move all the Indians away from the small, scattered Reservations established in 1855 and concentrate them at a larger, closer Reservations.

The Treaty of 1867 furthered the US objective of concentrating the Ojibwe in North Central Minnesota and ceded the lands that were returned to the Mississippi Bands in the 1864 treaty back to the United States. In exchange for these ceded lands the White Earth Reservation was established and lands surrounding Leech Lake and Lake Winnibigoshish were retained. White Earth and Leech Lake were to be 'relocation' reservations for the Ojibwe people.



The lands retained from the 1855, 1863, 1864 and 1867 Treaties form part of the present day Leech Lake Reservation with additional lands coming in three presidential orders in 1873 and 1874 under President Ulysses S. Grant.

Treaty making ended in 1871 with the passage of the Indian Appropriation Act and the Tribal-US government relationship that rested with the President transitioned to Congress which still control this relationship today. With the passage of this legislation, it became Federal Policy that *"no Indian Nation or Tribe"* would be recognized *"as an independent Nation, Tribe, or power with whom the United States may contract by treaty."* This was a big step in diminishing Indian sovereignty, in which the US government shifted treating Indian peoples as independent nations to individual 'wards' of the government. This was an action to separate Indian people and bring them under Federal Control through congressional action with or without their consent. This action ended the Treaty-making era of Federal Indian Policy.

REMOVAL AND ASSIMILATION ERA – Fragmentation of Leech Lake Reservation & Formation of Chippewa National Forest

Minnesota has a long history of timber harvesting where in many towns Paul Bunyan and Babe the Blue Ox are folk heroes. Many lakes and rivers were dammed in order to facilitate the transportation of timber. Timber interest is also the reason US surveyors such as "Lewis and Clark" and "Lewis Cass and Zebulon Pike" had explored this area and identified where the pines, swamps and resources were on the landscape. By the late 1800's the logging industry had reached the borders of the Leech Lake Indian Reservation but could not access the large expanses of virgin white and red pine forests that it contained as the entire Leech Lake Reservation was under Indian ownership and control. Gaining access to the lands and resources in the Leech Lake Reservation was done through legislative actions, the effects of which are still present today.

THE NELSON ACT

The Nelson act of 1889, or *"The Relief and Civilization of the Chippewa Indians in the State of Minnesota"* opened the door to the Leech Lake Reservation and began the shift the ownership from Tribal owned land to the mixed ownership



Dams on Leech Lake established to facilitate transportation of Leech Lake timber. This had the additional effect of altering the landscape and impacting the local populations.

of Tribal, public and private that we have today. This Act of Legislation shifted ownership of land by:

Mandating each Tribal family would receive an 80 acre parcel (called allotment) of <u>non-pine</u> land; and



"Intermediate" students inside a classroom at an American Indian boarding school in Beaulieu, Minnesota, c.1900.

-) All unclaimed lands were:
 - To be auctioned off, if deemed pine rich lands; or
 - Opened to white settlement, if lands were deemed agricultural.
- Allotted Lands would be held in tax-free "trust" status for 25 years then shift into "fee" status where taxes would need to be paid by the landowner.

The Nelson Act also coincides with other efforts to 'civilize' natives as the boarding school era was just beginning at this time.

Born of the General Allotment Act (Dawes Act) of 1887, the idea behind this legislation was that the United States Government could "civilize" the natives by getting them to own and farm their allotment. This Act was designed to assimilate

the Indians into the western lifestyle so they would no longer require vast swaths of land to live a communal, migratory lifestyle. The Nelson Act was specific to Ojibwe Reservations in Minnesota, affecting the Grand Portage, Mille Lacs, Leech Lake, Boise Forte, Fond du Lac and White Earth Bands. This follows the federal policy shift from 1871 that changed interactions with Natives from a government to government platform, to a federal government and individual ward basis.

Another intent of this legislation was to concentrate the Ojibwe in Minnesota on the White Earth Reservation and dissolve the other Reservations by having Natives relocate and take allotments on White Earth. Rather than keeping the

Allotment – a piece of land deeded by the government to a North American Indian, as part of the division of Tribally held land land in communal ownership, it forced families to choose an 80 acre parcel of land *(allotment)* either on their home Reservation or White Earth Reservation. This would have moved the Ojibwe out of the timber rich woodlands to the transition area between the northern forest and the prairie where timber is less of an issue and more agriculture is present. The Nelson Act was never fully implemented as many Indians chose to stay on their home Reservations rather than relocate to White Earth.

There are numerous injustices that came from opening the lands within the Leech Lake Reservation and the unscrupulous acts of the timber companies:

- The selection of allotments. Much of the land that was selected to be given for allotments was located in swamps and concentrated around the lakes of the region to keep the large blocks of pine forests available for auction and harvest.
- With the passage of the Nelson Act of 1889 the State of Minnesota illegally claimed that Tribal Citizens were subject to state hunting and fishing laws. No longer could Tribal Citizens hunt, fish and gather on the Leech Lake Reservation as promised by the Treaties they had negotiated. This illegal claim of state jurisdiction wouldn't be corrected for another 83 years.
- The "dead and burnt timber clause." This amendment to the Nelson Act allowed the timber barons to purchase wood at a greatly reduced price if the land was burnt over. Often they would start fires and quickly harvest the dead and live wood claiming it was all 'dead' reaping profits at the expense of the Ojibwe. This amendment came after much of the timber resources on the 'surplus' Reservation lands were extracted.
- Timber was appraised at significantly lower rate on Indian Reservations

than elsewhere in Minnesota. The profits from these timber sales, managed by BIA agents, was intended to sustain the Ojibwe people but was often mismanaged and spent by Indian Agents on 'behalf' of the Ojibwe. When payments would come, they were notoriously late much to the ire of the Pillager and other Bands around the current Leech Lake Reservation.

- Unsubstantiated liquor bootlegging charges were brought against Native men which forced them to travel long distances to defend themselves in federal court.
- Letters from Tribal leaders outlining these wrongs were written and are as yet still unanswered by the Federal Government who had claimed the Natives as wards.

These injustices led to growing animosity and poor relationships between the Ojibwe Bands and the US government. The theft, injustices and poor living conditions of the Natives on the Reservation would eventually lead to an Indian uprising. This tension culminated on October 6th, 1898 at the Battle of Sugar Point where 80 US soldiers from Fort Snelling departed Walker and arrived at the shores of Sugar Point attempting to apprehend Bug-O-Nay-Ge-Shig. How the battle began has been disputed throughout the years. The Pillager have held that the soldiers began firing on a canoe containing two women and a child as it rounded the corner of Sugar Point. The military claims that a rifle was accidentally discharged towards the Ojibwe side. Regardless, an intense firefight between the two sides erupted. The Pillager people went into that day not wanting battle but were prepared if it came. The battle continued into the night and no harm came to any of the Ojibwe people outside of Indian Officer Gay-Gway-Day-Be-Tung (George Russell), who was allegedly shot by mistake, by a soldier who assumed he was fighting alongside the Pillagers when in fact





he was in service with the US government. The 3rd US Infantry experienced six causalities and ten wounded that night. On the morning of October 7, 1898, the soldiers retreated from Sugar Point, battered, hungry and cold.

Once word of the battle spread, hysteria and false rumors ran rampant in the surrounding areas that an "Indian Uprising" was coming. Additional troops were sent to the area, and outcries to the US Government for assistance and protection were pouring in from the non-native people in Minnesota. Memories of Custer's defeat at Little Big Horn, just 22 years prior in 1876, led the newspapers of the day to run wild with unsubstantiated headlines. In a twist of fate, the outcries and headlines put the nation's attention on Leech Lake, forcing the US Government to hear the grievances put forth by the Ojibwe people.

FORMATION OF THE NATIONAL FOREST

Problems were rampant in this area in the late 1800's with implementing the Nelson Act and were centered over the various interests arguing over the 'surplus' pine lands in the Winnie-Cass Lake Reservation. Some of the groups involved in this debate were the timber industry, the Ojibwe Bands (Pillager, Winnibigoshish and Leech Lake) and the Federation of Women's Club, who had taken an interest in the area because of the runaway timber industry, and resulting impacts to the Band. All of this came together to create the Minnesota Forest Reserve through the Morris Act of 1902. The Morris Act was an amendment to the Nelson Act and put the supervision of timber under the Forester of the Department of Agriculture. It provided that:

- Lands logged over were to be placed into a forest reserve
- Reserved the Ten Sections area from either sale or settlement
- Dedicated timber sale receipts to a trust account to be paid to the Band
- Reserved areas of Indian land from oversight
- > Stated an intent to hire Indian labor for timber harvest
- > Opened agricultural land for settlement by non-Indians.

The Morris Act is a unique point of history. At that time Congress could see that the actions they had taken were resulting in negative effects on the Indian people. Rather than returning the lands to the Indians, they instead create a forest reserve so that the economic value associated with the timber and land stays in federal hands rather than the people it was promised to in the treaties.

Now that the timber industry had moved onto the non-allotted lands of the Leech Lake Reservation, timber barons soon realized that timber and profit could be gained if they could get access to the allotted lands being held in governmental trust for the Indian Families by the Federal Government. Timber barons began lobbying state legislators to enact laws that would allow loggers to get at the timber on Tribal allotments. The first such law was the Steenerson Act of 1904. This law allowed the Department of Interior to issue an additional 80 acres of land to Tribal members they deemed "worthy." Attached to the Steenerson Act was a rider called the Clapp Act which allowed Tribal members to be able to sell the timber off their allotments, but the lands would still held in trust. This means that the allotted land could not be sold until the 25 years outlined in the Nelson Act had passed and the trust lands transferred into fee status.

In 1906 this changed with the passage of the Burke Act. The Burke Act gave the Secretary of Interior the authority to issue fee patents to Tribal member if he deemed them "competent and capable." A majority of the time, the land was taken out of trust and without the knowledge of the Tribal member/family, was subjected to forced fee patents (taxation) and the land was taken due to overdue taxes.

Even with the creation of the Minnesota Forest Reserve, the controversy regarding the forest and settlement of the area was ongoing. This lead to the Minnesota National Forest Act of 1908, yet another amendment to the Nelson Act. The Minnesota National Forest Act expanded the boundaries of the forest outlined in the Morris Act, and changed the forest from being designated as a "forest reserve" into a National Forest that would later be renamed the Chippewa National Forest. This set the stage for where we are today, with the Chippewa National Forest as the largest land manager within the Leech Lake Reservation with its origins and duties tied not only to federal policy but also to the Treaty of 1855, the National Forest Act and Morris Act.





Old & new forest service supervisors office

In 1928 the name changed from the Minnesota National Forest to the Chippewa National Forest to reflect this history and whom this forest is managed for today.



Minnesota Chippewa Tribe building

FORMATION OF MINNESOTA CHIPPEWA TRIBE

By the mid 1920's the Leech Lake Band of Ojibwe had lost over 650,000 acres of Reservation land due to the Nelson Act, subsequent laws and failure of the Bureau of Indian Affairs to look protect the welfare of the Ojibwe people, which it is obligated to do by law. At the national scale, the US government commissioned a study of the tough times the American Indians across the US were facing. This resulted in what is called the Meriam report, which documented the deplorable conditions of Indian people across the U.S., the devastation of the Nelson act and other allotment statutes, and the failure of the BIA to do anything about it. At this same time the Leech Lake Ojibwe were demanding all the land lost under the Nelson Act be restored to them as they were living in poverty, had lost almost all their land, were illegally subject to state conservation laws and had never received the monies promised to them from the sale of their timber and land.



Bois Forte Band of Chippewa



Fond du Lac Reservation



Grand Portage Chippewa



In response to the Meriam report the Indian Reorganization Act of 1934 was enacted. This act put a stop to the sale of allotments, recognized the inherent rights of Tribes to establish their own governments and restored all surplus lands to the Tribes that had not been sold under various allotment Acts, including the Nelson act (The Restoration Act). On the Leech Lake Reservation, that meant the formation of the Minnesota Chippewa Tribe (MCT) and the surplus lands being returned to the six Bands that form the MCT.

Even with the passage of the Indian Reorganization Act, the State of Minnesota continued to claim that the Leech Lake Indian Reservation was disestablished as were the rights retained through the Treaty of 1855 and prior Treaties. This false claim meant that Indian families could not hunt, fish and gather as they previously had under Tribal control and rather were now subject to Minnesota Conservation laws and seasons. This issue would not be resolved for nearly 80 years.

SELF DETERMINATION ERA The fight to have our Treaty Rights and Border Recognized

In 1971, the Leech Lake Band challenged the Minnesota Commissioner of Natural Resources, Robert L. Herbst in federal court on the issue of Minnesota illegally forcing Indians to comply with Minnesota game and fish laws. The courts ruled that:

"Plaintiff Indians have the right to hunt and fish and gather wild rice on public lands and public waters of the Leech Lake Reservation free of Minnesota game and fish laws. Defendants are enjoined from enforcing such laws."



Leech Lake Reservation Boundary – Exhibit A

In addition to getting a positive ruling, these rights were identified as property rights and therefore required Minnesota to pay Leech Lake Band for non-Indian's privilege of hunting, fishing or trapping on any lands within the boundaries of the Reservation. Also as a results of the Herbst decision, the gathering of wild rice and bait fish on Leech Lake Reservation is exclusively regulated by the Leech Lake Band of Ojibwe.



This decision means more than just having our gathering rights recognized. This decision affirmed the Leech Lake Reservation boundaries and jurisdiction authority of the Leech Lake Band as an independent sovereign capable of self-regulation. In all treaty cases, including the Herbst decision it is clearly stated that the reason Native Americans are free from federal or state government regulation is there is a Tribal Government or decision making authority with

a geographical jurisdiction whose role is being infringed upon. The Leech Lake Band of Ojibwe is that governing body that our Tribal citizens have given power to regulate our collective rights through the Constitution and elections. The Herbst decision affirmed that power and the Reservation boundaries as identified in Exhibit A and recognized by federal and state government today.

RIGHTS AND THE RESPONSIBILITY OF SELF-DETERMINATION

The history of this area lays out the roadmap for what rights and responsibilities exist for both the Leech Lake Band of Ojibwe citizens and our government. The ability of our forefathers to sign a Treaty with the United States Government as a Tribal Nation recognizes our sovereignty as an independent Nation with natural self-governance and self-determination. A treaty is a contract between sovereign nations and are signed for two main reasons:

- (1) Transfer of Land Cessation Treaty; or
- (2) Establish alliances or peace Peace Treaty

A common misconception of Treaties is that Indians have "special rights" granted to them by the Treaties. This is untrue. The rights that Native people retain were never given, rather these rights are what are known as inherent rights that have always existed. Treaties are legal, international diplomacy documents that are to be forever honored. The United States Constitution Article VI declares treaties to be the "supreme law of the land" and thus are not subject to state laws. Treaties today are important because they:



"I understand what you want... from the few words I have heard you speak. You want land." —Flat Mouth [Aish-Ke-Vo-Go-Zhe, or Bird with Leaf Green Bill], Ojibwe leader at 1855 treat

Show that we are not a product of the US political system rather that we predate them and our system of government is retained through treaties

We are not just an ethnic group, we are a political entity

In the same way that our forefathers ensured that we have these rights today by not giving them away in the Treaties, it is our responsibility as Tribal Citizens to:

(1) To ensure that our rights are maintained.

(2) To ensure that resources are available for our children.

We accomplish these objective as individuals, however we also elect

Government leaders who are tasked with these missions as outlined in our Constitution. Our Tribal Government is now and always has been derived from and for the people. A government is only as strong as the people who make it up and the leaders that come from within our communities. The Herbst case is an example of the recognition of our inherent sovereignty, as well as our collective voice and actions that shape our government and future.

ENSURING OUR RIGHTS AND RESOURCES ARE PRESERVED

The Reservation Business Committee (RBC) has tasked the Division of Resource Management (DRM) with writing laws, policy, management plans and codes that ensure the protection of our natural resources that align with our values as Ojibwe. These regulations outline how citizens should hunt and gather, what standards of pollutants are allowed and create policy that shape



Buying rice at Division of Resource Management

management for the lands within the Leech Lake Reservation - our homeland.

Rights and resources are held 'in common,' meaning that they belong to the Leech Lake Tribal Community not individual Tribal Citizens. Gathering with respect and the understanding that our resources are gifts from the Creator is important as we harvest and teach others to do so. As Anishinabeg we are charged to protect and preserve these resources for everyone who has a right to them. Regulations are one tool that we have as a people to ensure that bad actors are not abusing resources and harming the overall community and our children's ability to access these resources in the future.

To date these codes and regulations are:

- Conservation Code (1973)
- Bough Permitting (1994)
- Solid Waste (1995)
- > Pesticides Code (1996)
- Traffic Code (1999)
- Wild Rice Beds (1999)
- Bowstring River (1999)
- Hazardous Waste Ordinance (2001)
- Land Use Ordinance (2006)
- Burning Ordinance (2006)
- Wetlands Ordinance (2014)
- Desired Vegetative Conditions (2019)

"If our communities and individual community members do not understand why we have environmental regulations then it does not matter how great our written environmental law are, because true environmental protection will come from individual community members being good stewards of the land." In addition to enacting codes and regulations designed to protect the resources, the Leech Lake Band of Ojibwe government consults with other governments and agencies that operate within the Leech Lake Reservation and 1855 Ceded Territory to ensure that our citizen's rights are being respected, honored and that the resources we rely on today are still available for our children.

CONTEMPORARY ISSUES/ RELATIONSHIPS

Federal vs. State Agencies

The Treaties that the Ojibwe signed were with the US Federal Government. The promises that the United States made in those treaties cannot be delegated from the Federal Government to a State Government. Those promises today include what are called Trust obligations, requiring Federal agencies (US Forest Service, Bureau of Indian Affairs, Environmental Protection Agency, US Fish and Wildlife Service, Army Corps of Engineers and other federal agencies) to act a Trustee for the Beneficiary (Leech Lake Band of Ojibwe) to fulfill Treaty promises. If States impinge upon these rights, the Federal Government is obligated to take action to remedy the situation, often in the form of legal action.

The 'trust responsibility' is a legal principle that the Supreme Court noted in United States v. Mitchell (1983) is "the undisputed existence of a general trust relationship between the United States and the Indian people." The purpose behind the trust doctrine is and always has been to ensure the survival and welfare of Indian tribes and people. This includes an obligation to provide those services required to protect and enhance tribal lands, resources, and selfgovernment, and also includes those economic and social programs which are necessary to raise the standard of living and social well-being of the Indian people to a level comparable to the non-Indian society.

Some of the ways that Federal Agencies deal with the unique legal and political relationship with Tribal governments is through consultation and coordination as outlined in Executive Order 13175 (Nov. 6, 2000). Government to government consultation is designed to consider effects that a federal agency's activity can or will have on Native American lands, resources, lifeways and protected rights. This consultation process is intended to happen early and provide a meaningful opportunity for productive participating in agency planning and decision making. Most federal agencies have policies and procedures that outline their process of consultation with Indian Tribes.

Tribe's relationship with the State of Minnesota

Leech Lake Band of Ojibwe's relationship with the State of Minnesota has been shaped by the Herbst agreement. With the passage of the Nelson Act in 1889, the State of Minnesota illegally claimed that Congress abolished the Leech Lake Reservation and the jurisdictional authority of the Leech Lake Band to regulate hunting and fishing within the Leech Lake Reservation exterior boundaries. It took almost 80 years to correct this action, when the Leech Lake Band filed suit against



Robert L Herbst, the Commissioner of Natural Resources for the State of Minnesota (MNDNR).

The Tribe asserted that federal treaty rights were being violated by the State and its' offices. On January 25th, 1972 the 3rd Federal District Court affirmed that the Leech Lake Band

"has a treaty right to hunt, fish, trap and gather wild rice within the boundaries of the Leech Lake Reservation without state regulation or control"

This judgement was appealed and ultimately a settlement was reached between the Leech Lake Band and the State of Minnesota resulting in a Memorandum of Agreement and Settlement that was signed by all parties on January 26, 1973.



This agreement outlines the Tribal governments' role to maintain and enforce a conservation code that would apply to Indians living within the boundaries of the Reservation, to not commercially harvest certain species and the role of the State to regulate non-Indians who utilize the natural resources within the Reservation boundaries. Through the court filings, the US asserted that the rights the Tribe has within the boundaries of the Reservation are

"property rights" of the Leech Lake Band. Through the settlement agreement and subsequent amendments, the Leech Lake Band receives 5% of all MNDNR State license sales as compensation for non-Indians to have the privilege to hunt, fish and gather on the Leech Lake Reservation. This agreement has been in place since 1973 and is the foundation of our relationship with the MNDNR.

Relationship with Chippewa National Forest

The Chippewa National Forest (CNF) is a unique forest in the United States from its creation to the role it serves today. It was created by congressional action from lands that were originally set aside to serve as a Treaty-reserved homeland for the Ojibwe people. Today the CNF and the Leech Lake Band of Ojibwe share almost 1,900 miles of





boundary, with roughly 90% of the Leech Lake Reservation being overlaid by the Chippewa National Forest boundaries. Through the congressional actions taken to shape ownership of this landscape, the National Forest is the largest land holder within the Leech Lake Reservation boundaries. This is important when

you think about the formation of the forest through congressional action as this history has direct implications to the trust responsibility that exists today. The provisions that where included in the Morris Act of 1902:

- > Encouraged employment of Indian labor; as well as
- Dedicating timber sale receipts to a trust account.

And the Minnesota National Forest Act of 1908:

- Officially established the National Forest, current day Chippewa National Forest;
- Shared decisional authority with Leech Lake Band in oversight of timber valuation; and
- Protects Indian graves with continued right to bury dead on National Forest Land.

These additional provisions and the recognition that this forest is unique with its creation for the benefit of Indian people amplifies the legal trust obligation owed by the Forest Service to the Leech Lake Band.

National Forests are governed by the federal government and have authority delegated to them from Congress to make decisions and acquire lands. National Forests have the mission "to sustain the health, diversity and productivity of the nation's forests and grasslands to meet the needs of present and future generations." This multi-purpose mission today means that the Chippewa National Forest is tasked with generating and maintaining timber for the logging industry in the Leech Lake area.

Historically and today there is heavy pressure to increase timber cutting and managing this land as a tree farm versus a natural forest. This timber focused management approach has led the CNF to be one of the most harvested forests in the country and has had negative impacts on the resources that Leech Lake Citizens need for spiritual, cultural and economic well-being. Historically this region has been dominated by timber industry and today they remain a vocal industry as the Forest Service plans projects within the Leech Lake Reservation.



Today Leech Lake Division of Resource Management (DRM) works with the Chippewa National Forest under a Memorandum of Understanding for training, to plan projects and to be a constant reminder to them that as it does management under Forest Service authority, it cannot manage lands in a manner that will negatively affect Tribal lifeways.

Relationship with Environmental Protection Agency



The trust responsibility of the federal government and the Environmental Protection Agency (EPA) to sovereign Tribal governments in ongoing. One of these trust obligations is to ensure that the homelands of indigenous people reserved in executive treaties are protected from unnecessary encroachment. The contamination of the Reservation's

soil, water and air is dangerous and an unnecessary encroachment onto the homelands of the Tribe. To protect our homeland the DRM partners with the EPA to implement environmental programs that are consistent with federal law and regulate the environment in ways that protect our homeland and our treaty rights.

The document that guides the relationship between the Tribe and the EPA is the 1984 Indian Policy. This document recognizes the unique legal relationship with

Tribal governments and the right of Tribes as sovereign governments to *self-determination*.

The U.S. Environmental Protection Agency stands ready to work directly with Indian tribal governments on a one-to-one basis (the "government-togovernment" relationship) rather than as subdivisions of other governments.

The EPA will recognize tribal governments as the primary parties for setting standards, making environmental policy decisions and managing programs for reservations, consistent with EPA standards and regulations.

The EPA will take affirmative steps to encourage and assist tribes in assuming regulatory and program management responsibilities for reservation lands.

The EPA will take appropriate steps to remove existing legal and procedural impediments to working directly and effectively with tribal governments on reservation programs.

The EPA, in keeping with the federal trust responsibility, will assure that tribal concerns and interests are considered whenever the EPA's actions and/or decisions may affect reservation environments.

The EPA will encourage cooperations between tribal, state and local governments to resolve environmental problems of mutual concern.

The EPA will work with other federal agencies that have related responsibilities on Indian reservations to enlist their interest and support in cooperative efforts to help tribes assume environmental program responsibilities for reservations.

The EPA will strive to assure compliance with environmental statutes and regulations on Indian reservations.

The EPA will incorporate these Indian policy goals into its planning and management activities, including its budget, operating guidance, legislative initiatives, management accountability system and ongoing policy and regulation development processes.

Relationships moving forward

The arc of justice is slow. It has taken the Leech Lake people years to have our rights recognized, build capacity, establish programs, and provide services for our people. Today conflicts still exist in ceded territories and around issues within the Leech Lake Reservation Boundaries. The federal and state relationships explained in this document exist today but this is a snapshot in time and will change in the coming years as the Tribe continues to gain expertise, build capacity and further develops leaders to best represent and serve the Leech Lake Tribal Citizens. This expansion, use and understanding of our own sovereignty, will shift our

dependence away from other governments onto ourselves to further create our own future.

Conclusion

Protecting our water, soil, air, forests and all they encompass while making our federal partners honor their treaty trust obligations will ensure that:

- The air is safe to breath
- The water is safe to drink
-) The fish, animals and plants we harvest are healthy and safe;
- The forest will provide the resources that we continue to rely upon; and most importantly
-) Our culture, mino-bimaadiziwin, will be protected and we can share the resources and stories with our children.

Treaty rights have always been, and will continue to be of great social, economic and cultural importance. Outside governments will continue to attempt to suppress these rights of Tribal members as tourism, timber, mining and other interests grows. Understanding our rights, sovereignty and how the history and treaties affect our government and relationships with outside parties is essential to keeping our homeland strong and resources available for the next seven generations.

