THE MILLE LACS BAND OF
OJIBWE INDIANS
Legislative Branch of Tribal Government

JOINT RESOLUTION 15-03-195-13

A JOINT RESOLUTION APPROVING THE 2012 UPDATED HAZARD MITIGATION PLAN.

WHEREAS, the Mille Lacs Band Assembly is the duly elected governing body for the Mille Lacs Band of Ojibwe, a federally-recognized Indian Tribe; and

WHEREAS, according to 3 MLBSA § 2(d), the Band Assembly is empowered to adopt resolutions to promote the general welfare of the people of the Band; and

WHEREAS, the Chief Executive of the Band is empowered to exercise the Executive Branch powers of the Band; and

WHEREAS, the Mille Lacs Band of Ojibwe promotes the general welfare of its Band members by establishing duties, responsibilities and procedures for the conduct of domestic and external affairs; and

WHEREAS, the Band acknowledges that it is now necessary to update the Hazard Mitigation Plan in order to make corrections as requested by the MN Division of Homeland Security and DHS-FEMA Region V based on the Indian Tribal Planning Criteria contained in 44 C.F.R. Part 201.7, as authorized by the Disaster Mitigation Act of 2000; and

WHEREAS, the proposed plan attached hereto as Exhibit A meets the required criteria for a Tribal Mitigation Plan.

NOW, THEREFORE, BE IT RESOLVED that the Mille Lacs Band Assembly and Chief Executive do hereby formally approve this 2012 Hazard Mitigation Plan.

WE DO HEREBY CERTIFY that the foregoing resolution was duly concurred with and adopted at a regular session of the Band Assembly in Legislative Council assembled, a quorum of legislators being present, held on the 7th day of March, 2013 at Vineland, Minnesota by a vote of 2 FOR, 0 AGAINST, 0 SILENT.

IN WITNESS WHEREOF, we, the Band Assembly hereunto cause to have set the signature of the Speaker of the Assembly.

Curt Kalk

Curt Kalk, Speaker of the Assembly

DISTRICT I
43408 Oodena Drive • Onamia, MN 56359
(320) 532-4181 • Fax (320) 532-4209

DISTRICT II
36666 State Highway 65 • McGregor, MN 55760
(218) 768-3311 • Fax (218) 768-3903

DISTRICT IIA
2605 Chiminising Drive • Isle, MN 56342
(320) 676-1102 • Fax (320) 676-3432

DISTRICT III
45749 Grace Lake Road • Sandstone, MN 55072
(320) 384-6240 • Fax (320) 384-6190

URBAN OFFICE
1404 E. Franklin Avenue • Minneapolis, MN 55404
(612) 872-1424 • Fax (612) 872-1257

IN CONCURRENCE, with the action of the Speaker of the Assembly, I hereunto set my hand to this resolution.

Melanie Benjamin, Chief Executive

OFFICIAL SEAL OF THE BAND

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Vision and Value Statements

The Mille Lacs Band of Ojibwe (MLB or the Band) promotes the general welfare of its Band members by establishing duties, responsibilities and procedures for the conduct of domestic and external affairs.

All Hazard Mitigation Vision

The Mille Lacs Band of Ojibwe will strive to work with surrounding communities and local emergency responders to create an active and results-oriented all hazard mitigation plan that will make the reservation, its residents and visitors and region a safer and more sustainable place.

Note Concerning Sacred Sites

There are many sites that are sacred to the Ojibwe people. Some of these sites are on MLB property. It is forbidden to reveal the location of a sacred site or any other site-specific information to non-Ojibwe people. The Band has a record of these sites and it includes them through this reference in its disaster and emergency preparedness, mitigation and response plans and procedures.

Community Profile

This section was reviewed by the Tribal Emergency Management Coordinator and additional, updated information was included. A Community Information Section was included as well as additional history for the Mille Lacs Band. Also, the community infrastructure section was updated and expanded.

The Community Profile provides a broad overview of the Mille Lacs Band's physical, geopolitical, historical and socioeconomic characteristics, based on the most currently available information.

It draws on and incorporates by reference other documents created by the MLB and other entities, including:

- Emergency Operations Plan 2012
- Capital Improvement Plan
- Mille Lacs Community Health Profiles 2002, Great Lakes Epicenter

These documents should be consulted for further details on the subjects presented. Maps were extracted from information provided by the Minnesota Department of Administration (LMIC), the Minnesota Department of Natural Resources (MnDNR), the U.S. Environmental Protection Agency (US EPA) and Mille Lacs Band of Ojibwe staff.

The coordinated use and implementation of these combined documents form a sound basis for all hazard mitigation projects, plans and activities and ensure that they are tied to the county's land use and environmental regulations.

General Overview

The Mille Lacs Reservation is located in east-central Minnesota. The tribal headquarters is in Vineland, near Onamia, Minnesota. The 1855 Treaty of Washington (10 Stat. 1165) established the reservation. Although the boundaries of the Mille Lacs Band of Ojibwe reservation encompass approximately 61,000 acres for the Mille Lacs Lake Reservation and approximately 10,800 acres for the Sandy Lake Reservation in parts of 7 Minnesota counties, the majority of its land is located within four townships on the north end of Mille Lacs County. Additional communities reside in Aitkin and Pine counties. The reservation is divided into three districts: District I, Vineland resides in northern Mille Lacs County, District II, East Lake resides in central and eastern Aitkin County, District IIA, Chiminising resides in northeastern Mille Lacs County and District III, Lake Lena resides in eastern Pine

County. Other Band holdings are located in Kanabec, Morrison, Crow Wing and Otter Tail Counties and the Twin Cities metropolitan area.

This plan will primarily address land in Districts I, II, IIA and III; however references and information about other properties are addressed where appropriate.

Community Information

The Mille Lacs Reservation consists of nine communities across three districts that are geographically separated by vast distances (see Maps in Appendix B).

- District I of the Mille Lacs Reservation consists of Vineland, MN located on the north-western corner of the Mille Lacs Lake Reservation, on the south-western shores of Mille Lacs Lake and its environs. Included in District I, but not formally defined as a Band village are Cities of Onamia and Wahkon, MN, both on the southern edge of the Mille Lacs Lake Reservation. The lake is a cultural and natural trust resource. The lake is also a universally recognized as a premier subsistence fishing and trophy fishing lake, which lake-related tourism adds an estimated $150 million into the local economy annually. Vineland houses the Band's central governmental offices, schools, clinic, assisted living unit, community center, ceremonial building, wastewater treatment plant, transfer station, pow wow grounds, grocery store, movie theatre and Grand Casino Mille Lacs and hotel, and hosts Minnesota Historical Society's Mille Lacs Indian Museum. Near Vineland, the Band owns and operates a gas station/restaurant and a resort/hotel. Wahkon houses the Mille Lacs Tribal College.
- District II of the Mille Lacs Reservation consists of one community in the District IIa proper--Chiminising, located in the south-western corner of the Mille Lacs Lake Reservation along the south-eastern area of Mille Lacs Lake in and around the community of Isle, MN, and three communities in the District II proper—East Lake, MN, which is located approximately 40 miles north of Isle, approximately 4 miles south of McGregor, MN, Lake Minnewawa, MN, located approximately 6 miles north of McGregor on the south end of Big Sandy Lake in the Sandy Lake Reservation and Sandy Lake, MN, on the north end of Big Sandy Lake in the Sandy Lake Reservation, located approximately 14 miles farther north of Lake Minnewawa near Libby, MN. Isle houses a community center. East Lake houses a school, community center, ceremonial building, assisted living unit and a gas station.
- District III of the Mille Lacs Reservation consists primarily of Hinckley, MN, and Lake Lena, MN. Lake Lena, MN is located near the St. Croix River, which forms the Minnesota-Wisconsin border. This community is about 25 miles east of Hinckley, MN. Two other smaller communities of Pine City, MN, and Sandstone, MN, and the *Misi-zaaga'igani Anishinaabe Izhitwaawin* Cultural Center in Rutledge, MN, are also located within this district. Hinckley houses an assisted living unit, resort, hotels and Grand Casino Hinckley. Lake Lena houses a community center, clinic, ceremonial building and schools, with a Band-owned/operated gas station nearby.

Under the authority of the Title 1, Chapter 1, Section 10 of the Mille Lacs Band Statues (1 MLBSA §10), enrolled members of the Band who reside on trust and/or allotted lands under the jurisdiction of the Band or who reside within a 30-mile radius of such trust and/or allotted lands are entitled to participate in the Cultural, Natural Resources, Economic, Social, Educational, Health and General Welfare Resources of the Tribal government. In addition to these three districts serving the nine communities and their environs, the Band also operates an Urban District to provide Band-members residing in the Minneapolis-St. Paul Metropolitan Statistical Area with limited Tribal services.

The Mille Lacs Band of Ojibwe has approximately 4,100 enrolled members, of which:

- 1,350 in District I
- 200 in District II
- 125 in District IIa
- 525 in District III
- 800 in the Urban District
- 500 in non-District areas of Minnesota
- 400 in the United States outside of Minnesota
- 200 outside of the United States

Together with other Indians and non-Indian family members and employees of the Mille Lacs Band of Ojibwe, the tribal government serves an estimated 7,000 people.

Primary Transportation Connections

District	Location	Roads
District I	Vineland	US Highway 169
		County Road 25
		County Road 35
	Wahkon	MN Highway 27
	Onamia	US Highway 169
		MN Highway 27
District IIA	Isle	East Superior Street
		MN Highway 27
		MN Highway 18
		MN Highway 47
District II	East Lake	MN Highway 65
		County Road 13
		200th Avenue South to County Road 57
	Sandy Lake	Loon Avenue (County Road 36)
	Lake Minnewawa	County Road 6 (Goshawk Street)

		200th Avenue
District III	Lake Lena	County Road 173 to MN Highway 48
		County Road 137 to MN Highway 48
	Sandstone	MN Highway 23 between MN Highways 18 and 123
	Rutledge	County Road 61
	Hinckley	County Road 20 to MN Highway 48
	Pine City	County Road 61 (Main St.)

History

According to oral traditions, the Anishinaabe peoples first lived on the Atlantic coast of North America. About 3,000 years ago, the Anishinaabe peoples began migrating west. About 1,500 years ago, the Anishinaabe people divided into six components Nations, which include the Ojibwe, the ancestors of the Mille Lacs Band. About 500 years ago, the Ojibwe arrived to the head of Lake Superior, in what today is Duluth, MN, and Superior, WI. About 350 years ago, the Ojibwe forced the Dakota out of Big Sandy Lake and established their permanent homeland on and around the Big Sandy Lake. Between 1745 and 1750, the Ojibwe arrived in the area around Mille Lacs Lake and forced the majority of the Mdewakanton Dakota, who have already begun migrating west and south, out of the area, and absorbing the remaining minority of Mdewakanton Dakota. The Ojibwe established their permanent homeland on and around the shores of Mille Lacs Lake. The Ojibwe who settled in the region in what is today East-central Minnesota supported themselves by hunting deer, bear, moose, waterfowl and small game, by fishing the area's lakes and streams, by gathering wild rice, maple sugar, and berries, and by cultivating plants.

The 1783 Treaty of Paris that ended American War of Independence established the boundary between the United States of America and Great Britain (today, Canada), placing the homeland of the ancestors of Mille Lacs Band in United States' territory. Beginning in 1795, the ancestors of the Mille Lacs Band entered into a treaty relationship with the United States. In 1837, 1842, 1847 and 1855, the ancestors of the Mille Lacs Band ceded lands to the United States, but retaining usufruct rights upon those lands, for hunting, fishing and gathering. These land cessions opened up these lands to the advancing timber crews and mining interest.

As part of the 1855 Treaty of Washington (10 Stat. 1165), six reservations for the Mississippi River Bands of Chippewa Indians were established including the 61,000 acre Mille Lacs Lake Reservation on and around the south end of Mille Lacs Lake, including the islands in the southern portion of the lake, and the 10,800 acre Sandy Lake Reservation. During the Dakota War of 1862, Mille Lacs Indian warriors defended non-Indians from aggression by neighboring Ojibwe bands, while the Sandy Lake Band remained neutral in this conflict.

In 1863 and 1864, in recognition of its "good conduct" of the Mille Lacs Indians during the Dakota War, both the Mille Lacs Indians and the Sandy Lake Band received a guarantee in a treaty with the U.S. government that Band members will not be forced to leave their respective reservations. However, some of these promises were broken. Despite the 1864 Treaty of Washington (13 Stat. 693), the U.S. Interior Department proclaimed the both reservations available for purchase by timber companies and others.

Over the next century, like so many other Native American experience, the ancestors of the Mille Lacs Band struggled with poverty and despair. Many Band members abandoned hope of fair treatment from the U.S. government and moved to the White Earth Indian Reservation. Others were harassed into moving over the next few years as their property is sold out from under them. However, a small group of Band members led by Chief Migizi and Chief Wadena refused to leave their land. Chief Wadena's village was burned by a sheriff's posse and its residents were forcibly removed. This land was claimed by a developer. In 1914, Chief Migizi obtained a promise from Congress to purchase 40-acre home sites for the landless Band members. By the time the sites were distributed 12 years later, the sites were reduced to 5 acres. In 1915, under President Woodrow Wilson's Executive Order, the 32.35 acre Sandy Lake Cemetery was secured with assistance from the neighboring Fond du Lacs Indian Reservation.

In 1934, Congress passed the Indian Reorganization Act, which formally recognized Indian self-government and was intended to restore Indian self-determination and tribal cultures. The Minnesota Chippewa Tribe (MCT) was formed as a political union of many Ojibwe bands, grouped into six political service regions, and then unified all the bands within each of the six regions as a distinct Band. The non-Removable and Removable Mille Lacs Indians, non-Removable Sandy Lake Band of Mississippi Chippewa Indians, Rice Lake Band of Mississippi Chippewa Indians, and the Snake River Band and Kettle River Band of the St. Croix Bands of Lake Superior Chippewa Indians—all of the MCT's Mille Lacs Service Region—were unified to form the Mille Lacs Band of Ojibwe.

During the 1960's following the boarding school and relocation years of federal Indian policy modern homes, public buildings, health services, educational opportunities, and social programs began to appear on the reservation. Arthur Gahbow was elected chairman of the Mille Lacs Band's tribal government in 1972. Gahbow led the Band toward self-determination by advancing economic development on the reservation, pursuing land claims to expand the reservation's land base, and overseeing a restructuring of the Band's government system. Chairman Gahbow was instrumental in forming the Mille Lacs Band's Nay Ah Shing Schools. In 1981, the Mille Lacs Band moved closer to self-governance by adopting a "separation of powers" form of government with executive, legislative and judicial branches. The move strengthened the Band's ability to deal with the U.S. on a government-to-government basis.

Congress passed the Indian Gaming Regulatory Act in 1988 that recognized that Indian tribes have the right to own and operate casino gaming businesses on reservation lands. The Mille Lacs Band opened Grand Casino Mille Lacs in 1991 and Grand Casino Hinckley in 1992. Since then, casino revenues have allowed the Mille Lacs Band to strengthen its cultural identity, return to economic self-sufficiency, rebuild its reservation, and increase the prosperity of the entire region.

In 1994, based on the success the Mille Lacs Band and other tribes have shown in self-governance, President Bill Clinton signed legislation turning the Self-Governance Demonstration Project into a permanent project. Under the law, the Mille Lacs Band and other tribes signed compacts with several federal departments and agencies, allowing an even greater degree of self-determination.

What is MLB Land: About Reservation Boundaries

Trust Lands

The U.S. government has a trust responsibility to act as a protectorate for American Indian tribal governments. This trust responsibility was an underlying promise made by the United States when it made treaties and agreements with Indian tribes. The U.S. government acquired virtually all of its land through treaties or agreements with Indian tribes. Today most lands that Indian tribes use are owned by the United States and held in trust by the U.S. government for those tribes. The U.S. government promised that if Indian tribes would accept the limited jurisdiction of the United States, it would then extend a protectorate status to tribal governments. The U. S. Supreme Court affirmed the U.S. government's trust responsibility to American Indians in the 1830s. The court ruled that when the government entered into treaties with Indian tribes, it made a promise to protect and enhance Indian tribes.

The U.S. government assumes a trust responsibility for all lands that it owns, whether they are national parks, national forests, military reserves or Indian trust lands. The government's responsibility is to manage those lands in a way that best serves the people who use them. The United States is responsible for ensuring decisions affecting Indian trust land will benefit the tribes involved. In recent years, the United States has said that every federal agency has an obligation to ensure the protection of tribal governments, even though the trust relationship is administered primarily through the Bureau of Indian Affairs.

In the 1990s, tribes began to take on some of the responsibilities for managing trust lands through a policy known as self-governance. Under self-governance, tribes have been able to receive federal funds directly to implement programs themselves and meet the standards that were established for their lands. Self-governance does not mean the trustee-benefactor

relationship between the United States and a tribe ceases; it simply means that the U.S. government now contracts more of its trust responsibilities to the tribes. The Mille Lacs Band of Ojibwe was one of the first tribes in the country to enter into a self-governance compact with the federal government, and it was instrumental in influencing federal policy so that more tribes could enter into self-governance compacts.