Definitions – interdisperse as call out in document

- Ward of the state
- Usufructuary
- Allotment
- General Cass Pike
- Ceded Territory
- Trust Land
- Soverienty

Fee Land

References

www.leechlakenews.com/2018/10/05/on-this-day-in-history-the-battle-of-sugar-point/

www.mnopedia.org/event/treaty-washington-1855

www.doi.gov/pmb/cadr/programs/native/gtgworkshop/Implementing-the-Government-to-Government-Relationship

Cessation

Treaty trust responsibility

Government to government consultation

Self-determination



| Chief's Lett Concerns voiced by Leech Lake Trust Responsibility Timber Harvest on LLIR Began consultation to resolve issues at direct for Region 9 and the Chippewa National Fo | er pril 2016. tion of Forest Service Chief rest to Address: |
|---|--|
| Vegetative Condition Development of a Decision making mode Reflects unique history and legal situ Gives both Governments ownership | el that: 1ation of LLBO/CNF, and in decisions |
| • Increasing blocks of older, ecologically functioning stands on the Reservation. | |
| • Protection of Scenic Corridors on the Reservation (Designated road corridors, rivers, and lakes) | |
| | |

The Unique Relationship Between the Leech Lake Band of Ojibwe and the Chippewa National Forest



90 % of the Leech Lake Indian Reservation falls within the Chippewa National Forest, binding the management and condition of the Forest with the social, economic and cultural well-being of the Band.











Ojibwe Delegation to D.C. February 1, 1899

"We desire to impress upon you, and through you, upon the Congress of the United States, that this is a matter of the gravest importance to us and our people. The Chippewas of Minnesota are dissatisfied with these arrangements, as now existing, for sale of our pine timber."



Ojibwe Delegation to D.C. February 1, 1899

Delegation Requested:

• Dead & Down Timber issue be addressed.

• Minimum price for pine be raised from \$3 to \$4 MBF.

• Indians be employed in the logging industry on the forest.



Morris Act of 1902

Stated Intent of upholding United States' Trust Obligation, including provisions providing:

• Encouraging employment of Indian Labor

• Dedicating timber sale receipts to a trust account



These provisions amplify the legal trust obligation owed by the Forest Service to the Leech Lake Band.

Minnesota National Forest Act

- Officially established the Minnesota National Forest in 1908.
- Sharing decisional authority with the Leech Lake Band in oversight of timber valuation.
- Protected Indian graves with continued right to bury their dead on the National Forest



- Only National Forest created for the benefit of Indian people.
- First National Forest created by Act of Congress.

Coincides with Early 20th Century Assimilation Era – Nelson Act of 1889



- Designed to force the cession of Minnesota Ojibwe lands to open reservation lands for settlement and resource extraction.
- Goal of moving Minnesota Ojibwe onto the White Earth Reservation.
- Land and timber sales were suppose to benefit the Ojibwe.







<image><image><image><image><image><image><image>



What are the elements of a Trust Relationship?

- <u>**Trust</u>**: fiduciary arrangement allowing a third party, or trustee, to hold assets on behalf of a beneficiary.</u>
- <u>Fiduciary Duty</u>: The fiduciary(CNF) owes the duty, and the person or entity to whom the duty is owed is the beneficiary (LLBO).
- <u>Corpus</u>: the property (National Forest lands) that is set aside for the benefit of the beneficiary (LLBO).
- <u>Standard of Care</u>: fiduciary is held to a very high standard, meaning that you must pay even more attention to management of the corpus than you would for your own accounts.





Balancing Relationship with LLBO with Interests of the Public

The Rights of Tribal Governments and their Officials are not the same, nor should they be treated the same as the general public. FSM 1563

Consultation is a government-to-government engagement, and does not include constituents or partners.



Affirmation of Tribal Rights has a Long Arc

- 116 years to affirm LLBO's Treaty Rights to hunt, fish and gather.
- 114 years for the U.S. government to acknowledge its responsibility to consider LLBO's on-Forest property rights in management decisions and implementation.





How is Chippewa National Forest's Management Impacted by These Rights

- Overlap of the Chippewa National Forest and the Leech Lake Reservation results in a unique relationship between the USFS and the Leech Lake Band.
- In addition to the practical implications of this overlap, the fact that the Chippewa National Forest was created by statute amplifies the legal trust obligation owed by the USFS to the Leech Lake Band.
- Therefore, there is the potential for compensatory (financial) liability by the USFS to the Leech Lake Band if the USFS does not live up to its legal duties as a trustee on the Chippewa National Forest.
- In litigation, the United States has asserted that the treaty protected rights to hunt fish and gather on the Chippewa National Forest are property rights.
- Almost all management activities of the Chippewa National Forest affects these property rights.
- As a fiduciary to the Leech Lake Band, the Chippewa National Forest must choose management alternatives that are in the interest of the Leech Lake Band or face potential liability.


















| | DVC's – 3 Categories | |
|--|---|--|
| Cultural | Protecting the cultural integrity of the LLBO Impacts to TES/TCP's are impacts to tribes cultural Identity | |
| Ecological | Increase blocks of ecologically functioning old growth stands Maintain and Protect Diverse Hardwoods stands Aspen Initiative - reduce aspen promote other species Restore conifers to ecological functioning systems | |
| Environmental Justice | Implementation must correspond with approved action Protection of Scenic Corridors (Road Corridors, rivers, lakes, Old Growth Rec. sites) | |
| "Lands within the Forest serve to help sustain American Indians' way of life, cultural integrity, social cohesion, and economic well-being. (D-TR-1)" | | |





homelands were subject to treaty in 1855 (10 Stat. 1165) Ongoing opportunities for such use and constraints necessary for resource protection are reviewed and determined in consultation with Leech Lake Band of Ojibwe (D-TR-3)."





economic well-being. (D-TR-1)"

Aspen

- TFPA outlines changes to forest management
- Decrease abundance of Aspen acreage
 - Hardwoods more diverse
 - Later successional species
- Proactive measure for climate change resilience
- Return NPC to proper sites
 - Pine conversion



"The Chippewa National forest facilitates the exercise of the right to hunt fish and gather as retained by the Ojibwe whose homelands were subject to treaty in 1855 (10 Stat. 1165) Ongoing opportunities for such use and constraints necessary for resource protection are reviewed and determined in consultation with Leech Lake Band of Ojibwe (D-TR-3)."







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"Lands within the Forest serve to help sustain American Indians' way of life, cultural integrity, social cohesion, ana economic well-being. (D-TR-1)"













USDA Forest Service Tribal Forest Protection Act (TFPA) Briefing Paper

Issue: Tribal Forest Protection Act Forest Service (FS) policy Date: April 5, 2005

Background: The Tribal Forest Protection Act (Public Law 108-278) was passed in July 2004 in response to devastating wildfires that crossed from Federal onto Tribal lands the prior summer. The Act provides a tool for tribes to propose work and enter into contracts and agreements with the Forest Service (FS) or Bureau of Land Management (BLM) to reduce threats from on Federal lands adjacent to Indian trust land and Indian communities. The FS and BLM coordinated on development of policy to implement the Act.

Forest Service policy to implement the TPFA will be included with Stewardship Contracting guidance in Forest Service Handbook (FSH) 2409.19, Chapter 60 (currently an interim directive). The draft policy was sent to Regional Foresters for a formal tribal consultation and comment period from April 25 to June 25, 2005. Comments will be considered in finalizing the policy to be incorporated in the interim directive in the summer of 2005. Key points of the policy include:

- Tribal proposals must focus on FS lands that 1) border or are adjacent to tribal lands; 2) pose a fire, disease, or other threat to the Indian trust land or community or is in need of restoration; 3) not be subject to some other conflicting agreement or contract; AND 4) involve a feature or circumstance unique to the proposing tribe (such as legal, cultural, archaeological, historical, or biological).
- To qualify, the Indian land must: 1) border or be adjacent to FS administered lands; 2) be in trust or restricted status; 3) be forested or have grass, brush, or other vegetative cover; and 4) if burned over land, be capable of regenerating vegetative cover.
- To initiate a project, a tribal government submits a request to the Forest Supervisor or District Ranger, and recommendations are forwarded to the Regional Forester. Within 120 days of the submittal, the Regional Forester may issue a public notice of either a) initiation of any necessary environmental review, b) potential for entering into an agreement or contract with the tribe, or c) notice of denial to the tribe.
- A notice of denial may include specific factors in the denial, identify corrective courses of action, and propose consultation on how to protect the Indian trust land and tribal interests on the FS land.
- The FS may utilize an array of appropriate instruments to enter into contracts and agreements with tribes to further the TFPA and will emphasize the use of stewardship contracting.
- In considering entering into tribal agreements or contracts, the agencies may use a best value basis and give specific consideration to tribally-related factors, such as historical and cultural affiliation with the land, treaty rights, agency/tribal working relationships, landscape features, and others found in the Act.
- The FS is committed to implementation of the TPFA. The agency has instructed line officers to inform Tribal governments about the Act, the policy implementation schedule, and to continue using current authorities as appropriate to protect lands at risk from fire and other threats.





This **MEMORANDUM OF UNDERSTANDING (MOU)** was entered into by and between the USDA Forest Service, Chippewa National Forest, hereinafter referred to as the Forest Service; and the Leech Lake Band of Ojibwe, (appearing in the Federal Register of July 23, 2018 at Vol. 83, No. 141, p. 34865 as the Minnesota Chippewa Tribe, Leech Lake Band), hereinafter referred to as the Band. The Forest Service and the Band are jointly referred to herein as the Parties.

A. PURPOSE

- The purpose of this MOU is to provide a framework for cooperation between the Forest Service and the Band for natural resource management, economic development and employment, training and education, maintaining Ojibwe cultural life-ways, and regulatory jurisdiction on National Forest System (NFS) and trust lands within the boundaries of the Leech Lake Reservation and the 1855 Ceded Territory.
- 2. Additionally, it is the purpose of this MOU to implement recommendations identified in a September 12, 2016 letter from the Chief of the USDA Forest Service to the Leech Lake Band of Ojibwe's Chair (Chief's Letter). The Chief's Letter included provisions for understanding the Band's desired vegetation conditions on Chippewa National Forest lands and developing a shared decision-making model for commercial timber harvesting and other natural resource considerations, utilizing Traditional Ecological Knowledge offered by the Band, and expanding the use of the Tribal Forest Protection Act to give voice to the Band's desired land management objectives. The 2016 letter from the Leech Lake Band of Ojibwe's Chair is attached as Appendix A. The Chief's response letter is attached as Appendix B.
- 3. On January 31, 2017, a memorandum was developed by the Leech Lake Band of Ojibwe's Division of Resource Management in response to the Chief's Letter, a copy of which is attached as Appendix C, regarding Desired Vegetation Conditions (DVC's). The DVC's set out in that letter include the following topics:
 - DVC-1 Increase blocks of ecologically functioning old growth stands
 - DVC-2 Protection of Scenic & Cultural Corridors (road corridors, rivers, lakes, old growth recreational sites)
 - DVC-3 Impacts to traditional cultural properties and threatened and endangered species are impacts to Bands Cultural Identity
 - DVC-4 Maintain and protect diverse hardwoods stands
 - DVC-5 Protecting the cultural integrity of the LLBO
 - DVC-6 Aspen Initiative reduce aspen, promote other species
 - DVC-7 Restore Conifers to ecologically functioning systems
 - DVC-8 Implementation must correspond with approved action





B. STATEMENT OF MUTUAL BENEFIT AND INTERESTS

- The parties affirm in this MOU the principles of tribal sovereignty, self-determination, selfgovernance, and the unique government-to-government relationship that exists between the United States and federally recognized Indian Tribes. The Parties acknowledge their intent that based on the unique territorial and jurisdictional relationship between the Parties with regard to the Leech Lake Reservation, the 1855 Ceded Territory and the Chippewa National Forest so that the Band and Forest Service may achieve their joint goal to become full partners in the conservation of this shared landscape and the benefits derived therefrom.
- The Parties acknowledge the Federal Government's trust responsibility and treaty obligations; that trust responsibility is a legally enforceable fiduciary obligation on the part of the United States to protect tribal lands, assets, resources, and rights, as well as a duty to carry out the mandates of federal law with respect to American Indian Tribes and tribal communities.

The Parties recognize the need to work collaboratively in the planning and implementation of policies and decisions affecting Forest Service lands within the exterior boundaries of the Leech Lake Reservation. The Parties will work together to achieve mutual landscape restoration goals and to foster a shared stewardship approach to these lands—while contemporaneously seeking and promoting opportunities for the Band's economic well-being.

- 3. The Parties recognize that there is a need to continue formal and informal learning to improve understanding and coordination. Therefore, on-going joint training of Band and Forest Service staff and leadership will be carried out on:
 - The unique legal history of the foundational relationship between the Band and the Chippewa National Forest,
 - How the multi-use mission of the Forest Service shapes perspectives of forest management, and
 - How culture and historical trauma shape the Band's perspective of Forest Service management activities.
- 4. The Band and the Forest Service will develop mutually agreeable protocols for monitoring of DVC progress within 6 months of the signing of this document.
- 5. The Parties wish to acknowledge the following facts in furtherance of this MOU.





- a. THAT the court in Leech Lake Band of Chippewa Indians v. Herbst, 334 F. Supp. 1001 (D. Minn. 1971) held that the Nelson Act did not disestablish the Leech Lake Indian Reservation and did not abrogate the hunting, fishing, and gathering rights of the Leech Lake Band;
- b. **THAT** the court in *United States v. Michael D. Brown* (Squarehook), 777 F.3d 1025(8th Cir. 2015) held that the Leech Lake Band's treaty rights to fish on public lands within the boundaries of the Reservation include the right to sell the fish and make a modest living therefrom;
- c. **THAT** the Nelson Act of 1889 (25 Stat. 642) provided for the allotment of the Leech Lake Indian Reservation;
- d. THAT the Chippewa National Forest was created by the Morris Act of 1902 (PL 57-175; 32 Stat. 400), which amended the Nelson Act, and was later amended by the Minnesota National Forest Act of 1908 (PL 60-137; 35 Stat. 268);
- e. **THAT** unique in the National Forest System, the Chippewa National Forest was the first national forest created by statute and the only national forest created with provisions for the benefit of both the general public and American Indians;
- f. THAT The Nelson Act, the Morris Act, the Minnesota National Forest Act, and predecessor legislation collectively provided for the employment of Indian labor; and dedicated a portion of timber sale receipts to a trust account for the benefit of the Band for a 50 year time period beginning in 1889; shared decisional authority with the Band in the oversight of timber valuation on a portion of the National Forest Service System lands found within the Reservation for the 50 year time period associated with dedicated timber sale receipts; protected Indian cemeteries; and the continued right of the Leech Lake Band to bury its dead on Forest Service lands.

C. AUTHORITIES

The Parties acknowledge that the following sources of legal authority support this MOU:

1. <u>Treaties</u>

The 1854 Treaty with the Chippewa at La Pointe; the 1855 Treaty with the Chippewa at Washington; the 1863 Treaty with the Chippewa of the Mississippi, Pillager and Lake Winnibigoshish Bands at Washington; the 1864 Treaty with the Chippewa of the Mississippi, Pillager and Lake Winnibigoshish Bands at Washington; the 1867 Treaty with the Chippewa of the Mississippi at Washington.





2. Federal Laws

The Organic Administration Act of 1897; the Weeks Act of 1911; the Multiple Use Sustained Yield Act of 1960; the National Environmental Policy Act of 1970 (NEPA); the Forest and Rangeland Renewable Resources Planning Act of 1974; the National Forest Management Act of 1976; the American Indian Religious Freedom Act of 1978; the Religious Freedom Restoration Act of 1993; the Federal Lands Recreation Enhancement Act of 2004; the Tribal Forest Protection Act of 2004; the Agriculture Improvement Act of 2018 (Farm Bill); the Cultural & Heritage Cooperation Authority of 2008 (Farm Bill); and more particularly:

- The Nelson Act of 1889, or "An Act for the Relief, and Civilization of the Chippewa Indians in the State of Minnesota" (25 Stat. 642);
- The Morris Act of 1902, or "An Act to Amend an Act Entitled 'An Act for the Relief, and Civilization of the Chippewa Indians in the State of Minnesota" (PL57-175; 32 Stat. 400); and
- The Minnesota National Forest Act of 1908, or "An Act Amending the Act of January Fourteenth, Eighteen Hundred and Eighty-Nine, and Acts Amendatory Thereof, and for Other Purposes" (PL 60-137; 35 Stat. 268).
- Leech Lake Band of Chippewa Indians v. Herbst, 334 F. Supp. 1001 (D. Minn. 1971); and United States v. Michael D. Brown (Squarehook), 777 F.3d 1025(8th Cir. 2015).

3. Tribal Laws

The Off-Highway Vehicle Code of 2011; the Burial Grounds & Artifacts of 1978; the Conservation Code of 1991; the Cultural Resource Protection Ordinance of 1996; the Bough Harvesting Ordinance of 1994; the Pesticide Control Ordinance of 1996; the Land Use Ordinance 2006; the 1855 Territory Conservation Code of 2011; the Desired Vegetative Conditions Ordinance 2019; the Tribal Hazardous Substance Control Act of 2001 any other applicable Leech Lake Tribal laws

4. Executive Policy

The Executive Orders in 1873 and 1874 providing for the establishment of the Leech Lake Indian Reservation; E.O. 12898—Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (1994); E.O. 13007—Indian Sacred Sites (1996); E.O. 13175—Consultation and Coordination with Indian Tribal Governments (2000); E.O. 13270—Tribal Colleges and Universities (2002); USDA Departmental Regulation 1340-007, Policies on American Indians and Alaska Natives (2008); USDA Departmental





Regulation 1350-001, Consultation (2008); Forest Service Manual 1563 – American Indian and Alaska Native Relations (2012); Forest Service Handbook 1509.13 - American Indian and Alaska Native Relations Handbook (2012); Chippewa National Forest Land and Resource Management Plan (2004).

D. UNDERSTANDINGS OF THE PARTIES WITH REGARD TO THE IMPLEMENTATION OF THIS GOVERNMENT-TO-GOVERNMENT RELATIONSHIP

1. CONSULTATION FRAMEWORK

The Parties agree that all decisions affecting Forest Service lands within the Leech Lake Reservation, whether made by the Forest Service or the Band, are decisions affecting both Parties. The Parties agree that formulation of these decisions requires and that they shall provide for early notice, meaningful collaboration and consultation, and an accountable process for tracking the Parties' interests and concerns.

The Parties further agree that they shall consult in good faith and on a bilateral governmentto-government basis with regard to all matters within the scope of this MOU and specifically with regard to decisions that:

- a. Affect the abundance, distribution and access to the natural resources on Forest Service lands within the Leech Lake Reservation;
- b. Affect Ojibwe cultural life-ways and cultural properties;
- c. have the potential to enhance opportunities for tribal economic development, including education, training, and employment;
- d. Concern or relate to the Band's right to self-governance, including the right to self-regulate;
- e. Concern or relate to the effective management of Forest Services lands within the Leech Lake Reservation;
- f. Concern or relate to the advancement of Environmental Justice within the Leech Lake Reservation and affected communities; and
- g. Matters that affect other issues of the Parties mutual concern or interest.





2. COMMUNICATION

In addition to project-level engagement, the Band's Division of Resource Management Director (DRM) shall meet at least once quarterly or as otherwise mutually agreed upon with the Forest Supervisor and/or District Rangers for the purpose of discussing issues of mutual concern regarding management of lands, waters and resources that impact the Band's Treatyprotected rights on Forest Service lands. The Parties will review the Schedule of Proposed Actions and a list of other proposed or contemplated projects or activities not yet on the Schedule of Proposed Actions. The DRM Director shall bring any Tribal proposals for discussion to the quarterly meetings. The purpose of these meetings is to facilitate Tribal consultation and coordination over proposed projects prior to public scoping. Minutes of the quarterly meetings will be kept, with copies sent to the DRM Director.

Furthermore, the Parties agree that a fundamental goal and purpose of this MOU shall be to provide for good faith timely consultation that specifically provides that all decisions should expressly recognize the Band's rights to self-governance; and its right to hunt, fish, and gather on Forest Service lands and the Band's right for current and future generations to enjoy economic prosperity through use of these lands. It is mutually understood that consultation between the Parties will contribute to the creation of more enlightened, better constructed, and more effective policies and decisions. To achieve this end, the Parties specifically agree to adopt the following decision-making model.

3. SHARED DECISION-MAKING MODEL

The Parties agree that they will coordinate on a government-to-government basis in order to seek agreement regarding the Band's role during the planning phase of land management projects that occur within or overlap the Leech Lake Indian Reservation. This coordination will, as appropriate, include providing for the role of the Band as a "Cooperating Agency" for NEPA project review and analysis consistent with 40 CFR 1501.6.

This process will allow the Forest Service to benefit from knowledge offered by the Band including, among other things, Tribal Desired Vegetation Conditions, the impacts of historic trauma that may be caused by resource management, Traditional Ecological Knowledge, Traditional Cultural Properties, the relationship between cultural integrity and resource management, and other special cultural or resource expertise of the Band. In consideration of the above premises, the Parties agree to a shared decision-making procedure as follows:





a. Tribal Coordination Prior to Public Scoping

- (1) Prior to the completion of the Project Initiation Letter, the Forest Service shall draft a letter to the Band regarding the project that includes a Notice of Level of Participation. The Forest Service line officer responsible for the project shall inform the Director of the DRM of the project and will also notify the Band in writing of the opportunity to participate in the NEPA process as a NEPA Cooperating Agency.
- (2) The Band shall use best efforts to respond to said notice within 30 days or request a reasonable extension within the 30-day period and the Band will advise the Forest Service of its intended level of participation regarding the specific project. Levels of participation include: i) Full Participation with NEPA Cooperating Agency Status; ii) Participation at Key Meetings; or iii) Quarterly Updates. If the Band does not respond to the Notice of Participation Level, quarterly updates are the default level of involvement. These three participation options are outlined below.

b. Tribal Participation in the NEPA Process

When a Forest Service action subject to the NEPA may affect the Leech Lake Reservation, the Forest Service shall promptly send a letter to the Band's Director of the Division of Resource Management (DRM) to request that the Band become a NEPA Cooperating Agency.

- (1) <u>Tribal Involvement with the Interdisciplinary Team as a Cooperating Agency</u>. If the Band elects to become a Cooperating Agency, the Band shall use best efforts consistent with available resources to participate in the scoping process and provide environmental analysis and information on the following and other topics as needed:
 - a) Tribal Desired Vegetation Conditions;
 - b) Impacts of historic trauma that may be caused by resource management;
 - c) Traditional Ecological Knowledge;
 - d) Traditional Cultural Properties;
 - e) The relationship between cultural integrity and resource management; and
 - f) Other special cultural or resource expertise of the Band.

The Tribal Council will appoint one or more Tribal employees to participate with the Forest Service Interdisciplinary Team (IDT) via a written appointment. This written





appointment shall contain a delegation of authority to act on behalf of the Tribal Council for IDT activities, and a copy of the written appointment shall be provided to the Forest Service. The duly-appointed Band staff will participate in their official capacity in necessary IDT meetings, and provide views and information. Tribal staff shall be given adequate notice prior to IDT meetings. To the extent possible, the line officer shall schedule meetings to accommodate the Band's involvement.

- (2) <u>Tribal Participation at Key Meetings.</u> For this level of involvement, the Band and the Forest Service responsible line officer shall use best efforts consistent with available resources to schedule key meetings associated with the project at such times that permit the Band to fully participate. These meetings, to the extent practicable, will be scheduled to align at key process points within the project planning cycle. It is the Parties' belief that timely and informed input from the Band's staff will assist and inform the Forest Service with project development and planning. This level of participation may include the Parties engaging in formal consultation during the project planning and decision-making process. Either Party may request formal consultation.
- (3) <u>Quarterly Updates.</u> For this level of participation, the Parties agree that quarterly updates will be scheduled for the project so that the Band may have the opportunity to provide timely input to the decision-making process.
- (4) <u>Dispute Resolution.</u> The Band's staff and Forest Service staff shall make every effort to communicate and share information, and to come to a mutually beneficial resolution of issues during IDT meetings and other work during project planning. The Band and Forest Service staff shall rely on principles of sound resource management, the protection of LLBO's sovereign rights, and the Forest Service's obligation to manage the Forest consistent with existing law and policy when attempting to address identified issues or disputes. If a dispute cannot be resolved at the staff level, either party may within 10 business days elevate the dispute to the next level, which shall be before the Forest Service line officer for the project and Director of DRM. Upon the written request of either party the Forest Service Line Officer and the Set officials shall then meet within 30 business days of receiving the written request to seek to develop a mutually acceptable resolution to the dispute.





c. Consultation Prior to Public Notice

The Forest Service line officer for the project shall make consultation available with the Director of DRM prior to public scoping and the release of a Categorical Exclusion (CE), Environmental Assessment (EA) or draft Environmental Impact Statement (EIS). The following procedures shall be used by the Parties to facilitate such consultation.

- (1) <u>Notice.</u> The Forest Service line officer shall promptly send written notice of the proposed public release of a CE, EA, or draft EIS to the Director of DRM. The notice shall include a copy of the CE, EA, or draft EIS. If requested by the Band, the Parties shall within 10 business days arrange a time to meet with appropriate staff and discuss the to-be-released document prior to its release for public comment.
- (2) <u>Consultation</u>. The Forest Service line officer and Director of DRM shall discuss all information relevant to the CE, EA or draft EIS, including the preferred alternative, if one exists, along with such matters as possible impacts to treaty rights resources, and the possible differences of opinion between the Parties regarding the project or its environmental analysis.
- (3) <u>Dispute Resolution</u>. The Band and Forest Service staff will rely on principles of sound resource management and the protection of the Band's sovereign rights, and the Forest Service's obligation to manage the Forest consistent with existing law and policy when attempting to address identified issues or disputes. If a dispute cannot be resolved at the staff level either Party may provide written notice, within 10 business days, to the Director of DRM, District Ranger and the Forest Supervisor. The Director of DRM, District Ranger and the Forest Supervisor shall then meet within 30 days of receiving such written notice to seek to develop a mutually acceptable resolution to the dispute arising out of consultation discussed above.

d. Consultation with LLBO Prior to Issuing Final Decision

The Forest Service line officer shall notify the Director of DRM of their intention to sign a final decision for the project no less than 30 days prior to such final decision. The notice shall include a copy of the supporting NEPA document(s) and the to-be-approved final decision. If requested within 10 business days by the Band, the Parties shall promptly arrange a time to meet with appropriate staff to discuss the to-be-approved final decision prior to this decision being signed by the Forest Service line officer. The Parties shall discuss the project, public comment on the project, the Band's interest, and other issues





relevant to the to-be-approved final decision. The Parties shall make every effort to communicate and share information, and to come to mutually beneficial resolutions of management and activity issues.

The Parties shall rely on principles of sound resource management and acknowledge their joint obligation to protect the Band's sovereign rights in a manner consistent with existing law and policy when addressing disagreements. If the Forest Service line officer is not the Forest Supervisor, any disagreement at this level shall first be elevated for discussion and attempted resolution among the Forest Service line officer, the Director of DRM and the Forest Supervisor. If the conflict cannot be mutually resolved at this level, either party may initiate the procedures for dispute resolution outlined below in Section d(1):

- (1) Dispute Resolution: Disputes that cannot be resolved between the Forest Supervisor and the Director of DRM regarding the Band's recommendations or input regarding a to-be-approved decision under the NEPA may be elevated to government-togovernment formal consultation discussions between the Forest Supervisor and the Band Chair. The Forest Supervisor shall provide a written rationale for the to-beapproved decision, and how the Band's input has been taken into consideration. Within 30 days of receiving the Forest Supervisor's rationale, the Band Chair (or his or her designated staff) shall provide a written response explaining any remaining concerns or recommendations. These documents shall be submitted to the Band Chair and the Forest Supervisor. The Band Chair and the Forest Supervisor shall then meet in person if requested by either party to review the documents within the next 30-day period and shall work in good faith to attempt to develop a mutually acceptable resolution to the dispute. The Band reserves the right to raise any matter not resolved at this level to a higher Forest Service official.
- (2) <u>Letter of Concurrence</u>. To the extent practicable, the Forest Service agrees to delay any to-be-approved final decision on the unresolved matter until this dispute resolution process has had the opportunity to take place. The Band will provide a letter of concurrence or non-concurrence with the to-be-approved final decision from the Director of the DRM within 30 days of receiving this decision. Failure to provide a letter indicates concurrence by the Band. Unless surrounding circumstances including the need to protect life, health, safety, property, or the environment require faster approval, the Forest Service agrees not to issue the to-be-approved final decision until the letter of concurrence is received, the dispute has been resolved, or 30 days have lapsed with no response from the Director of the DRM.





E. NON-BINDING MEDIATION

In the event the consultation and dispute resolution processes provided for in this agreement do not resolve a dispute, the Parties may utilize non-binding mediation as a tool to resolve the issue in question. Utilization of non-binding mediation will not waive or otherwise limit the rights of the Band or the Forest Service to seek further administrative or judicial review. In addition to mediation and the dispute resolution process described above, the Band reserves its right to challenge any Forest Service decision or action in accordance with applicable laws and regulations.

F. COOPERATION IN THE EVENT OF EMERGENCY

Notwithstanding any provisions or timelines herein to the contrary, the Parties shall cooperate in good faith to achieve the tasks laid out herein on a reasonable compressed timeframe in the event of an emergency situation that gives rise to, directly or indirectly, the need for expeditious action to manage or protect Forest resources, public health or safety, or the environment. Such emergencies may include, without limitation, acts of war or terrorism, civil disturbances, government shutdowns, loss or malfunctions of utilities, pest or fungus infestations, blow downs, landslides, fires, tornados, floods, disasters or acts of God, and such management or protective actions may include, without limitation, salvage sales or prescribed burns.

G. ADMINISTRATION OF THE MOU

The Parties further agree that:

- 1. The Band shall consult with the Forest Service when developing and implementing any rule, code, or land management decision that has direct application on NFS lands within the Leech Lake Reservation.
- 2. Each party shall designate a person to serve as their Principal and as Lead Contact for the administration of this MOU.
- 3. The Forest Service shall keep secure and confidential any information shared by the Band that the Band deems to be proprietary or culturally sensitive to the extent permitted by Federal laws and regulations.
- 4. The Forest Service shall use best efforts to assist the Band in providing for timely implementation of the provisions outlined in this MOU, and the Parties shall work together to identify priority focus areas to be added to this MOU for future coordination and consultation.
- 5. Nothing in this MOU implies that all disputes between the Band and Forest Service will be resolved. The Parties recognize that there may be times when they disagree on principle; but





they concur that these disagreements shall not stand in the way of an effective, respectful working relationship nor preclude continuing consultation in good faith.

H. PRINCIPAL AUTHORITIES

1. The following individuals serve as the "principals" for this MOU:

| Leech Lake Band of Ojibwe | | |
|-----------------------------------|--|--|
| FARON JACKSON, SR. | | |
| Chairman | | |
| Leech Lake Band of Ojibwe | | |
| 190 Sailstar Drive NW | | |
| Cass Lake, Minnesota 56633 | | |
| Phone: 218-335-8200 | | |
| Email: Faron.Jackson@llojibwe.org | | |

USDA Forest Service ROBERT LUECKEL (Acting) Regional Forester Eastern Region, Region 9 626 East Wisconsin Avenue Milwaukee, Wisconsin 53202 Phone: 414-297-3765 Email: Robert.luekel@usda.gov

2. The following individuals serve as the Lead Contacts for the administration of this MOU:

| Leech Lake Band of Ojibwe | USDA Forest Service |
|-------------------------------------|----------------------------------|
| BENJAMIN BENOIT | DOUGLAS THOMPSON |
| Environmental Director | Tribal Relations Specialist |
| Leech Lake Band of Ojibwe | Chippewa National Forest |
| 190 Sailstar Drive NW | 200 Ash Avenue NW |
| Cass Lake, Minnesota 56633 | Cass Lake, Minnesota 56633 |
| Phone: 218-335-7417 | Phone: 218-335-8615 |
| Email: Benjamin.benoit@llojibwe.org | Email: douglas.thompson@usda.gov |

I. ADMINISTRATIVE MATTERS

 FREEDOM OF INFORMATION ACT (FOIA). Any information furnished to the Forest Service under this MOU is subject to the Freedom of Information Act (5 U.S.C. 552). FOIA Exemption 3 allows for non-disclosure of certain categories of culturally sensitive information under the provisions of the Archaeological Resources Protection Act (16 U.S.C. 470hh), the National Historic Preservation Act (16 U.S.C. 470w-3), and the Cultural and Heritage Cooperation Authority (25 U.S.C. 3056). Unless specifically approved for release by the Band all culturally sensitive or proprietary information shared with the Forest Service shall be kept confidential.





2. PARTICIPATION IN SIMILAR ACTIVITIES. This MOU in no way restricts the Forest Service or the Band from participating in similar activities with other public or private agencies, organizations, and individuals.

- 3. COMMENCEMENT/EXPIRATION/TERMINATION. This MOU takes effect upon the signatures of the Forest Service and the Band and shall remain in effect for five (5) years from the date of execution. This MOU may be extended or amended upon written agreement of the parties. Either the Forest Service or the Band may terminate this MOU at any time after providing 60-day written notice to the other party.
- 4. RESPONSIBILITIES OF PARTIES. The Forest Service and the Band and their respective agencies and offices will manage their own activities and utilize their own resources, including the expenditure of their own funds in pursing the objectives of this MOU. Each party will carry out its separate activities in a coordinated and mutually beneficial manner.
- 5. NON-FUND OBLIGATING DOCUMENT: Nothing in this MOU shall obligate the Forest Service or the Band to obligate or transfer any funds. Specific work projects or activities that involve the transfer of funds, services, or property among the various agencies and offices of the Forest Service and the Band will require execution of separate agreements and be contingent upon the availability of appropriated funds. Such activities must be independently authorized by appropriate statutory authority. This MOU does not provide such authority. Negotiation, execution, and administration of each agreement must comply with all applicable statutes and regulations.
- 6. ESTABLISHMENT OF RESPONSIBILITY. This MOU is not intended to, and does not create, any right, benefit, or trust responsibility, substantive or procedural, enforceable at law or equity, by a party against the United States, its agencies, its officers, or any person.
- 7. TRIBAL SOVEREIGNTY. Nothing in this MOU shall waive or otherwise limit the sovereign immunity from suit or otherwise impair the sovereignty of the Leech Lake Band of Ojibwe or the Minnesota Chippewa Tribe.





8. AUTHORIZED REPRESENTATIVES. By signature below, each party certifies that the individuals listed in this document as representatives of the individual parties are authorized to act in their respective areas for matters related to this agreement. In witness whereof, the parties hereto have executed this agreement, as of the last date written below.

- Linestel

Robert Lueckel (Acting) Regional Forester, USDA Forest Service

Faron Jackson, Sr. Chairman, Leech Lake Band of Ojibwe

10-4-19

Date

Appendices:

- A. April 14, 2016 letter from Leech Lake Band of Ojibwe Chairwoman, Carrie Jones, to USDA Forest Service Chief, Tom Tidwell regarding vegetation management activities on the Chippewa National Forest.
- **B.** September 12, 2016 response letter from USDA Forest Service Chief, Tom Tidwell, to Leech Lake Band of Ojibwe Chair, Faron Jackson, regarding vegetation management conditions on the Chippewa National Forest.
- C. January 31, 2017 Leech Lake Band of Ojibwe Memorandum describing the Band's desired vegetative conditions on the Forest Service System lands on the Leech Lake Indian Reservation.



LEECH LAKE BAND OF OJIBWE DIVISION OF RESOURCES MANAGEMENT 190 Sailstar Dr. NE, Cass Lake, MN 56633 218-335-7400

April 14, 2016

Chief Tom Tidwell USDA Forest Service 1400 Independence Ave. SW Washington, DC 20250-1111

PEWA NATIONA Cass Lake. MN

Re: Preservation of the Chippewa National Forest

Dear Chief Tidwell,

As the elected Chairwoman of the Leech Lake Band of Ojibwe I am writing to express the Bands concerns over ongoing efforts to harvest increasing amounts of timber from the Chippewa National Forest located within the Leech Lake Indian Reservation. Our relationship is not only defined by a shared land base but our common history and has been checkered with injustices towards my people. In recent times we have made some notable strides in developing a positive relationship with the United States Forest Service specifically the Chippewa National Forest. I commend the Chippewa National Forest Supervisor, Darla Lenz, and her leadership team for trying to bridge the gap and create a bright future for the area based on our mutual concern and interest and not our differences. It is not a coincidence that my letter will find you the same week as Earth Day. We felt it was appropriate since our request is based on becoming better stewards of the land. Please do not read my comments as a one sided attack on U.S. Forest Service but instead a request for help to find solutions to unstainable timber harvesting being proposed.

The current timber harvest levels are unsustainable and are having significant negative effects on Tribal Trust Resources. This will only get worse with increased harvest. The Chippewa National Forest was created as a result of efforts to provide a home-land and to protect the Reserved Rights the band retained under various treaties with the US Government. The Chippewa National Forest is one of the most commercialized forests in the nation, and has one of the highest percentages of cutting in relation to the allowable harvest and one of a limited number that has no wilderness area. All of these factors are contributing to degradation of our natural resources and has impacted the ability of the Leech Lake Band of Ojibwe to practice the subsistence lifestyle which has sustained my people for generations.

The overharvesting we have experienced, and the inability to restore natural forest types, has resulted in much of our land being converted on monotypic aspen stands and plantations of red pine. Both of these are very simple communities that do not support the diversity of wildlife and the plants that have been important to our culture. Simplification of our forests is also not in keeping with the Forest Service goal of preparing for climate change. The Chippewa National Forest/ Leech Lake Reservation is located near the center of the continent, far from the moderating effects of the oceans, so it is expected that we will see some of the most dramatic alterations due to climate change. We believe some of these effects are already evident and are changing the ecosystems of the reservation and negatively affecting our member's ability to practice their way of life. The new forest management planning rules also puts an emphasis on considering and accommodating the type of needs we are requesting.

The Chippewa National Forest has conscientious staff that want to do the right thing and provide for the interest of the people of Leech Lake, but they have a very difficult time doing so due to the need to try to meet unrealistic timber harvest targets. The problem will not be fixed until the Forest Plan changes. The high harvest goals that are in the current plan are simply not sustainable, especially if you are to meet your trust responsibility of ensuring federal actions do not impact tribal life-ways. The only remedy we see for this situation to address these issues in a New Forest Plan. The Chippewa National Forest is currently operating under a plan that expired in 2014. The Leech Lake Band of Ojibwe is requesting that the planning process for this forest be moved to the top of the priority list and commence with the next year.

We await your response to our concerns and request.

Sincerely

Carri Jones, Tribal Council Chairwoman Leech Lake Band of Ojibwe

cc: Kathleen Atkinson, Regional Forester Darla Lenz, Forest Supervisor Senator Al Franken Senator Amy Klobushar Representative Rick Nolan



Forest Service Washington Office

Appendix B

File Code: 1560 Date: SEP 1 2 2016

Mr. Faron Jackson, Sr. Chairman Leech Lake Band of Ojibwe 190 Sailstar Drive NW Cass Lake, MN 56633

Dear Chairman Jackson:

Thank you for your letter of April 14, 2016, in which your predecessor Ms. Carri Jones expressed concern over the amount of timber being harvested from the Chippewa National Forest (Forest) in Minnesota. I apologize for the delayed response.

In her letter, Ms. Jones brought to my attention the Band's concerns about "ongoing efforts to harvest increasing amounts of timber from the Chippewa National Forest" and the "inability to restore natural forest types," resulting in forest types "[T]hat do not support the diversity of wildlife and the plants that are important to [your] culture." I understand the Band's concerns and respectfully acknowledge Ms. Jones' recommendation to expedite a New Forest Plan; however, I believe that the Forest and the Band can continue to work productively within the context of the existing Land and Resource Management Plan (Plan). For example, the Plan includes three relevant desired conditions:

- Lands within the Forest serve to help sustain American Indians' way of life, cultural integrity, social cohesion, and economic well-being. (D-TR-1);
- The Forest Service continues to work within the context of a respectful government-togovernment relationship with Tribes, especially in areas of treaty interest, rights, traditional and cultural resources, and ecosystem integrity. The Forests provide opportunities for traditional American Indian land uses and resources. (D-TR-2); and
- The Chippewa National Forest facilitates the exercise of the right to hunt, fish, and gather as retained by Ojibwe whose homelands were subject to treaty in 1855 (10 Stat. 1165). Ongoing opportunities for such use and constraints necessary for resource protection are reviewed and determined in consultation with the Leech Lake Band of Ojibwe. (D-TR-3).

Additionally, the Plan includes the following objectives:

- Improve relationships with American Indian tribes in order to understand and incorporate tribal cultural resources, values, needs, interests, and expectations in forest management and develop and maintain cooperative partnership projects where there are shared goals. (O-TR-1);
- Maintain a consistent and mutually acceptable approach to government-to-government consultation that provides for effective Tribal participation and facilitates the integration of tribal interests and concerns into the decision-making process. (O-TR-2); and

G

Mr. Faron Jackson, Sr. Appendix B

• The Forest Service will work with the appropriate tribal governments to clarify questions regarding the use and protection of miscellaneous forest products with the objective of planning for and allowing the continued free personal use of these products by band members within the sustainable limits of the resources. (O-TR-3).

The Plan was last revised in 2004, and there is no scheduled revision date at this time. Until revision process is initiated, I invite you to consider an amendment to the existing 2013 Memorandum of Understanding (MOU) between the Forest and the Band. Together, the Forest Service and the Band can address the Band's concerns within the government-to-government framework without engaging in the lengthy process of plan revision.

I am asking Regional Forester Kathleen Atkinson to immediately initiate consultation with you and the Division of Resource Management staff with the following objectives:

- To discuss and understand the Band's desired vegetation management conditions on National Forest System lands within the Leech Lake Indian Reservation (LLIR) to achieve the appropriate balance of resources to sustain Ojibwe lifeways;
- To use any Traditional Ecological Knowledge (TEK) offered by the Band to achieve desired conditions described in the Plan;
- To expand use of the Tribal Forest Protection Act (TFPA) to give voice to the Band's desired land management objectives on Forest Service lands within LLIR;
- To develop a shared decision-making model for commercial timber harvesting and other natural resource considerations on Forest Service lands within LLIR; and
- To codify the agreed upon TFPA and shared decision-making model into the 2013 MOU by amendment.

Thank you for your interest in the management of your National Forests. If you need assistance, please contact Regional Forester, Kathleen Atkinson at (414) 297-3765.

Sincerely,

cc: Richard Robinson, Director, LLBO Division of Resource Management Levi Brown, LLBO Environmental Lands Manager Kathleen Atkinson, Regional Forester Darla Lenz, Forest Supervisor Senator Al Franken Senator Amy Klobuchar Representative Rick Nolan



LEECH LAKE BAND OF OJIBWE DIVISION OF RESOURCE MANAGEMENT 115 6th ST. NW Suite E, Cass Lake, MN 56633

Management Practices to achieve Desired Vegetative Conditions

The Basic Management Priorities are there for forest staff to give guidance to longer term conditions that need to be returned to lands within the LLR. These priorities should be cemented in every Purpose and Need section of Project EA's across the forest.

Basic Management Priorities (Desired Vegetation Conditions)

- **LL-DVC-1** Increase blocks of ecologically functioning old growth stands
- LL-DVC-2 Protection of Scenic Corridors (Road Corridors, rivers, lakes, Old Growth Rec. sites)
- **IL-DVC-3** Impacts to TES/TCP's are impacts to tribes cultural Identity
- LL-DVC-4 Maintain and Protect Diverse Hardwoods stands
- **LL-DVC-5** Protecting the cultural integrity of the LLBO
- LL-DVC-6 Aspen Initiative reduce aspen promote other species
- LL-DVC-7 Restore conifers to ecological functioning systems
- **ILL-DVC-8** Implementation must correspond with approved action

The information outlined on the following pages provides more detail on these concepts.

Stand Level Implementation Standards

Harvest practices on the Chippewa National Forest in the past have been focused on the production of commercial forest products with little emphasis on other needs and objectives. This has resulted in declines in many of the resources that were reserved by the Leech Lake Band under Federal treaty. It has also resulted in declines in some wildlife species that are important to the Band and overall biodiversity of the forest, putting us in a poor position to address climate change. The purpose of these mitigation measures is to return to a more ecologically healthy condition by diversifying our forests back to more natural conditions.

A. Forest Stands (All Types):

The extent of each of these measures will, on a project by project basis, be quantified, outlined and followed in the project planning, sale implementation, and during any post-harvest activities.

- i. Retain all non-target species of trees to the maximum extent possible.
- ii. Promote and enforce progressive logging to protect non harvest trees and to retain snags, forest structure, and overall diversity. In general no more than 50% of a stand will have traffic or skidding over it. The Minnesota Forest Management Guidelines (page 18) outlines skid trail practices that will help to attain this standards.
- iii. In stands were "wolfie" trees are found, to the maximum extent possible these trees will be retained to provide future snags and coarse wood material. Promote the retention of coarse woody material (>4 inches) up off the ground to the maximum extent possible due to its wildlife habitat value. Material should be elevated off the ground one foot or more. In order to help facilitate this measure we encourage the piling of tops in scattered piles that are also up off the ground. In stands where coarse woody material is lacking, it may be generated from within or adjacent stands to promote these features. In some cases it may also be necessary to drop trees or bring materials from other sources.
- iv. In areas where there is a likelihood of human caused fires (along major roads, near communities, etc.) a buffer that contains less woody material may be established to reduce fire risk.
- v. In stands identified in planning or survey as having berry shrubs, it will be necessary to mark and avoid them. In stands where cultural and medicinal plant gathering activities have been identified, avoidance will be needed unless measures have been mitigated that will enhance these species.
- vi. The amount of clear-cuts and coppice cuts will be reduced in favor of other harvest methods to promote forest diversity and TCPs.

- vii. If targeted species cannot be harvested without damaging reserved trees that are quantified in the prescription, the target species will not be harvested.
- viii. All harvest and ground disturbing operations will be minimized during the April 1 to July 15 to reduce songbird and other cavity nesting wildlife losses. The exception can be younger conifer plantations that have minimal wildlife usage.

B. Conifer Specific:

With the exceptions of jack pine and black spruce that are created as the result of stand replacement fires, naturally occurring conifer stands would not be simple communities All too often, diversity is lost when plantation management is utilized. To restore a suitable level of diversity, changes must be implemented. The following management practices will greatly aid in achieving the desired vegetative conditions in conifer stands.

The extent of each of these measures will, on a project by project basis, be quantified, outlined and followed in the project planning, sale implementation, and during any post-harvest activities.

- i. In areas where conifer regeneration in undertaken, the first emphasis will be on utilizing natural regeneration whenever possible.
- ii. In conifer plantings, hardwood species need to be counted towards meeting regeneration standards and stand diversity standards.
- iii. Promote extended rotations in long-lived conifer species, thinning at multiple entries that allow for increased diversity over time, extending rotation ages to >=200yrs.
- iv. During conifer harvest and thinning operations, retain hardwoods and non-target conifer species for diversity and future wildlife habitat in the stand.
- v. Once planted, conifer seedlings will require thinning in the sapling stage to ensure they do not become over-dense and to allow for stand diversity. This will be especially true for white spruce.
- vi. Release brushing operations may require release of conifer AND select hardwood species. In many cases, release may only be necessary immediately around desired saplings.
Desired Vegetation Conditions Implementation Guide A joint working document between the Leech Lake Band of Ojibwe Division of Resource Management and the Chippewa National Forest

Background

In April 2016, the Leech Lake Band of Ojibwe (Band) sent a letter to the Chief of the U.S.D.A. Forest Service (Forest Service) requesting a revision of the Chippewa National Forest's 2004 Land and Resource Management Plan (Forest Plan). In response, the Chief of the Forest Service committed the agency to formal consultation with the Band and an amendment of the 2013 Memorandum of Understanding (MOU) between the Band and the Chippewa National Forest. Specifically, the Chief directed the Region 9 Regional Forester and the Chippewa National Forest to:

- Discuss and understand the Band's desired vegetation management conditions on National Forest System lands within the Leech Lake Indian Reservation (Reservation) to achieve the appropriate balance of resources to sustain Ojibwe lifeways;
- <u>Use any Traditional Ecological Knowledge</u> offered by the Band to achieve desired conditions described in the 2004 Chippewa National Forest Land and Resource Management Plan (Forest Plan).
- <u>Expand use of the Tribal Forest Protection Act</u> to give voice to the Band's desired land management objectives on Forest Service lands within the Leech Lake Indian Reservation;
- <u>Develop a shared decision-making model for commercial timber harvesting</u> and other natural resource considerations on National Forest System lands within the Leech Lake Indian Reservation; and
- Codify the agreed upon Tribal Forest Protection Act and shared decision-making model into the 2013 Memorandum of Understanding by amendment.

To achieve these objectives, the Band provided the Forest Service with eight Desired Vegetative Conditions (DVCs) - see attachment A: Management Practices to Achieve Desired Vegetative Conditions. The eight DVCs are grouped three categories: Ecological Emphasis, Cultural Identity, and Environmental Justice. This document describes these DVCs and details how the Forest Service and the Band will work together to achieve them.

Principles

The Forest Service and the Band understand that there are several principles that guide the efforts to implement and achieve the DVCs within the Reservation:

- Both parties recognize that these <u>DVCs and changes will take generations to accomplish</u>. To address these long-term goals, the Forest Service and the Band will work in concert to move Chippewa National Forest lands within the Reservation toward the desired conditions.
- The Forest Service will consider and <u>use the full range of natural variation</u> as described in its <u>2004 Forest Plan</u> and informed by current science. This includes variation in age, structure, and composition at multiple forest scales (for example, at the scale of landscape ecosystem as well as stand or native plant community).

- The Forest Service will use best available ecologically focused science such as that developed in the <u>Native Plant Communities of Minnesota: The Laurentian Mixed Forest Province (2003)</u> guidebooks compiled by the Minnesota Department of Natural Resources, the Northern Research Station, and University of Minnesota. Certain situations may warrant deviation from range of natural variation (i.e. to enhance resilience or adaption to climate change). <u>The parties</u> recognize that the Forest Plan Landscape Ecosystems are based on the Terrestrial Ecosystem Unit Inventory (TEUI) per Forest Service guidance and a crosswalk between the Native Plant <u>Communities and TEUI classification systems will be completed in the future.</u>
- <u>The Forest Service must consider the direction in the Forest Plan</u> and the Forest Plan Environmental Impact Statement, as well as other federal laws, regulations, and policies.
- The Forest Service as a multiple use agency will balance a variety of uses on the landscape; some of these actions will result in timber harvest, prescribed fire, and other active management.

Implementation and Monitoring

- The parties recognize that there is a need to continue formal and informal learning to improve understanding and coordination. Therefore on-going joint training of Leech Lake and Forest Service staff and leadership will be carried out on:
 - The unique legal history of the foundational relationship between the Band and the Chippewa National Forest,
 - How the multi-use mission of the Forest Service shapes perspectives of forest management, and
 - How culture and historical trauma shape the Band's perspective of Forest Service management activities.
- <u>The Band and the Forest Service will develop mutually agreeable protocols for monitoring of DVC progress within 6 months of the signing of this document</u>. This will include:
 - o Data updates provided to ID teams at the beginning of projects,
 - Tracking of staff training and early and on-going coordination efforts between the Forest Service and the Band,
 - <u>Reports that outline how the DVCs were taken into consideration in each vegetation</u> <u>management decision</u>,
 - A database or GIS layer that outlines:
 - Tribal concerns associated with stands
 - Outcomes
 - o Annual meetings to review data and project summaries and outcomes.

Desired Vegetative Conditions and Cultural Perspective Overview

As a multiple use agency, the Forest Service balances extractive and non-extractive uses while providing goods and services to the American people. This approach leads to a difference in perspectives with the Forest Service viewing the landscape as resources to be managed and the Leech Lake Band viewing the landscape as an assemblage of cultural resources on its homeland that must be protected. Along with these foundational philosophical differences, there is also history of manipulation and land theft that shapes how many Tribal members view the state and federal governments. These differences have led to varying expectations in project planning and evaluating "need" for federal actions on the Chippewa National Forest.