Reservation Borders

The Mille Lacs Reservation was established through the 1855 Treaty of Washington (10 Stat. 1165) as a permanent homeland for the Mille Lacs Band of Ojibwe. According to the 1855 Treaty, the two reservation areas are defined as follows:

- Mille Lacs Lake Reservation: fractional townships of Township 42 North, Range 25 West; Township 42 North, Range 26 West; Townships 42 and 43 North, Range 27 West; including three islands in the southern portion of Mille Lacs Lake.
- Sandy Lake Reservation: beginning at the mouth of Sandy Lake River; thence south, to a point on an east and west line, two miles south of the most southern point of Big Sandy Lake; thence east, to a point due south from the mouth of West Savannah River; thence north, to the mouth of said river; thence north to a point on an east and west line, one mile north of the most northern point of Big Sandy Lake; thence west, to Aitkin River; thence down said river to Sandy Lake River; and thence down said river to the place of beginning.

The reservation boundaries serve to protect the interests of Band members and provide a location where Band members can live, maintain their cultural and spiritual traditions, and govern themselves. The United States government recognizes the reservation boundaries. Many non-Band members now live within the reservation boundaries, but the Band does not regulate non-Band members, and it has worked hard to resolve any jurisdictional issues.

The United States Supreme Court ruled (526 U.S. 127 (1999)) that the Mille Lacs Band retains the right to hunt, fish and gather on lands it ceded to the federal government through the 1837 Treaty of St. Peters (7 Stat. 536) under tribal regulations. This decision ends the Band's nine-year legal battle to have its 1837 treaty rights recognized.

The United States Eighth Circuit Court of Appeals found that Mille Lacs County's lawsuit against the Mille Lacs Band failed to show that the Band's reservation boundaries have harmed the county. The court's dismissal of the lawsuit does not confirm or change the reservation's boundaries, but it does affirm that the county was "unable to point to any definite controversy that exists from the Band's purported expansion of tribal jurisdiction over the disputed portion of the reservation." In November 2004, the U.S. Supreme Court refused to hear Mille Lacs County's lawsuit challenging the existence of the 61,000-acre Mille Lacs Lake Reservation boundaries. The case had previously been dismissed by a U.S.

District Court chief judge and the U.S. Eighth Circuit Court of Appeals. The maps in this plan depicting the reservation boundaries represent this decision.

Government

Indian tribes have sovereign powers over their members and their territories. These powers derive from their status as sovereign nations that existed before the formation of the United States. These powers also derive from treaties with the United States and acts of Congress. When the United States was formed, the Constitution itself recognized the unique status of Indian tribes, authorizing Congress to regulate commerce with "foreign nations, among the several states, and with the Indian tribes." The Constitution also authorized the President to make treaties with the advice and consent of the Senate. Under this authority, the United States made many, many treaties with Indian tribes, recognizing the tribes' sovereign status. The Supreme Court has described the treaties as contracts between sovereigns, and it has held that the tribes retained all powers of tribal sovereignty not expressly relinquished by them in treaties

The purpose of the tribal government of the Mille Lacs Band is to promote the general welfare of its citizens by establishing duties, responsibilities and procedures for the conduct of domestic and external affairs. For many years, the Band operated under a single agency form of government known as the Reservation Business Committee (RBC). However, the Band determined that a separation of powers, similar to that employed by the United States federal government, would be a more effective and responsible way to run the reservation.

Mille Lacs tribal government consists of executive, judicial and legislative branches. Mille Lacs is a member of the Minnesota Chippewa Tribe, with the Chief Executive and the Secretary-Treasurer serving as Mille Lacs Band's representatives to the Minnesota Chippewa Tribes' Executive Council.

The executive branch is responsible for the management and development of all the programs within tribal government. A Chief Executive is elected for a four-year term. The Chief Executive appoints commissioners; appointments are ratified by the Band Assembly. The Administrative Policy Board (comprised of the commissioners of administration, education, natural resources, health and human services, and the assistant commissioner of administration) is responsible for budget development, personnel oversight and personnel policies.

The legislative branch is made up of the Band Assembly, comprised of Secretary-Treasurer and three district representatives, and the assistants of the Band Assembly members. The Band Assembly passes all laws, makes changes or amendments to tribal law, passes tribal resolutions and appropriates funds for all tribal programs.

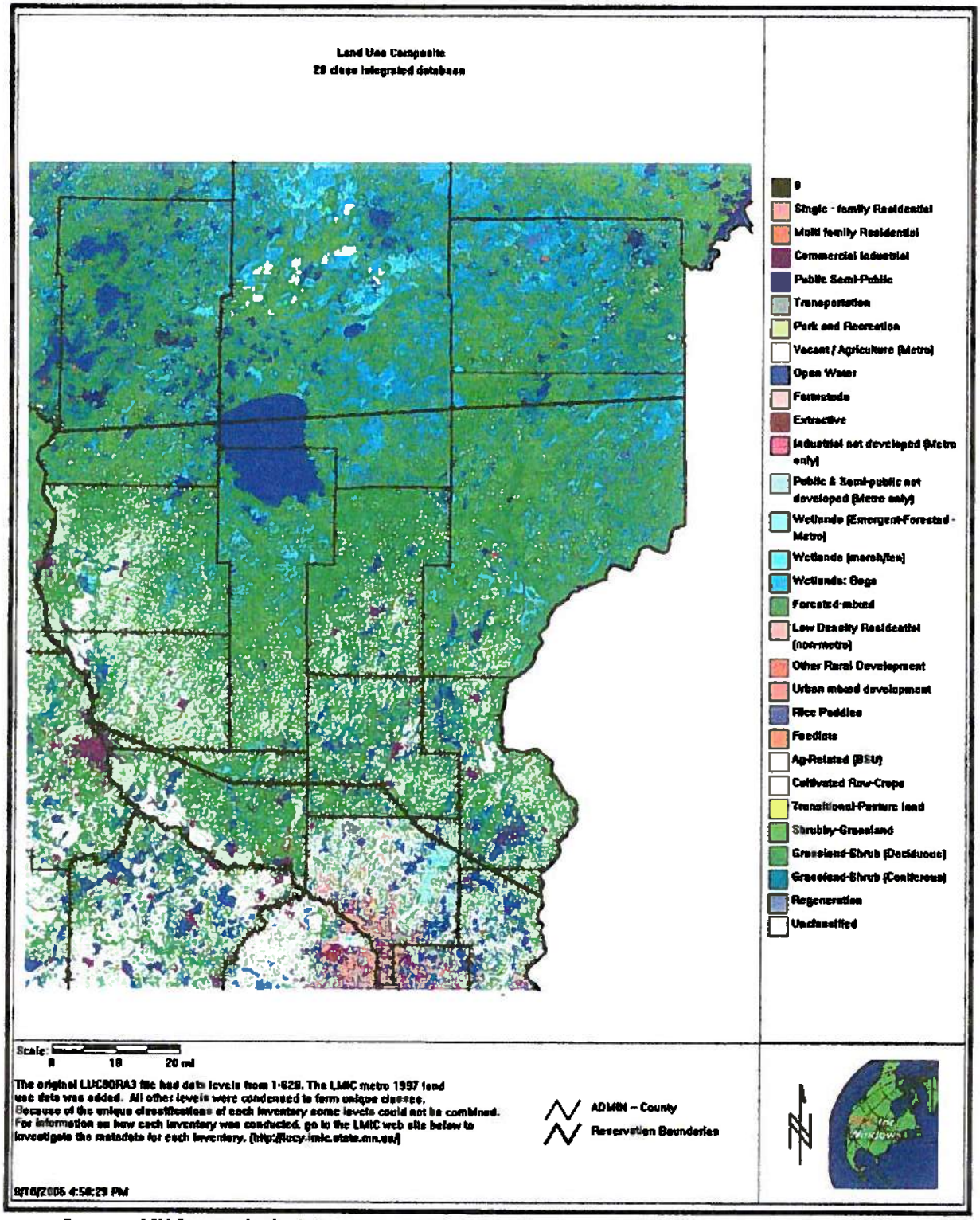
The judicial branch is made up of the judges and officials of the Tribal Court. The court is headed by a Chief Justice, and also served by Associate Justices. Mille Lacs Tribal Law Enforcement Officials have concurrent jurisdiction in Mille Lacs County, meaning that tribal police have the authority to pursue charges either through County Court or Tribal Court.

Land Use

Mille Lacs Band's land use consists of forestry and recreation-based activities, limited agriculture, including wild rice harvesting, commercial and limited industrial use.

The following map was developed by the Minnesota Department of Administration Land Management Information Center based on the 1990-91 land use census. The data was updated in 1997. This is the most current land use map compiled by the state of Minnesota.

Mille Lacs Band Land Use Map



Source: MN Dept. of Administration – Land Management Information Center

Climate

Because of the large area, regional differences and distributed centers of the Mille Lacs Reservation, the climate information will be described by District.

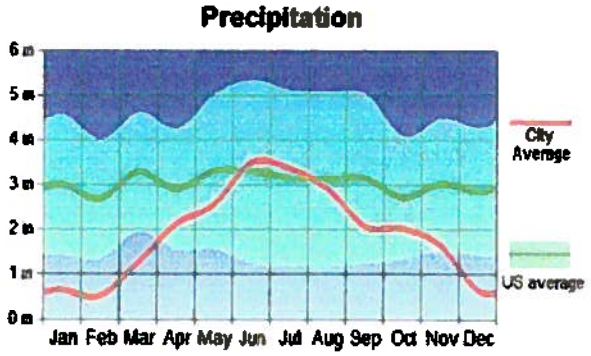
Climate Average Precipitation and Snowfall

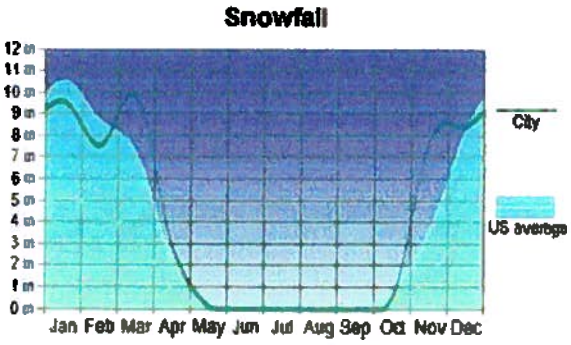
Mille Lacs Band District I
(Onamia Station)

Month	Precipitation in Inches	Snowfall in Inches
January	0.67	11.9
February	0.53	4.6
March	1.27	5.9
April	2.13	2.2
May	2.57	0.0
June	3.51	0.0
July	3.38	0.0
August	2.93	0.0
September	2.09	0.0
October	2.04	0.1
November	1.66	7.9
December	0.66	4,9
	23.44	37.5

Source: Minnesota State Climatologist

Annually, the normal total precipitation in District I of the Mille Lacs Band of Ojibwe range from 23 inches to 24 inches. During the growing season of May through September, the normal total precipitation is 14.48 inches. Annual precipitation has ranged from a low of 17.92 inches in 1997 to a high of 35.14 inches in 2001. Snowfall averages about 37.5 inches per year.



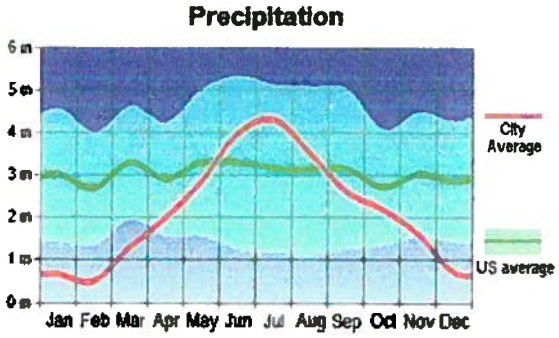


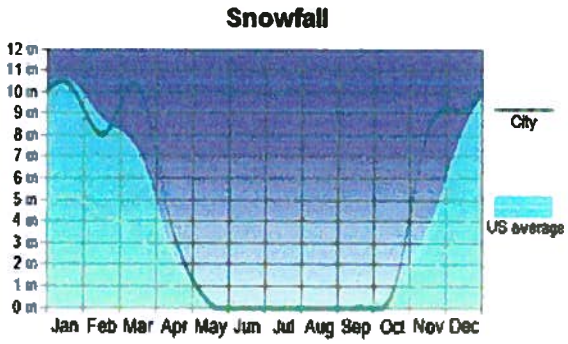
Mille Lacs Band District IIA
(Isle Station)

Month	Precipitation in Inches	Snowfall in Inches
January	0.66	11.9
February	0.47	6.0
March	1.22	7.6
April	1.90	2.0
May	2.95	0.1
June	4.31	0.0
July	4.96	0.0
August	3.75	0.0
September	2.85	0.0
October	2.27	0.7
November	1.53	5.5
December	0.74	6.6
	27.61	40.0

Source: Minnesota State Climatologist

Annually, the normal total precipitation in District II of the Mille Lacs Band of Ojibwe is 29.35 inches. During the growing season of May through September, the normal total precipitation is 18.95 inches. Annual precipitation has ranged from a low of 14.98 inches in 1976 to a high of 39.97 inches in 1965. Snowfall averages about 45.9 inches per year.



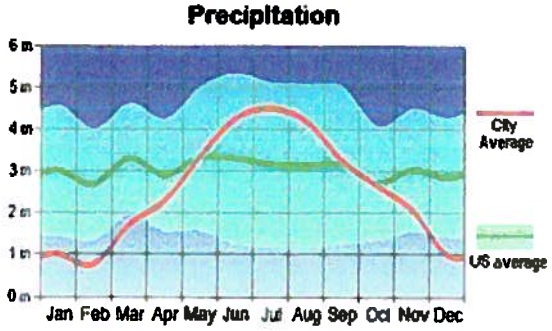


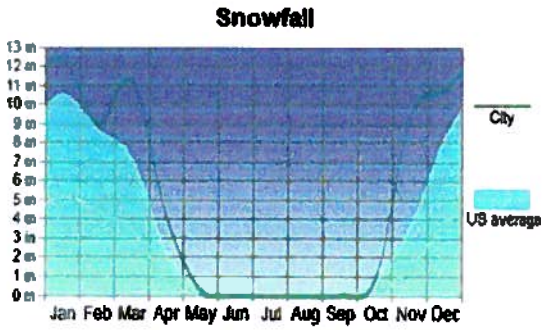
Mille Lacs Band District II
(Aitkin Station – Reference for McGregor)

Month	Precipitation in Inches	Snowfall in Inches
January	1.03	13.2
February	0.68	6.4
March	1.51	7.6
April	2.05	2.7
May	3.10	0.1
June	4.33	0.0
July	4.65	0.0
August	3.94	0.0
September	2.93	0.0
October	2.50	0.4
November	1.81	7.0
December	0.82	8.5
	29.35	45.9

Source: Minnesota State Climatologist

Annually, the normal total precipitation in District II of the Mille Lacs Band of Ojibwe is 29.35 inches. During the growing season of May through September, the normal total precipitation is 18.95 inches. Annual precipitation has ranged from a low of 14.98 inches in 1976 to a high of 39.97 inches in 1965. Snowfall averages about 45.9 inches per year.

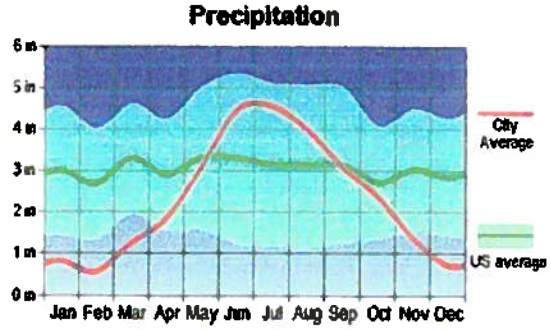


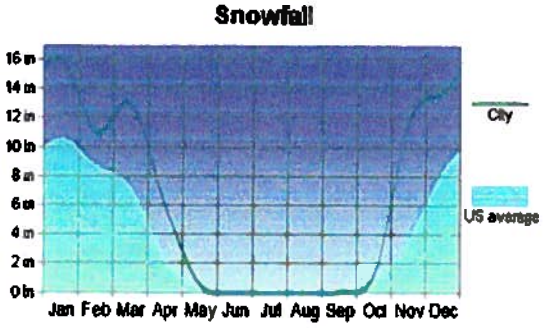


Mille Lacs Band District III
(Hinckley Station)

Month	Precipitation in Inches	Snowfall in Inches
January	1.03	118
February	0.78	7.4
March	1.73	9.7
April	2.31	2.7
May	3.35	0.0
June	4.27	0.0
July	4.53	0.0
August	4.18	0.0
September	3.27	0.0
October	2.69	0.6
November	2.09	10.0
December	1.01	11.2
	31.24	53.4

Annually, the normal total precipitation in District III of the Mille Lacs Band of Ojibwe is 31.24 inches.. During the growing season of May through September, the normal total precipitation is 19.6 inches. Annual precipitation has ranged from a low of 14.0 inches in 1910 to a high of 45.36 inches in 1968. Snowfall averages about 53.4 inches per year.



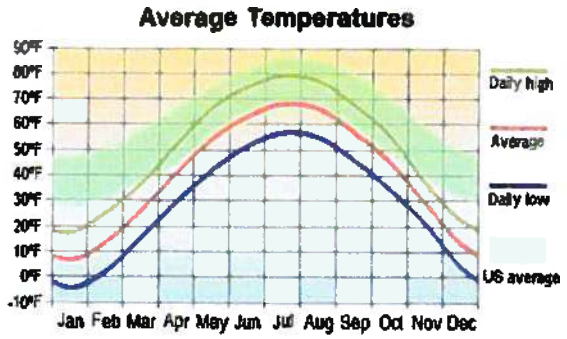


Climate Average Temperature

Average daily temperatures in Mille Lacs range from 7° to 68° Fahrenheit. In the winter months, the average daily minimum temperature is about 5° F. The average daily maximum temperature in the summer is about 78° F. In Isle on December 18, 1983, the lowest temperature on record was recorded at -46° F. In Hinckley, the highest temperature (102° F) on record was recorded on July 9, 1988.