<u>These DVCs were designed to be considered and incorporated at the very beginning of the development</u> of the purpose and need statements for Forest Service projects. This ensures that the Forest Service considers the Band's management objectives at the inception of projects. Evaluating projects through the lens of the DVCs and having Tribal involvement throughout the life of Forest Service projects facilitates alignment of the parties' perspectives and expectations.

The difference between Western and Indigenous perspectives is deeply rooted in history and differing perceptions of how each culture views itself in its relationship with nature. Westerners generally viewed themselves as being apart from and above nature. This philosophy created a culture focused on resource management and extraction. In contrast, the creation stories of Indigenous Peoples tie humanity and nature together as participants in the struggle to survive. Rather than managing for purely human interests, humanity is considered to be the youngest brother of nature, with decisions based on helping fellow relatives in the forest.

Another phenomenon that shapes the perspective of Indigenous Peoples is historical trauma. Historical trauma refers to the cumulative emotional and psychological wounding of an individual or generation caused by traumatic experiences or events. Indigenous Peoples in the Americas have endured over 500 years of traumatic history in dealings, initially with international powers, and then later with the federal and state governments. This history was punctuated by a litany of inequities including, but not limited to broken treaties, stolen land, forced relocation, destruction of cultural practices and racism.

Like all Native Nations, this history affected the Band. However, impacts to the Band were especially severe due to the valuable timber resource that existed on the Leech Lake Indian Reservation. The historical desire to exploit the timber resources found within the boundaries of the Leech Lake Indian Reservation accelerated the dramatic loss of land experienced by the Band.

This history weighs heavily on minds of the citizens of the Leech Lake Nation, shaping the Tribal perspective of the Forest Service and its ongoing planning and management activities. There is the memory of the Chippewa National Forest's creation as a Forest Reserve, becoming what many call a "working forest", and the active management activities that do little to nothing to benefit the Tribe for which it was named and created. These negative stories have been told to generations of children and shape how Band citizens view federal agencies dealing with the Band and its homeland. There is little trust and often the citizens of the Band would rather the Band not work collectively with federal agencies in order to avoid the appearance of endorsing the history that has occurred here.

Understanding this Tribal perspective and the story of historical trauma that shapes it is crucial to balance uses and upholding the trust responsibility mandated to the Forest Service. Listening to and understanding the history helps the Forest Service hear and understand the Band's voice regarding their desired conditions for their own homeland. The lands within the Chippewa National Forest serve to sustain Anishanabe culture and should be reflective of who they are as a people. The DVCs are written in a way that shaping projects and needs around them will provide a landscape condition that reflects the Band's culture.

Cultural Identity Desired Vegetative Conditions

The DVCs within this section are tied to Ojibwe culture and how forest management affects cultural identity. It is the policy of the Forest Service to strengthen support for protecting and preserving Indian culture and heritage. The Forest Service and the Band recognize that lands within the Forest serve to help sustain American Indians' way of life, cultural integrity, social cohesion, and economic well-being. Culture by its nature is difficult to quantify when planning for projects. Often, the Forest Service plans and implements cultural protection in the "historical preservation" sense. This is important, however, these protections do not necessarily recognize that Indian people are still here today in a world where tribal culture remains very much alive and continues to evolve. Therefore, the DVCs were crafted to protect not only Tribal history, but present and future generations as well.

Impacts to Threatened, Endangered, and Sensitive Species and Traditional Cultural Properties are Impacts to the Tribe's Cultural Identity (LL-DVC-3).

This DVC brings attention to the importance of plant and animal species and traditional cultural properties to the Band and Ojibwe culture. Tribal members regard all species of plants and animals as important and in need of protection to enhance their populations and habitats. Management activities and other threats have reduced threatened, endangered, and sensitive species populations. In addition, opportunities to utilize traditional cultural properties within the Leech Lake Reservation have been reduced as habitats and landscapes have been altered. These losses contribute to the loss of Ojibwe cultural identity.

<u>Forest Service Manual 2360</u> provides direction to agency officials responsible for compliance with cultural resource laws and regulations including the <u>National Historic Preservation Act</u>, the <u>Archaeological Resource Protection Act</u>, <u>National Environmental Policy Act</u>, and the <u>Native American</u> <u>Grave Protection and Repatriation Act</u>. Other laws and statutes protecting cultural use of the Chippewa National Forest by Leech Lake citizens include, but are not limited to, <u>Leech Lake Band of Ojibwe</u> <u>Ordinance No. 73-2</u>, the <u>1908 Minnesota Forest Act</u> (PL 60-137, 35 Stat. 268), the <u>American Indian</u> <u>Religious Freedom Act</u> (1978), and the <u>Religious Freedom Restoration Act</u> (1993).

Forest Service and the Band agree that in order to mitigate impacts to important species and traditional cultural properties, these resources will need special attention if they are to persist. Both parties also agree that there is a continuing need to use best available scientific methods for the survey and monitoring of threatened, endangered, and sensitive species and traditional cultural properties.

The Forest Service is committed to protecting the Band's cultural identity through its work. The Forest Service and the Band will accomplish this objective through the joint Coordination, Consultation and Shared Decision Making process as described in the 2019 MOU. The Forest Service will carefully consider the potential impacts of management actions on the desired vegetative conditions described in this document. By meeting these conditions, the parties anticipates that management actions on Forest Service System lands will recognize and enhance protection the Band's cultural identity.

Protecting the Cultural Integrity of the Leech Lake Band of Ojibwe (LL-DVC-5)

This DVC acknowledges that much of the Band's cultural integrity is tied to relationships to natural processes and resources that occur locally. This fact is inextricably tied to the unique qualities and richness of this area. This DVC can be largely achieved through adherence to the ecological DVCs, but may require greater consideration in specific instances. Cultural integrity is very personal and not quantifiable to Forest Service standards. Shared practices individually and collectively define the cultural integrity of the Band. Losing the natural features and resource utilization opportunities that generations have shared is a cultural loss. While some losses may occur naturally, (i.e. through fire) some members of the Band perceive the changes differently when they are due to management actions (i.e. through timber harvesting).

The Forest Service recognizes that this DVC is aligned with the Forest Plan, which contains specific direction in regard to meeting Tribal trust obligations, facilitating the exercise of treaty rights, and incorporating Tribal cultural resources, values, needs, interests, and expectations in forest management activities (Forest Plan D-TR-1, D-TR-3, O-TR-1, O-TR-3, O-TR-4, O-TR-5, S-TR-1, S-TR-3, S-TR-4, S-TR-5, S-TR-7, G-TR-2, and G-TR-3.

Environmental Justice Desired Vegetative Conditions

Two DVCs fall within the category of Environmental Justice. The <u>Executive Order 12898, Federal Actions</u> to Address Environmental Justice in Minority Populations and Low-income Populations (1994) defines environmental justice as the fair treatment and meaningful involvement of all people regardless of race, color, national origin or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and polices.

The Executive Order requires each federal agency to achieve environmental justice as part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations. It also makes clear that its provisions apply fully to Native American populations.

A key part of any environmental justice analysis is the disproportionality of potential or actual impacts associated with agency action. This potential is high on the Chippewa National Forest, which includes approximately 90 percent of the Leech Lake Indian Reservation. The Band retains usufructuary rights to hunt, fish, and gather on public lands within the Reservation. These rights are retained property rights, held by approximately 10,000 Band citizens. The Forest Service fulfills its trust responsibility to protect these rights on behalf of the Band through formal government-to-government consultation, and by acknowledging these retained rights in management decisions on the Reservation.

Many of the Band's citizens hunt, fish, and gather for subsistence and for commercial return. Management activities that impact the ability of individual members to do so could seriously and disproportionately harm those individuals relative to those in nearby non-tribal communities. This impact is amplified by the fact that Tribal ownership of lands on the Leech Lake Indian Reservation is currently only 5 percent of the original land base reserved for the Band as its homeland in the 19th century.

Environmental justice warrants a category for DVCs. For various reasons, many Tribal members are limited in their ability to leave their Reservation to exercise their rights elsewhere. For this reason, it is important that Forest Service managers be aware that decisions made on the Forest and Reservation may have a long-term impact on Leech Lake Band families, their livelihoods, and their culture. This differs from effects to members of the general public. Band members are tied to the resources, culture, government, and economy of their Reservation and homeland in a manner members of the public are not.

Protection of Scenic Corridors (LL-DVC-2

This DVC emphasizes the importance of managing for the appropriate scenic integrity objectives within the Reservation. The Forest Plan defines scenic integrity as the state of naturalness, or conversely, the state of disturbance created by human activities or alterations. Scenic integrity objectives guide the amount, degree, intensity, and distribution of management activities needed to achieve desired scenic conditions. Forest Plan guidance for scenic integrity objectives include: D-SC-1, D-SC-2, D-SC-3, O-SC-1, S-SC-1, G-SC-1, G-SC-2, G-SC-3, G-SC-4, G-SC-5, G-SC-6, G-SC-7, G-SC-8, G-SC-9, and G-SC-10.

The Forest Service commits to increasing understanding of, and adherence to, scenic integrity objectives during the <u>NEPA</u> analysis and implementation processes for vegetation management projects. Moving forward, these objectives will be discussed for every vegetation management project on the Forest, and it will be the responsibility of the line officers to ensure that scenic integrity objectives are met in each decision. The Forest Service agrees to train employees on obligations relating to the scenic integrity objectives listed in the Forest Plan and monitor scenic integrity objectives to assess the success of implementation.

Additionally, the Band requested the Forest Service change the scenic integrity objective of the Cuba Hill Road (Forest Road 2133) from Low to Moderate. The Forest Service committed to managing the Cuba Hill Road area as Moderate and will consider adjusting management to enhance other additional Tribal high interest areas and cultural corridors on a case-by-case basis. The Forest Plan does not require an amendment or modification if on the ground management is changed to a higher scenic integrity objective than originally indicated.





Project Implementation must Correspond with Approved Action (LL-DVC-8).

This DVC recognizes that vegetation management activities should be implemented as identified in the NEPA decision. The Forest Service and the Band will work to insure project implementation complies with the written decision. The Forest Service will communicate with the Band when site conditions change that may affect the project parameters, and will prepare a Supplemental Information Report or amended decision as appropriate. In addition, the Forest Service and the Leech Lake Band will continue to improve communication through the use the Coordination, Consultation, and Shared Decision Making process identified in the MOU.

Ecological Emphasis Desired Vegetative Conditions

Four of the eight DVCs focus on ecological management of the Forest and emphasize the use of best available science. The Forest Service and the Band developed these four DVCs to contribute to a spectrum of forest conditions that reflect the range of natural variation.

To address a full range of stand conditions that incorporate representative historic disturbance regimes, it will be necessary to allow a broad distribution of ecological stand age and characteristics including old growth. The Forest Plan EIS Appendix G shows the range of natural variation for cover types and age classes (respectively) within landscape ecosystems. MN DNR and the Forest Service Northern Research Station have compiled additional studies on range of natural variation since the Forest Plan was prepared.

In some landscape ecosystems, there are differences between current condition and range of natural variation and it will take decades to move the landscape towards this condition. In addition, the Forest Plan has identified vegetation management objectives based on landscape ecosystem and age class objectives with consideration of multiple other factors, not specifically range of natural variation. In some cases, but not in all, the Forest will work towards range of natural variation and will communicate with the Band in those cases where moving towards natural variation is not the best alternative for the landscape. Overall, the DVCs could move the forest towards range of natural variation, while meeting management direction identified in the Forest Plan.

Increase Blocks of Ecologically Functioning Old Growth Stands (LL-DVC-1)

The Forest Service and the Band recognize that old growth characteristics on the landscape contribute to ecosystem sustainability and biological diversity. The Forest Plan includes specific direction on increasing old forest and old-growth forest age classes (for example, see Forest Plan D-VG-1, D-VG-2, D-VG-3, D-VG-7, O-VG-14, O-VG-15, O-VG-16 and O-VG-17).

The Forest Service and the Band have agreed upon 31 opportunity areas to focus on expanding large upland mature patches into blocks of ecologically functioning stands with old growth characteristics. The identification of these opportunity areas were based primarily on upland mature patches greater than 500 acres, Management Area (lower preference given to General Forest Management Area) and patches within or intersecting Tribal High Interest Areas. Three of these areas do not meet all of these criteria, but are of interest to the Band for cultural reasons. Figure 1 illustrates the location of the identified opportunity areas, and Table 1 provides some baseline data on each area.

These sites represent priority areas for management of old growth characteristics and are locations where the Forest Service will begin creating and furthering old-growth characteristics and connectivity. The Forest Service commits to including information on these opportunity areas as part of the standard data package given to interdisciplinary teams during the initial development of purpose and need statements and selection of potential treatment actions. These areas are priorities for maintenance or expansion of older age class conditions. The identification of these opportunity areas does not preclude considering the development of old growth characteristics elsewhere on the Chippewa National Forest.

Consistent with the Forest Plan, active management, including thinning, will occur in stands within these opportunity areas. Management will emphasize treatments that maintain stand age; concentrate growth on fewer trees; maintain multi-age cohorts; mimic natural gap dynamics; species, size class, and diameter distributions representative of the range of natural variation; and development of old growth characteristics such as large snags and coarse woody debris.



Figure 2: Opportunity Areas for increasing blocks of ecologically functioning old growth

| | | | | | Percen | t In: | | | |
|-----------------|-------|-------------|-----------------------|-------------|---------|-------|-------|------------------|------------------|
| | | Within | Tribal | Northern | | | | Old | Old Growth |
| ID ^a | Acres | Reservation | High | Hardwoods | Conifer | Aspen | Birch | Growth | Multi-aged |
| | | Bound | Interest ^c | That dwoods | | | | MIH ^d | MIH ^d |
| 1 | 816 | 100 | 100 | 74 | 4 | 19 | 3 | 12 | 0 |
| 2 | 1,339 | 100 | 100 | 34 | 47 | 17 | 3 | 45 | 0 |
| 3 | 666 | 100 | 100 | 22 | 21 | 51 | 6 | 35 | 0 |
| 4 | 5,992 | 100 | 95 | 84 | 2 | 5 | 9 | 37 | 4 |
| 5 | 1,271 | 100 | 100 | 51 | 7 | 36 | 6 | 33 | 0 |
| 6 | 1,871 | 100 | 78 | 11 | 72 | 3 | 14 | 24 | 0 |
| 7 | 1,543 | 100 | 100 | 40 | 40 | 14 | 5 | 20 | 0 |
| 8 | 661 | 100 | 93 | 9 | 55 | 18 | 17 | 36 | 1 |
| 9 | 1,241 | 100 | 93 | 22 | 69 | 2 | 6 | 8 | 5 |
| 10 | 1,085 | 100 | 100 | 7 | 87 | 3 | 3 | 6 | 0 |
| 11 | 3,040 | 100 | 100 | 34 | 43 | 9 | 14 | 33 | 1 |
| 12 | 816 | 100 | 98 | 32 | 56 | 1 | 10 | 42 | 5 |
| 13 | 916 | 100 | 84 | 12 | 57 | 27 | 2 | 2 | 0 |
| 14 | 956 | 100 | 100 | 31 | 52 | 12 | 4 | 12 | 0 |
| 15 | 653 | 100 | 100 | 20 | 52 | 0 | 27 | 50 | 22 |
| 16 | 545 | 100 | 100 | 76 | 5 | 6 | 12 | 42 | 25 |
| 17 | 5,631 | 100 | 100 | 74 | 6 | 11 | 8 | 19 | 4 |
| 18 | 787 | 100 | 100 | 90 | 0 | 9 | 0 | 14 | 8 |
| 19 | 2,353 | 100 | 22 | 4 | 83 | 7 | 7 | 39 | 5 |
| 20 | 5,686 | 100 | 29 | 4 | 87 | 2 | 7 | 34 | 4 |
| 21 | 2,248 | 100 | 5 | 1 | 96 | 3 | 0 | 14 | 0 |
| 22 | 839 | 100 | 8 | 25 | 34 | 7 | 33 | 24 | 0 |
| 23 | 1,183 | 100 | 100 | 77 | 7 | 14 | 3 | 16 | 0 |
| 24 | 506 | 100 | 99 | 0 | 92 | 8 | 0 | 0 | 0 |
| 25 | 685 | 100 | 100 | 29 | 3 | 52 | 16 | 26 | 0 |
| 26 | 569 | 100 | 100 | 19 | 11 | 70 | 0 | 42 | 0 |
| 27 | 503 | 100 | 100 | 35 | 24 | 42 | 0 | 2 | 0 |
| 28 | 677 | 100 | 99 | 11 | 63 | 19 | 6 | 39 | 0 |
| 29 ^b | 473 | 100 | 36 | 15 | 62 | 12 | 11 | 15 | 0 |
| 30 ^b | 384 | 100 | 0 | 5 | 83 | 5 | 6 | 17 | 0 |
| 31 ^b | 485 | 100 | 100 | 68 | 10 | 21 | 1 | 42 | 0 |

Table 1: Areas of mature forest at least 500 acres in size, inside Reservation and intersecting Tribal High Interest Areas

46,420

^a ID is a unique identifier and has no priority associated.

^b Areas added at working meeting (7/27/2017)

^c Tribal High Interest Areas - from Chippewa National Forest Land Resource Management Plan (Figure TR-1 on page 2 - 37).

^d Management indicator habitats (MIH) are based on groupings of forest types in different age groupings. The age groupings are surrogates for ecological successional or vegetative growth stages. Because of the ecology of the different forest types, age grouping depends on forest type and was selected to best typify vegetative growth stages. From Chippewa National Forest Land Resource Management Plan (Appendix C-2).

Maintain and Protect Diverse Hardwood Stands (LL-DVC-4)

The Forest Service and the Band recognize that hardwood forests are an important component of the Chippewa National Forest's ecosystems and the Band's cultural uses. The Forest Plan includes direction on managing for complexity and diversity in hardwood stands and objectives to increase cover of northern hardwoods (See for example O-VG-2, O-VG-4, O-VG-9, O-VG-10, O-VG-20, D-VG-6, and D-VG-7).

To provide focus for implementation of this DVC, the Band and the Forest Service identified **opportunity areas** that could support stands of high quality northern hardwood stands. These areas total approximately 34,000 acres (see Figure 2). The Forest Service and the Band selected these opportunity areas by considering the intersection of Landscape Ecosystems (Boreal Hardwood/Conifer, Mesic Northern Hardwood), Management Areas (primarily General Forest Long Rotation), concentration of existing hardwood stands, and consideration of tribal member access for gathering. The Forest Service and the Band recognize that the potential for hardwoods extend beyond the areas defined in this map and further work at the project level will be necessary to identify important hardwood stands.

The Forest Service and the Band recognize meeting this condition will require evaluating stands proposed for treatment with an overarching goal of maintaining or creating diverse hardwood stands in alignment with the appropriate native plant community. Harvest and active management are tools to move some stands towards the natural range of variation on the landscape and appropriate characteristics such as age distribution, multi-story canopy, standing snags, and coarse woody debris. Other diverse and healthy stands may not require any action in the near future.

Forest Service leadership will provide guidance to NEPA teams to consider management actions that will promote range of natural variation within these ecological communities. The map shown in Figure 2 will become part of the standard data package given to interdisciplinary teams to use during the initial development of purpose and need statements and selection of potential treatment actions. Maintaining an older age class condition will be a priority in portions of these areas. These locations will potentially form the core from which future expansion of northern hardwood stands and old growth emphasis areas will occur.



Figure 3: Northern Hardwood Emphasis Areas

Aspen Initiative-Reduce Aspen and Promote other Species (LL-DVC-6)

This DVC focuses on reducing aspen cover on the National Forest System lands within the Leech Lake Indian Reservation. This DVC is aligned with Forest Plan objectives to reduce aspen monoculture and increase diversity (O-VG-2, O-VG-7) in every Landscape Ecosystem, with some Landscape Ecosystems planning for considerable reductions over the 100-year planning horizon. Although the amount of aspen on the landscape has declined since 2003, it still exceeds the objectives for all Landscape Ecosystems (Chippewa National Forest Monitoring and Evaluation Report, 2016). Therefore, both the Forest Service and the Band desire additional decreases in aspen.

According to Forest Service databases (2018), there are approximately 70,200 acres of aspen on National Forest System lands within the exterior boundaries of the Reservation. Age class distribution within Fire Dependent and Mesic Hardwood native plant community types¹ are presented in Table 2 and Figure 3, respectively. Though these data summaries inform the consultation process, Forest Service and the Band agree that field evaluation of individual stands will be necessary and may reveal different age class distributions and native plant communities.

| Age Class | Fire Dep | % FD | МН | % MH | Other | % Other | Total | % Total |
|-----------------|----------------|--------------|----------------|------|-------|---------|--------|---------|
| 0-40 | 14,059 | 20% | 16,184 | 23% | 4,373 | 6% | 34,616 | 49% |
| 41-65 | 9,071 | 13% | 10,347 | 15% | 2,782 | 4% | 22,200 | 32% |
| 66+ | 5,821 | 8% | 5 <i>,</i> 372 | 8% | 2,219 | 3% | 13,413 | 19% |
| Total | 28,951 | 41% | 31,904 | 45% | 9,375 | 13% | 70,229 | 100% |
| Note: FD – Fire | e Dependent: N | ИН – Mesic H | Hardwood | | | | | |

Table 2: Approximate Aspen Stand Age Distribution and Native Plant Community

The Forest Service and the Band agree to consider several approaches to reduce aspen where it is a priority for stands within the Reservation on National Forest lands. Native plant community, stand age class, and species diversity will be evaluated to determine appropriate approach.

Upland aspen stands fall into two ecological systems using the Minnesota Ecological Classification System: Mesic Hardwood and Fire Dependent. Management approaches for aspen reduction may vary dependent on which of these two systems the stand occurs.

Mesic Hardwood systems historically had very low probabilities of catastrophic disturbance, with rotations of stand replacing fire from 400-1000 years and windthrow from 800-1000 years depending on native plant community, thus a strategy of letting selected stands mature and succeed naturally may be the simplest option. Active management for these systems may include:

• Thinning to favor hardwood species.

¹ Native plant communities are not mapped across the Chippewa National Forest. Rather, this information is extrapolated by the Minnesota Department of Natural Resources based on other available data. While use of this information is appropriate for large scale planning purposes, field evaluation of individual stands may reveal a different classification. Actual field stand management will reflect this site-specific information.

• Planting of ecologically suitable later successional hardwood species if native seed banks are depleted.

Fire Dependent systems are adapted to frequent low intensity fires (ranging in rotation from a few years to a few decades) and less frequent catastrophic disturbances with rotations from 100 to several hundred years. Management alternatives for consideration in aspen stands in these systems include:

- Harvest of aspen with site preparation and planting of later successional species appropriate to the native plant community, especially conifers (see LL-DVC-7).
- Retention of fire adapted species if present such as bur oak, northern red oak, white or red pine that are suited to surface fires and would allow for existing canopy following aspen harvest while still allowing for prescribed burns in the understory.
- Planting of suitable fire adapted understory species (according to native plant community) to expand upon already existing natural regeneration.
- Restoring ecologically functional jack pine stands on the poorest, driest sites. Jack pine forests have declined significantly in north central Minnesota due to habitat loss and conversion to other species.

In Fire Dependent systems with older aspen, management approaches will likely differ from stands with younger aspen age classes. It will be important to consider that conversion to other species is difficult to achieve for younger aspen stands due to its clonal nature and lack of diversity on these sites. More information on the background and management approaches are found in the Band's Aspen Tribal Forest Protection Act proposal approved by the Forest Service in 2018. This document provides details on how aspen management approaches could be tailored to the stand's native plant community and stand age. The Band proposed consideration of different management approaches according to three age categories: 0-40 years old, 41-65 years old, and 65+ years old. For more information, see the <u>Aspen Tribal Forest Protection Act proposal document</u>.

The Forest Service will need to continue to balance meeting Forest Plan age class objectives such as 0-9 age class with objectives to reduce aspen. This may result in higher percentages of older age classes within the Reservation and lower percentage of older age classes outside the Reservation.

For each vegetation management project, data related to aspen age class and Landscape Ecosystems will be shared with interdisciplinary teams as part of the standard data package given for use during the initial development of purpose and need statements and potential actions. Figure 3 illustrates aspen stands within Mesic Hardwood and Fire Adapted types that will be considered for management strategies designed to achieve reduced aspen cover.

Restore Conifers to Ecological Functioning Systems (LL-DVC-7)

This DVC focuses on enhancing species and structural diversity within existing conifer stands, as well as restoring and increasing conifer species within suitable native plant communities. Management to benefit and increase conifers is consistent with forest-wide Forest Plan goals and objectives, specifically the desired conditions for vegetation management items (see Forest Plan D-VG-1, D-VG-2, D-VG-3, D-VG-6, O-VG-2, O-VG-7, O-VG-17). In addition, several Landscape Ecosystems have objectives to increase conifer forest types.

Historically, most of the forested ecosystems on the Chippewa National Forest had at least some conifer components. According to native plant community and range of natural variation information, it appears conifers are a smaller component on the landscape today than they were historically. Additionally, in the case of plantations, conifers are often too dense and require thinning at earlier ages in order to set a trajectory toward filling species diversity and multi-age structural goals.

Enhanced species and structural diversity in conifer stands on Forest Service lands is a mutual objective for both the Forest Service and the Band. Specifically, the submitted Tribal Forest Protection Act proposals in 2014 and 2016 that focused on thinning and restoration activities within conifer plantations.

These approved proposals set the stage for Forest Service and the Band to collaborate on ecological restoration of conifer forests and woodlands within all age classes. In younger plantations, Forest Service and the Band agree to consider earlier thinning to encourage conifers to retain a higher live crown ratio and enhance the growth and structure of more diverse plant communities and allow for later successional phases. The Forest Service will continue to consider these concepts in future management actions and incorporate where appropriate.

Conclusion

Forest Service and Leech Lake will continue to discuss achieving the goals addressed during this consultation within the framework of the 2004 Forest Plan. It is anticipated these Desired Vegetation Conditions will be codified in some manner into the next Forest Plan. Changes in management to achieve the Band's DVCs will require on-going collaboration. Forest Service and Leech Lake recognize that the actions proposed above are a starting point and that it will take time to achieve significant results. Further, both the Forest Service and the Band acknowledge that these actions do not preclude completing work in a manner that respects retained treaty rights and other Tribal interest elsewhere.