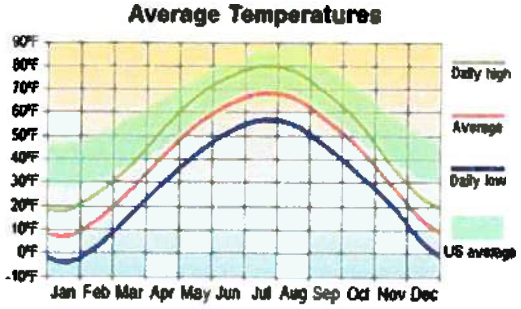
Mille Lacs Band District I
(Onamia Station)

Month	Mean Daily Maximum °F	Mean Daily Minimum °F	Mean Daily Temperature °F
JAN	19	-1	6.7
FEB	25	3	13.4
MAR	37	14	25.9
APR	52	29	40.5
MAY	65	41	54.2
JUN	74	52	63
JUL	78	57	68
AUG	76	55	66.1
SEP	67	46	56.8
OCT	54	35	45
NOV	37	22	29.1
DEC	23	6	13.3
ANN	50.58	29.9	40.2



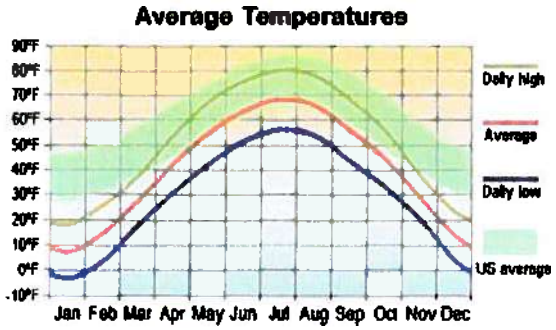
Mille Lacs Band District IIA
(Isle Station)

Month	Mean Daily Maximum °F	Mean Daily Minimum °F	Mean Daily Temperature °F
JAN	16.9	-3.5	6.7
FEB	24.4	2.3	13.4
MAR	36.1	15.7	25.9
APR	51.3	29.6	40.5
MAY	65.9	42.5	54.2
JUN	74	52	63
JUL	78.4	57.6	68
AUG	76.1	56	66.1
SEP	66.5	47.1	56.8
OCT	54.1	35.8	45
NOV	36	22.1	29.1
DEC	21.6	4.9	13.3
ANN	50.1	30.2	40.2



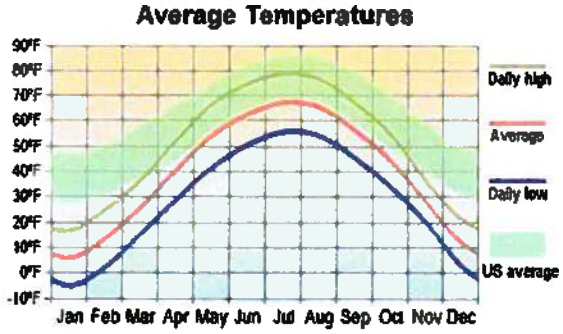
Mille Lacs Band District II
(Aitkin Station – Reference for McGregor)

Month	Mean Daily Maximum °F	Mean Daily Minimum °F	Mean Daily Temperature °F
JAN	17.6	-3.7	7
FEB	25.3	3.2	14.3
MAR	37.5	15.5	26.5
APR	53.1	28.8	41
MAY	67	40.3	53.7
JUN	75.1	49.5	62.3
JUL	78.9	54.4	66.7
AUG	76.8	52.3	64.6
SEP	66.9	43.5	55.2
OCT	54.7	33.2	44
NOV	36.1	20.1	28.1
DEC	21.9	4.1	13
ANN	50.9	28.4	39.7



Mille Lacs Band District III
(Hinckley Station)

Month	Mean Daily Maximum °F	Mean Daily Minimum °F	Mean Daily Temperature °F
JAN	18.3	-2.5	7.9
FEB	25.8	4.3	15.1
MAR	37.6	18.2	27.9
APR	53.8	31.4	42.6
MAY	67.4	42.8	55.1
JUN	75.8	51.8	63.8
JUL	80.3	56.8	68.6
AUG	78.2	54.1	66.2
SEP	68.3	43.9	56.1
OCT	55.6	33.4	44.5
NOV	37.7	20.3	29
DEC	23.2	4.5	13.9
ANN	51.8	29.9	40.9



Physical Characteristics

The Mille Lacs Band reservation is located in the Mille Lacs uplands subsection of the Laurentian mixed forest province eco-region, which comprises the true forested region of Minnesota. It consists of continuous conifer, conifer-hardwood mix, or hardwood forest vegetation before settlement. Topography is variable. Landforms range from lake plains and outwash plains to ground and end moraines (accumulated earth and stones deposited by glaciers). Gently rolling till plains and drumlin fields are the dominant landforms in this eco-region. The jewel of this region is Mille Lacs Lake, well known for walleye fishing. In the southern portion, upland hardwoods consisting of red oak, sugar maple, basswood and aspen-birch were common before settlement. Presently, forestry, recreation and wild rice are the most common land uses.

Bedrock geology

Glacial drift ranges from 100 to 300 feet in depth over bedrock. Bedrock is locally exposed throughout the northern portion (District I), where depths are typically 100 feet or less (Olsen and Mossler 1982, Trotta and Cotter 1973). Bedrock consists primarily of gneiss, amphibolite, granite, and metamorphosed mafic. At the southeastern edge are cretaceous marine shale, sandstone, and variegated shale (Morey 1976, Morey et al. 1982, Ostrom 1981).

Soils

At the eastern end (District III), the end moraines and ground moraines have loamy soils. Typically, there is dense glacial till underlying most soils in this area. This dense till impedes water movement throughout the soil profile. The soils are described as acid, stony, reddish sandy loams, silt loams, and loamy sands (Hole 1976, Hobbs and Goebel 1982). The parent material in the eastern portion of the subsection is more calcareous and finer textured than Superior Lobe sediments. It is underlain by Superior lobe drift which is locally exposed. The soils are developed under forest vegetation on the moraines. Soils are in the Alfisol, Entisol, or Histosol orders. The Mille Lacs uplands cover the large area of Superior Lobe ground moraines and end moraine in east central Minnesota.

Soils definitions: Alfisols are soils in semiarid to humid areas that have a clay and nutrient-enriched subsoil. They commonly have a mixed vegetative cover and are productive for most crops. Entisols are soils that have little or slight development and properties that reflect their parent material. They include soils on steep slopes, flood plains, and sand dunes. They occur in many environments. Histosols are dark soils that have slightly decomposed to well-decomposed organic materials derived from sedges, grasses, leaves, hydrophytic plants and woody materials. These soils dominantly are very poorly drained and occur in low-lying areas.

Hydrology

Major rivers influencing the Mille Lacs Band include the St. Croix, which forms part of the eastern boundary, Kettle, Snake, Rum, and Ripple Rivers. The drainage network is young and undeveloped, with extensive areas of wetlands present.

Pre-settlement vegetation

The original vegetation consisted of a mosaic of forest types. Along the southern boundary, maple-basswood forests were prevalent. The rest of the subsection was a vast mix of conifer, hardwood and mixed conifer-hardwood forests. Peatland areas were populated with sedge-fen, black spruce-sphagnum, or white cedar-black ash communities.

Present vegetation and land use

Forestry, recreation and wild rice harvesting are the most important land uses.

Natural disturbance

Both fire and wind-throw were important in determining the vegetation of the area. Dense basal till occurs at depths of 20 to 40 inches throughout most of the subsection. Because of this, rooting depths for trees are shallow and they are subject to wind-throw.

Conservation concerns

Conservation concerns include harvesting of old growth timber, and water quality degradation.

Community Infrastructure

A community's infrastructure is important for its normal functioning and the health, safety and welfare of its people. This portion of the profile identifies Mille Lacs Band's important infrastructure, including schools, roads, and sewer and water systems.

The MLB has been working with the U.S Department of Homeland Security (DHS) to assess its infrastructure using the Vulnerability and Protective Measures Indices. Information about the results and recommendations from these assessments will be further addressed in sections IV. Goals, Objectives and Mitigation Strategies, and V. Action Plan, of this document.

The next five pages list the most critical facilities. These facilities were identified in a Critical Structure Survey for the Continuity of Operations (COOP) Plan. The last column of the table "Protective Measures Index/Resilience Index" (PMI/RI) identifies with an "x" the facilities that may need to be operational during an emergency/disaster. These facilities may need to continue operating because they have the capability of being an alternate EOC, care site or sheltering site. These sites have a full kitchen and gym.

Critical Structure Survey (COOP Plan)									
District	**Infrastructure Name**	***Address1***	**City**	**State**	**Zip**	**Phone**	**Fax**	**Department**	**PMI/RI***
I	**Mille Lacs Band Government Center**	***43408 Oodena Drive***	**Onamia**	**MN**	**56359**	**320-532-4181**	**320-532-7505**	**Administration**	**X**
I	**District I (Mille Lacs) Community Center**	***43408 Oodena Drive***	**Onamia**	**MN**	**56359**	**320-532-4181**	**320-532-7581**	**Administration**	**X**
I	Water Treatment Plant	*43282 Timber Trails Road*	Onamia	MN	56359	320-532-4901		Community Development	
I	Water Towers (169, Bug Hill)		Onamia	MN	56359			Community Development	
I	Bus Garage	*17220 Noopiming Drive*	Onamia	MN	56359	320-532-7891		Community Development	
I	DNR Building	*17240 Noopiming Drive*	Onamia	MN	56359	320-532-7439	320-532-7514	Natural Resources	
I	Public Health Building	*17230 Noopiming Drive*	Onamia	MN	56359	320-532-7776		Health and Human Services	
I	Public Works Garage (by DNR)	*17240 Noopiming Drive*	Onamia	MN	56359			Community Development	
I	Graham Storage, DNR (Boats, equipment)		Onamia	MN	56359			Natural Resources	
I	Halfway House	*17222 Ataage Dr*	Onamia	MN	56359	320-532-5595		Health and Human Services	
I	Brick House Aftercare	*422293 Twilight Rd.*	Onamia	MN	56359	320-532-5292	320-532-5343	Health and Human Services	
I	Iskigamizigan Powwow Grounds							Community Development	
I	Mille Lacs Band Corporate Commission Office	*700 Grand Avenue*	Onamia	MN	56359	320-532-8800	320-532-8891	Corporate Commission	

Critical Structure Survey (COOP Plan)									
District	**Infrastructure Name**	***Address1***	**City**	**State**	**Zip**	**Phone**	**Fax**	**Department**	**PMI/RI***
I	Grand Casino, Mille Lacs	*700 Grand Avenue*	Onamia	MN	56359	800-626-5825		Corporate Commission	
I	Eddy's Resort	*41334 Shakopee Rd*	Onamia	MN	56359	320-532-3657		Corporate Commission	
I	Grand Market Grocery Store	*16600 Ataage Dr*	Onamia	MN	56359	320-532-4055		Corporate Commission	
I	MLB Convenience Store	*40955 US Hwy. 169*	Onamia	MN	56359	320-532-3940		Corporate Commission	
I	MLB Subway Restaurant	*40955 US Hwy. 169*	Onamia	MN	56359	320-532-3142		Corporate Commission	
I	Grand Makwa Cinema	*16550 Ataage Dr.*	Onamia	MN	56359	320-532-3929		Corporate Commission	
I	ML Wastewater Management Inc.	*43282 Timber Trails Rd*	Onamia	MN	56359	320-532-4901		Corporate Commission	
I	Woodlands National Bank	*424 Main St.*	Onamia	MN	56359	320-532-4142		Corporate Commission	
I	Woodlands National Bank, Grand Market Branch	*16602 Ataage Dr.*	Onamia	MN	56359	320-532-5436		Corporate Commission	
I	**Nay Ah Shing Schools P-12**	***43651 OoDena Drive***	**Onamia**	MN	**56359**	320-532-4695	ext. 2104	**Education**	X
I	Mille Lacs Indian Museum*	*43411 OoDena Drive*	Onamia	MN	56359	320-532-3632		Education	
I	Mille Lacs Tribal College	*40092 Beach Road*	Wahkon	MN	56386	320-495-3702	320-495-3707	Education	
I	Ne-la-Shing Clinic	*43500 Migizi Drive*	Onamia	MN	56359	320-532-4163	320-532-4735	Health and Human Services	

Critical Structure Survey (COOP Plan)									
District	**Infrastructure Name**	***Address1***	**City**	**State**	**Zip**	**Phone**	**Fax**	**Department**	**PMI/RI***
I	District I Assisted Living Unit	*43475 Migizi Drive*	Onamia	MN	56359	320-532-7365	320-532-5761	Health and Human Services	
I	ALU Elderly Center	*43408 Oodena Drive*	Onamia	MN	56359	320-532-4181		Health and Human Services	
I	Head Start Building	*43521 OoDena Drive*	Onamia	MN	56359	320-532-4690		Education	
IIA	Battered Women's' Shelter	*40243 Beach Rd.*	Wahkon	MN	56386	320-495-3514	NA	Health and Human Services	
IIA	**District IIA (Isle) Community Center**	***2605 Chiminising Drive***	**Isle**	**MN**	**56342**	**320-676-1102**	**320-676-3432**	**Administration**	**X**
II	**District II (East Lake) Community Center**	***36666 Highway 65***	**McGregor**	**MN**	**55760**	**218-768-3311**	**218-768-3903**	**Administration**	**X**
II	East Lake Convenience Store	*36040 State Hwy. 65*	McGregor	MN	55760	218-768-3344		Corporate Commission	
II	Minisinaakwaang Leadership Academy Charter School P-4*	*20930 367th Lane*	McGregor	MN		218-768-3477		Education	
II	District II Clinic-East Lake Community Center	*36666 Hwy. 65*	McGregor	MN	55760	218-768-3311	218-768-2143	Health and Human Services	
II	District II Assisted Living Unit	*20849 370th Lane*	McGregor	MN	55760	218-768-7090	218-768-2291	Health and Human Services	
III	**District III (Lake Lena) Community Center**	***45749 Grace Lake Road***	**Sandstone**	**MN**	**55072**	**320-384-6240**	**320-384-6190**	**Administration**	**X**
III	Grand Casino, Hinckley	*777 Lady Luck Drive*	Hinckley	MN	55037	800-472-6321		Corporate Commission	

Critical Structure Survey (COOP Plan)									
District	**Infrastructure Name**	***Address1***	**City**	**State**	**Zip**	**Phone**	**Fax**	**Department**	**PMI/RI***
Other	Woodlands National Bank	*8981 Market St*	Sturgeon Lake	MN	55783	218-372-3105		Corporate Commission	
Other	Woodlands National Bank	*240 North Road*	Cloquet	MN	55720	218-878-5999		Corporate Commission	
Other	Woodlands National Bank	*1113 East Franklin Ave., Suite 108*	Minneapolis	MN	55404	612-230-6960		Corporate Commission	
Other	Woodlands National Bank	*P.O Box 244 26040 Main St*	Zimmerman	MN	55398			Corporate Commission	
I	Archives	*43408 OoDena Drive*	Onamia	MN	56359	320-532-7535		Legislative Branch	
	Wild Rice Areas								
	Mille Lacs Lake								
	Ceremonial Buildings in Districts I, II, and III	*Location on file with (positions for Elise and Natalie)*							
	Sacred Sites	*Location on file with (positions for Elise and Natalie) and known by Elders*							

***PMI/RI – Protective Measures Index/Resilience Index**

Critical Structure Survey (COOP Plan)									
District	**Infrastructure Name**	***Address1***	**City**	**State**	**Zip**	**Phone**	**Fax**	**Department**	**PMI/RI***
III	Grand National Golf Course	*300 Lady Luck Drive*	Hinckley	MN	55037	320-384-7427		Corporate Commission	
III	Crossroads Convenience Store	*63144 State Hwy. 48*	Hinckley	MN	55037	320-655-4412		Corporate Commission	
III	Grand Auto and RV Care	*651 Lady Luck Dr.*	Hinckley	MN	55037	320-384-4822		Corporate Commission	
III	Woodlands National Bank	*122 East Main St*	Hinckley	MN	55037	320-384-6191		Corporate Commission	
III	Grand Northern Inn	*604 Weber Drive*	Hinckley	MN	55037	800-468-3517		Corporate Commission	
III	Grand Casino Hinckley RV Resort /Chalets	*777 Lady Luck Drive*	Hinckley	MN	55037	800-995-4726		Corporate Commission	
III	Pine Grove Leadership Academy Charter School P-4*	*63842 Ojibwe Road*	Sandstone	MN	55072	320-384-7590		Education	
III	Misi-zaaga'igani Anishinaabeg Izhitwaawin Culture Center	*7201 Cty Hwy 61*	Rutledge	MN	55798	320-233-7440		**Education**	
III	**Aazhoomog Clinic-Lake Lena Center**	***45741 Grace Lake Road***	**Sandstone**	**MN**	**55072**	**320-384-0149**		**Health and Human Services**	**X**
III	District III Assisted Living Unit	*Box 23, Road 3*	Hinckley	MN	55037	320-384-0640	(320) 384-0643	Health and Human Services	
Other	Urban Office	*1433 E Franklin Ave, Suite 7C*	Minneapolis	MN	55404	612-872-1424		Administration	

Schools

The Band operates an elementary and high school located in Vineland and Early Education facilities in Vineland, East Lake and Lake Lena. There are approximately 240 students enrolled. Band also operates two charter schools. Both charter schools, located in East Lake and Lake Lena, are pre-school to grade 4. Other Band children attend other area schools.

Special Event Areas and Historic Resources

The Iskigamizigan Powwow Grounds is located in Vineland and is used for powwows and other events. Minnesota Historical Society operates the Mille Lacs Indian Museum, located in Vineland. *Misi-zaaga'igani Anishinaabeg Izhitwaawin* Culture Center (Immersion Campgrounds) is located near Rutledge, Minnesota. Additional historic resources and sacred sites, including Ojibwe and Lakota sacred sites, are managed by the Mille Lacs Band and information is maintained with the Band's DNR Office.

State Parks and Natural Areas

The reservation abuts or includes a large number of state parks, wildlife management areas, natural and scientific areas, water resource management areas and other environmental protection areas.

Transportation

The Mille Lacs Band is served by area-wide transportation systems composed of roads, highways, airports, public transit, railroads and trails. The State and adjoining counties and cities are responsible for the majority of roadway maintenance. The MLB is responsible for some of the roadways on reservation property.

Railroads and Waterways

There is no rail or waterway transportation of persons or materials on or adjacent to Band lands.

Air Transportation

There are a number of small airports in the area; however, none are owned or controlled by the Mille Lacs Band.

Transit

The Mille Lacs Band does not own or operate any public transit service. The Health and Human Services Department provides some transportation services to Band residents, especially senior citizens and the disabled. The casinos operate shuttle vans in Districts I and III.

Trails

There are many official and unofficial trails throughout the reservation that are documented and maintained by the Band's DNR Office.

Telecommunications Facilities

Broadband in America has improved considerably in the last decade. People are online at faster speeds than ever before. Yet there are still critical problems that slow the progress of availability, adoption and utilization of broadband. While broadband adoption has grown steadily, it is still far from universal. It lags considerably among certain demographic groups, including the poor, the elderly, and some racial and ethnic minorities, those who live in rural areas and those with disabilities. The telecommunications infrastructure on the MLB reservation and surrounding areas is similar to that of the surrounding state; higher population areas are served with more options and more access to basic telecommunication services. The following information is subject to frequent change.

Description of Services by district

District I

- SCI Cable is in Finlayson, Isle, Wahkon and Onamia. SCI installed a cable from the Hinckley Casino to the Mille Lacs Casino. The cable has been extended for the school, assisted living facility, government center and clinic in District I for internet access, and cable TV. There is no residential cable in District I (Vineland area).
- Frontier (telephone) offers DSL in District I.
- Mille Lacs Electric has a wireless distribution point on the blue water tower as a subscription service.

District IIa

- SCI cable is available for internet and residential cable.
- Frontier Communications offers DSL in District IIa.
- Mille Lacs Electric has a wireless distribution point as a subscription service in Isle.

District II

- Frontier DSL is available at the government center, the Marathon station and at the storage facility.
- Mille Lacs Electric has a wireless access point as a subscription service in McGregor.
- Wireless availability

District III - Hinckley

- SCI cable is available for internet and residential cable. The cable extends from the casino to the Assisted Living Unit
- CenturyLink offers DSL

District III – Lake Lena

- Satellite phone availability
- Frontier offers satellite DSL

Telecommunication Service Providers

The following providers provide some level of service to the 1855 Mille Lacs Reservation. In the past 5 years, some of the providers have consolidated or changed their names. Other providers have entered the market. In the past, we separated broadband/internet service providers from telephone services providers. As these companies consolidate or mature, they are beginning to provide multiple telecommunication services. Due to the change in the business, we are listing these providers together.

- TDS Telecom
  - Replaces Arvig Telephone Company, US Link, and TDS Metrocom
- Benton Coop Telephone Company
  - Replaces Milaca Local Link and Local Access Network
- CenturyLink
  - Replaces CenturyTel of Northwest Wisconsin, LLC and Qwest Corporation
- Frontier Communications
  - Replaces Citizens Telecommunications Company of MN
- Consolidated Telecommunications Company
- Digital Telecommunications, Inc.
- Integra Telecom
  - Replaces Eschelon Telecom of Minnesota, Inc.
- Excel Telecommunications, Inc.
- Global Crossing Telemanagement, Inc.
- Ionex Communications North, Inc.
- PAETEC
  - Replaces McLeodUSA Telecommunications Services, Inc.
- Earthlink Business
  - Replaces New Edge Network,
- Windstream
  - Replaces NorthStar Access
- NOS Communications Inc.
- vCom Solutions
  - Replaces QuantumShift Communications, Inc.
- Sprint Communications
- TA Computer Services
  - Replaces Telephone Associates, Inc.
- Trinsic Communications, Inc.
- Verizon Wireless

Power Facilities and Sewer and Water Systems

The following government agencies and private sector organizations are responsible for providing utility services for the Mille Lacs Band of Ojibwe.

District I: Drinking water and wastewater treatment services are provided by the Band. The Mille Lacs Wastewater Treatment Plant serves District I and, upon completion of sewer construction by the Garrison Kathio West Mille Lacs Sanitary District, 10,000 people along the western shore of Mille Lacs Lake. The treatment plant is owned and operated by ML Wastewater Management, Inc., a non-profit corporation owned by the Mille Lacs Band's Corporate Commission. A few buildings have natural gas connections from Reliant Energy. Electricity is provided by Mille Lacs Electric. In addition many homes are served by their own private septic systems

District IIA: Drinking water and wastewater treatment services are provided by in ground and well and septic system. Community Development is responsible for the protection and restoration of water and wastewater service. Electricity is provided by East Central Electric.

District II: Drinking water and wastewater treatment services are provided by the Band. The Water and Wastewater Division of the Community Development Department is responsible for the protection and restoration of water and wastewater service. Electricity is provided by Mille Lacs Electric. Most buildings use propane gas.

District III: Drinking water and wastewater treatment services are provided by individual wells and individual sewage treatment systems. Protection and restoration of these wells and systems are the responsibility of the individual property owners. Electricity is provided by East Central Electric, except for Rutledge and Sandstone, where electrical services are provided by Minnesota Power. Most building use propane gas.

Population and Housing

There is very little demographic information about the Mille Lacs Band's population. There is United States Census data on the American Indian population in the counties included within the reservation boundaries and there is some information on the characteristics of the Band's membership. These sources only provide a sketchy overview of the Mille Lacs Band's population.

The following overview of population and housing draws from the *Mille Lacs Community Health Profile 2002* (Great Lakes EpiCenter) and available updated census material.

Age and Education of Population: The median resident age is 21.8 years. Persons 65 and older account for approximately 5 percent of the population. The percentage of persons with a high school diploma or greater level of education is approximately 76.

Population clusters around cities: As in other rural counties, population has been concentrating around the major cities of Hinckley and Onamia where the casinos are located. The casinos and related businesses offer a major portion of the employment opportunities. Approximately 85 percent of the workforce is employed.

Median household income: $18,292.

Housing Characteristics:

Characteristic	Percentage	Other Value
Households Owner-Occupied	57	
Households Renter Occupied	43	
Individuals in Structured Living Settings	02	
Living with Extended Family	22	
Households with Children under the Age of 18	39	
Average Household Size		3.36

Census Data: 2010

Development	Number of Housing Units
Lake Lena	120
East Lake	63
Isle	40
Vineland	188

New housing is 1 level, storm shelter, slab on grade

Emergency Response Capabilities

The 1855 Mille Lacs Reservation has a state and federal approved Emergency Operations Plan which it keeps up-to-date by reviewing it annually and making the necessary revisions. The following information summarizes portions of the Emergency Operations Plan, meant only to put the community information into context. Detailed descriptions, policies and procedures regarding emergency response capabilities are detailed in the Emergency Operations Plan, which should be used when responding to an emergency.

The emergency response capabilities have matured significantly since the inception of their operations planning in October of 2000. MLB employs a full time, certified Emergency Management Coordinator. The program includes a fully functioning Tribal Emergency Response Committee consisting of all department commissioners and key staff. These commissioners ensure that emergency, safety, hazard and disaster planning is a part of the key operations of the MLB government. The TERC and Tribal Emergency Manager are on call 24/7 to managed and respond to incidents that occur on Tribal land or off reservation if counties request assistance. Each member of the TERC has a smart phone to answer calls, emails, texts or internet access. Each TERC member carries charts listing TERC members contact information and ICS structure for activation. The Band is NIMS compliant with members having completed ICS 100,200, 700 and 300 and emergency managers completing the NIMSCAST every year. The TERC has been active participants in county, regional, HSEM, MDH tabletop, functional and full scale exercises. The Tribal Emergency Managers routinely conducts similar exercises internally to ensure TERC members unified command skills and responsibilities from mobilization to demobilization are maintained. The Tribal Emergency Manager has put the it's emergency operations plan on the MN Department of Health MNTRAIN site for ease of access to TERC members who may be on travel or at home and need to review the EOP for response issues. The Mille Lacs Reservation capabilities have been viewed as a role model for Tribal governments by the state of Minnesota, DHS FEMA Region V and EPA Region V.

Emergency Operations Center

The Emergency Operations Center (EOC) is located in the Mille Lacs Band Government Center's Media Room. The Alternate EOC will be located at the community centers in all 3 districts. For qualifying emergencies in all Districts, the EOC will be activated. In a large emergency affecting more than just Band lands, city, county, state, or federal governments may activate an EOC in their communities. Emergencies occurring in Districts II or III may require Band decision-makers to locate closer to the emergency. The Tribal Emergency Response Committee (TERC) will determine whether an alternate or supplemental EOC

should be established within the Districts or whether a Band liaison should participate in another jurisdiction's EOC. The EOC contains white boards, maps, charts, ICS forms, internet connections, landline phone connections, fax machine and interoperability equipment consisting of a weather radio, HAM radio, VHF radio, 800 MHz radio, and video conferencing equipment.

Emergency Warning Systems

The Mille Lacs Band's warning systems are District-specific. Warning systems in Mille Lacs, Aitkin, and Pine County are activated by their respective sheriff departments.

Districts I and IIA

The storm alert system includes sirens which are radio controlled from Mille Lacs County. Mille Lacs County, including the MLB area, has Reverse 911 capability. The Band has purchased a public health 800 MHz base radio for its Ne Ia Shing Clinic to be able to communicate with the Mille Lacs Health Care System EMS and Hospital. District I and IIA buildings all have NOAA Weather Radios as part of the certification process by the National Weather Service to qualify as the only Tribal "Storm Ready" community in the state. This system allows fellow Band employees to monitor the receivers so they can obtain direct emergency or storm alerts and act accordingly.

District II

The storm alert system includes sirens at East Lake, Minnewawa, McGregor and the City of Aitkin. Aitkin County has radio control of the sirens and is responsible for relaying the signal to the sirens. The County is in the process of upgrading the storm alert system. It will purchase a transmitter, using the Rabbit Lake Tower site. This system will allow the county to use the frequency for emergency alert and provide NOAA Weather Radio transmission. The Band has purchased a public health base 800 MHz radio station that is programmed to communicate to McGregor EMS and Riverwood Health Care System. District II buildings all have NOAA Weather Radios as part of the Reservations Emergency Management's "Storm Ready" program. This system allows fellow Band employees to monitor the receivers so they can obtain direct emergency or storm alerts and act accordingly.

District III

The County has a storm alert system for its sirens. A tower is located by St. Croix State Park. This system allows the county to use the frequency for emergency alert and provide NOAA Weather Radio transmission. The storm alert system is radio controlled from the Duluth office. Approximately 50% of the communities in Pine County have sirens, mostly in larger population areas. Pine City, Sandstone, Askov and Willow River all have sirens. Most of the sirens have less than a one-mile radius. Finlayson and Rutledge do not have sirens.

Hinckley has three sirens and one of the three covers the RV Park at the Hinckley casino. Other than this siren, none of the other sirens cover any reservation lands. The Aazhoomog Clinic has a public health 800 MHz base radio for communication with Essentia Hospital and EMS in Sandstone. District III buildings all have NOAA weather radios as part of the Reservation Emergency Management's "Storm Ready" program. This allows fellow Band employees to monitor the receivers so they can obtain direct emergency or storm alerts and act accordingly.

Police and Conservation Officers

The Mille Lacs Band has Tribal Police and Conservation Officers. Officers patrol the entire reservation and Tribal Lands. The main station located in Vineland at the Government Center and Tribal Police Offices in East Lake and Lake Lena. There are 18 full-time officer with vehicles and 4 Conservation Officers with vehicles. In addition, law enforcement agencies in adjacent counties can be called upon for assistance.

Fire Services

The Mille Lacs Band does not have a fire department. It contracts with local volunteer-based fire departments. The primary structural firefighting services are:

District	Fire Department
District I	Garrison Fire Department Onamia Fire Department (Mutual Aid)
District II	McGregor Fire Department
District IIA	Isle Fire Department
District III (Casino – Hinckley Area)	Hinckley Fire Department
District III (Lake Lena Area)	Danbury, Wisconsin Fire Department and Duxbury

The Minnesota Department of Natural Resources is responsible for fire protection on state forest and park land. The MnDNR works closely with local fire units for protection of these lands through contracting agreements. The Mille Lacs Band DNRE has a wildfire unit which has primary responsibility for wild fires in District I and works with the BIA and other Tribal Wildfire Units on specified controlled burns. Mille Lacs Band DNRE currently contracts with the MnDNR for wildfire suppression in Districts II, IIA, and III. Both the U.S. Forest Service and the DNR work closely with local fire fighters whenever danger of woodland and urban fires is elevated. Additionally, all fire departments have mutual aid agreements.

Medical Facilities

Mille Lacs Band's Health Care System consists of one primary clinic/medical center, Ne-la-Shing Clinic, in Vineland; two satellite clinics in Lake Lena and East Lake and a Department of Public Health. Medical clinic and public health personnel are doctors, nurse practitioners, nurses (both licensed and registered), physician's assistants, dentists, certified medical assistants, registered dental assistants, laboratory technician, pharmacists, pharmacy technicians, lab and x-ray technicians and community health representatives. Many Mille Lacs Band health professionals are trained in Emergency Medical Responders. System resources are three clinics with basic medical equipment and supplies, including suturing materials, oxygen and defibrillators. A pharmacy with common formulary is located in the Ne-la-Shing Clinic and some pharmacy items are stored at the other two clinics.

The Band does not operate a hospital. The following hospitals are used by Mille Lacs Band's residents and guests:

District	Medical Facility
I, IIA	Mille Lacs Health System, Onamia
II	Riverwood Health Center, Aitkin
III, Hinckley	Essentia Health System, Sandstone
III, Lake Lena	Essentia Health System, Sandstone OR First Light Health System, Mora
Other/Overflow	Fairview Northland Hospital, Princeton
	Essentia Health Center, Brainerd
	Cuyuna Regional Medical Center, Crosby
	Unity Family Healthcare, Little Falls
	Burnett Medical Center, Grantsburg, WI

Community Profile Summary

The community profile provides descriptive information about the 1855 Mille Lacs Reservation. The information will be used as a continued reference for mitigation planning and projects. .

Risk Assessment: Hazards Facing the 1855 Mille Lacs Reservation

General information on the following hazards was added to this section during the update process: Extreme Temperatures, Dam Failure, Sinkholes and Land Subsidence, Landslides and Nuclear Generating Plant Incidents. Information on Wastewater Treatment System Failure and Karst Topography was deleted.

This section was revised to include the incidents/disasters which have occurred since the 2007 Plan. These include the following hazards: Wildfires, Flood, Violent Storms (winter and summer), Extreme Temperatures, Dam Failures, Sinkholes and Land Subsidence and Water Supply Contamination.

No hazard incidents occurred during the last five years for Earthquakes, Landslide, Hazardous Materials, Nuclear Accidents, Infectious Disease and Solar Storms/flares but they were covered in the risk assessment to show their priority and potential is low.

In 2007, the TERC was able to obtain all of the necessary information to complete the hazard identification and risk assessment with the exception of the 2005 through 2007 structural fire information. In this update, the missing information on the number of structural fires has been included from 2005 through 2012. All of the information for this update was available. In 2007 and in 2012 the TERC was able to analyze the current development trends on the Mille Lacs Reservation.

This section of the plan presents the results of the hazard analysis from public comment attained from community meetings held in Districts I, II, IIA, and III and a monthly basis. It includes descriptions of each hazard and history of occurrences when available from city, county, state or federal records. The risk assessment portion covers impacts on Mille Lacs Band members and assets in Districts I, II, IIA, III and evaluation of the Mille Lacs Band's vulnerability and preparedness to address and respond to them by the Bands Tribal Emergency Response Committee (TERC). The probability of future occurrence for each hazard is identified in the risk assessment conclusions portion of each hazard analysis. Probability of occurrence has been classified into one of three categories. High, Moderate, or Low Based on TERC assessments of the hazard history. High being one or more events per year. Moderate being one event every 5 years, and Low being one event every 5+ years. The overall risk for each hazard follows the same classification system and is also addressed in each risk assessment conclusion. Overall risk was determined by TERC assessments of hazard areas, hazard impacts, and probability of occurrence.