LEECH LAKE BAND OF OJIBWE

DIVISION OF RESOURCE MANAGEMENT

Management Practices to achieve Desired Vegetative Conditions

The Basic Management Priorities are there for forest staff to give guidance to longer term conditions that need to be returned to lands within the LLR. These priorities should be cemented in every Purpose and Need section of Project EA's across the forest.

Basic Management Priorities (Desired Vegetation Conditions)

- **LL-DVC-1** Increase blocks of ecologically functioning old growth stands
- LL-DVC-2 Protection of Scenic Corridors (Road Corridors, rivers, lakes, Old Growth Rec. sites)
- LL-DVC-3 Impacts to TES/TCP's are impacts to tribes cultural Identity
- LL-DVC-4 Maintain and Protect Diverse Hardwoods stands
- **LL-DVC-5** Protecting the cultural integrity of the LLBO
- **LL-DVC-6** Aspen Initiative reduce aspen promote other species
- **LL-DVC-7** Restore conifers to ecological functioning systems
- **LL-DVC-8** Implementation must correspond with approved action

The information outlined on the following pages provides more detail on these concepts.

Stand Level Implementation Standards

Harvest practices on the Chippewa National Forest in the past have been focused on the production of commercial forest products with little emphasis on other needs and objectives. This has resulted in declines in many of the resources that were reserved by the Leech Lake Band under Federal treaty. It has also resulted in declines in some wildlife species that are important to the Band and overall biodiversity of the forest, putting us in a poor position to address climate change. The purpose of these mitigation measures is to return to a more ecologically healthy condition by diversifying our forests back to more natural conditions.

A. Forest Stands (All Types):

The extent of each of these measures will, on a project by project basis, be quantified, outlined and followed in the project planning, sale implementation, and during any post-harvest activities.

- i. Retain all non-target species of trees to the maximum extent possible.
- Promote and enforce progressive logging to protect non harvest trees and to retain snags, forest structure, and overall diversity. In general no more than 50% of a stand will have traffic or skidding over it. The Minnesota Forest Management Guidelines (page 18) outlines skid trail practices that will help to attain this standards.
- iii. In stands were "wolfie" trees are found, to the maximum extent possible these trees will be retained to provide future snags and coarse wood material. Promote the retention of coarse woody material (>4 inches) up off the ground to the maximum extent possible due to its wildlife habitat value. Material should be elevated off the ground one foot or more. In order to help facilitate this measure we encourage the piling of tops in scattered piles that are also up off the ground. In stands where coarse woody material is lacking, it may be generated from within or adjacent stands to promote these features. In some cases it may also be necessary to drop trees or bring materials from other sources.
- iv. In areas where there is a likelihood of human caused fires (along major roads, near communities, etc.) a buffer that contains less woody material may be established to reduce fire risk.

- v. In stands identified in planning or survey as having berry shrubs, it will be necessary to mark and avoid them. In stands where cultural and medicinal plant gathering activities have been identified, avoidance will be needed unless measures have been mitigated that will enhance these species.
- vi. The amount of clear-cuts and coppice cuts will be reduced in favor of other harvest methods to promote forest diversity and TCPs.
- vii. If targeted species cannot be harvested without damaging reserved trees that are quantified in the prescription, the target species will not be harvested.
- viii. All harvest and ground disturbing operations will be minimized during the April 1 to July 15 to reduce songbird and other cavity nesting wildlife losses. The exception can be younger conifer plantations that have minimal wildlife usage.

B. Conifer Specific:

With the exceptions of jack pine and black spruce that are created as the result of stand replacement fires, naturally occurring conifer stands would not be simple communities All too often, diversity is lost when plantation management is utilized. To restore a suitable level of diversity, changes must be implemented. The following management practices will greatly aid in achieving the desired vegetative conditions in conifer stands.

The extent of each of these measures will, on a project by project basis, be quantified, outlined and followed in the project planning, sale implementation, and during any post-harvest activities.

- i. In areas where conifer regeneration in undertaken, the first emphasis will be on utilizing natural regeneration whenever possible.
- ii. In conifer plantings, hardwood species need to be counted towards meeting regeneration standards and stand diversity standards.
- iii. Promote extended rotations in long-lived conifer species, thinning at multiple entries that allow for increased diversity over time, extending rotation ages to >=200yrs.
- iv. During conifer harvest and thinning operations, retain hardwoods and non-target conifer species for diversity and future wildlife habitat in the stand.
- v. Once planted, conifer seedlings will require thinning in the sapling stage to ensure they do not become over-dense and to allow for stand diversity. This will be especially true for white spruce.

vi. Release brushing operations may require release of conifer AND select hardwood species. In many cases, release may only be necessary immediately around desired saplings.



LEECH LAKE BAND OF OJIBWE

DIVISION OF RESOURCE MANAGEMENT

Feb. 16, 2016

Darla Lenz, Forest Supervisor Chippewa National Forest 200 Ash Ave. NW Cass Lake, MN 56633

Dear Darla,

We are encouraged by the receptiveness we have seen from some of your staff regarding the Tribal Forest Protection Act project the Leech Lake Reservation initiated in April 2014 and the Forest Service approval of this project in October 2014. The type of stands chosen for this project are representative of numerous acres across the Chippewa National Forest where we feel efforts are needed. There are a number of reasons why we have picked conifer plantations for restoration work and they are outlined below.

Tribal hunting and gathering occurs throughout the Chippewa National Forest and there are a wide variety of plants and wildlife that are important to the band for traditional use. These resources were reserved by the band under federal treaty and the Forest Service must assure that these resources are available for the bands use. Some of the practices used to establish and manage conifer plantations greatly reduce these resources. We think there are better ways of managing conifers plantations that will benefit not only traditional resources, but also the conifer stands themselves.

Under the guise of meeting National Forest Policies plantations are typically planted at high stocking density to ensure Forest Plan Guidelines. Often, however, when many seedlings survive the stands become over-dense and there is a tendency to not thin in a timeframe that allows for other forest plant species to survive in the understory and create an ecologic mosaic. It is in this mosaic of shrubs and forbs where many traditionally gathered species of interest to the band could prosper. The argument has been made by Forest Service Staff that traditionally gathered species still exist in the stand and will become more abundant as stand age increases. Although, technically this is true, it takes upwards of 75-100 years for this to occur, at which point the stand is slated for another harvest and the site's reforestation process starts all over again. We believe that by maintaining a lower conifer stocking density, and promoting more diversity throughout the stand life, the potential to ensure an ecologically healthy forest with traditionally gathered resources is possible. It should be noted that by providing

adequate spacing will, in time, increase the growth rate of the conifers on these sites, and allow these stands to become more wind firm

Other inherent issues when trees are growing in stressed and monotypic conditions are their susceptibility to insect and disease problems. By managing plantations at lower stock densities, and with increased species diversity, you should help to reduce these risks and at the same time increase the overall health and vigor of the forest, including the conifers. Allowing for species diversity will also aid in ensuring natural fire-breaks within a stand to protect against a risk for catastrophic damage if a wildfire were to occur. Of course, we do recognize that under extreme conditions conifer, no matter how it is managed, will always have an increased fire risk, we believe that by managing how we are proposing you can reduce this risk.

These risks become even more evident with the onset of climate change. Climate change is occurring here and being that we are located near the center of the continent, away from the moderating effects of the oceans, it is predicted that we will see some of the more drastic changes. Changes that we are seeing, or can anticipate seeing, include more severe storm events (derechos), more droughts, and warmer winters. All of these climate events mean that we will see increased stress for many conifer species, increased insect and disease problems, as well as more frequent and intense wildfire conditions. The wind storm of 2012 demonstrated the catastrophic potential of these severe storm events to many forest stands, especially conifer plantations; the full impact of this storm is still likely not known. Although we do not know the long term effects of climate change, managing conifer plantations in more healthy conditions, with a diversity of species, will give us the most options for the future.

The big over-lying question here becomes "How do we make the needed changes?" What we are proposing will require some changes in how the Forest Service creates and manages conifer stands, but still allow you to operate within Forest Service Policies. If you find that you cannot, designating conifer stands as "Tribal Interest Areas" or some other designation allowing you this flexibility may be warranted. We believe the Tribal Forest Protection Act Legislation and the ability to utilize Stewardship Contracting, we have a unique opportunity to assist you in better managing your conifer resources and allowing the Forest Service to meet their trust responsibility.

We believe many of these changes will be made through planning. This begins with ensuring species are planted on suitable sites. There has been notable improvement here in recent years. In some instances, it may be appear too difficult or expensive to do the necessary conversions at some sites to ensure suitable species; this is primarily excess aspen on the landscape because it is often cheaper and much easier to allow this species to take over a stand opposed to establishing the proper tree species for a site. Nonetheless, stands should be managed by Land Type and where conversions are necessary we should look for opportunities to do so.

Once suitable sites have been chosen, there are more planning steps that can occur. Under current Forest Service Policy and the current Forest Plan you have a mandate of having a minimum of 400 conifer trees per acre within five years in stands that have had significant harvest activity; it is our understanding that this policy came out of the Western US, but its application here is having a negative effect on tribal trust resources. A stock density of 400 trees per acre is a spacing of approximately a tree every 10.4 feet. Often, in an effort to ensure adequate stocking planting densities are routinely higher, often exceeding 1000 seedlings per acre. We realize that not all small trees survive so a planting density of greater than 400 per acre is needed.

Once a certification of seedling survival has been established on or before five years, it would much easier and cost efficient to reduce areas of higher survival closer to a desired regeneration stocking of 400 per acre, or in some cases lower, while these trees are still in a sapling stage. Doing this would allow the other components of the stand that are necessary for the above-mentioned ecologic mosaic to prosper, resulting in the traditionally gathered species the Tribe desires not to mentioned improved wildlife habitat. Inherently, this practice should also result in increased residual conifer tree growth, improved tree health, increased ability to ward off insect and disease risk, as well as fire risk. By evaluating stand density prior to brushing operations to determine how many conifer seedlings need to be removed and instructing brushing crews to cut according to desired prescription would achieve these conditions.

Many of the traditionally utilized species that grow in fire dependent conifer systems will do well when sunlight increases due to stand thinning. The problem with current plantation management is that the entire stand is repeatedly brushed so these species do not get a chance to prosper and in the case of berry producing shrubs, produce good crops of berries. We realize that during initial entries more extensive brushing may be needed, but as the conifer seedlings grow brushing should be confined to an area immediately around the tree that will allow for adequate sunlight. This will allow other plants on site to grow towards creating a true fire-dependent forest ecosystem.

In instances where non-hazel/aspen shrubs/trees are also reaching a noticeable height, these shrub/tree species could also be marked and protected. Promoting stand diversity is largely dissuaded in conifer plantations and should not be. With the exception of jack pine stands that are created as the result of stand replacement fires, and to a lesser degree lowland black spruce, none of our conifer stands in this area would naturally be monotypic. We need to find ways of promoting tree species diversity in our conifer regeneration efforts. Planting a mix of conifer species helps, but does little for deciduous species. In order to promote this, larger deciduous species should be retained during harvest, and further promoted during brushing operations when they are at a height to be noticeable as mentioned above.

Snags and coarse woody materials are lacking in conifer plantations; finding ways to retain and promote this important aspect of our forest for wildlife is imperative. We realize this creates a conundrum with respect to looming insect and disease threats, but we also feel if the steps noted above are employed, then the possibility to retain snags and coarse woody debris becomes much more possible.

Here it should be noted that white spruce are merely a component species in many of our forest types; they do not naturally occur here in monotypic stands. We encourage this species to be planted as a mix with other conifer as well as into mixed hardwood stands where it is under represented. Due to its conical growth form it generally requires a larger growing space to fulfill its true potential as a forest component. White spruce are important wildlife trees when they are open grown so they have dense branches near the ground for wildlife cover. We also need to promote this structural quality in our forest management.

Lastly, due to the extensive harvest that has occurred in the past we are lacking in the amount of old conifer stands on the landscape and the values they provide for traditional activities and for wildlife. To remedy this situation there needs to be a very noticeable decrease in final harvest prescriptions in these stands. Thinning and under burning operations will help to push plantations towards a more natural state. This natural old-growth aesthetic should be encouraged; it is the apex of a stand's growth and generally will provide the optimal gathering opportunities and wildlife habitat. When regeneration in needed in these stands under-planting is more desirable. If there are disease issues present such as diplodia, species less susceptible to this disease should be utilized. Susceptible species can be planted in the above mentioned stand conversions of aspen assuming of course they are on a suitable Land Type site.

As earlier stated, we are well aware that some of the ideas outlined in this letter are different and maybe difficult to implement, but we believe they are necessary for the Chippewa National Forest to move towards improved stewardship of your lands and provide for wildlife and other tribal resources that should be an integral component of these stands. We look forward to working with you on these efforts.

Sincerely,

Rich Robinson, DRM Director

Keith Karnes, Forester Program Director

Sterre Mutanon

Steve Mortensen, Fish, Wildlife, and Plant Resources Program Director

Division of Resources Management Leech Lake Band of Ojibwe Forest Service

Chippewa National Forest Supervisor's Office 200 Ash Avenue Northwest Cass Lake, MN 56633 218-335-8600 Fax: 218-335-8637

File Code: 1560; 2400 Route To: Date: December 21, 2016

Subject: LLBO TFPA Forest Wide Red Pine Treatment

To: Regional Forester

Please find attached a request from the Leech Lake Band of the Ojibwe (LLBO) under the Tribal Forest Protection Act (TFPA) (PL 108-278, 118 Stat. 869, 2004) dated November 3, 2016, and received by the Chippewa National Forest (The Forest) on November 7, 2016.

The LLBO is following up on a previously successful TFPA project that undertook management on three overstocked red pine plantations. LLBO would like us to continue this kind of treatment on Forest Service lands to thin plantations and increase vegetative species diversity including a mix of naturally occurring conifer and hardwood species. They are proposing that we undertake this management on red pine and spruce stands that range from 20-40 years old. A GIS query indicates that approximately 15,822 acres meet this criteria and are identified for potential treatment forest wide.

The current TFPA request from LLBO closely mimics similar work on-going by the Northern Research Station (NRS) on red pine woodlands, variable density thinning, and stand and cohort structures of historical red pine stands (see Palik and Zasada 2003¹, Fraver and Palik 2012², Montgomery et al 2013³, Palik et al 2014⁴, Roberts et al 2016⁵, and other publications). Further, last summer, we arranged a tour of some of these sites with NRS and LLBO and these treatment types seemed to be meeting the objectives that LLBO was seeking of creating additional species diversity, multi-cohort stands, and more closely matching historical stand composition while still allowing continued harvest.

During initial discussions with LLBO, it was recognized by all parties the actual acres on the ground will likely be less and that some of those areas are already in areas with decisions for

¹ Palik, Brian, and John Zasada. 2003. An Ecological Context for Regenerating Multi-cohort, Mixed Species Red Pine Forests. Research Note NC-382, 8 pages.

^a Fraver, Shawn and Brian Palik, 2012. Stand and Cohort Structures of Old-Growth Pinus resinosa dominated forests of Northern Minnesota, USA. Journal of Vegetation Science 23, 249-259.

⁴ Montgomery, Rebecca, Brian Palik, Suzanne Boyden, Peter Reich, 2013. New cohort growth and survival in variable retention harvests of a pine ecosystem in Minnesota, USA. Forest Ecology and Management 310, 327-335.

⁴ Palik, Brian, Rebecca Montgomery, Peter Reich, Suzanne Boyden, 2014. Biomass growth response to spatial pattern of variable-retention harvesting in a northern Minnesota pine ecosystem. Ecological Applications. 24, 2078-2088.

³ Roberts, Margaret, Anthony D'Amato, Christel Kern, and Brian Palik, 2016. Long-term impacts of variable retention harvesting on ground-layer plant communities in *Pinus resinosa* Forests. Journal of Applied Ecology 53 1106-1116.

treatment. Additional review of the data available in our database (Table 1), indicates that over 2650 acres of the areas proposed have been treated, sold but not treated, or have NEPA decisions completed for treatment. In addition, there are approximately 4400 acres with inventory complete in preparation for environmental analysis.

| Total | Cut within the | Sold But Not | NEPA Complete | Inventory Complete |
|-------|-----------------|--------------|---------------|--------------------|
| Acres | Last Five Years | Cut Yet | But Not Sold | |
| 15822 | 683 | 936 | 1036 | 4401 |

Table 1: Status of Acres of Stands in the TFPA Proposal

Given the size this proposal, we anticipate that if approved, the Chippewa National forest will continue coordination with the LLBO to schedule the proposed treatments. A project of this size will likely take many years to plan and implement.

I support this proposed project, and I believe it meets the conditions of TFPA as described in Section 2(c) (2) (B) as stated:

...Forest Service or Bureau of Land Management land bordering on or adjacent to the Indian forestland or rangeland under the jurisdiction of the Indian tribe--... [that] (B) is in need of land restoration activities;

This project would acknowledge the Forest's trust responsibilities to protect and enhance the Usufructuary Rights of hunting, fishing, and gathering reserved by the Band through the 1837 Treaty (*Treaty with the Chippewa, July 29, 1837, art. 5, 7 Stat. 536*) and the 1855 Treaty (*Treaty with the Chippewa, February 22, 1855, art. 1-2, 10 Stat. 1165*). The Supreme Court of the United States (No. 97-1337) affirmed this in 1999 and by the United States Court of Appeals for the Eighth Circuit (No.13-3800) in 2015.

This proposal meets the *Chippewa National Forest Land and Resource Management Plan* goals and objectives, specifically the desired conditions for vegetation management items 1-3:

D-VG-1 Native vegetation communities are diverse, productive, healthy, and resilient.

- D-VG-2 Vegetation conditions contribute to ecosystem sustainability and biological diversity. They address current and future generations' needs for and interests in the many aesthetic, spiritual, consumptive, commodity, recreational and scientific uses and values of forests.
- D-VG-3 Vegetation (live and dead) is present in amounts, distributions, and characteristics that are representative of the spectrum of environmental conditions that would have resulted from the natural cycles, processes, and disturbances under which current forest ecosystems and their accompanying biological diversity evolved. The ecosystem composition, structure, and process representation considers periods, a variety of landscape scales, and current biological and physical environments. Resource conditions exist that minimize undesirable occurrences of non-native invasive species.

Environmental analysis for the proposed projects will be required and we will work with LLBO to develop a plan for the completion of this analysis.

If there are any questions, or if you need additional information for your review of this TFPA proposal, please feel free to contact me.

/s/ Darla Lenz

DARLA LENZ Forest Supervisor

Enclosures (2)

cc: Jen Youngblood, Jim Gries

I concur with the submitted Tribal Forest Protection Act project.

KATHLEEN ATKINSON Eastern Region Regional Forester

22/17

Date:



Leech Lake Band Of Ojibwe

Faron Jackson, Chairwoman Arthur LaRose, Secretary-Treasurer

Penny DeVault, District I Representative Steve White, District II Representative LeRoy Staples- Fairbanks III, District III Representative

DATE: 13 September 2017

TO: Darla Lenz, Forest Supervisor Chippewa National Forest

SUBJECT: Tribal Government's Proposal regarding Aspen Stands and Climate Change

On July 22, 2004, the Tribal Forest Protection Act (TFPA) was entered into Federal Law "to authorize the Secretary of Agriculture and the Secretary of the Interior to enter into an agreement or contract with Indian Tribes meeting certain criteria to carry out projects to protect Indian forest land."

Ten years later, through numerous meetings between the Leech Lake Reservation and the Chippewa National Forest, a TFPA project was accepted by the United States Forest Service to guide the desired management of the land base shared by the Leech Lake Reservation and the Chippewa National Forest for three conifer stands within the exterior boundaries of the Leech Lake Reservation.

To date, there have now been three TFPA proposals by the Leech Lake Reservation that have been accepted by the United States Forest Service. These projects have largely been met well by both the Leech Lake Reservation and the Chippewa National Forest. The Leech Lake Reservation regards the actions on these TFPA projects as proactive measures taken by Chippewa National Forest to work towards the restoration of portions of the National Forest that are frequently utilized by Tribal members, not to mention the creation of a more diverse forest better poised to withstand the unknowns of oncoming climate change. In this proposal, we recommend changes to the proportion of landscape dominated by aspen to achieve these goals. This proposal incorporates many of Leech Lake Band of Ojibwe's Desired Vegetative Conditions.

Aspen is currently over-represented across the Chippewa National Forest (CNF) landscape. The most recent Land and Resource Management Plan for the CNF calls for decreasing aspen as a tree species diversity objective in all forest landscape ecosystems. Across all of these landscape ecosystems, there is more aspen than historical conditions. Corresponding to increased aspen is a decrease in other cover types, especially jack pine, which have significantly decreased compared to historical conditions; white pine, as a component of many cover types, also remains greatly decreased across the landscape.

This relatively high proportion of aspen represents a threat to the forest as climate changes. The USFS Climate Change Tree Atlas predicts with high confidence that under all climate change scenarios aspen acreage will decline up to nearly 50%. Other models corroborate these predictions, further suggesting that regardless of management strategies, quaking aspen will decrease in Minnesota. The Minnesota Forest Ecosystem Vulnerability Assessment and Synthesis report states that low diversity communities are at greater risk to suffer negative effects of climate change. Replacing aspen stands, especially in upland fire-dependent and mesic hardwood systems that can support a diverse suite of species, will therefore enhance resilience of these communities within the CNF. Thus, this proposal seeks to restore ecosystem function and resiliency through increasing diversity among and within native plant communities while satisfying the objectives of the existing Management Plan for the forest and the Desired Vegetative Conditions for the Leech Lake Band.

Promoting forest diversity and climate change resilience via a reduction in aspen across the landscape will require evaluation of appropriate management actions based on knowledge of native plant communities, including geomorphology, soils, and ground cover vegetation. Studies show diverse forests can better adapt to disturbances such as those occurring with climate change. Managed aspen stands often have reduced species diversity and continued short rotation management of aspen could hasten a stand's ability to respond to disturbance. Conditions in these stands may be even further intensified by escalations of insect and disease infestations. Maintaining a diversity of cover types across the landscape, and species within stands, will give the forest more opportunity to be resilient to future environmental change.

In this proposal to the Chippewa National Forest, aspen stands have been classified for management purposes into three age classes: 0-40, 40-65, 65+. Stands that are 40 years or older have the potential for assisted transition to enhance ecological function and resiliency, and are the focus of this proposal; it should be understood that as stands approach this age, attention can then be given to them for deciding which management trajectory should be applied. In order to determine appropriate potential trajectories for these stands as they succeed to more mature forests, they will need to be classified by native plant community (NPC). The Minnesota Department of Natural Resources has developed a valuable set of tools for classifying NPCs under their Ecological Classification System (ECS), which are used for guiding ecological forestry in the DNR and other agencies and there are benefits to using this system. Using NPCs as a framework for determining how to manage aging aspen stands will provide robust baseline information for decision making and a common language for conducting ecological management across agencies and between all personnel involved in resource management.

In the Chippewa National Forest, upland aspen stands will fall into two ecological systems using the Minnesota ECS: Mesic Hardwood and Fire Dependent. To achieve ecological function of these stands as they transition into later successional stages, there are two likely paths management of aspen stands can take.

Mesic hardwood systems historically had very low probabilities of catastrophic disturbance, with rotations of stand replacing fire from 400-1000 years and windthrow from 800-1000 years depending on NPC, thus a strategy of letting these stands mature and succeed naturally may be the simplest and most ecological option. In some cases, such as when seed banks have been depleted, some understory planting of suitable later successional hardwood species (according to NPC) may be warranted to expand upon already existing natural regeneration.

In Fire Dependent systems that are adapted to frequent low intensity fires (ranging in rotation from a few years to a few decades) and less frequent catastrophic disturbances (with rotations from 100 to several hundred years), there is more potential to cut aspen, prepare the site, and plant with later successional species appropriate to the NPC. In some cases, these stands may already contain later successional fire adapted species such as bur oak, northern red oak, white pine, or red pine; retention of these species that are suited to surface fires would allow for existing canopy following aspen harvest while still allowing for prescribed burns in the understory. As with Mesic Hardwood systems noted above, there will likely be some cases, such as when seed banks have been depleted, some understory planting of suitable fire adapted species (according to NPC) may be warranted to expand upon already existing natural regeneration. Please note, the poorest, driest sites may be best suited to restore ecologically functional jack pine stands, which has declined significantly in north central Minnesota due to habitat loss and conversion to other species.

As mentioned previously, for this proposal where the Leech Lake Reservation would like to evoke the TFPA, we have divided the Chippewa National Forest's aspen stands within the Leech Lake Reservation into three categories: 0-40 years old, 41-65 years old, and 65+ years old. Total CNF aspen acreage within the Leech Lake Reservation, according to a query of the CNF database, is 72,230 acres. We realize some of these stands may have already received some treatment or could already have prescriptions in place. We further understand this is an ongoing project that will take decades; we look forward to working collaboratively with the Chippewa National Forest staff on this TFPA project. The following is a breakdown of these stands by the age noted above, along with how this TFPA proposal can be instituted. Please refer to the attached map for the locations of these stands.

Aspen Stands Age 65+ Years:

Aspen within this age category have exceeded merchantable maturity. The premise here is these stands of aspen will be utilizing more energy maintaining life, resulting in decreased ability for coppice. There are 12,999 acres of CNF aspen stands inside the Leech Lake Reservation that fall into this category; this is 18.0% of the total CNF aspen acreage inside Leech Lake Reservation. These stands are the first that require attention in this TFPA project. Utilizing MN-DNR ECS to ascertain NPC will determine which way these stands should be managed.

- If NPC is Fire Dependent, the aspen should be harvested, retaining some of the "wolfier" aspen for cavity trees. Other species within these stands that are adapted to fire should be retained. If the stand is not adequately stocked with fire adapted species following aspen harvest, these stands should be site-prepped and planted to species suitable for the pre-determined NPC, with emphasis on enhancing stand diversity. If possible, running a fire through the area following harvest would be desirable to begin the restoration of fire to these stands. Early in the restoration process, a flushing of hazel in these stands can be expected; here, prescribed burns or mastication will be warranted.
- If NPC is Mesic Hardwood, the aspen should be allowed to senesce. This will result in gradual openings within the stand which, over time, will fill with suitable species according to NPC. Mesic Hardwood stands, with their lack of frequent fire, are much more adapted to the retention of early successional species breakup and, in fact, various flora and fauna can thrive in the microclimates created as early successional trees fall out of these systems. In cases where advanced regeneration is inadequate, the site should be planted to later successional species suitable for the pre-determined NPC.