The 1855 Mille Lacs Reservation is susceptible to a number of hazards, ranging from natural hazards to deliberate acts of vandalism, sabotage and violence. This section of the plan presents the results of the hazard analysis from public comment attained from community meetings held in Districts I, IIA, II and III and a monthly basis. It includes descriptions of each hazard and history of occurrences when available from city, county, state or federal records. The risk assessment portion covers impacts on Mille Lacs Band members and assets in Districts I, IIA, II and III and evaluation of the Mille Lacs Band's vulnerability and preparedness to address and respond to them by the Bands Tribal Emergency Response Committee (TERC). The probability of future occurrence for each hazard is identified in the risk assessment conclusions portion of each hazard analysis. Probability of occurrence has been classified into one of three categories. High, Moderate, or Low Based on TERC assessments of the hazard history. High being one or more events per year. Moderate being one event every 5 years, and Low being one event every 5+ years. The overall risk for each hazard follows the same classification system and is also addressed in each risk assessment conclusion. Overall risk was determined by TERC assessments of hazard areas, hazard impacts, and probability of occurrence.

The hazards profiled reflect the hazards identified the 2007 mitigation plan and were modified to conform to the State of Minnesota All-Hazard Mitigation plan.

Natural Hazards

- Wild Fires
- Flood
- Violent Storms
    - Winter Storms
        - Blizzards, Heavy Snows
        - Ice Storms, Sleet
    - Summer Storms
        - Tornadoes, Straight-line Winds
        - Thunderstorms, Hail, Lightning,
- Extreme Temperatures
- Drought
- Dam Failure
- Earthquake
- Sinkholes and Land Subsidence
- Landslide

Other Hazards

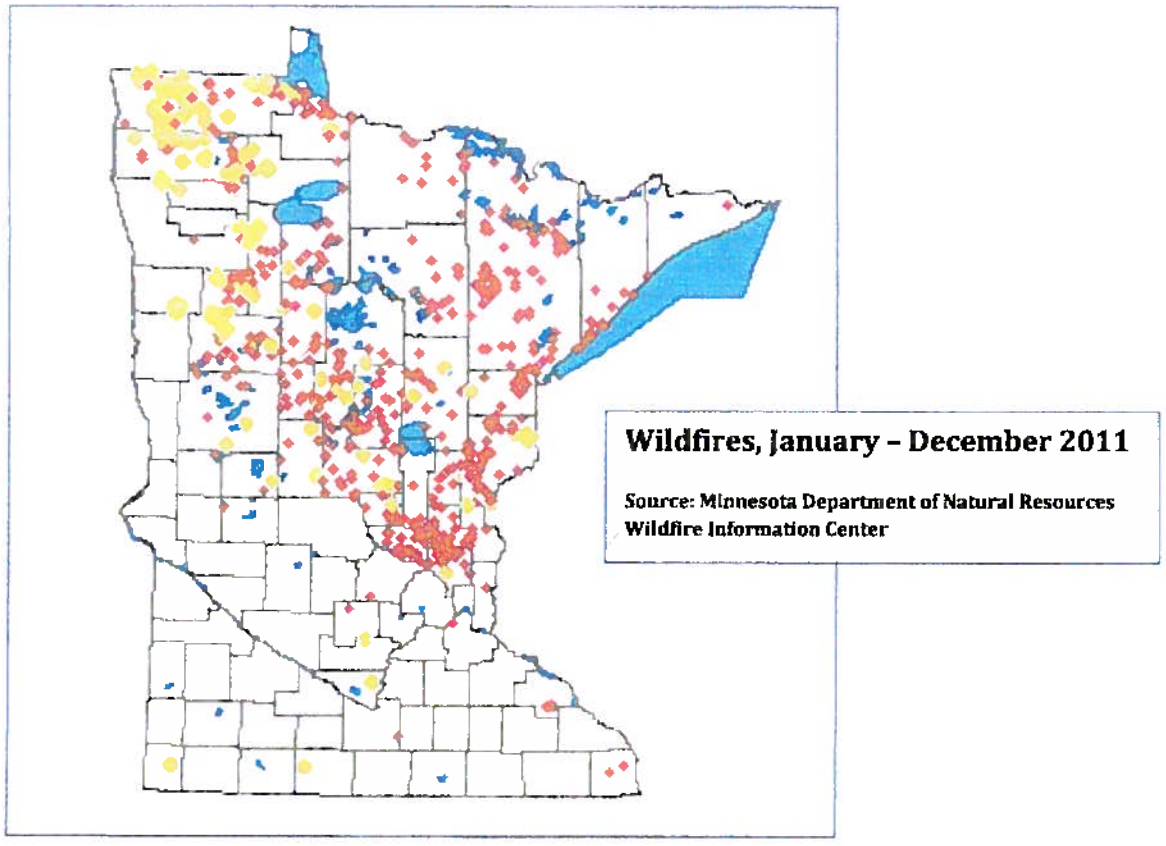
- Water Supply Contamination (can be secondary effect)

- Structural Fire
- Hazardous Materials
- Nuclear Accidents
- Infectious Disease
- Solar Storms/Flares

Hazard: Wildfire

History

Wildfires occur throughout Minnesota. According to the BIA and Minnesota State Fire Marshal, there are more than 2,000 annual wildfires with an estimated loss of more than $13 million dollars. There were 20 wildfires reported within the reservation boundaries of the Mille Lacs Band since 2005 which resulted in no loss of life, structures, property damage or shutdown of tribal government operations in Districts I, II, IIA, or III. These wildfires although small in nature less than 1 acre burned occurred seventeen times in each district each year.



Risk Assessment:

Wildfire behavior is based on three primary factors: fuel, topography and weather. As a natural hazard, a wildfire is often caused by lightning strikes. Most wildfires, however,

result from human activity. Unattended or inadequately extinguished campfires, debris burning, careless disposal of smoking materials, equipment use and arson are potential ignition sources of wild land fires.

Minnesota Fires by Cause, 20 Year Average
1991 - 2010

- Debris 38%
- Arson 28%
- Miscellaneous 11%
- Equipment 9%
- Railroad 4%
- Smoking 3%
- Campfire 3%
- Lightning 2%
- Children 2%

Mille Lacs, Aitkin, and Pine Counties which contain reservation lands of the 1855 Mille Lacs Reservation are popular destinations for campers, hikers and fisherpersons, increasing the risk of accidental ignition of wild fire in the community.

Size class, moisture content and volume of **fuel** (fuel loading, measured in tons of vegetative material per acre) contribute to the probability and intensity of wildfire activity.

Weather affects the probability of wildfire and has a significant effect on its behavior. Temperature, humidity and wind affect the severity and duration of wildfires. The risk varies from year to year due to cyclical weather patterns. Extreme weather, such as high temperatures and low humidity can lead to extreme wildfire activity. Temperature and humidity also impact the ability to control wildfires.

Topography is also important in determining wildfire potential, because it affects the movement of air and fire over the ground surface. As slope increases, the rate of wildfire spread increases. South facing slopes are subject to greater solar radiation, making them drier and thereby intensifying wildfire behavior.

Effects on Mille Lacs Band members residing in Districts I, IIA, II and III. Wildfires have occurred at random throughout Mille Lacs, Aitkin, and Pine Counties which contain these Districts, so most of these counties' rural populations are potentially at risk from wildfire which average about 3 a year in each District, or approximately 12-20 wildfires per

year. Districts I, IIA, II and III are situated in heavily wooded and swampy areas, increasing the probability of facing wildfires.

Effects on Mille Lacs Band Corporate facilities and structures. These commercial structures and future effects are also projected to be minimal except for limited visibility due to wildfire smoke on highways because of their location away from woodlands, and community planning practices.

Effects on Mille Lac Band government operations. Past wildfires have had minimal impact on government operations, and future effects are also projected to be minimal because of large fire breaks having been put in place.

Impacts on Mille Lacs Band future development. The MLB is building new housing and commercial enterprises. New development is planned cooperatively, ensuring communication among the housing, community development, and natural resources departments, and the corporate commission. Protection from wildfire by creating fire breaks between homes and government facilities and using wildling urban interface treatments is among the steps being taken on these developments as well as public education on the Fire Wise Program on preventing wildfires by the Mille Lacs Band DNRE Forestry Division. The MLB responds to wildfire with its own wildfire response team, but does not have its own structural fire department. There are agreements between MLB and the local structural fire-fighting organizations in Mille Lacs, Aitkin, and Pine Counties.

Risk assessment conclusion. Wildfires have occurred throughout Districts I, II, IIA and III; about 17 start out each year which results in no loss of life or property just 1 or 2 acres of burned trees and swampland. The probability of wildfires occurring in the future is High, MLB expects to have one or more fires each fire season due to wild land urban interface in Districts I, IIA, II and III. The overall risk for wildfires for residents living in Districts I, II, IIA, is **HIGH** especially in District III due to last year's July 4th storm that caused major tree damage enough for a Presidential disaster declaration. Because of number of documented fires, older Band homes not built with appropriate fire breaks but built right in the middle of tall stands of trees or next to swampland, and community feedback from District meetings. These concerns have been addressed as housing is replaced, and new housing built with fire protection in mind. The remaining concerns by the community could be addressed by continuing to conduct Level 1 and 2 Wild land Urban Interface Assessments as available.

Relationship to Other Hazards – Cascading Effects

Flooding and erosion. Major wildfires can completely destroy ground cover. If heavy rains follow a major fire, flash floods, heavy erosion, landslides and mudflows can occur.

Drought. Dry weather exacerbates the movement of fires.

Plans and Programs

MLB DNRE: The DNRE Forestry Division has a Fire Program whose staff is responsible for preventing wildfires by publications, flier and providing information at community meeting in Districts I, IIA, II and III. Due to the federally declared disaster for the July 4 2011windstorm that affected Pine County and District III the MNDNR Office out of Sandstone and the Mille Lacs DNRE has provided mutual community education meetings at all township halls in the affected blow down area. The fire program undertakes systematic assessment of wildfire risks and associated prevention measures done by their forestry staff which District III this included aerial BIA mapping of the blow down area and aggressive defensive cutbacks back by roads and homes to lessen wildfire risk. The DNRE has hired additional forestry techs to assist with removal and chipping of the blow down fuel load for the spring and summer. The DNRE does controlled burns in Districts I, IIA, II and III to reduce wildfire ground fuel. The DNRE also provides a seasonal wildfire crew to combat wildfires in District I and normally contracts the MnDNR for wildfire response in Districts II, IIA and III in the spring before green-up occurs in the area. This year due to the high fuel load caused by July 4th windstorm in District III the DNRE has its wildfire crew stationed in Lake Lena and has a mutual aid Leech Lake Wildfire Crew overseeing District I and IIA

Integrated Resource Management Plan

Community Development/Housing Authority: The Mille Lacs Band's Housing Authority provides affordable, attractive, safe and comfortable housing to Mille Lacs Band members. Plans for new and expanded housing developments are coordinated within the MLB government to ensure safe housing from all hazards including wildfires by incorporating fire breaks around all new housing.

Community Development/Waste Wise and Community Cleanup Day: These programs promote responsible waste handling which enhances fire safety in the community by removing flammable liquids and materials from residential areas.

MnDNR: The MnDNR operates and regulates all state lands within the state. Mille Lacs Band's DNRE works in partnership with MnDNR in managing its fire response and planning by conducting mutual training and education regarding state and tribal wildfires issues. As stated previously that MnDNR and the Mille Lacs DNRE has conducted mutual education sessions at all townships halls in the affected blow down area in Pine County and District III

MLB Emergency Operations Plan: Evacuation routes and fire response plans are delineated in the EOP for Districts I, IIA, II and III which follows the National Incident Management System (NIMS) by the band Tribal Emergency Response Committee (TERC).

Public education on fire prevention, evaluation routes and procedures has been implemented in as recommended in the 2007 Hazard Mitigation Plan and for this updated plan also due to the **HIGH** risk of wild fire in the blow down area of District III. Wildfire access routes and defensive breaks continue to be implemented in housing developments by Community Development to assist DNRE and fire departments in fire suppression.

2007 Plan Updates

The Mille Lacs Reservation Community Development Department has built 5 new housing developments in Districts I, II, IIA and III consisting of single family and Elder homes from 2007-2012. With the concerns for wildfire, green space was incorporated around every home to reduce the chances of wildfire spread which is monitored by the forestry division to ensure the green space is maintained. The homes incorporate limited wildfire protection mostly from asphalt shingles. In District I the community if fully on hydrants for structural and wildfire fire fighting. In District III the MnDNR is working the Reservations DNRE forestry department for a MnDNR hazard mitigation grant to put in ground water tanks for structural and wildfire fire fighting due to limited water resources. If this grant is approved the new holding tanks will be installed in the fall of 2012. The DNRE Seasonal Wildfire Crew received a new type 6 wildland vehicle from the BIA in the spring of 2012

Hazard: Flood

A flood is defined as an overflowing of water onto an area of land that is normally dry. For floodplain management purposes, the Federal Emergency Management Agency uses the following definition of "100-year flood."

The term "100-year flood" is the flood elevation that has a 1 percent chance of being equaled or exceeded each year. Thus, the 100-year flood could occur more than once in a relatively short period of time. The 100-year flood, which is the standard used by most federal and state agencies, is used by the National Flood Insurance Program (NFIP) as the standard for floodplain management and to determine the need for flood insurance. A structure located within a special flood hazard area shown on a map has a 26 percent chance of suffering flood damage during the term of a 30-year mortgage. One-hundred year floodplains have been identified, mapped and used for further analysis using the county's geographic information system (GIS).

The Mille Lacs Band does not currently participate in the NFIP because of its sovereign nation status and mapped no flood plain areas within its boundaries. Band construction

activities and development practices are responsible with respect to flooding. The Ojibwe tradition, respect and relationship with the land have resulted in responsible development. The Mille Lacs Band, however, does not have zoning and development authority for all of the land within the boundaries of the reservation located in Mille Lacs, Aitkin and Pine Counties. Few Band-Owned structures on Trust Lands are susceptible to flooding, however one gravel Pine county road that provided access to District III, had a history of flooding which has been corrected as by a cooperative effort between Pine County Roads Dept and the Band Public Works Dept in 2002 to raise the gravel road bed by 1 foot to alleviate the problem.

Floods generally occur from natural causes, usually weather-related, such as a sudden snow melt, often in conjunction with a wet or rainy spring or with sudden and very heavy rain falls. Floods can, however, result from human causes such as a dam impoundment bursting

History

Few Band-Owned structures on Trust Lands are susceptible to flooding, however, roads, especially in District III, have a history of flooding. Repeated washouts of Pine County Roads 173 and 48 near Sandstone were reported but since have been corrected 4 years ago by a cooperative project between the roads departments of Pine County and the Mille Lacs Band by raising the road one foot which has since corrected the problem. Due to the high water table, some basement flooding and standing water occurs in District IIA, Isle, during heavy rain events due to poor construction by HUD in the late 1970's. These homes are continuing to be replaced by the Band Community Development Division.

Risk Assessment

The Mille Lacs Band of Ojibwe does not participate in the NFIP because of its sovereign nation status, and no identified flood risk mapped areas exists for Mille Lacs Band Trust Lands. There is not a specific flood ordinance. Most of the remainder of the land within the interior boundaries of the Reservation located in Mille Lacs, Aitkin, and Pine Counties has been mapped, and that information is documented in the Mitigation plans of Mille Lacs, Aitkin and Pine Counties, as well as the other counties within the area. The Mille Lacs Band community is impacted by the decisions and activities in their adjacent counties. The greatest concern is infrastructure, primarily county roads.

Effects on people and housing. Most of the Band's population is safe from flooding, although some existing housing units may be within the 100-year floodplain. New housing in Districts I, II, IIA and III are not constructed in flood plains, but may be constructed in areas with a high ground water table, specifically in District IIA. Structure location and construction practices to reduce wet basement problems will be used in new homes in this

area. Acquisition of land with existing structures will be reviewed by Mille Lacs Band's Community Development for vulnerability to flooding before purchase.

Repetitive loss structures. Repetitive loss structures are those structures which have sustained damages on two separate occasions within a ten-year time span for which the cost of repairs at the time of the flood meets or exceeds 25 percent of the market value of the structure before the damage occurred. MLB does not have any recorded repetitive loss of structures in Districts I, II, IIA, and III.

Effects on commercial and industrial structures. Flood effects on commercial structures are minimal for the Mille Lacs Band. No commercial structures are confirmed to be located within the 100-year floodplain in Districts I, IIA, II and III.

Effects on infrastructure. Flooding has had limited impact on public infrastructure in Districts I, IIA, II and III. The greatest impact has been found on its transportation corridors. Specifically, repeated washouts of Pine County Road 173 and Minnesota Highway 48 near Danbury, WI, which have been corrected four years ago.

In District I, drinking water and wastewater treatment services are provided by the Band. The Mille Lacs Wastewater Treatment Plant serves District I and, upon completion of sewer construction by the Garrison Kathio West Mille Lacs Sanitary District, 10,000 people along the western shore of Mille Lacs Lake. The treatment plant is owned and operated by ML Wastewater Management, Inc., a non-profit corporation owned by the Mille Lacs Band's Corporate Commission. Districts I, IIA, II and III, drinking water and wastewater treatment services are provided by the Band. The Water and Wastewater Division of the Community Development Department is responsible for the protection and restoration of water and wastewater service. Severe storms and flooding could overwhelm wastewater collection services causing bypasses of raw sewerage in extreme cases. The District I facilities are designed with sufficient capacity to serve more clients than are currently connected, providing excess capacity to deal with storm events. The risk for the new facilities is lower than the statewide average. The flood risk for District II facilities is average. Flooding increases the risk of contamination of public or community water systems. This risk is minimal for contamination in Districts I, IIA, II and III.