Aspen Stands Age 41-65 Years:

Aspen within this age category are at or approaching merchantable maturity. The premise here is these stands of aspen will be looked at after the over-mature aspen stands have received attention. There are 15,595 acres of CNF aspen stands inside the Leech Lake Reservation that fall into this category; this is 21.6% of the total CNF aspen acreage inside Leech Lake Reservation. These stands can receive proactive work, utilizing MN-DNR ECS to ascertain NPC for determining which way these stands should be managed. Additionally, observations on the abundance of site suitable later successional species regeneration can also be taken; if conditions warrant, planting can be done if void areas are found (especially in the Mesic Hardwood NPC). These stands will fall into the same management categories, with the same sets of conditions, as the stands currently over 65 years old. Any stands in this age category that are deemed Fire Dependent NPC should not be harvested until they reach overmaturity so the coppice regeneration is not over-oppressive.

Aspen Stands Age 0-40 Years:

Aspen within this age category are still immature. The premise here is these stands of aspen can be tabled at this time until after the other two older categories of aspen have received attention. There are 43,636 acres of CNF aspen stands inside the Leech Lake Reservation that fall into this category; this is 60.4% of the total CNF aspen acreage inside Leech Lake Reservation. This is to be expected due to the short rotation harvest age of aspen. Although still younger aspen, some of the older stands in this age category could still receive some proactive work, utilizing MN-DNR ECS to ascertain NPC for determining which way these stands should be managed. Additionally, observations on the abundance of site suitable later successional species regeneration can also be taken; if conditions warrant, planting can be done if void areas are found (especially in the Mesic Hardwood NPC). In time, these stands, much like the stands in the 41-65 age category, will fall into the same management categories, with the same sets of conditions, as the stands currently over 65 years old.

We realize this covers all of the CNF aspen acreage within the Leech Lake Reservation. We further realize aspen will always be a component in numerous stands within the Leech Lake Reservation. This TFPA proposal is designed to begin a realignment of the ecological forest balance for Chippewa National Forest lands frequented by Tribal members. Nor does this proposal presume to answer the wide array of questions associated with climate change and instituting this TFPA project will not eliminate all of the projected threats stands will face in the future, but managing for stands with site specific NPC species, coupled with an increase in species diversity, will greatly aid in the ability of these stands to be resilient in the wake of whatever threat they face.

The Chippewa National Forest is utilized by Tribal members for a wide variety of reasons. Taking action on the above-mentioned proposal will benefit both the Chippewa National Forest and the Leech Lake Band of Ojibwe. The US Forest Service, in accordance to the 2004 Forest Plan, has the obligation to the Leech Lake Band of Ojibwe to ensure that retained trust resources, such as traditionally gathered foods/medicines and wildlife, are adequately available in the amounts and locations where the tribal members want them.

Many species of wildlife, including some that are utilized by Tribal members or that are listed as rare, threatened, or endangered by the Forest and/or the Band, would also benefit from this proposal. Due to its short lived nature, aspen develops cavities sooner than most other species; this value will need to be considered in the short term until trees of other species become old enough to produce cavities. One keystone species that should receive special mention is the snowshoe hare. In some of the stands targeted in this proposal, management guidance can be instituted that would work collaboratively with an already submitted TFPA proposal to improve secondary habitat for snowshoe hare to increase populations of this species by providing more horizontal cover.

This proposal will help to remedy the gross over-abundance of aspen across the Chippewa National Forest and increase the health, resiliency and diversity of these forests, which is a goal of both LLR and the CNF. As mentioned above, having more diverse forests will also better position them to adapt to climate change and the extreme weather events that are occurring more and more frequently.

In the above mentioned proposal, we recognize that all applicable environmental laws and policies will still be complied with. In accordance with the TFPA law, we are requesting a response from the Chippewa National Forest with acceptance of the proposal or a denial within 120 days after receipt of this letter. If the Chippewa National Forest doesn't accept the proposal, we ask for consultation and a breakdown of factors resulting in the denial and realistic alternative courses of action to address the concern. Upon your reply, discussions can commence about the opportunities for the Leech Lake Reservation to contract or enter into an agreement for the projects required to complete the necessary undertakings in conifer stands where these over-dense conditions exist.

We feel our proposal is well-founded and justifiable and anticipate agreement. In an excerpt from a letter dated September 12, 2016 from USFS Chief Tidwell to Leech Lake Band of Ojibwe Chairperson, Chief Tidwell stated the following:

"I am asking Regional Forester Kathleen Atkinson to immediately initiate consultation with you and the Division of Resource Management staff with the following objectives:

- To discuss and understand the Band's desired vegetation management conditions on National Forest System lands within the Leech Lake Indian Reservation (LLIR) to achieve the appropriate balance of resources to sustain Ojibwe lifeways;
- To use an Traditional Ecological Knowledge (TEK) offered by the Band to achieve desired conditions described in the Plan;
- To expand use of the Tribal Forest Protection Act (TFPA) to give voice to the Band's desired land management objectives on Forest Service lands within LLIR;
- To develop a shared decision-making model for commercial timber harvesting and other natural resource considerations on Forest Service lands within LLIR;..."

We appreciate your consideration of our comments and look forward to continued dialogue on this issue. If you have any questions, please contact the Leech Lake Band of Ojibwe, Division of Resource Management at 218-335-7400.

Thank you,

Rich Robinson, Jr., Director Division of Resource Management

9/14/17


| UAS | Forest Service | | Eastern Region | | 626 E. Wi Suite 800 Milwauke | sconsin e, WI 53202 | |
|-----|-------------------------|------------|----------------|-------|------------------------------------|------------------------|--|
| | File Code: Route To: | 1560/2400 | | Date: | FEB | 5 2018 | |
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Subject: Tribal Forest Protection Act Request

To: Forest Supervisor, Chippewa National Forest

This letter is in response to your proposal submitted September, 13, 2017, requesting approval of the Tribal Forest Protection Act (TFPA) entitled "Tribal Government's Proposal regarding Aspen Stands and Climate Change."

The Leech Lake Tribal Government's Proposal regarding Aspen Stands and Climate Change TFPA proposal has been reviewed. We determined the proposal meets both Chippewa National Forest Plan goals and objectives and the intent of the TFPA statute, while also accomplishing our trust responsibilities to the Leech Lake Band of Ojibwe.

We, therefore, approve this proposal for immediate implementation.

KATHLEEN ATKINSON Regional Forester

cc: Jennifer Youngblood, Steve Kuennen, Jim Gries, Ann Long-Voelkner



Leech Lake Band of Ojibwe

Faron Jackson, Chairman Arthur LaRose, Secretary-Treasurer

Robbie Howe, District I Representative Steve White, District II Representative LeRoy Staples- Fairbanks III, District III Representative

DATE: 3 February 2020

TO: Darla Lenz, Forest Supervisor Chippewa National Forest

SUBJECT: Leech Lake Band of Ojibwe, Tribal Forest Protection Act Proposal regarding Fire Dependent Stands and Climate Change

On July 22, 2004, the Tribal Forest Protection Act (TFPA) was entered into Federal Law "to authorize the Secretary of Agriculture and the Secretary of the Interior to enter into an agreement or contract with Indian Tribes meeting certain criteria to carry out projects to protect Indian forest land."

Ten years later, through numerous meetings between the Leech Lake Reservation and the Chippewa National Forest, a TFPA project was accepted by the United States Forest Service to guide the desired management of the land base shared by the Leech Lake Reservation and the Chippewa National Forest for three conifer stands within the exterior boundaries of the Leech Lake Reservation.

To date, there have now been four TFPA proposals by the Leech Lake Reservation that have been accepted by the United States Forest Service. These projects have largely been met well by both the Leech Lake Reservation and the Chippewa National Forest. The Leech Lake Reservation regards the actions on these TFPA projects as proactive measures taken by Chippewa National Forest to work towards the restoration of portions of the National Forest that are frequently utilized by Tribal members, not to mention the creation of a more diverse forest better poised to withstand the unknowns of oncoming large-scale perturbations including climate change and emerald ash border.

The Leech Lake Band of Ojibwe and Chippewa National Forest have been working the past few years to begin reducing the tree density of 20-40 year old pine and spruce plantations down to a density that allows for a more natural growth form of these conifers, and stands that support an array of cultural values important to the tribe. New applied research aimed at bolstering long-term climatic resilience of red pine dominated forests, while reducing sensitivity to monthly and seasonal climate support reduced stand density. In fact, research supports that red- and jack-pine dominated forest stands in north-central Minnesota managed toward historical condition, that being of much lower stand densities, is likely to provide for the greatest long-term resilience and adaptive capacity (Bottero, et al 2017). This

work was started with two other TFPA proposals, both aimed at restorative work in over-dense pine and spruce plantations.

As this ecological and cultural restoration work continues, it is becoming abundantly clear that a large portion of the land where these stands exist are categorized in the Ecological Classification System as Fire Dependent Native Plant Communities with historically frequent fire return intervals.

The frequency of fires varies mainly dependent on the forest type and where it is located on the landscape. Stand replacement fires in common pine forest types varied from 110 to 220 years while ground fires occurred every 30 to 75 years (MN DNR 2003). More recent scientific literature is now pointing out the actual fire return intervals may be more frequent than earlier thought, especially with regards to indigenous historic fire management. Early fire history reconstructions in the region, including within the Cutfoot Experimental Forest, show mean fire intervals ranging as low as 8.3 to 15.2 years (Guyette, et.al 2015). Additionally, historical accounts show this landscape as one with frequent fire. For example, in the Journal of Forestry's Schantz-Hansen (1923) paper on current growth of Norway pine, the author's write "There is very little underbrush present. The ground cover consists principally of blueberry, sweet fern, honeysuckle, and wintergreen. As is typical of this region, the stand has been subjected to a number of fires so all the trees are more or less cat-faced. While these fires doubtless have had some effect on the rate of growth it must be remembered that it is common to all stands of like age in this region."

Fire is a natural component of these forests, historically occurred at a relatively high frequency and at mixed levels of severity, and the lack of fire in the present day has led to impacts on both forest health, tree regeneration, as well as access to live and practice Ojibwe Lifeways.

As such, these fire-dependent forest systems require fire at the short fire return intervals that were customary under indigenous land management, to allow the fire-dependent plants and animals that constitute these communities to persist. Many of these sites have not had any return of fire in 80-100 years. While some sites have received fire, the scope and scale of these burns is insufficient. Current levels of fire restoration are failing to restore and maintain these fire dependent communities.

Leech Lake has estimated the acreage of Chippewa National Forest Fire Dependent stands within the boundary of the Leech Lake Reservation at 120,782 acres. Given the documented fire return intervals for this community type, we estimate that roughly 20,000 acres need to be burned annually. However, this number may change as we further understand the management needs of forested systems that have experienced fire exclusion for nearly 100 years. We realize this is a large number, but we affirm that a collaborative approach to prescribed burning these areas would make it possible to attain this goal safely and expeditiously.

While the details of establishing the practice of putting this much prescribed fire on the ground together through collaborative burning needs further design, we envision jointly managed crews in which qualified practitioners from the tribe, the USFS and additional partners such as the Minnesota DNR, The Nature Conservancy and others work side by side in fire planning, prescribed fire operations, fire effects monitoring and adaptive management. Cooperative agreements for fire management will be

needed, and we are prepared to draw upon successful models of cross-jurisdictional, cross-cultural fire management from elsewhere across the United States. Several of these collaborations have achieved not only dramatic increases in acres treated, but synergies in funding, career development and program resilience through times of political and institutional change.

We are committed to the success of the MOU that was signed by the Leech Lake Band of Ojibwe and the US Forest Service on October 4, 2019. We strongly believe that collaborative prescribed fire management is a promising, exciting and necessary step toward restoring and sustaining Fire Dependent Communities as part of that Memorandum. In addition, a well-designed and well-managed collaborative fire program will boost the ability of the US Forest Service to meet its 2004 Forest Plan obligations to the Leech Lake Band of Ojibwe. These include ensuring that resources tied to Fire Dependent Communities are adequately available in the amounts and locations where the Tribal members want them. Further, this partnership approach will speed the National Forest's ability to act in good faith upon the statutory, trust and treaty obligations that must be upheld.

Many species of wildlife, including some that are utilized by Tribal members or that are listed as rare, threatened, or endangered by the Forest and/or the Band, would also benefit from this proposal. One keystone species that should receive special mention is the snowshoe hare. In some of the stands targeted in the proposal, restoring fire and allowing for some level of mortality in these fire dependent stands would work in concert with an already accepted TFPA proposal to improve secondary habitat for snowshoe hare to increase populations of this species by providing more horizontal cover.

In this proposal, we recognize that all applicable environmental laws and policies will still be complied with. In accordance with the TFPA law, we are requesting a response from the Chippewa National Forest with acceptance of the proposal or a denial within 120 days after receipt of this letter. If the Chippewa National Forest doesn't accept the proposal, we ask for consultation and a breakdown of factors resulting in the denial and realistic alternative courses of action to address the concern. Upon your reply, we can discuss the opportunities for the Leech Lake Reservation to contract or enter into an agreement for projects that are needed to reestablish the fire regimes that will support Fire Dependent Communities for cultural and ecological values.

We feel our proposal is well-founded and justifiable and anticipate agreement. In an excerpt from a letter dated September 12, 2016 from USFS Chief Tidwell to Leech Lake Band of Ojibwe Chairperson, Chief Tidwell stated the following:

"I am asking Regional Forester ... to immediately initiate consultation with you and the Division of Resource Management staff with the following objectives:

- To discuss and understand the Band's desired vegetation management conditions on National Forest System lands within the Leech Lake Indian Reservation (LLIR) to achieve the appropriate balance of resources to sustain Ojibwe lifeways;
- To use a Traditional Ecological Knowledge (TEK) offered by the Band to achieve desired conditions described in the Plan;

- To expand use of the Tribal Forest Protection Act (TFPA) to give voice to the Band's desired land management objectives on Forest Service lands within LLIR;
- To develop a shared decision-making model for commercial timber harvesting and other natural resource considerations on Forest Service lands within LLIR;

We appreciate your consideration of this request and we look forward to the opportunity to design a collaborative fire program together with you. If you have any questions, please contact the Leech Lake Band of Ojibwe, Division of Resource Management at 218-335-7400.

Thank you,

Rich Robinson, Jr., Director Division of Resource Management Date



United States Forest Department of Service Agriculture Eastern Region Regional Office 626 East Wisconsin Avenue Suite 800 Milwaukee, WI 53202 414-297-3600

File Code: 1560; 1950; 2400; 5100 Date: June 5, 2020

Mr. Rich Robinson, Jr. Director Leech Lake Band of Ojibwe 15756 State 371 NW Cass Lake, MN 56633

Dear Mr. Robinson, Jr.:

Thank you for your February 3, 2020, letter which included a Tribal Forest Protection Act (TFPA) proposal on the Chippewa National Forest (Forest) regarding Fire Dependent Stands and Climate Change. We value our cooperative work with the Leech Lake Band on past TFPA projects. Your proposal requests an increase in the use of prescribed fire within Fire Dependent Native Plant Communities on Forest lands within the Leech Lake Reservation (Reservation) boundaries.

Your proposal states that:

- The Forest includes 120,782 acres of fire dependent lands that are within the Reservation boundary.
- Based on estimated fire return intervals, approximately 20,000 acres/year should be burned to
 overcome 100 years of fire exclusion and allow fire-dependent plants and animals that
 constitute these communities to persist.
- Historically, short fire return intervals were customary under indigenous land management. Currently, many of these sites have not had any return of fire in 80-100 years and in the sites that have received fire, the scope and scale of these burns is insufficient. Current levels of fire restoration are failing to restore and maintain these fire dependent communities.
- 20,000 acres/year is a large number but contends a collaborative approach to prescribed burning would make it possible to attain the goal safely and expeditiously.
- The Band would like to increase collaborative opportunities for projects needed to reestablish the fire regimes that will support fire dependent communities for cultural and ecological values.

The Region and the Forest recognize that fire played a larger historic role on the landscape of the Chippewa National Forest than it currently does, and like you, we strive to increase the role of fire as an ecosystem process. However, we also face several challenges that historically did not exist and serve as impediments to managing fire on a large scale such as, forest fragmentation, multiple ownerships, and one hundred years of fire exclusion. Those challenges limit the rate at which we can increase the role of fire as an ecosystem process.

Just for your awareness and to demonstrate our commitment to increasing the pace and scale of prescribed fire on the landscape, during the past decade the Forest has increased the use of fire in upland fire dependent communities from approximately 500 available (completed NEPA and burn plans) acres of possible upland burning in FY2010, to approximately 2,500 acres of possible upland burning available in FY2020.

The Region supports the Band's TFPA request to:

- Increase the pace and scale of prescribed fire on the landscape particularly in upland fire
 dependent communities. Over the last decade the Forest has increased the use of fire in upland
 fire dependent communities as described above. We plan to demonstrate similar progress over
 the next decade;
- Build collaborative efforts with the Band, MN Department of Natural Resources, conservation groups, researchers, county land departments, and the private sector to manage the landscape across boundaries and increase the acreage of ecological restoration;
- Continue discussions for opportunities with the Band for collaborative projects that are needed to reestablish the fire regimes that will support Fire Dependent Communities for cultural and ecological values.

While we support the request, the challenges mentioned in this letter will require that we modify the prescribed fire acreage/year goal described in your proposal. I agree to the proposal with a reduced acreage/year level that can be determined through consultation with LLBO and in collaboration with other interested parties who are critical for supporting our prescribed fire program.

Sincerely,

ROBERT LUECKEL Acting Regional Forester, Eastern Region

cc: Darla Lenz, Mike Rice, Lisa Radosevich-Craig



LEECH LAKE BAND OF OJIBWE DIVISION OF RESOURCE MANAGEMENT 190 Sailstar Drive NE, Casa Lake, MN 56633

Aug. 16, 2016

Darla Lenz, Forest Supervisor Chippewa National Forest 200 Ash Ave. NW Cass Lake, MN 56633

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SUBJECT: Tribal Government's Proposal Regarding Enhancement of Secondary Snowshoe Hare Habitat

On July 22, 2004, the Tribal Forest Protection Act (TFPA) was entered into Federal Law "to authorize the Secretary of Agriculture and the Secretary of the Interior to enter into an agreement or contract with Indian Tribes meeting certain criteria to carry out projects to protect Indian forest land." The Leech Lake Band of Ojibwe Is a federally recognized Tribe and is governed by their constitution and bylaws that authorize the governing body to enter into agreements and contracts with federal agencies on behalf of the Tribe.

Twelve years later, through numerous meetings, agreements and contracts between the Leech Lake Band of Ojibwe and the Chippewa National Forest, a collaborative relationship continues to develop for the desired management of the land base shared by the Leech Lake Reservation and the Chippewa National Forest. However, the Leech Lake Band of Ojibwe would like to evoke the TFPA and propose that the Chippewa National Forest take measures to restore portions of the National Forest that are frequently utilized by Tribal members.

The purpose of this TFPA project is to increase habitat for snowshoe hare and other species of wildlife that need plant and structurally diverse habitat. Forest Management on the Chippewa National Forest over the past century has focused largely on growing trees for commercial commodities, which has led to the reduction of forest structure and diversity which is so important to wildlife.

Snowshoe hare are a "keystone" species in that they are an important prey species for most of the predators found on the land base shared by the Leech Lake Reservation and the Chippewa National Forest. They were historically also an important food item for Tribal members, especially in winter, when other protein sources were scarce. This project will not only benefit snowshoe hare, but virtually every other wildlife species that utilize the same habitats. This includes everything from song birds to deer and grouse.

Currently on the Leech Lake Reservation, snowshoe hare populations are mostly restricted to older lowland cedar stands due to the structural complexity that provide hare more places to hide from predators. Snowshoe hare populations are cyclic in nature and should reach a high level about every ten years or so. On the land base shared by the Leech Lake Band of Ojibwe and the Chippewa National Forest, snowshoe hare populations have only minimal, if any, population peaks in the past 20 years. The reason for minimal population spikes is believed to be a landscape level decline in the amount of suitable habitat where they can escape high predation rates. It appears that when snowshoe hare populations are low they will only be found in really high quality habitats. When the population starts to build, the hare require some preferential habitat around the high quality core areas where the population will also survive in good numbers. As the population increases to the point where there are not enough predators to eat them the hare population will explode and they will be found in almost any type of habitat. Once this happens, predator populations build and the hare population crashes and retreats back to the high quality habitat where survival is good and the cycle starts all over again.

Forest management practices over the past decades have resulted in most of our forest structure being vertical in nature, with very few hiding places. This is very likely a contributing reason for the much reduced hare population. The Leech Lake Band of Ojibwe would like see an increase in structural diversity in suitable hare habitats radiating from these core cedar stands.

The focus of this TFPA proposal is to call for an increase in structural diversity in many stands within close proximity of habitats that still contain hare populations; notably we propose to improve secondary habitat and create corridors between four Northern White Cedar stands. These stands are <u>09030100216016, 09030100216054, 09030100216012, and 09030100217008</u>. The first three stands are already adjacent/very nearly adjacent. There are a variety of methods that may need to be employed achieve this goal. Some of the adjacent stands for this proposal will utilize some of the following methods:

Red Pine, Stand 09030100104001:

This stand is overly dense. Performing a thinning in this stand, while not only allowing improved residual growth and live crown, will open this stand up for understory shrubs. We want any other tree species retained during a thinning to provide much needed diversity within the stand. Increasing the amount of structure in the stands is also a goal of the project. This may include, but is not limited to, retaining slash in arrangements that are up off the ground a minimum of one foot. These need to be arranged across the stand to get up to provide adequate cover.

Red Pine, Stand 09030100217009:

This stand contains some large red pine that appear to be in very good condition. Some balsam is located in the understory. This stand does not appear to require any timber harvest, but snowshoe hare habitat could be improved by bringing woody material and slash from surrounding stands into this stand and depositing it to provide snowshoe hare cover. If these techniques do not provide sufficient habitat cutting and dropping some trees may need to be utilized.

Aspen, Stands 09030100216060, 09030100216061, 09030100217038:

These stands contain predominantly aspen, but they are largely open in much of the understory. Some of the mid aged aspen is a merchantable size and could receive a selective harvest. Old aspen may be retained for wildlife denning habitat and future coarse woody material. Slash and other woody material needs to be kept at least one foot or more above the ground to provide hiding cover for snowshoe hare. Other species within this stand should be retained for diversity.

Aspen, Stand 09030100216056:

This stand is incorrectly keyed as aspen. It is part of a large white spruce stand and is addressed below.

White Spruce, Stands 09030100216044 and 09030100217010:

These stands are the largest portion of this project. Please note, the aspen stand mentioned above is also part of this large white spruce stand. The timber in these stands is mature and is in noticeable need of thinning. Live crowns are in decline as these spruce were planted too close and have not been thinned on a timely schedule. We propose entering this stand and performing a heavy thinning of 25-30% initially with potentially more to follow within approximately five year intervals, after residual trees have had a chance to become wind-firm. Care should be taken within these spruce stands to ensure slash is arranged to reduce fire risk placed away from residual trees to protect against any fire risk. We realize there are likely to be fire concerns within this stand brought up but feel if proper precautions are taken, with the possibility of opening up slightly larger areas within this stand for arranging slash and other woody material to be placed for hare hiding cover.

Aspen, Stands 090301002216014, 09030100217102, 09030100217122, 09030100217045:

These stands have some variance in aspen sizes. The older aspen is generally very over-mature. Some of these could be logged out, again leaving the slash elevated greater than one foot above the ground for hare habitat. Additional woody cover will also need to be created to make it suitable for hare. We would recommend leaving any large 'wolfy' aspen to die and become snags and future hare habitat. The younger aspen in these stands have not all reached a merchantable diameter. We recommend logging out the merchantable wood and leaving the rest to allow for a multiple aged aspen stand structure. As in other aspen stands, we want to see other species of trees retained for diversity. This includes the large over-mature balsam fir and paper birch that are scattered throughout these stands.

Balsam Poplar, Stand 09030100216026:

This stand has a component of balsam poplar in it, but is largely comprised of aspen and should be treated with the same treatment as the aspen stands listed immediately above.

A common theme in many of the proposed stand treatments listed above is retaining slash onsite, in addition to creating other woody material, and keeping it elevated to create the structure needed for snowshoe hare cover habitat. We realize this is a divergence from the usual practices, but feel this is a very possible method that deserves consideration. Placing slash from stands where it will be abundant (refer to white spruce stands) into stands where the abundance is/will be lacking at a level necessary for sultable cover for snowshoe hare can be achieved is also warranted.

Another common theme in many of the proposed stand treatments is to retain diversity. With climate change upon us, a diverse stand is best adapted to survive some of the changes that are predicted. We want to see snags retained to the maximum extent possible.

The Leech Lake Reservation Division of Resource Management, along with other researchers, are still working on quantifying the amount of cover needed for snowshoe hare to prosper, but we anticipate that we will have some solid numbers by early 2017. To achieve a suitable cover level will be a big effort as many aspen stands and pine plantations currently have 0-50 square feet per acre. By placing woody material and intermittent arrangements of slash throughout the above-mentioned stands we can provide cover for snowshoe hare. It is important to note, when placing this slash it must remain elevated and not pushed to the ground. The current study that is being funded by the US Fish and Wildlife Service will help to better quantify habitat needs for hare in northern MN. We anticipate some preliminary results in 2017 and the study will be completed in 2018.

The Chippewa National Forest is utilized by Tribal members for a wide variety of reasons. The US Forest Service, in accordance to the 2004 Forest Plan and federal treaties has the obligation to the Leech Lake Band of Ojibwe to ensure traditionally utilized resources are adequately available in the amounts and locations where Tribal members require them.

We recognize that all applicable environmental laws and policies will still be complied with for this proposal. In accordance with the TFPA law, we are requesting a response from the Chippewa National Forest with acceptance of the proposal or a denial within 120 days after receipt of this letter. If the Chippewa National Forest doesn't accept the proposal, we ask for consultation and a breakdown of factors resulting in the denial and realistic alternative courses of action to address the concern.