Impacts on future development. As indicated in the community profile, the Mille Lacs Band is experiencing growth in population and development. It does not participate in the NFIP, nor does it have a flood ordinance. However, in the Ojibwe tradition, respect and relationship with the land have resulted in responsible development. The Mille Lacs Band does not have zoning and development authority for all of the land within Districts I, II, IIA, and III; therefore, working in collaboration with Mille Lacs, Aitkin and Pine counties and municipalities to address region-wide flood management is currently being done. The MLB

Corporate Commission, DNRE Real Estate and Community Development review all land acquisition for conformance with floodplain management.

Risk assessment conclusions. Flooding impacts some limited areas within Districts I, II, IIA and III; however, the Band structures are not at elevated risk for damages due to floods. Flooding of county roads and local streets has in the past isolated residents of Region III, in the Lake Lena area for no more than 48 hours. Water and wastewater infrastructure has a relatively low risk of being impacted by flood waters. The probability of flooding occurring in the future is Moderate. The overall risk for Flooding Districts II, IIA, and III is **Low** because of no documented history of flooding and no community feedback on past flooding in these areas; however in District I it is **Moderate** due to possible concerns of overwhelming the wastewater facility that serves the Mille Lacs Band, the City of Garrison and Kathio Township. Although the facility has all the safety valves to stop possible surface water from overwhelming its ability to treat wastewater there is always the possibility of a valve failure which could cause contamination of treated waste water.

Relationship to Other Hazards – Cascading Effects

Floods can cause many cascading effects. Fire can break out as a result of dysfunctional electrical goods. Hazardous materials can also get into floodways, causing health concerns and polluted water supplies. Residents may be isolated and emergency vehicles may be impeded due to flooded and impassible roads. Vulnerable populations, such as the elderly and physically impaired are at increased risk.

Plans and Programs

MLB Emergency Operations Plan: Evacuation routes and response plans for Districts I, II, IIA and III are delineated in the EOP by the Band's TERC following NIMS.

Community Development/Housing Authority: The Mille Lacs Band's Housing Authority provides affordable, attractive, safe and comfortable housing to Mille Lacs Band members residing in Districts I, II, IIA and III. Plans for new and expanded housing developments are coordinated within the Mille Lacs Band government divisions to ensure safe housing away from any potential flooding areas.

Community Development/Waste Wise and Community Cleanup Day: These programs promote responsible waste handling which has the potential to prevent or abate contamination of flood water in the community is done yearly from April till June in Districts I, II, IIA and III.

Flood area map and controls. Flood maps for non-Trust Lands within Districts I, II, IIA and III are maintained and updated by Mille Lacs, Aitkin, and Pine County Emergency Management.

Mitigative Measures: In District III, where repeated washouts of Pine County Roads 173 and 48 near Sandstone were reported in the past were corrected four years ago by the Band's roads department with assistance from Pine County Roads Division as recommended in the 2007 Hazard Mitigation Plan and has had no future issues since that time.

Gaps and Deficiencies

- NFIP participation requires evaluation because of Mille Lacs Band sovereign status.
- No flood ordinance because of the Mille Lacs Band adheres to Ojibwe customs and traditions for proper land management passed down from previous generations of Mille Lacs Band leaders and Elders.

2007 Plan Updates

In 2012 District II experienced a period of torrential rains that caused the soil to become saturated to the point where it no longer could absorb the heavy rainfall and this water soon overwhelmed ditches and roads. The rising water caused established evacuation routes to become unusable due to high water and possible structural damage to roadbeds. The District II community never lost power or their individual sewer systems but access was gained by using ATV's by Tribal Conservation Officers on walking trails within the community. The Tribal Emergency Response Committee was activated and an alternate Tribal EOC was established at the East Lake Community for 72 hours. These heavy rains affected the NE Region of Minnesota and became a Presidential declared disaster area for which the Band will have a PDA completed with FEMA and the Tribal Specialist to determine road bed structural integrity and the creation of alternate access points for large ATV's for evacuation and SAR.

Hazard: Violent Storms

Violent storms occur throughout the year in Minnesota, and the 1855 Mille Lacs Reservation is no exception. This section will address:

Winter Storms

- Blizzards, Heavy Snows
- Ice Storms, Sleet

Summer Storms

- Tornadoes, Straight-line Winds
- Thunderstorms, Hail, Lightning

Winter Storms

MLB experiences two basic types of winter storms: blizzards and heavy snow events, and ice storms, including freezing rain, and sleet.

Blizzards and Heavy Snows: Blizzards are the most violent of the winter storms, and are characterized by low temperatures, usually below 20° Fahrenheit, accompanied by strong winds in excess of 35 miles per hour with enough snow in the air caused by either falling or blowing snow to create visibilities of one-quarter mile or less for an extended period of time, usually at least three hours or more. Blizzards can occur in Mille Lacs from October through April.

In Minnesota a heavy snow event is defined by 6 or more inches of snow in a 12-hour period and 8 or more inches of snow in a 24-hour period. Snow is considered heavy when visibilities drop below one-quarter mile regardless of wind speed.

Ice Storms. Freezing rain, probably the most serious of the ice storms, occurs during a precipitation event when warm air aloft exceeds 32° while the surface remains below the freezing point. When precipitation originating as rain or drizzle contacts physical structures, ice forms on all surfaces creating problems for traffic, utility lines and tree limbs.

Sleet forms when precipitation originating as rain falls through a large layer of the atmosphere with temperatures below freezing, allowing the raindrops to freeze before reaching the ground. Sleet is also referred to as ice pellets. Sleet storms are usually of shorter duration than freezing rain and generally create fewer problems.

History

The Mille Lacs Band of Ojibwe Reservation usually experiences at least one occurrence of each of the above types of winter storms annually, often the same type on more than one occasion. In 2011, all of Minnesota experienced a winter with several winter storms, blizzards and heavy snow. The winter storms experienced on Reservation lands were often contiguous to lands experiencing blizzard conditions. In 1991, Minnesota experienced the "Halloween Blizzard," which was identified as the 3rd most significant Minnesota weather event in the 20th century by the Minneapolis Star Tribune. This event was significant for a number of reasons. The MLB experienced accumulations of 24-28 inches, but the most significant issue associated with the snow was the surprise. Often with blizzards and heavy snows, weather forecasts provide sufficient warning and lead time to prepare the community for the consequences of the weather event. In this case, the surprise and low probability of this type of event so early in the season caught the entire state off-guard.

Snow and Ice Incidents

Location: 1855 Mille Lacs Reservation SNOW AND ICE		
Date	Time	Type
4/15/2011	10:00 PM	Heavy Snow
3/22/2011	2:00 PM	Heavy Snow, Winter Storm
2/20/2011	4:00 PM	Heavy Snow, Winter Storm
1/1/2011	12:01 AM	Winter Storm
12/30/2010	5:00 AM	Heavy Snow
12/20/2010	12:00 PM	Heavy Snow
12/11/2010	1:00 AM	Winter Storm
11/29/2010	12:33 PM	Heavy Snow
11/29/2010	6:00 AM	Winter Storm
11/13/2010	3:00 AM	Heavy Snow
1/22/2010	10:00 PM	Ice Storm, Heavy Snow
12/23/2009	9:00 PM	Winter Storm
3/10/2009	4:00 PM	Winter Storm
2/26/2009	9:00 AM	Winter Storm
12/30/2008	5:15 AM	Winter Storm
12/20/2008	6;00 PM	Winter Storm
12/14/2008	1:30 PM	Winter Storm
4/10/2008	2:00 PM	Winter Storm
4/1/2008	12:01 AM	Heavy Snow
3/1/2008	5:00 AM	Heavy Snow
4/3/2007	1:30 AM	Winter Storm
3/1/2007	12:01 AM	Winter Storm
12/31/2006	10:30 AM	Winter Storm
2/24/2006	1:00 AM	Winter Storm
1/19/2006	7:00 AM	Heavy Snow
12/29/2005	7:00 PM	Heavy Snow
1/21/2005	10:00 AM	Winter Storm
1/12/2005	3:00 AM	Winter Storm
1/1/2005	10:00 AM	Winter Storm
2/1/2004	2:00 AM	Winter Storm
1/24/2004	9:00 PM	Winter Storm
11/22/2003	6:00 PM	Winter Storm
2/2/2003	6:00 PM	Winter Storm
3/14/2002	8:00 AM	Winter Storm
3/8/2002	6:00 PM	Winter Storm
2/24/2002	5:00 AM	Winter Storm

Location: 1855 Mille Lacs Reservation SNOW AND ICE		
Date	Time	Type
11/26/2001	4:00 AM	Winter Storm
2/24/2001	5:00 PM	Winter Storm
2/23/2001	9:00 PM	Heavy Snow
1/29/2001	7:00 PM	Winter Storm
12/28/2000	2:00 AM	Winter Storm
3/8/1999	12:30 AM	Winter Storm
3/13/1997	12:00 AM	Winter Storm
1/3/1997	5:00 PM	Winter Storm
12/23/1996	5:00 AM	Winter Storm
11/20/1996	2:00 AM	Heavy Snow
4/12/1996	9:00 AM	Heavy Snow
3/23/1996	9:00 PM	Heavy Snow
2/26/1996	8:00 PM	Heavy Snow
1/28/1996	4:00 AM	Heavy Snow
12/13/1995	200	Heavy Snow
12/8/1995	300	Heavy Snow
3/27/1995	100	Heavy Snow
3/4/1995	1200	Heavy Snow and Blowing Snow
2/14/1995	1400	Heavy Snow
11/27/1994	500	Heavy Snow And Ice
4/28/1994	400	Heavy Snow And Ice
3/23/1994	600	Heavy Snow And Ice
1/5/1994	1100	Heavy Snow
11/24/1993	800	Heavy Snow
11/12/1993	1600	Ice Storm And Snow
11/4/1993	800	Heavy Snow

Source: National Climatic Data Center (NOAA)

Risk Assessment

Winter storms pose the greatest risk to the Band members residing in Districts I, II, IIA, and III. While winter storms inflict limited damage to houses or public buildings they can result in significant safety concerns for the traveling public and vulnerable populations. Winter storms are not confined to any particular geographic area. The risk for winter storms is **HIGH** because Districts I, II, and III are accessed by state highways 169, 65 and 48. If these highways get blocked by winter storms and shutdown the ability for emergency personnel to respond to emergency situations would not be available as documented from community feedback during District community meetings.

Effects on People: Secondary concerns, such as power outages and isolation pose the threat of exposure to severe cold, inability to receive medical attention, and limited access to food and water. In addition, slippery conditions on walkways and roads may cause falls or other injuries. Safety concerns relating to downed power lines and fires used for light and heat may exacerbate fire risk. Vulnerable populations, such as the elderly and the infirm may be more susceptible to the risk.

Effects on Housing: Housing risks in Districts I, II, IIA and III include damage caused by falling tree limbs or structural damage to property from heavy ice or snow accumulation. Ice dams may cause long-term damage to roofs.

Effects on Agriculture: Livestock is also at risk during these events where adequate animal shelter doesn't exist. The greatest risk to animals is related to the potential loss of power due to downed power lines, or to the inability of people to attend to the animals due to inaccessibility. Mille Lacs does not have significant livestock agriculture.

Effects on public infrastructure: Most public buildings in Districts I, II, IIA and III would be at very low risk, since trees are usually well-spaced, planted at a safe distance from the buildings. County road crews and county equipment necessary to combat the storm face at least a limited risk while trying to make roads safer for the public and commercial and industrial vehicles and activities. Blizzards also pose some risk to equipment and personnel responsible for clearing roads. In assessing risk to snow events the county has identified those spots on the county highway system most susceptible to severe drifting and poor visibility.

At the District II and District III public meetings, continued concern was expressed about the snowplowing resources and the effect that priority-setting has on emergency response. There are 3 distinct communities several miles apart in District II, and the Band's Road Department has responded by placing 2 commercial grade dump truck/snow plow vehicles in this District to clear community based roads and lots of community facilities in heavily populated areas first then other areas. The Band's Housing Department also has 2 pick-ups equipped for snow plowing to clear Elder and vulnerable adults' driveways first followed by all other community members' driveways.

Band members expressed concern about major snow and ice storms and their related power outages. It was suggested that each village needs a "generator back-up system" for temporary shelter in due to power outages. Each assisted living unit (ALU) in each district has a back-up generator, as well as both Grand Casino Mille Lacs and Hinckley, and the District I clinic and government center that can be used for temporary shelter if the need arises.

The infrastructure most at risk is above-ground utility lines. Power outages and potential electrocution are among the safety concerns.

Risk assessment conclusions for winter storms: The probability of the MLB experiencing future winter storms is High. The overall risk potential for winter storms in Districts I, II, IIA and III is **HIGH** due to community concerns of lack of mobility and loss of services. Winter storms are common and often have adequate lead time for preparation. In rural or remote areas, the severity of power outages and isolation are often higher than in highly urbanized areas. In addition, people with special needs, the elderly and children are among those most vulnerable to the risk. New housing and development provide for more reliable utility systems; however, there is still older, less reliable housing stock.

Relationship to Other Hazards – Cascading Effects

Winter storms can cause many cascading effects. Power outages are a major concern. Safety concerns relating to downed power lines and fires used for light and heat may exacerbate fire risk. Carbon monoxide exposure is also a potential consequence of unsafe alternative heating sources. Residents may be isolated and emergency vehicles may be impeded due to impassible roads. Vulnerable populations, such as the elderly and physically impaired are at increased risk.

Plans and Programs

Backup Power: Each assisted living unit (ALU) has a backup generator, as well as Grand Casino Mille Lacs and Hinckley, the District I clinic and the Government center. These areas can be used for temporary shelter if the need arises.

Gaps and Deficiencies

At the public meetings in Districts II and III, concerns were expressed about snow removal for roads, public buildings and elder housing. To address the need for better backup generator power to Band facilities in the Districts for COOP and sheltering needs the Band is considering applying for the Hazard Mitigation grant program to obtain and install appropriate size backup generators for these facilities

Summer Storms

The 1855 Mille Lacs Reservation is affected by thunderstorms, tornadoes, lightning, hailstorms and windstorms.

Thunderstorms, Hail and Lightning: Thunderstorms are the most common summer storm, occurring primarily during the months of May through August with the most severe storms most likely to occur from mid-May through mid-July. Thunderstorms are usually localized, produced by cumulonimbus clouds, always accompanied by lightning, and often having strong wind gusts, heavy rain and sometimes hail or tornadoes.

Lightning is the most frequent hazard associated with thunderstorms and the hazard that causes the most loss of life. Lightning occurs to balance the difference between positive and negative discharges within a cloud, between two clouds and between the cloud and the ground. For example, a negative charge at the base of the cloud is attracted to a positive charge on the ground. When the difference between the two charges becomes great enough a lightning bolt strikes. The charge is usually strongest on tall buildings, trees and other objects protruding from the surface and consequently such objects are more likely to be struck than lower objects.

While cloud-to-ground lightning poses the greatest threat to people and objects on the ground it actually accounts for only 20 percent of all lightning strikes. The remaining lightning occurs within the cloud, from cloud to cloud or from the ground to the cloud with in-cloud lightning being the most common.

Hail is ice and a product of a severe thunderstorm. It is formed when strong updrafts within the cumulonimbus cloud carry water droplets above the freezing level or when ice pellets in the cloud collide with water droplets. The water droplets freeze or attach themselves to the ice pellets and begin to freeze as strong updraft winds toss the pellets and droplets back up into colder regions of the cloud. Both gravity and downdrafts in the cloud pull the pellets down, where they encounter more droplets that attach and freeze as the pellets are tossed once again to higher levels in the cloud. This process continues until the hailstones become too heavy to be supported by the updrafts and fall to the ground as hail.

Most hail in Minnesota ranges in size from pea-size to golf-ball size. Larger hailstones have been reported but occur much less frequently. Strong updrafts are necessary within the cloud to form hail. Strong updrafts are usually associated with severe thunderstorms. Area coverage of individual hailstorms is highly variable and spotty because of the changing nature of the cumulonimbus cloud.

Tornadoes and Wind Storms: Tornadoes are the most violent of all storms. The tornado is essentially a rapidly rotating column of air that is spawned by a cumulonimbus cloud. When it drops to the ground it can create significant damage and loss of life. Tornadoes always occur in association with thunderstorms.

Tornadoes are most likely to occur during warm humid spells during the months of May, June, July and August but have occurred as early as March and as late as November in Minnesota. On occasion, tornadoes called cold air funnels occur after the passage of a cold front when the air is much less humid but the air aloft is very cold creating enough instability to make funnel clouds. Most tornadoes occur during the warm part of the day – late afternoon or early evening; over 80 percent of tornadoes occur between noon and midnight.

The tornado's path typically ranges from 250 feet to a quarter of a mile in width. The speed of a tornado varies but commonly is between 20 and 30 mph. Larger tornadoes and faster tornadoes have occurred in Minnesota. Most tornadoes stay on the ground for less than five minutes. Tornadoes frequently move from the southwest to the northeast but this, too, is variable and consequently cannot be counted on in all instances.

Windstorms can and do occur in all months of the year; however, the most severe windstorms usually occur during severe thunderstorms in the warm months. These include tornadoes and downburst or straight line winds. Winds of greater than 60 mph are also associated with intense winter, spring and fall low pressure systems. These can also inflict damage to buildings and in some cases overturn high profile vehicles.