We feel our proposal is well-founded and justifiable and anticipate agreement. Upon your reply, discussions can commence about the opportunities for the Leech Lake Band of Olibwe to contract or enter into an agreement for the projects required to complete the necessary undertakings in the stands adjacent to the above-mentioned core cedar stands.

While the Leech Lake Band of Ojibwe feel this proposal should be carried further and instituted across the expanse of Chippewa National Forest lands, we realize that providing initial stands to institute TFPA legislation is warranted. For this reason, we are providing a map of the initial location on Chippewa National Forest lands to initiate TFPA. In anticipation of following up this site with expansion across Chippewa National Forest lands, we have developed a GIS map of cedar stands that may still have hare populations in them. Stands adjacent to these cedar stands would receive the type of work outlined in this project. The Leech Lake Band of Ojibwe will look forward to working with you and your staff to develop methods of accomplishing our proposal to enhance the forest on the land base shared by the Leech Lake Band of Ojibwe and the Chippewa National Forest for wildlife as well as traditional gathering,

We appreciate your consideration of our comments and look forward to continued dialogue on this issue. If you have any questions, please contact the Leech Lake Band of Ojibwe, Division of Resource Management at 218-335-7400.

Thank you,

Rich Robinson, Jr., Director **Division of Resource Management**

Date





Forest Service

Chippewa National Forest Supervisor's Office 200 Ash Avenue Northwest Cass Lake, MN 56633 218-335-8600 FAX: 218-335-8637

File Code: 1560; 2600; 2400 Route To;

Date: September 6, 2016

Subject: Tribal Forest Protection Act

To: Regional Forester

Please find attached a request from the Leech Lake Band of the Ojibwe (The Band) under the Tribal Forest Protection Act (TFPA) (PL 108-278, 118 Stat. 869, 2004) dated August 16, 2016, and received by the Chippewa National Forest (The Forest) on August 17, 2016.

The Band is requesting that the Forest increase habitat for snowshoe hare and other wildlife species that require structurally diverse environments. The snowshoe hare is of cultural importance to the Band, and it is a keystone species for predators, including the Canada lynx.

We will implement the proposed project on approximately 167 acres of National Forest System lands within the boundary of the Leech Lake Band of Ojibwe Reservation. Activities would occur in stands that are in close proximity to areas with hare populations to improve secondary habitat adjacent to those populations and to create corridors between four northern white cedar sands. Forest types proposed for treatment include red pine, trembling aspen, white spruce, and balsam poplar. A variety of treatments are proposed, including thinning to increase light and foster understory diversity, creation of slash piles to provide habitat, and creation of multi-age stands.

I support this proposed project, and I believe it meets the conditions of TFPA as described in Section 2(c) (2) (B) as stated:

... Forest Service or Bureau of Land Management land bordering on or adjacent to the Indian forestland or rangeland under the jurisdiction of the Indian tribe-... [that] (B) is in need of land restoration activities;

This project would acknowledge the Forest's trust responsibilities to protect and enhance the Usufructuary Rights of hunting, fishing, and gathering reserved by the Band through the 1837 Treaty (*Treaty with the Chippewa, July 29, 1837, art. 5, 7 Stat. 536*) and the 1855 Treaty (*Treaty with the Chippewa, February 22, 1855, art. 1-2, 10 Stat. 1165*), as affirmed by the Supreme Court of the United States (No. 97-1337) in 1999, and by the United States Court of Appeals for the Eighth Circuit (No.13-3800) in 2015.

This proposal meets the Chippewa National Forest Land and Resource Management Plan goals and objectives, specifically Objective 9 for Wildlife that states:

O-WL-9: In LAUs on NFS land, manage vegetation to retain, improve, or develop habitat characteristics suitable for snowshoe hare and other important alternate prey in



sufficient amounts and distributions so that availability of prey is not limiting lynx recovery.

We will conduct an environmental analysis for the proposed projects to complete the management operation on these stands. The Forest will work closely with the Band during the analysis phase to ensure appropriate analysis is completed and we adequately address their concerns.

If there are any questions, or if you need additional information for your review of this TFPA proposal, please feel free to contact me.

DARLA LENZ Forest Supervisor

Enclosures (2)

cc: Larry Heady, Jim Gries, Karen Lessard

Forest-wide Snowshoe Hare Habitat Management

Historically, snowshoe hare (*Lepus americanus*) populations demonstrated cyclic population lows and highs, but more recently the snowshoe hare population has remained low on the Leech Lake Reservation and surrounding areas. Reasons for this decline is unknown, although changes in forest structure and composition appear to be the most likely causes. Snowshoe hares are generally found in mature forests or regeneration areas that contain dense horizontal cover, which provide forage and protection from predators. These areas are lacking throughout the forest as extensive harvest practices have left monotypic stands with little structure or diversity.

In 2014 DRM's Fish and Wildlife Program began a study to investigate snowshoe hare habitat selection and abundance in response to forest structure and composition. We collared and tracked snowshoe hares, collected data on habitat characteristics, and conducted pellet plots and track surveys. Our results indicated snowshoe hare select areas of high visual cover disproportionally to what is available in their habitat. Visual cover from 100-150cm above the ground was positively correlated with snowshoe hare habitat use and higher pellet densities. This type of habitat is lacking across the landscape and has limited snowshoe hare populations to northern white cedar and lowland conifer stands.

Results from this study enabled us to develop forest management recommendations to create and enhance snowshoe hare habitat across the Reservation. Stands were assessed in a GIS exercise to determine which northern white cedar stands could potentially support snowshoe hare populations. This was done by locating northern white cedar stands of 20 acres or greater in size. Twenty acres or greater was chosen because past research has indicated larger stands have the best potential of maintaining a snowshoe hare population. Although this size is smaller than what literature says is ideal it gives us a base to work off of and create snowshoe hare habitat around those areas thus increasing the original habitat patch size. We are initially targeting stands falling within 0.5 miles of large northern white cedar stands to begin snowshoe hare habitat work in. Habitat work will include timber harvest with modified techniques to create more snags, coarse woody material, and diversity within stands. However, some stands may not be harvested, but instead receive tree drops or conifer plantings to create structure and diversity within the stand. Below is a list of management techniques that may be implemented to enhance or create snowshoe hare habitat. This list should be thought of as a working plan that is evolving as new ideas and techniques emerge.

 Increase the amount of snag or tipped conifer trees, especially balsam fir and spruce. To some degree this occurs naturally, and when it does these trees need to be retained as part of forest management activities. In locations where this structural element is lacking, but suitable conifers are available, cutting and dropping trees may be an option.

- Retain and increase the coverage of small conifers with low-hanging branches, especially balsam fir and jack pine. Natural stand replacing fires in jack pine and balsam, as well as, wind events in other forest types that would have promoted these conditions. Plantation management, as currently practiced, does not tend to create these conditions, but it is possible to create with modifications to management.
- Retention of tree tops and larger slash off the ground during timber harvests would also be helpful. The practice of having logging operations flatten this structure across the landscape has greatly reduced habitat for many species of wildlife, especially snowshoe hare. Designated logging trails that avoid skidding over portions of the stand should also help with this effort.
- During site preparation operations for conifer regeneration greater effort at avoiding snags and flattening and disking coarse woody material that is naturally found in stands is required. Avoiding strips where coarse woody material is retained during site prep will help to accomplish this goal in addition to retaining the diversity of tree species that should be found in our pine forests.
- Reducing the amount and intensity of salvage harvest after wind events. Naturally this is how quality hare habitat was often created.

The goal is to have these techniques implemented in all current and future harvest occurring throughout the Reservation. The Hare TFPA area is the first to receive these new and modified management techniques and will serve as an example as to how we wish to see snowshoe hare habitat created and enhanced across the landscape. Additionally, we are monitoring this area with trail cameras and pellet surveys before and after the management activities to ensure we are achieving the intended results.

The results we aim to achieve across the landscape will increase the amount of structure and diversity found throughout our forest. This will not only benefit snowshoe hare, but a myriad of wildlife that depend on structure and diversity for their prey, reproduction, and survival.

Rich Robinson Director - Division of Resource Management Leech Lake Band of Ojibwe 6th Street NW Suite E Cass Lake, MN 56633

Dear Rich.

Thank you for your letter dated November 2, 2013 regarding the cultural importance of the bald eagle for the Leech Lake Band of Ojibwe (LLBO) and management of its habitat on the Chippewa National Forest (CNF). This information was helpful in determining what eagle guidelines the CNF will implement for management activities.

I understand that the bald eagle has significant traditional cultural significance to LLBO and the CNF has an important role in consulting with LLBO on the management of its habitat on the Forest. Because of this, I've instructed my staff to use the 1983 Northern States Bald Eagle Recovery Plan Guidelines that were identified in our Forest Plan for future CNF management project decisions.

If we determine that certain management activities require a deviation to these guidelines, the Forest will consult with your staff to ensure adequate protection measures are in place. As we implement various forest management activities, we hope to continue to work with LLBO in assessing the effectiveness of these guidelines to ensure healthy eagle populations.

Again, I appreciate your input regarding the bald eagle. Please feel free to contact Todd Tisler, Fish and Wildlife Program Manager, at 335-8629 if you have any questions.

Sincerely,

DARLA LENZ Forest Supervisor

cc: Kelly A Barrett, Cory Mlodik, Sharon Klinkhammer, James Gries, Todd M Tisler, Brian Tritle, Sherry A Fountain, Todd Tisler, Brian Tritle, Sherry Fountain

| | Leech Lake Reservation List of TES and Management | Concern Species | | |
|---|---|--|---|---|
| | Revised 20200129 | | | |
| | Criteria for listing | | | |
| | In order for a species to be listed it must meet one or more | of the following criteria: | | |
| | The energies is lower to spirit and the mean time of the energy | | | |
| | The species is known to exist on the reservation at the pres | ent ume. | | |
| | The species is known to have historically been present on t | he reservation. | | |
| | The reservation is within the range of the species and suita | ble habitat is found on the reservation. | | |
| | | | | |
| | Listing categories | | | |
| | EEndangeredA species is listed as endangered when i | is likely to become extinct or extirnated from the | e reservation unl | ess measures are taken to protect it and/or its habitat. |
| | Project areas will need to be surveyed for these species | and avoidance and buffers implemented. These a | re species that in | n many cases will need to have habitat protection, enhancement, or other measures implemented to ensure preservation and endurance in numbers |
| | T Threatened A threatened species is one that is likely i | a become and angered or extirpated from the reset | rustion unless m | That years taken to explan it and/or its behint |
| | 1 I in eateneu A threateneu species is one that is likely | o become endangered or extripated from the reser | vation unless m | |
| | Project areas will need to be surveyed for these species | and avoidance and buffers implemented. These a | re species that in | a many cases will need to have habitat protection, enhancement, or other measures implemented to ensure preservation and endurance in numbers. |
| | SSensitiveA sensitive species is one that is likely to be | come threatened or endangered unless measures a | re taken to prote | ct it and/or its habitat. |
| | In most cases these species do not need to be surveyed to | or unless a project, or series of projects, have the | potential to redu | the their numbers or reduce their habitat. These are also species that in many cases will need to have habitat protection, enhancement, |
| | or other measures implemented to ensure preservation a | nd endurance in population numbers. | | |
| | MC Management ConcernA species that is likely to a | each TES status unless measures are taken to pro | tect its habitat, | protect it from non-native species invasion, disease issues, or other factors that pose a threat to it. |
| | In most cases these species do not need to be surveyed | or unless a project or series of projects will redu | ice their number | s or significantly reduce their habitat. There are species that we need to make sure we are |
| | providing habitat for or otherwise dealing with the reas | ons for decline that will result in improving popu | lations Some o | these species are of cultural significance to the Band and some continue to be harvested provided this is not the reason for their decline |
| | V Extirnated | ons for deenne that will result in improving popu | littlons. Bome c | A the species are of cartain significance to the band and some continue to be harvested provided and is not die reason for their define. |
| | EX E-three | | | |
| | EAExunct | | | |
| | Watch ListList of plants and animals that have not been | found here yet, but habitat exists, and they are like | kely to occur he | re. |
| | | | | |
| Code | Scientific Name | Common Name | Tribal Status | Remarks |
| | Extirpated or Extinct | | | |
| BISBIS | Bison bison | Bison | Х | Extirpated due to over-harvest and habitat loss. |
| CERCAN | Cervus canadensis | Eastern Elk | EX | Extinct due to over-harvest and habitat loss. |
| CERFLA | Cervus elaphus | American Elk | x | Extirpated from reservation due to over-barvest: edge of historic range |
| ECTMIC | Ectonistas miaratorius | Passenger nigeon | FY | Exting the to over-baryest and babitat loss: once onman neting species in Minnesota |
| CULCIN | Culo aulo | Wolverine | v | Extended from resourcing and market from the local of Minness (1997) and 1997 and |
| GULGUL | | wolverine | A FW | Extripated from reservation and most, if not all, of Minnesota by the 1920s due to over-harvest; edge of range. |
| FELCON | Felis concolor couguar | Eastern Cougar | EX | Recently declared extict by US Fish and Wildlife Service |
| TYMPHA | Tympanuchus phasianellus | Sharp-tailed grouse | Х | Likely extirpated due to fire suppression and habitat loss. |
| RANTAR | Rangifer tarandus | Woodland caribou | Х | Extirpated due to over-harvest and habitat changes that favored deer. |
| | | | | |
| | Mammals | | | |
| ALCALC | Alces alces | Moose | F | Near extirnated due to over-harvest fire suppression and babitat changes that allowed deer to proliferate occasional visitor |
| CANLUP | Canis lunis | Gray wolf | s | For market and not recovering and subpression and market and delicting class maniforming will be needed |
| EDTELIC | Canis iupis | Dia harran hat | 5 | Formerly encangered, recovering and scheduled for eventual densing; close monitoring will be needed. |
| EPIFUS | Eptesicus fuscus | Big brown bat | 5 | White nose bat syndrome may be a threat to this species in the near future. |
| FELCON | Felis concolor | Cougar | E | Western species, occasionally sightings, presence on reservation unknown. |
| SPEFRA | Spermophilus franklinii | Franklin's Ground Squirrel | S | Rare on reservation, populations isolated |
| LASNOC | Lasionycteris noctivagans | Silver-haired bat | S | White nose bat syndrome may be a threat to this speices in the near future. |
| LASBOR | Lasiurus borealis | Red bat | S | White nose bat syndrome may be a threat to this speices in the near future. |
| LASCIN | Lasiurus cinereus | Hoary bat | S | White nose bat syndrome may be a threat to this speices in the near future. |
| LEPAME | Lepus americanus | Snowshoe hare | MC | Population has stopped cycling: no large peaks since 1970s. Timber harvest that eliminates overhead cover implicated. Keystone species for predators. |
| I VNCAN | Lynx canadansis | Canada luny | F | Near artimated due to over-barvest and declines in snowshoe have nonulations |
| MADAME | Lynx cunduensis | Dina mastan | MC | Near exterpared due to over-harvest and declines in snowshife har populations. |
| MARAME | Maries americana | File marten | MC | Exclusive due to over-marvest and matorial changes, recovering. |
| MARPEN | Martes pennanti | Fisher | мс | Population appears to be declining. High remaie mortality thought to be due to lack of old forest den sites in suitable foraging habitat. |
| MICOCH | Microtus ochrogaster | Prairie vole | S | Present distribution on reservation unknown. |
| MUSFRE | Mustela frenata | Long-tailed Weasel | MC | Polulations appear to be declining. Lack of structrual diversity suspected as the cause. |
| MYOKEE | Myotis keenii | Keen's myotis | S | White nose bat syndrome may be a threat to this speices in the near future. |
| MYOLUC | Myotos lucifugus | Little brown bat | S | White nose bat syndrome may be a threat to this speices in the near future. |
| MYOSEP | Myotis septentrionalis | Northern long-eared bat | Т | White nose bat syndrome may be a threat to this speices in the near future. Under ESA review by FWS. |
| PHEINT | Phenacomys intermedius | Heather vole | S | Very rare on reservation |
| SAMBOB | Surgentamus haradis | Northern hog lemming | s | Vary rate on resolution |
| STREEK | Synaptomys boreaus | Northern bog femining | 5 | very rate on reservation |
| | D: 1 | | | |
| | Biras | | - | |
| ACCGEN | Accipiter gentilis | Northern goshawk | E | Very uncommon on reservation; needs old forest, with lots of snags that support prey that it can feed on. Habitat loss suspected reason for decline. |
| AMMCAU | Ammodramus caudacuta | Sharp-tailed sparrow | S | Needs sedge meadows: prescribed burning should promote its habitat. |
| AMMHEN | Ammodramus henslowii | Henslow's sparrow | E | Very rare on reservation |
| AMMLEC | Ammodramus leconteii | LeConte's Sparrow | S | Population thought to be in decline due to habitat changes. |
| AMMNEL | Ammodramus nelsoni | Nelson's Sharp-tailed Sparrow | S | Very rare on reservation |
| ARDHER | Ardea herodias | Great blue beron | s | Nests in colonies near wetlands: subject to disturbance and babitat loss |
| ASIFI A | Asio flammeus | Short-eared owl | s | Devi of new country edge of range |
| PONTRO | Donasa umballus | Duffed Crouse | MC | To mi o open county, ungo of tange. |
| BONUMB | Donasa umbellus | Kuned Grouse | | Declining, current management enors that increase summer habitat not working. Concerns about winter cover and food as well as disesae. |
| BUILEN | Botaurus lentiginosus | American bittern | 5 | Birro of sedge/cattail wetlands. |
| BUILIN | Buteo lineatus | Ked-shouldered hawk | 1 [°] | secretive; thought to require large blocks of old forest for nesting. |
| CANCAN | Canachites canadensis | Spruce grouse | E | All but extirpated from Reservation. Needs large blocks of natural jack pine habitats or patches of lowland conifers. |
| CHAPEL | Chaetura pelagica | Chimney swift | S | Loss of old decadent trees that have nesting cavities and decreases in man-made structures is believed to be reason for declines. |
| CHAMEL | Charadrius melodus | Piping plover | E | Likely nested on large reservation lakes prior to dam construction; occasionally seen during migration. |
| CHINIG | Childonius niger | Black tern | S | Uncommon on reservation; nests in shallow lakes and wetlands on floating vegetation. |
| COTNOV | Coturnicops noveboracensis | Yellow rail | Т | Secretive; nests in sedge meadows on reservation; CBS found high numbers, but too-frequent burning of habitat may result in decline. |
| CYGBUC | Cygnus buccinator | Trumpeter swan | S | Once extirpated due to hunting, population now recovering |
| DENCAE | Dandroica caerulascans | Black-throated Blue Warblar | s | Equation mature northern hardwood forest that have some brush in the understory |
| DENCAS | Dendroica castanea | Pay broasted Warbler | c | Found in mature hostical and/or forest |
| CDUCAS | | Day-oreasted warDier | .э т | |
| GRUCAN | Grus canadensis tabida | Greater Sandhill crane | 1 | A rew have started nesting on the reservation; needs large open helds and shallow wetlands. |
| HALLEU | Haliaeetus leucocephalus | Bald eagle | Т | Population recovering, but subject to habitat loss and disturbance. Also protected under Eagle Act. |
| LARARG | Larus argentatus | Herring gull | Т | One small colony of about 15 pairs nests on the reservation, nest site is washing away. |
| LARPIP | Larus pipixcan | Franklin's gull | S | Seen during migration. |
| | Melanernes erythrocenhalus | Red-headed woodpecker | S | Steep declines due to loss of open habitat with lots of snag. |
| MELERY | nierener pes er jinn ocepnanas | T T T T | c | Found in mixed brushy lowland conifer habitat |
| MELERY OPOAGI | Oporonis agilis | Connecticut Warbler | 3 | |
| OPOAGI PANHAI | Oporonis agilis Pandion haliaetus | Connecticut Warbler | S | Population recovering sometimes subject to disturbance |
| MELERY OPOAGI PANHAL | Oporonis agilis Pandion haliaetus Parisonaus canadansis | Connecticut Warbler Osprey Grav iav | S S | Population recovering, sometimes subject to disturbance. |
| MELERY OPOAGI PANHAL PERCAN | Popronis agilis Pandion haliaetus Perisoreus canadensis Delasene gedenche | Connecticut Warbler Osprey Gray jay White actions | S S S | Population recovering, sometimes subject to disturbance. Rapidly declining on Reservation, warm winters though to be reducing ability to store food needed for early nesting. Under the formation them being the theorem in 1000. |
| MELERY OPOAGI PANHAL PERCAN PELERY | Perisoreus canadensis Pelacanus erythrorhynchos | Connecticut Warbler Osprey Gray jay White pelican | S S S S | Population recovering, sometimes subject to disturbance. Rapidly declining on Reservation, warm winters thought to be reducing ability to store food needed for early nesting. Numbers increasing; began breeding here again in 1999. |
| MELERY OPOAGI PANHAL PERCAN PELERY PHALTRI | Perisoreus canadensis Palacanus erythrorhynchos Phalaropus tricolor | Connecticut Warbler Osprey Gray jay White pelican Wilson's phalarope | 5 S S S S | Population recovering, sometimes subject to disturbance. Rapidly declining on Reservation, warm winters thought to be reducing ability to store food needed for early nesting. Numbers increasing; began breeding here again in 1999. Occasional migrant; may breed here; requires quiet, shallow pools in wet meadows. |
| MELERY OPOAGI PANHAL PERCAN PELERY PHALTRI PICTRI | Popronis agilis Pandion haliaetus Perisoreus canadensis Pelacanus erythrorhynchos Phalaropus tricolor Picoides tridactylus | Connecticut Warbler Osprey Gray jay White pelican Wilson's phalarope Black-backed woodpecker | S S S T | Population recovering, sometimes subject to disturbance. Rapidly declining on Reservation, warm winters thought to be reducing ability to store food needed for early nesting. Numbers increasing; began breeding here again in 1999. Occasional migrant; may breed here; requires quiet, shallow pools in wet meadows. Loss of high-quality jack pine and tamarack habitat and large fires has probably caused population decline. |
| MELERY OPOAGI PANHAL PERCAN PELERY PHALTRI PICTRI PODAUR | Popronis agilis Pandion haliaetus Perisoreus canadensis Pelacanus erythrorhynchos Phalaropus tricolor Picoides tridactylus Podiceps auritus | Connecticut Warbler Osprey Gray jay White pelican Wilson's phalarope Black-backed woodpecker Horned grebe | S S S S T T | Population recovering, sometimes subject to disturbance. Rapidly declining on Reservation, warm winters thought to be reducing ability to store food needed for early nesting. Numbers increasing; began breeding here again in 1999. Occasional migrant; may breed here; requires quiet, shallow pools in wet meadows. Loss of high-quality jack pine and tamarack habitat and large fires has probably caused population decline. Edge of range; may breed here, but seen mainly during migration. |
| MELERY OPOAGI PANHAL PERCAN PELERY PHALTRI PICTRI PODAUR RALELE | Popronis agilis Pandion haliaetus Perisoreus canadensis Pelacanus erythrorhynchos Phalaropus tricolor Picoides tridactylus Podiceps auritus Rallus elegans | Connecticut Warbler Osprey Gray jay White pelican Wilson's phalarope Black-backed woodpecker Horned grebe King rail | S S S T T E | Population recovering, sometimes subject to disturbance. Rapidly declining on Reservation, warm winters thought to be reducing ability to store food needed for early nesting. Numbers increasing; began breeding here again in 1999. Occasional migrant; may breed here; requires quiet, shallow pools in wet meadows. Loss of high-quality jack pine and tamarack habitat and large fires has probably caused population decline. Edge of range; may breed here, but seen mainly during migration. State endangered; not known to be present on the reservation, though suitable shallow marsh habitat exists. |