A downburst is a severe localized downdraft from a thunderstorm or a rain shower. This outflow of cool or colder air can create damaging winds at or near the surface. Winds up to 130 mph have been reported in the strongest thunderstorms. Downburst winds can cause as much damage as a small tornado and are frequently confused with tornadoes because of the extensive damage they cause. As these downburst winds spread out they are often referred to as straight-line winds. They can cause major structural and tree damage over a relatively large area.

History

The 1855 Mille Lacs Reservation has experienced severe summer storms of all types. Around 7:30 p.m. on July 1, 2011 severe winds hit Lake Lena in District III at an estimated 111-135 miles per hour. Straight-line winds and a potential EF2 tornado caused extensive damage, leaving people without power, water, land line or cell phone service, and a way out of the destruction.

There were understandable and unanticipated challenges that led to some of the issues with the response. For instance, the Pine County Sheriff's Department was hampered when its main radio tower lost power and the generator stopped; the tower was down until midnight. In the meantime, the department took 117 fire and medical calls that evening, according to Sheriff Robin Cole during a July 7 interview on WCMP in Pine City. The Pine County Sheriff's Department also had to tread carefully to ensure emergency responders' safety. Brad Kalk, Commissioner of Natural Resources for the Mille Lacs Band, had members of his forestry crew ready to respond at 9 p.m. on July 1. He was asked to wait until local officials could make sure that there were no live power lines to endanger the rescuers. This delayed the DNR's forestry and land maintenance staff until the early morning of July 2.

In June 2005, severe weather outbreaks threatened District III, but there were no tornado touchdowns in populated areas. Tornadoes are a relatively random occurrence, but when

they hit, they produce severe damage and risk to life. A table of the occurrences of severe summer weather follows.

Minnesota - 1855 Mille Lacs Reservation Area				
Thunderstorms				
Location or County	**Date**	**Time**	**Type**	**Magnitude**
Page	7/30/2011	7:02 PM	Thunderstorm Wind	52 kts.
Milaca	7/19/2011	8:50 AM	Thunderstorm Wind	56 kts.
Lake Lena	7/1/2011	6:15 PM	Thunderstorm Wind, Hail	70 kts.
Pine City	7/1/2011	6:04 PM	Thunderstorm Wind, Hail	70 kts.
McGregor	8/20/2010	1:56 AM	Thunderstorm Wind	50 kts
Hinckley	8/13/2010	3:15 PM	Thunderstorm Wind, Hail	50 kts.
Pine City	8/13/2010	3:03 PM	Thunderstorm Wind	50 kts.
Milaca	8/13/2010	2:33 PM	Thunderstorm Wind	56 kts.
Pine City	8/12/2010	8:00 PM	Thunderstorm Wind	50 kts.
Milaca	8/12/2010	7:32 PM	Thunderstorm Wind	52 kts.
Milaca	8/7/2010	9:30 PM	Thunderstorm Winds	56 kts.
Page	7/27/2010	5:00 PM	Thunderstorm Wind	56 kts.
Onamia	**7/12/2009**	**2:10 AM**	**Thunderstorm Winds**	**55 kts.**
Milaca	6/12/2008	10:10 PM	Thunderstorm Winds	50 kts.
Milaca	9/20/2007	3:00 PM	Thunderstorm Winds	56 kts.
Onamia	8/13/2007	7:05 PM	Thunderstorm Winds	60 kts.
Milaca	8/13/2007	7:22 PM	Thunderstorm Winds	60 kts.
Milaca	7/13/2007	9:10 PM	Thunderstorm Winds	52 kts.
Isle	7/29/2006	2:20 AM	Thunderstorm Winds	55 kts.
Onamia	7/29/2006	2:20 AM	Thunderstorm Winds	55 kts.
Vineland	8/9/2005	4:05 AM	Thunderstorm Winds	52 kts.
Wahkon	8/9/2005	4:15 AM	Thunderstorm Winds	52 kts.
Isle	8/9/2005	4:20 AM	Thunderstorm Winds	55 kts.
Princeton	7/23/2005	9:30 AM	Thunderstorm Winds	52 kts.
Hinckley	9/23/2004	2:20 PM	Thunderstorm Wind	60 kts.
Aitkin	9/23/2004	2:25 PM	Thunderstorm Winds	60 kts.
Hinckley	7/13/2004	5:00 AM	Thunderstorm Wind	60 kts.
Palisade	4/28/2004	5:30 PM	Thunderstorm Winds	60 kts.

Minnesota - 1855 Mille Lacs Reservation Area				
Thunderstorms				
Location or County	**Date**	**Time**	**Type**	**Magnitude**
Princeton	7/2/2003	11:30 PM	Thunderstorm Winds	60 kts.
Pine City	7/27/2002	1:13 PM	Thunderstorm Wind	60 kts.
Hinckley	7/27/2002	3:28 PM	Thunderstorm Wind	60 kts.
Milaca	7/8/2002	12:30 AM	Thunderstorm Winds	65 kts.
Onamia	7/17/2001	9:15 PM	Thunderstorm Winds	60 kts.
Vineland	7/17/2001	9:15 PM	Thunderstorm Winds	64 kts.
Jacobson	8/14/2000	1:30 PM	Thunderstorm Winds	60 kts.
Hill City	8/14/2000	1:40 PM	Thunderstorm Winds	60 kts.
Swatara	8/14/2000	2:00 PM	Thunderstorm Winds	60 kts.
Tamarack	7/25/1999	4:30 PM	Thunderstorm Winds	60 kts.
Aitkin	7/23/1999	12:00A M	Thunderstorm Winds	61 kts.
Princeton	6/9/1999	4:55 PM	Thunderstorm Winds	60 kts.
Isle	9/25/1998	11:18 PM	Thunderstorm Winds	65 kts.
Isle	9/25/1998	11:18 PM	Thunderstorm Winds	65 kts.
Duxbury	5/15/1998	6:00 PM	Thunderstorm Wind	60 kts.
Pine	10/29/1996	9:00 PM	High Wind	64 kts.
Pine	8/25/1994	4:55 PM	Thunderstorm Winds	N/A
Aitkin	8/12/1994	11:45 AM	Thunderstorm Winds	N/A

Minnesota - 1855 Mille Lacs Reservation Area						
Tornadoes						
Location or County	**Date**	**Time**	**Type**	**Mag**	**Dth**	**Inj**
Bock	7/30/2011	7:27 PM	Tornado	F0	0	0
Cloverdale	7/14/2010	5:15 PM	Tornado	F0	0	0
Haypoint	6/17/2010	7:05 PM	Tornado	F0	0	0
Rock Creek	6/17/2010	7:45 PM	Tornado	F2	0	2
Rock Creek	6/11/2005	3:25 PM	Tornado	F0	0	0
Hinckley	6/11/2005	4:00 PM	Tornado	F1	0	0
Askov	6/11/2005	4:20 PM	Tornado	F0	0	0
Milaca	7/25/2000	2:50 PM	Tornado	F0	0	0

Risk Assessment

Tornadoes are often viewed as the most damaging summer storm for Districts I, II, IIA, and III. However, the severe thunderstorm that produces the tornado frequently contains other severe weather elements such as torrential rains, hail, lightning and straight-line winds. Unlike floods, none of these elements is confined to any particular local geographic area within the county. No Districts are without risk; any place in Districts I, II, IIA or III is considered to have an equal chance of experiencing a tornado or any other of these severe weather elements.

Damage due to tornadoes can range from minor to major depending on the strength of the tornado and where it strikes. A tornado that occurs in a remote area could cause damage to forested areas and animal habitats. Several such tornadoes have occurred in the Districts I, II, IIA, and III in the past 10 years. The path of Minnesota tornadoes is typically quite narrow, most less than a quarter of a mile and not very long. Consequently, the total area affected by a tornado is not large. However, should a tornado of moderate strength strike a community such as District II or III, it is possible that the economic cost could be as much 1/3 of the value of the structures in that community.

Other violent summer storms are also not confined to any particular geographic area in the county and may occur and inflict damage anywhere they occur. The greatest risk for Districts I, II, IIA, or III is a widespread power outage from downed power lines. This risk has been detailed in previous assessments.

Effect on people. Effects from severe summer storms, like a tornado, could impact people in the Districts I, IIA, II, and III. Every year, tornadoes kill people, generally from flying debris from homes and other structures. The MLB has been working on a program to provide adequate storm shelter for all of its residents. As new housing units are built, storm shelters have become an integral part of the design especially for those without basements. Tornado rated concrete storm rooms have been installed in the garages being constructed in Districts I, IIA, II and III for those that lack basements. There are conflicting opinions on the benefits of community shelter due to maintenance and key access. Community Centers, located in each of the Mille Lacs developments, can be used as storm shelters. Unfortunately, the risk of getting to those shelters during severe weather may make using them inadvisable.

Effects on housing. Since tornadoes and other summer storms are relatively random, assessing risk and damages is more difficult. The Mille Lacs Band Reservation has approximately 526 housing units on Districts I, IIA, II and III. A single tornado event may cause a loss of ⅓ of the value of the structures in the community.

Development	Number of Housing Units	Average Value	Potential Loss Per Storm Event

Lake Lena	120 units	120,000.00 x 120	14,400,000.00
East Lake	63 units	120,000.00 x 63	7,560,000.00
Isle	40 units	120,000.00 x 40	4,800,000.00
Vineland	188 units	120,000.00 x 188	22,560,000.00

Effect on commercial and industrial structures: Power outages, lightning strikes or damage caused by tornadoes and other winds could cause business interruption short- or long-term.

Effects on infrastructure. Electric and other public infrastructure could be directly impacted throughout Districts I, II, IIA and III by tornadoes. Specifically, power lines could be knocked down, resulting in loss of electricity for entire areas of the county. Electricity is very important to Districts I, II, IIA and III. The Mille Lacs Band operates businesses, homes and other industrial buildings throughout Districts I, II, IIA and III. Other major infrastructure facilities such as the waste treatment plan, water plant, roads and bridges could also be damaged by tornadoes. Tornadoes and windstorms can often scatter knocked down trees and other debris over main roads, limiting travel of emergency vehicles.

Impacts on future development. Impacts on future development can be minimized through proper planning and land use controls. Current development and future housing for Districts I, II, IIA and III are being equipped with storm rooms.

Risk assessment conclusion: The risk to Districts I, II, IIA and III from summer storms is moderate. Up until July 2011, no large-scale tornadoes had occurred in Districts I, II, IIA, and III since 1945. It was determined by the National Weather Service the damage in District III from the July storm event was from straight-line winds. The probability of future occurrences is similar to that of any area within the state. The probability of occurrence is low, but the consequence of occurrence is high. The probability of the occurrence of thunderstorms with associated lightning strikes and wind damage is high. The consequence of these storms is moderate. The greatest risk from summer storms is associated power outages and consequent safety issues. The probability of summer storms occurring in the future is **High.** MLB expects to have at least one storm each summer. The overall risk from summer storms is **MODERATE** because it could cause loss of food, clothing, and shelter for Band members living in Districts I, II, IIA and III.

Relationship to Other Hazards-Cascading Effects

Violent storms: Violent storms of all types in Districts I, II, IIA and III could cause property damage, loss of life and personal injury, disrupt transportation, communication and emergency services, threaten public health and safety, and be significant threats to essential public infrastructure and services such as power, water supply systems and sanitary systems.

Power outages: Power outages in Districts I, II, IIA and III that result from downed utility lines create safety concerns for residents where heat is not available for an extended period of time and may cause serious internal damage to the home because of burst water pipes. The impact of downed utility lines, loss of power and displacement of residents was realized in the July 1, 2011 storm. Downed utility lines delayed the emergency response and some District III residents had to relocate to the casino hotel due to the lack of power at their homes which lasted for over 4 days.

Flooding: A series of extremely heavy snowfalls or a much greater than normal accumulation of snow over an extended period of time may result in significant and rapid spring runoff that could cause flooding in Districts I, II, IIA and III. Heavy thunderstorms in a short period of time may also cause flooding.

Plans and Programs for Both Winter and Summer Storms

The severe storm spotters' network: This program, sponsored by the National Weather Service (NWS), enlists the help of trained volunteers to spot severe storm conditions and report this information to the NWS. No tornado warning is given unless the storm has been spotted by someone or is confirmed by NWS radar reports. The Mille Lacs Band has 25 trained "Sky Warn" spotters in Districts I, II, IIA and III. The Tribal Emergency Manager has now been trained by the Duluth National Weather Service to provide "official" Sky Warn training for any Band employee or nearby public safety agency

Severe Weather Awareness Week: Mille Lacs Band of Ojibwe Emergency Management provides information on severe weather every spring through brochures, newsletter articles and community events.

Severe Weather Shelters. New housing construction on the Mille Lacs Band Reservation includes storm rooms in garages in new homes in Districts I, II, IIA and III that lack basements. In addition, storm rooms are being placed in existing developments garages that did not have any type of identified storm shelter before.

NOAA Weather Radio: NOAA Weather Radio is available throughout the MLB reservation. All Mille Lacs Reservation buildings are equipped with NOAA Weather Radios for early storm warning and emergency messages as required for being a "Storm Ready" community and have been placed in all Band buildings and checked on a monthly basis.

Severe Weather Warning System: Emergency sirens are located in Districts I, II, IIA and III to warn residents in the event of severe summer weather. There has been some concern expressed by community members that the Isle siren is inaudible in much of the community. Mille Lacs and Aitkin counties are participating in the regional program implementing a "reverse 911" system for storm alert.

Community Development/Housing Authority: The Mille Lacs Band's Housing Authority provides affordable, attractive, safe and comfortable housing to Mille Lacs Band members residing in Districts I, II, IIA and III. Plans for new and expanded housing developments are coordinated within the Mille Lacs Band government divisions to ensure safe housing. Building standards that address storm safety and fire prevention provide for adequate structural integrity for housing.

Gaps and Deficiencies

- A small number of older homes in District I, and many other homes in Districts II, IIA and III, lack basements due to water tables that would provide shelter in the event of a tornado or damaging winds from a severe thunderstorm. The current housing programs are replacing those homes on a scheduled basis.
- Many Band members in Districts II and III are outside the range of the severe weather warning system sirens which additional sirens are being applied for under the Hazard Mitigation Grant program to increase coverage in new housing developments
- There has been some concern expressed by District IIA members that the Isle siren is inaudible in much of the community which if additional weather sirens are obtained from Hazard Mitigation Grant program this will be addressed and corrected.
- The majority of power lines in Districts I, II, IIA and III are above ground and subject to damage from ice storms, wind and falling tree limbs except the major power lines leading in to District I have been placed underground by Mille Lacs Electric. There are few community requirements that discourage the planting of large trees near power lines.

2007 Plan Updates

The Reservation's Community Development department has continued to install small concrete storm shelters in housing units that do not have a basement. In 2011 Pine County Emergency Management received a weather service grant to install additional weather sirens which are new narrow band compliant. A new siren was installed in the District III Lake Lena Community. A weather siren in District II was vandalized and made inoperable due to damage. Due to funding issues, the Band has not been able to ensure outdoor siren operations ability since the 2007 plan. Since the Band has been in two Presidential declared disaster declarations in 2011 and 2012, and now may be eligible for hazard mitigation grant dollars to fund 75% costs of planning and installing appropriate size back generators to all band facilities that are deemed critical infrastructure for continuity of operations (COOP). We also will look at our weather siren status and add sirens where deemed needed and repair and narrow band older siren in the bands inventory. In 2012

the Band's Emergency Manager became certified by the Duluth National Weather Service to teach NOAA Skywarn to Band employees and community members to help increase education and knowledge in the area of severe weather. The Emergency Manager was also able to obtain from the Indian Health Service 468 Midland NOAA weather radios which were distributed to Elders in all districts to increase warning for times of severe weather.

Hazard: Extreme Temperatures

Extreme summer heat is the combination of very high temperatures and exceptionally humid conditions. If such conditions persist for an extended period of time, it is called a heat wave. Heat stress can be indexed by combining the effects of temperature and humidity. The index estimates the relationship between dry bulb temperatures (at different humidity) and the skin's resistance to heat and moisture transfer. The higher the temperature or humidity, the higher the apparent temperature. The major human risks associated with extreme heat are:

Heatstroke: Considered a medical emergency, heatstroke is often fatal. It occurs when the body's responses to heat stress are insufficient to prevent a substantial rise in the body's core temperature. While no standard diagnosis exists, a medical heatstroke condition is usually diagnosed when the body's temperature exceeds 105 degrees F due to environmental temperatures. Rapid cooling is necessary to prevent death, with an average fatality rate of 15% even with treatment.

Heat Exhaustion: While much less serious than heatstroke, heat exhaustion victims may complain of dizziness, weakness or fatigue. Body temperatures may be normal or slightly to moderately elevated. The prognosis is usually good with fluid treatment.

Heat Syncope: This refers to sudden loss of consciousness and is typically associated with people exercising who are not acclimated to warm temperatures. Causes little or no harm to the individual.

Heat Cramps: May occur in people unaccustomed to exercising in the heat and generally ceases to be a problem after acclimatization.

In addition to affecting people, severe heat places significant stress on plants and animals.