| CTELOD | | 1 | | |
|--|---|---|--|---|
| STEFOR | Sterna forsteri | Forster's tern | S | Mostly seen during migration. |
| STEHIR | Sterna hirundo | Common tern | Т | Only known to nest in one location on reservation; population has declined about 90% from 1930s. |
| STRNEB | Strix nebulosa | Great gray owl | Т | Several known active nests on the reservation |
| 5 ma (LD | SH M REDWESS | Shear Bray own | - | |
| | | | └──── ┘ | |
| | Fish | | ļ! | |
| CORCLU | Coregonus clupeaformis | Lake Whitefish | MC | This spieces is at the edge of its range and is likely to decline due to climate change. Important TCP species for the Leech Lake Band |
| ETHMIC | Etheostoma microperca | Least Darter | Т | |
| I FPMFG | Lenomis megalotis | Longear sunfish | S | Rare sunfish on LL Res |
| MONING | Lepomis megatoris | | 5 | |
| MOXVAL | Moxostoma valenciennesi | Greater redhorse | 5 | Historically more common on reservation, currently known from only a few locations. |
| NOTANO | Notropis anogenus | Pugnose shiner | S | Present distribution on reservation unknown. |
| | | | í I | |
| | Rentiles and Amphibians | | l | |
| GUEGED | | | a | |
| CHESER | Chelydra serpentina | Snapping turtle | 8 | Long-lived species; may be subject to over-harvest and poor reproduction due to egg predation. |
| EMYBLA | Emydoidea blandingii | Blandings Turtle | Т | There is a single occurrence along the north end of the Reservation |
| HEMSCU | Hemidactvlium scutatum | Four-toed salamander | S | Species documented at one location just outside reservation: likely present on reservation. |
| HETPI A | Heterodon platirhinos | Eastern hog-nosed snake | S | Vary rate on reservation |
| DIFCDI | | D 11 1 1 1 1 | 5 | |
| PLECIN | Plethodon cinereus | Red-backed salamander | 3 | very fare on reservation |
| RANCLA | Rana clamitans | Green frog | S | Distribution on reservation unknown; thought to need open water in winter. |
| | | | 1 ' | |
| | Insects & Spiders | | (| |
| CICDAT | Cisin della materiala materiala | A | т | V |
| CICPAT | Cicinaela patruela patruela | A species of tiger beetle | 1 | very fare. |
| BOMAFF | Bombus affinis | Rusty patched bumble bee | E | Very rare on reservation. Federally listed as endangered |
| DANPLE | Danaus plexippus | Monarch butterfly | S | Rapidly declining over all of range; candidate for ESA listing |
| BOMTER | Rombus terricola | Vellow Banded Bumble Bee | S | Panidly declining over all of range, due to timber baryast agriculture, and urban conversion |
| AECOUD | | | c . | Rapady decliming over an or hange, due to united in a rest, agreed in the only and in our conversion. |
| AESSUB | Aeshna subarctica | Subarctic Darner | 2 | Rare; susceptible to habitat loss with peat mining and degradation to hydrology (Northern Poor Fens) |
| AESSIT | Aeshna sitchensis | Zigzag Darner | S | Rare; susceptible to habitat loss with peat mining and degradation to hydrology (Northern Poor Fens) |
| I | | | 1 | |
| | Mollusks | | r | |
| LASCON | I annicon a compussion | Croals haalan litter | c | Found in series laterance on the reconnection |
| LASCOM | Lasmigona compressa | Creek neelsplitter | 3 | round in several streams on the reservation. |
| LASCOS | Lasmigona costata | Fluted-shell Mussel | S | Slow to moderately flowing medium-large rivers |
| LIGREC | Ligumia recta | Black sandshell mollusk | S | Found in several streams on the reservation. |
| | | | | |
| | | | | |
| | Plants | | ļ! | |
| ADIPED | Adiantum pedatum | Northern maidenhair fern | S | Very rare on the Reservation/CNF. |
| ADLFUN | Adlumia fungosa | Allegheny vine | Т | (2012. 2014)Two known Observations within LLR. |
| ANEDAT | Anne and an | American Descuellence | c. | |
| ANEPAI | Anemone patens | American Pasquellower | 3 | 1 known location east shorenne of Cass Lake 2018, BH beitranni cty record |
| AREBUL | Arethusa bulbosa | Dragon's-mouth orchid | S | Rare; may experience habitat loss due to beaver flooding and timber harvest |
| BOTASC | Botrychium ascendens | Upswept moonwort | Е | Only know from 2 locations on the LLR/CNF pigeon lake and CNF SO |
| BOTCAM | Botrychium campestre | Prairie moonwort | Т | Only 2 known locations on the LLR/CNE |
| DOTCHE | | D : / | г Г | |
| BOICKE | Botrychium crenulatum | Dainty moonwort | E | Unly one Minnesota population which is found on Leech Lake Reservation. Assessed to be soon extirpated in MiN due to non-native earthworms |
| BOTLAN | Botrychium angustisegmentum | Lance-leaved grape-fern | Т | Rare; several locations within the Reservation. However, severely affected by non-native earthworms. |
| BOTLUN | Botrychium neolunaria | Common moonwort | Е | (2014) County record and first time observation within Cass Co. and LLR. Only three known locations within the CNF |
| BOTMIC | Botrychium michiaanansa | Michigan moonwort | т | Only known locations within LL R/CNE are: CNE SO |
| DOTMIC | Doir yenium mienigunense | Michigan moonwort | т | |
| BOLMIN | Botrychium minganense | Mingan Island moonwort | 1 | Rare throughout it's range in MIN; often found with B. mormo or other Botrychiums. Declining due to non-native earthworms |
| BOTMOR | Botrychium mormo | Goblin fern | E | 50% of populations gone, 90% of remainder severely imperiled. Extirpated due to logging and non-native earthworm activity. Possibly headed for ESA listing. |
| BOTPAL | Botrychium pallidum | Pale moonwort | Т | Rare across the Reservation. |
| POTEIM | Botmohium simplor | L and moonwort | т | Anno in north antical Minnegato, found at agreent logations, large nonviotion on tribal land |
| BOISIM | Botrychium simplex | Least moonwort | | Kare in north-central Minnesota, found at several locations; farge population on tribal land. |
| BOSI | Botrychium tenebrosum | Swamp moonwort | Т | Rare in LLR/CNF |
| CALBUL | Calypso bulbosa | Calypso orchid | S | Rare on reservation; may experience habitat loss due to beaver flooding and timber harvest. |
| CARPRA | Cardamine pratensis var palustris | Cuckoo flower | F | Only three locations within the CNE boundaries. Potential to be found on the Reservation |
| CARCAR | Cominent protections variables | Dive baseb annual annual | т | |
| CARCAR | Carpinus carolinana | Blue beech, musclewood | 1 | 4 known locations on reservation. |
| CARCOR | Carya cordiformis | Bitternut hickory | Т | Rare; not known for certain if occurrences were originally planted by Native Americans. |
| CELOCC | Celtis occidentalis | Hackberry | S | Rare on reservation, occurring near lakes in floodplain-type habitat. |
| COMPER | Comptonia peregrina | Sweet fern | S | Traditionally used: uncommon perhans due to decrease in mature jack pine forest. One know location on reservation logged in early 2000s |
| CUDADI | Comptonia peregrina | | 5 | Trantonary used, incommon, perhaps due to decrease in matter just price forest. One know location on reservation logged in early 2000s. |
| UYPARI | | LIONA BOOD LOON CHARGE | | Ushally found at edges of lowland coniter boos, integrened by timber parvest and peaver flooding |
| CITING | Cypripedium arietinum | Kams-neau lauy-supper | 1 | estadify found at edges of formatic bogs, an eatened by anioer nativest and beaver froeding. |
| DICCAN | Cypripedium arietinum Dicentra canadensis | Squirrel corn | E | Only one location on the Reservation. An old observation which has not been relocated. No records with the bell not believed to occur here. |
| DICCAN | Cypripedium arietinum Dicentra canadensis Drosera intermedia | Squirrel corn Spatulate-leaved sundew | E S | Only one location on the Reservation. An old observation which has not been relocated. No records with the bell not believed to occur here. Few recent records from reservation, extremely uncommon within CNF |
| DICCAN DROINT | Cypripedium arietinum Dicentra canadensis Drosera intermedia Devontaris colding | Squirel corn Spatulate-leaved sundew | E S F | Only one location on the Reservation. An old observation which has not been relocated. No records with the bell not believed to occur here. Few recent records from reservation, extremely uncommon within CNF Found in old growth deciduous forest, adjacent to large waterbedies, only locations known in partners. |
| DICCAN DROINT DRYGOL | Cypripedium arietinum Dicentra canadensis Drosera intermedia Dryopteris goldiana | Squirrel com Spatulate-leaved sundew Goldie's fern | E S E | Only one location on the Reservation. An old observation which has not been relocated. No records with the bell not believed to occur here. Few recent records from reservation, extremely uncommon within CNF Found in old growth deciduous forest, adjacent to large waterbodies; only locations known in northern Minnesota are within reservation. |
| DICCAN DROINT DRYGOL ELEOLI | Cypripedium arietinum Dicentra canadensis Drosera intermedia Dryopteris goldiana Eleocharis olivacea | Squirrel com Spatulate-leaved sundew Goldie's fern Olive-brown spike rush | E S E T | Only one location on the Reservation. An old observation which has not been relocated. No records with the bell not believed to occur here. Few recent records from reservation, extremely uncommon within CNF Found in old growth deciduous forest, adjacent to large waterbodies; only locations known in northern Minnesota are within reservation. Found at mucky edges of bog lakes; distribution on reservation unknown. |
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| DICCAN DROINT DRYGOL ELEOLI ELEQUI ERYALB | Cypripedium arietinum Dicentra canadensis Drosera intermedia Dryopteris goldiana Eleocharis olivacea Eleocharis quinqueflora Ervitronium albidum | Squirrel com Squirrel com Spatulate-leaved sundew Goldie's fern Olive-brown spike rush Few-flowered spike-rush White trout-lilv | E S E T S T | Only one location on the Reservation. An old observation which has not been relocated. No records with the bell not believed to occur here. Few recent records from reservation, extremely uncommon within CNF Found in old growth deciduous forest, adjacent to large waterbodies; only locations known in northern Minnesota are within reservation. Found at mucky edges of bog lakes; distribution on reservation unknown. Rare; one known location on reservation: northernmost location known in MN. |
| DICCAN DROINT DRYGOL ELEOLI ELEQUI ERYALB ERANIC | Cypripedium arietinum Dicentra canadensis Drosera intermedia Dryopteris goldiana Eleocharis olivacea Eleocharis quinqueflora Erythronium albidum Erazinus ainga | Squirrel com Squirrel com Spatulate-leaved sundew Goldie's fern Olive-brown spike rush Few-flowered spike-rush White trout-lily Black Ash | E S E T S T | Only one location on the Reservation. An old observation which has not been relocated. No records with the bell not believed to occur here. Few recent records from reservation, extremely uncommon within CNF Found in old growth deciduous forest, adjacent to large waterbodies; only locations known in northern Minnesota are within reservation. Found at mucky edges of bog lakes; distribution on reservation unknown. Rare; one known location on reservation; Found at only two location on reservation; northernmost location known in MN. This species is threatened with extiration when Emerald ash here arriver. |
| DICCAN DROINT DRYGOL ELEOLI ELEQUI ERYALB FRANIG | Cypripedium arietinum Dicentra canadensis Drosera intermedia Dryopteris goldiana Eleocharis olivacea Eleocharis quinqueflora Erythronium albidum Frasinus nigra | Squirrel com Spatulate-leaved sundew Goldie's fern Olive-brown spike rush Few-flowered spike-rush White trout-lily Black Ash | E S T S T MC | Only one location on the Reservation. An old observation which has not been relocated. No records with the bell not believed to occur here. Few recent records from reservation, extremely uncommon within CNF Found in old growth deciduous forest, adjacent to large waterbodies; only locations known in northern Minnesota are within reservation. Found at mucky edges of bog lakes; distribution on reservation unknown. Rare; one known location on reservation. Found at only two location on reservation; northernmost location known in MN. This species is threatened with extirpation when Emerald ash borer arrives. |
| DICCAN DROINT DRYGOL ELEOLI ELEQUI ERYALB FRANIG FRAPEN | Cypripedium arietinum Dicentra canadensis Drosera intermedia Dryopteris goldiana Eleocharis olivacea Eleocharis quinqueflora Erythronium albidum Fraxinus nigra Fraxinus negra | Rain s-nead rady-shipper Squirrel corm Spatulate-leaved sundew Goldie's fern Dlive-brown spike rush Few-flowered spike-rush White trout-lily Black Ash Green Ash | E S E T S T MC MC | Only one location on the Reservation. An old observation which has not been relocated. No records with the bell not believed to occur here. Few recent records from reservation, extremely uncommon within CNF Found in old growth deciduous forest, adjacent to large waterbodies; only locations known in northern Minnesota are within reservation. Found at mucky edges of bog lakes; distribution on reservation unknown. Rare; one known location on reservation; Found at only two location on reservation; This species is threatened with extirpation when Emerald ash borer arrives. This species is threatened with extirpation when Emerald ash borer arrives. |
| DICCAN DROINT DRYGOL ELEOLI ELEQUI ERYALB FRANIG FRAPEN GENAND | Cypripedium arietinum Dicentra canadensis Drosera intermedia Dryopteris goldiana Eleocharis olivacea Eleocharis quinqueflora Erythronium albidum Fraxinus nigra Fraxinus pensylvanica Gentiana andrewsii | Squirrel com Squirrel com Spatulate-leaved sundew Goldie's fern Olive-brown spike rush Few-flowered spike-rush White trout-lily Black Ash Creen Ash Closed gentian | E S E T S T MC MC S | Only one location on the Reservation. An old observation which has not been relocated. No records with the bell not believed to occur here. Few recent records from reservation, extremely uncommon within CNF Found in old growth deciduous forest, adjacent to large waterbodies; only locations known in northern Minnesota are within reservation. Found at mucky edges of bog lakes; distribution on reservation unknown. Rare; one known location on reservation; Found at only two location on reservation; northernmost location known in MN. This species is threatened with extirpation when Emerald ash borer arrives. This species. Uncommon on reservation. |
| DICCAN DROINT DRYGOL ELEOLI ERYALB FRANIG FRAPEN GENAND GYMROP | Cypripedium arietinum Dicentra canadensis Drosera intermedia Dryopteris goldiana Eleocharis olivacea Eleocharis quinqueflora Erythronium albidum Fraxinus nigra Fraxinus pennsylvanica Gentiana andrewsii Gvmnocarpium robertianum | Kaini s-head rady-shipper Squirrel com Spatulate-leaved sundew Goldie's fern Olive-brown spike rush Few-flowered spike-rush White trout-lily Black Ash Green Ash Closed gentian Limestone oak fern | E S E T S T MC S S T | Only one location on the Reservation. An old observation which has not been relocated. No records with the bell not believed to occur here. Few recent records from reservation, extremely uncommon within CNF Found in old growth deciduous forest, adjacent to large waterbodies; only locations known in northern Minnesota are within reservation. Found at mucky edges of bog lakes; distribution on reservation unknown. Rare; one known location on reservation; northernmost location known in MN. This species is threatened with extirpation when Emerald ash borer arrives. This species is threatened with extirpation when Emerald ash borer arrives. Uncommon on reservation. White edar swamps. Very rare, but locally abundant when found. |
| DICCAN DROINT DRYGOL ELEOLI ELEQUI ERYALB FRANIG FRAPEN GENAND GYMROB | Cypripedium arietinum Dicentra canadensis Drosera intermedia Dryopteris goldiana Eleocharis olivacea Eleocharis quinqueflora Erythronium albidum Fraxinus nigra Fraxinus pennsylvanica Gentiana andrewsii Gymnocarpium robertianum | Rain s-nead rady-shipper Squirrel corm Spatulate-leaved sundew Goldie's fern Dlive-brown spike rush Few-flowered spike-rush White trout-lily Black Ash Green Ash Closed gentian Limestone oak fern Sweet orese | E S T S MC MC S T S T S S T S | Only one location on the Reservation. An old observation which has not been relocated. No records with the bell not believed to occur here. Few recent records from reservation, extremely uncommon within CNF Found in old growth deciduous forest, adjacent to large waterbodies; only locations known in northern Minnesota are within reservation. Found at mucky edges of bog lakes; distribution on reservation unknown. Rare; one known location on reservation. Found at only two location on reservation. Found at only two location on reservation; northernmost location known in MN. This species is threatened with extirpation when Emerald ash borer arrives. This species is threatened with extirpation when Emerald ash borer arrives. Uncommon on reservation. White cedar swamps. Very rare, but locally abundant when found. Traditionally used: extremely uncompone on reservation |
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| gnum hummocks and water-filled hollows | |
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| III MDUD | | | - | |
|---|---|--|--------|--|
| ULWIKUD | Ulmus rubra | Red (slippery) elm | MC | Once common canopy tree in reservation hardwood forests; most, if not all, mature trees dead due to exotic Dutch elm disease. |
| LITEGEM | Utricularia aominiscana | Hiddenfruit bladderwort | т | Found in small pools in moss/sadge, acid hogs, recently found on LLP. Extent of population unknown |
| UTROLM | Orricularia geminiscapa | | 1 | Total in share bots in hoss/sedge and bogs, recently found on ELK. Extent of population disknown. |
| UTRGIB | Utricularia gibba | Humped bladderwort | S | Found in relatively pristine, sandy-bottomed lakes. |
| UTRPUR | Utricularia purpurea | Purple-flowered bladderwort | S | One known location on reservation: possibility of other locations: shallow lakes |
| VIODAL | | | T | |
| VIOPAL | viola palustris | Marsh violet | 1 | One known occurance in Minnesota at Pennington Bog. Misidentified neroarium specimen discovered in March 2014 |
| WALFRA | Waldsteinia fragarioides | Barren strawberry | S | Edge of range; usually found on sandy soils, especially in conifer or oak forests, one location on tribal lands |
| | | | | |
| | T * 1 | | | |
| | Lichens | | | |
| CETAUR | Ahtiana aurescens | Eastern candlewax lichen | Т | Extremely Rare: (2014) Observed for the first time in Itasca and Cass Counties. Old growth indicator. |
| BRYFUS | Brooria fuscescens | Pale-footed Horsebair Lichen | S | An old record from 1976 South of Walker |
| DRITCS | Bryond juscescens | | 5 | |
| HETOBS | Heterodermia obscurata | Orange-tinted Fringe Lichen | Т | All known locations with in MN are from LLR/CNF Extremly rare in MN. |
| PHSU20 | Physconia subpallida | Pale Bellied Frost Lichen | E | All known location with in MN since 1899 occur within LLR/CNF. Possibly headed for ESA listing |
| DEECDO | Desude such allania heleneties | Vellow anaddahally liaban | Б | (2014) Depart chargesticing on Departmenting and a Case County report. Endoncored in MN |
| PSECKU | r seuaocypnenaria noiarciica | renow specklebeny lichen | E | (2014) Recent observation on Reservation and a Cass County record. Endangered in Mix. |
| STIBEA | Sticta beauvoisii | Spotted felt lichen | Т | Extremely Rare on LLR/CNF, requires old growth cedar |
| STIFUL | Sticta fuliginosa | Peppered moon lichen | Т | Extremely Rare on LLR/CNF requires old growth cedar |
| TDCL | | r oppered moon nenen | г Г | |
| TRCL5 | Tremella cladoniae | no common name | E | Occurs on CNF just outside LLR. Only known record within MN. Habitat within LLR is old growth cedar. |
| TRTO5 | Trichocolea tomentella | Handsome Woollywort | Т | Occures in mature to old growth cedar. Around ground water seepages, extremely specialized habitat requirements |
| USNANG | Usnea angulata | Beard lichen | E | Critically threatened throughout its NA range ILR/CNF one of three locations in NA were it's known to still exist |
| UGNDUD | | Deard henen | L L | Circled y uncerted in order to the start range. Else Circle of the of cardons in the week it's known to sin exist |
| USNRUB | Usnea rubicunda | Bloody beard lichen | E | One of three locations with in MN where it is known to exist LLR. Concentrations around Leech Lake. Extremely Rare |
| XENLEP | Xenonectriella leptalea | no common name | E | Only published record for NA occurs in CNF. Habitat for the species within LLR. Old growth cedar/black ash critically imperiled. |
| | | | | |
| | | | - | |
| | Watch List Insects & Spiders | | | |
| AGATOM | Agapetus tomus | A Caddisfly | | |
| CEDDDE | Caraclea browis | A Caddiefly | 1 | |
| CENDRE | | | | |
| CERVER | Ceraclea vertreesi | Vertrees's Ceraclean Caddisfly | | |
| CINPAT | Cicindela patruela patruela | Northern Barrens Tiger Beetle | | |
| UVDMET | Undrontila matogoa | A Caddiafly | 1 | |
| H I DMET | пуагорина текоеса | A Caddisily | | A |
| HYDNOV | Hydroptila novicola | A Caddisfly | | |
| MARFOR | Marnissa formosa | Short-bellied Slender Jumping Spider | | only 40 sightings in the country 1 sighting just south of the LLR boundary. Sightings are near marshes and on cattails |
| MARIOR | Marpissa jorniosa | Short-benned Stender Jumping Spider | | Signings in the county. I signing just south of the EEK boundary. Signings are near marshes and on eatains |
| MARGRA | Marpissa grata | A Jumping Spider | | |
| OXYECO | Oxvethira ecornuta | A Caddisfly | | |
| OVVITA | | A Coddieffy | | |
| UATTIA | Oxyeinira ilascae | A Caddisily | - | |
| PARFON | Paradamoetas fontana | A Jumping Spider | | |
| POLMIL | Polycentropus milaca | A Caddisfly | | |
| SETOLI | Sata dan aliaina | A Coddieffy | | |
| SEIULI | Setodes oligius | A Caddisily | | |
| | | | | |
| | Watch List Plants | | | |
| ADTLUD | Antomicia Indoniciana | White coochruch | | |
| AKILUD | Artemisia tuaoviciana | white sageorush | _ | |
| ASTNEG | Astragalus neglectus | Coopers milkvetch | | |
| BOTSPA | Botrychium spathulatum | Spathulate moonwort | | Found in sedge-dominated peatlands and fens |
| CLOD5 | | N 11 C 1 | | round in sede dominante pentiunts una tens. |
| CAORS | Carex laxiflora var. ormostachya, Carex gracilescens | Necklace Sedge | | habitat varies upland hardwood and hardwood conifer mesic loamy soils and moderate shade somewhate dryer soils tolerable |
| CAPA17 | Carex pallescens | Pale Sedge | | Found in Itasca County moist to seasonally wet soil |
| CLAMAD | Cladium mariscoidas | Twig ruch | | Paatlande |
| | Citatian mariscolaes | I wig Iusii | | |
| CLAWAR | - | | | Peatlands |
| DROANG | Drosera anglica | English sundew | | i outunus. |
| DROANG DROLIN | Drosera anglica Drosera linearis | English sundew Linear-leaved sundew | | a cananas. |
| DROANG DROLIN | Drosera anglica Drosera linearis Elatina triandra | English sundew Linear-leaved sundew | | Aquetia littoral zona of Laka Doak outaran |
| DROANG DROLIN ELTR | Drosera anglica Drosera linearis Elatine triandra | English sundew Linear-leaved sundew Three-stamened waterwort | | Aquatic - littoral zone of Lake, Rock outcrop |
| DROANG DROLIN ELTR ELEROB | Drosera anglica Drosera linearis Elatine triandra Eleocharis robbinsii | English sundew Linear-leaved sundew Three-stamened waterwort Robbins spike rush | | Aquatic - littoral zone of Lake, Rock outcrop |
| DROANG DROLIN ELTR ELEROB ELEROS | Drosera anglica Drosera linearis Elatine triandra Eleocharis robbinsii Eleocharis rostellata | English sundew Linear-leaved sundew Three-stamened waterwort Robbins spike rush Beaked spike rush | | Aquatic - littoral zone of Lake, Rock outcrop Sandy lake shore. |
| DROANG DROLIN ELTR ELEROB ELEROS | Drosera anglica Drosera linearis Elatine triandra Eleocharis robbinsii Eleocharis rostellata Eleocharis rostellata | English sundew Linear-leaved sundew Three-stamened waterwort Robbins spike rush Beaked spike rush Autome finebriotelie | | Aquatic - littoral zone of Lake, Rock outcrop Sandy lake shore. Due of fue logging within LLP |
| DROANG DROLIN ELTR ELEROB ELEROS FIMAUT | Drosera anglica Drosera linearis Elatine triandra Eleocharis robbinsii Eleocharis rostellata Fimbristylis autumnalis | English sundew Linear-leaved sundew Three-stamened waterwort Robbins spike rush Beaked spike rush Autumn fimbristylis | | Aquatic - littoral zone of Lake, Rock outcrop Sandy lake shore. Ony a few locations within LLR. |
| DROANG DROLIN ELTR ELEROB ELEROS FIMAUT IMPPAL | Drosera anglica Drosera linearis Elatine triandra Eleocharis robbinsii Eleocharis rostellata Fimbristylis autumnalis Impatiens pallida | English sundew Linear-leaved sundew Three-stamened waterwort Robbins spike rush Beaked spike rush Autumn fimbristylis Pale jewelweed | | Aquatic - littoral zone of Lake, Rock outcrop Sandy lake shore. Ony a few locations within LLR. Rare; in shallow pools in open sedge-dominated peatlands. |
| DROANG DROLIN ELTR ELEROB ELEROS FIMAUT IMPPAL JUNSTY | Drosera anglica Drosera linearis Elatine triandra Eleocharis robbinsii Eleocharis rostellata Fimbristylis autunnalis Impatiens pallida Juncus stygius | English sundew Linear-leaved sundew Three-stamened waterwort Robbins spike rush Beaked spike rush Autumn fimbristylis Pale jewelweed Moor rush | | Aquatic - littoral zone of Lake, Rock outcrop Sandy lake shore. Ony a few locations within LLR. Rare; in shallow pools in open sedge-dominated peatlands. |
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| CLAMAR DROANG DROLIN ELTR ELEROB ELEROS FIMAUT IMPPAL JUNSTY JUNVAS LISTAUR | Drosera anglica Drosera linearis Elatine triandra Eleocharis robbinsii Eleocharis rostellata Fimbristylis autunnalis Impatiens pallida Juncus stygius Juncus vaseyi Listera auriculata | English sundew Linear-leaved sundew Three-stamened waterwort Robbins spike rush Beaked spike rush Autumn fimbristylis Pale jewelweed Moor rush Vasey rush Auricled twayblade | | Aquatic - littoral zone of Lake, Rock outcrop Sandy lake shore. Ony a few locations within LLR. Rare; in shallow pools in open sedge-dominated peatlands. Beaver impoundments, shallow lakes, protected bays. |
| DROANG DROANG ELTR ELEROB ELEROS FIMAUT IMPPAL JUNSTY JUNVAS LISTAUR NYMI FI | Drosera anglica Drosera linearis Elatine triandra Eleocharis robbinsii Eleocharis rostellata Fimbristylis autumnalis Impatiens pallida Juncus stygius Juncus vaseyi Listera auriculata Nymphaea leibereii | English sundew Linear-leaved sundew Three-stamened waterwort Robbins spike rush Beaked spike rush Autumn fimbristylis Pale jewelweed Moor rush Vasey rush Auricled twayblade Four-angled water lilv | | Aquatic - littoral zone of Lake, Rock outcrop Sandy lake shore. Ony a few locations within LLR. Rare; in shallow pools in open sedge-dominated peatlands. Beaver impoundments, shallow lakes, protected bays. |
| DROANG DROANG ELTR ELEROB ELEROS FIMAUT IMPPAL JUNSTY JUNVAS LISTAUR NYMLEI DANOUT | Drosera anglica Drosera linearis Elatine triandra Eleocharis robbinsii Eleocharis rostellata Fimbristylis autumnalis Impatiens pallida Juncus stygius Juncus vaseyi Listera auriculata Nymphaea leibergii Danas auriguafaliue | English sundew Linear-leaved sundew Three-stamened waterwort Robbins spike rush Beaked spike rush Auturn fimbristylis Pale jewelweed Moor rush Vasey rush Auricled twayblade Four-angled water lily Wild groupsing | | Aquatic - littoral zone of Lake, Rock outcrop Sandy lake shore. Ony a few locations within LLR. Rare; in shallow pools in open sedge-dominated peatlands. Beaver impoundments, shallow lakes, protected bays. Meint greese or sodoo meedows, usually with brach |
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