Heat Index and Disorders			
Danger Category		Heat Disorders	Apparent Temperatures (degrees Fahrenheit)
IV	Extreme Danger	Heatstroke or sunstroke imminent	>130
III	Danger	Sunstroke, heat cramps, or heat exhaustion likely; heat stroke possible with prolonged exposure and physical activity	105 – 130

II	Extreme Caution	Sunstroke, heat cramps, and heat exhaustion possible with prolonged exposure and physical activity	90 - 105
I	Caution	Fatigue possible with prolonged exposure and physical activity	89 - 90

Source: FEMA 1997

History

Extreme temperature events (both heat and cold) have caused 19 deaths in Minnesota from 1995 – 2011. There were no heat related deaths or injuries from 2008 – 2011; however, in the substantial heat wave in July 2011, many were treated for heat-related illnesses. Temperatures on Mille Lacs reservation were in the Extreme Caution danger category, while the metro office experienced the Danger category. In July of 2006 and 2001, Mille Lacs experienced excessive heat reaching 100 degrees.

Risk Assessment

The probability of occurrence at least once per season is **low to moderate** for the majority of the Mille Lacs Reservation; however it approaches moderate to high in the area service by the Metro office. The severity is **moderate.**

Relationship to Other Hazards – Cascading Effects

Power outages: Power outages due to high demand for electricity during extreme heat events are very common. This can elevate the concern for residents, especially vulnerable populations, if they are unable to make use of air conditioning.

Road disrepair: Expansion of pavement and road "blowouts" are common during extreme heat events. This can disrupt emergency response.

Plans and Programs

Backup power generation at assisted living facilities.

Gaps and Deficiencies

None identified.

2007 Plan Update

Since 2007 to ensure that Elders are not affected by heat related emergencies the Mille Lacs Reservation Community Development department installs central air in all new Elder or remodeled Elder homes. They also provide window units for Elder home that cannot be fitted for central air

Hazard: Drought

Drought is defined as a prolonged period of dry weather, a lack of rainfall.

History

Severe drought is uncommon to Minnesota. The most severe in climatic records occurred during the 1930s. None so prolonged has been experienced since.

Risk Assessment

Agricultural land use is relatively small. The greatest risk for loss due to drought is to Districts I, IIA, II and III is wild rice harvest and recreation.

Effects on people and housing: Drought poses only minimal risks to Districts I, IIA, II and III. Trees, shrubs and other plants are at some risk during extended dry periods.

Effects on infrastructure: Ground water is the source for Districts I, II, IIA and III residents. The risk to drinking water sources is very low due to drought. Low flows in receiving waters may provide some risk to aquatic life populations at wastewater discharge locations.

Effects on commercial and industrial structures: Very minimal impact but during a severe drought there could be some supply risk for commercial and industrial wells in Districts I, IIA, II and III that are relatively shallow.

Impacts on future development: Because ground water is the major source of Districts I, IIA, II and III's drinking water, future development ground water resources may be impacted due to drought.

Risk assessment conclusion: The probability of drought occurring in the future is Low. The overall risk to Districts I, IIA, II and III associated with drought is extremely **LOW** since the Mille Lac Band does not produce any cash crops in which lack of moisture would cause undue financial hardship.

Relationship to Other Hazards – Cascading Effects

Wildfires. Drought stressing woods, brush land and non-cultivated fields significantly increases the risks of wildfire in Districts I, IIA, II and III.

Plans and Programs

Wellhead Protection Program: The MLB DNRE's wellhead protection program protects groundwater quality and quantity and monitors the effects of threats such as drought, flooding and impairment.

MLB DNRE: The DNRE Forestry Division has a Fire Program whose staff is responsible for preventing wildfires by publications, flier and providing information at community meeting in Districts I, IIA, II and III. The fire program undertakes systematic assessment of wildfire risks and associated prevention measures done by their forestry staff which included controlled burns in Districts I, IIA, II and III to reduce wildfire ground fuel. The DNRE also

provides a seasonal wildfire crew to combat wildfires in District I and contracts the MnDNR for wildfire response in Districts II, IIA and III in the spring before green-up occurs in the area.

Community Development/Housing Authority: The Mille Lacs Band's Housing Authority provides affordable, attractive, safe and comfortable housing to Mille Lacs Band members. Plans for new and expanded housing developments are coordinated within the MLB government to ensure safe housing from all hazards including wildfires by incorporating fire breaks around all new housing.

Community Development/WasteWise and Community Cleanup Day: These programs promote responsible waste handling which enhances fire safety in the community by removing flammable liquids and materials from residential areas.

MnDNR: The MnDNR operates and regulates all state lands within the state. Mille Lacs Band's DNRE works in partnership with MnDNR in managing its fire response and planning by conducting mutual training and education regarding state and tribal wildfires issues.

MLB Emergency Operations Plan: Evacuation routes and fire response plans are delineated in the EOP for Districts I, IIA, II and III which follows the National Incident Management System (NIMS) by the band Tribal Emergency Response Committee (TERC).

Public education on fire prevention, evaluation routes and procedures has been implemented in as recommended in the 2007 Hazard Mitigation Plan and this year especially due to the high fuel load of the blow down area in District III. The MnDNR and Band DNRE have conducted mutual community education meetings at all townships halls in Pine County. Wildfire access routes continue to be implemented in housing developments by Community Development to assist DNRE and fire departments in fire suppression. Aggressive firebreak and access route efforts has been implemented this year in District III due to the July 1st windstorm including hiring additional forestry techs for tree removal and chipping of fuel load.

Gaps and Deficiencies

No gaps and deficiencies have been identified for Districts I, IIA, II and III.

2007 Plan Update

The Mille Lacs Reservation's DNR monitor has continually monitored drought conditions since 2007 to determine if burn restrictions will be put into effect. Drought monitoring of wild rice crops for harvesting will be permitted and if maple trees have been stressed and not suitable for maple sap harvesting.

Hazard: Dam Failure

A "dam" is an artificial barrier that has the ability to impound water, wastewater or any liquid borne material for the purpose of storage or the control of water. Dams can fail for one or a combination of the following reasons:

- Overtopping caused by floods that exceed the capacity of the dam
- Deliberate acts of sabotage
- Structural failure of materials used in dam construction
- Movement or failure of the foundation supporting the dam
- Settlement and cracking of concrete of embankment dams
- Piping and internal erosion of soil in embankment dams
- Inadequate maintenance and upkeep

Buckmore dam sill has been removed on Lake Onamia and the Lake Ogeechie Dam in Kathio State Park is in the process of considered for removal by the combined efforts of the MnDNR and Band DNRE. There are no high hazard potential dams under the control or jurisdiction of the 1855 Mille Lacs Reservation.

2007 Plan Updates

Since 2007 one dam has been removed and the Mille Lacs Reservation's DNR has continued to complete its studies for the removal of the Lake Ogeechie Dam in Kathio State Park. Public Hearings have been completed and well as EPA assessments. The Band is waiting for the final determination from the MN DNR on removal of the dam which may come in 2012.

Hazard: Earthquakes

Earthquakes can be defined as a shaking or trembling of the crust of the earth caused by underground volcanic forces or by breaking and shifting of rock beneath the surface. Earthquakes do occur in Minnesota, but not on a regular basis. The largest earthquake registered in Minnesota occurred in 1975 in western Minnesota. The earthquake, which registered with a magnitude of 5.0, caused minor damage to walls and foundations of basements in Stevens County around Morris. It was also felt in Iowa, North Dakota and South Dakota. The most recent earthquake in Minnesota occurred on April 29, 2011. This earthquake had a magnitude of 2.5 on the Richter Scale, making it a minor event.

History

According to the Minnesota Geological Survey (MGS), Minnesota has one of the lowest occurrence levels of earthquakes in the United States; also, MGS indicates that a severe earthquake is very unlikely in Minnesota. No earthquake damage has been reported on

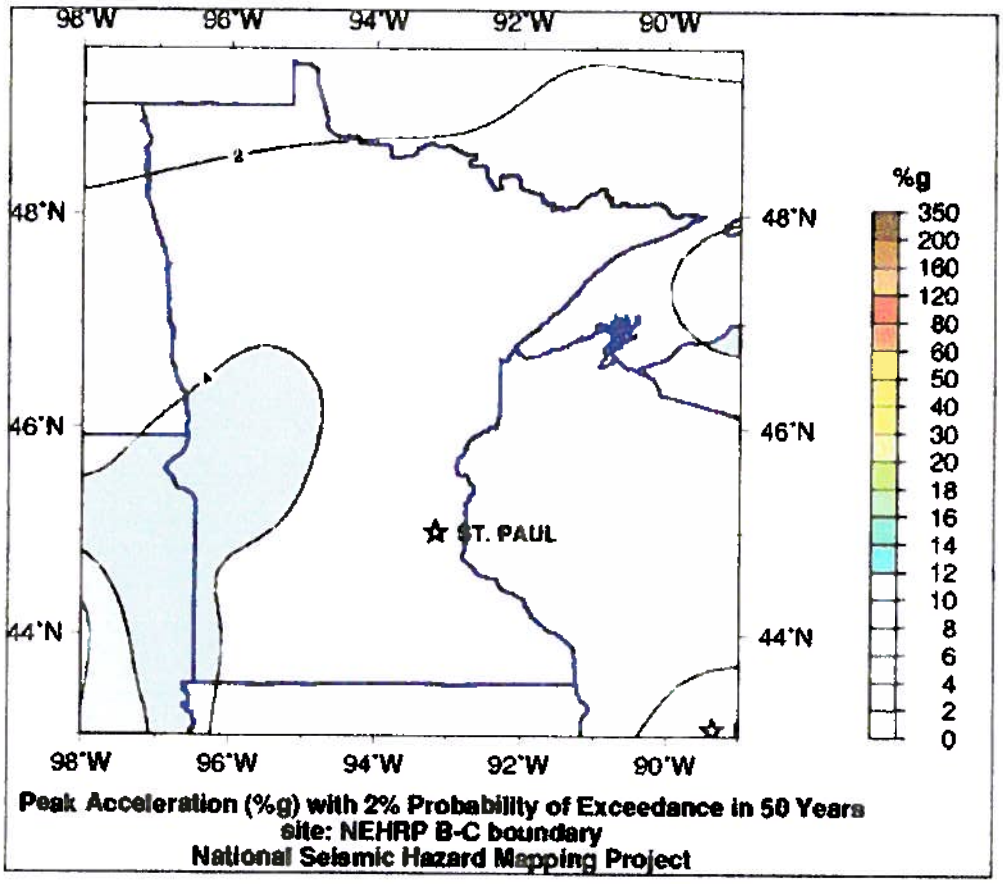
Mille Lacs Reservation land located in Mille Lacs, Aitkin or Pine Counties. The following table identifies historical earthquakes in Minnesota. The highlighted rows indicate a potential of impact to 1855 Mille Lacs Reservation lands.

Earthquake History of Minnesota			
Epicenter	Date	Maximum Intensity	Magnitude
Alexandria	4/29/2011	N/"	2.5
Roshold	10/20/1995	N/"	3.7
Granite Falls	2/9/1994	V	3.1
Dumont	6/4/1993	V-VI	4.1
Walker	9/27/1982	II	2.0
Cottage Grove	4/24/1981	III-IV	3.6
Nisswa	7/26/1979	III	1.0
Rush City	5/14/1979	N/"	0.1
Evergreen	4/16/1979	N/"	3.1
Milaca	3/5/1979	N/"	1.0
Morris	7/9/1975	VI	4.7
Pipestone	9/28/1964	IV	3.4
Alexandria	2/15/1950	IV	3.6
Detroit Lakes	1/28/1939	VI-VII	3.9
Bowstring	2/23/1928	V	3.8
Staples	9/3/1917	VI	4.3
Red Lake	2/6/1917	II-IV	3.8
New Prague	12/16/1861	VI	4.7
Long prairie	Date unknown 1860-61	VI-VII	5.0

Risk Assessment

The probability of occurrence of an Earthquake on MLB Reservation lands is extremely small. The United States Geologic Service (USGS) data indicates the probability of a >5.0 magnitude earthquake as follows:

- Onamia – 0.25%
- McGregor – 0.17%
- Isle – 0.21%
- Hinckley – 0.14%
- Minneapolis – 0.14%



Effects on people and housing: Depending on the magnitude, minor structural damage to complete destruction of housing may occur, injury, or death.

Repetitive loss structures: Not Applicable

Effects on commercial and industrial structures: Depending on the magnitude, minor structural damage to complete destruction of housing may occur.

Effects on infrastructure: Depending on the magnitude, no damage to major damage to roads, water and wastewater facilities impacting services, and loss of power.

Impacts on future development: Not Applicable

Risk assessment conclusions: The absence of major earthquakes, together with the infrequency of earthquakes in general, implies a low risk level for Mille Lacs. Although the probability of an earthquake in Minnesota is minimal, the MLB along with the State is vulnerable to secondary effects of a more probable Midwest earthquake encompassing states to the south of Minnesota. These secondary effects are widespread power outages and disruption of fuel distribution.

Plans and Programs

MLB Emergency Operations Plan: Evacuation routes and response plans for Districts I, II, IIA and III are delineated in the EOP by the Band's TERC following NIMS.

Community Development/Housing Authority: The Mille Lacs Band's Housing Authority provides affordable, attractive, safe and comfortable housing to Mille Lacs Band members residing in Districts I, II, IIA and III. Plans for new and expanded housing developments are coordinated within the Mille Lacs Band government divisions to ensure safe housing. Building standards that address storm safety and fire prevention provide for adequate structural integrity for housing.

Gaps and Deficiencies

Not Applicable

2007 Plan Updates

No updates for this section since 2007

Hazard: Sinkholes and Land Subsidence

There are three types of potential problems associated with the existence or formation of sinkholes: subsidence, flooding and pollution. The term subsidence commonly involves a gradual sinking, but it also refers to an instantaneous or catastrophic collapse.

In Minnesota, the primary natural causes of land subsidence are karst landforms. Karst landforms develop on or in limestone, dolomite or gypsum by dissolution and are characterized by the presence of features such as sinkholes, underground drainage through solution-enlarged fractures and caves. Karst landforms can be hazardous because it allows pollutants to infiltrate into the water supply.

Man-made causes are primarily due to mining or aggressive dewatering.

Risk Assessment

Probability of Occurrence: Sinkhole probability is highly site specific, but the 1855 Mille Lacs Reservation does not have the land formations or abandoned mining sites on its property. The probability is extremely low.

The impact on housing, industry, infrastructure and development is negligible.

Relationship to other Hazards – Cascading Effects

Not Applicable

Plans and Programs

Not Applicable

Gaps and Deficiencies

Not Applicable

2007 Plan Updates

Since 2007 no sink holes have occurred until 2012 when heavy rains affected the District II East Lake Community. One Aitkin county road used by community members to drive to a Tribal housing development experienced a sink hole due the rain weakening the roadbed till it gave way in two locations, one of which was a sink hole. The sink hole was filled in with class V gravel to make it useable until a more solid repair could be made.

Hazard: Landslides

Landslides are the downward and outward movement of slopes. The term refers to various kinds of events, including mudflows, mudslides, debris flows, rock falls, rockslides, debris avalanches, debris slides and earth flows. Steep or rugged terrain is susceptible to landslides.

History

Slumping and bank failures occur in the Red River Valley in Minnesota. There is no history of this on the Mille Lacs Reservation.

Risk Assessments

The conditions that lead to landslides do not exist on the Mille Lacs Reservation.

Relationships to other Hazards – Cascading Effects

Not Applicable

Plans and Programs

Not Applicable

Gaps and Deficiencies

Not Applicable

2007 Plan Update

No updates for this section since 2007

Hazard: Water Supply Contamination

Water supply contamination is the introduction of point and non-point source pollutants into public ground water and/or surface water supplies. Microbiological and chemical contaminants can enter water supplies. Chemicals can leach through soils from leaking underground storage tanks, feedlots, badly designed, built or old individual sewage treatment systems, improperly cased and managed wells and waste disposal sites. Pesticides from farm fields, manure from feedlots and contaminants from wastewater treatment plants can also be carried to lakes and streams during heavy rains or snow melt.

History

Water supply contamination has been minimal in Districts I, IIA, II and III. In the past, some individual drinking water wells have been contaminated by various contaminates. The Band's DNRE has a drinking water well testing system as well as yearly inspections by the Indian Health Services.

Risk Assessment

Most of the drinking-water in Districts I, IIA, II and III comes from ground water. There is some potential risk from spills or improperly operating individual sewage treatment systems. Due to the professional, certified water treatment professionals employed by the MLB, the risk of water supply contamination due to regular operations is extremely low. Outside occurrences such as hazardous waste spills or deliberate vandalism is low due to security measures and the infrequency of these events.

Effects on people and housing: Currently the Band provides drinking water through centralized systems in District I. District IIA, II, and III residents get their drinking water from private wells. Both water systems are in good working condition, and undergo annual inspections by the Mille Lacs Band's DNRE and Indian Health Services.

Commercial and industrial activities: Hazardous wastes spills are a minor risk for water supply contamination in Districts I, IIA, II and III, although no significant spills have occurred. Risks are higher along the major highways in District I and II because of the number of waste transporters traveling on these particular highways.

Impacts on future development: Water supply contamination will remain a risk in the future. However, measures are being taken to reduce the potential for risk in the future by continued testing on a yearly basis by the Mille Lacs Band's DNRE and IHS.

Risk assessment conclusion: Risk from water supply contamination has been minimal in Districts I, IIA, II and III. Water supply contamination poses the largest threat near the commercial or industrial areas and the highways. Districts I centralized supply systems and IIA, II, and III private wells in good working condition. Many Band residents in Districts IIA,

II and III have private wells, although contamination through these wells would be minimal. The risk potential shows the minor civil divisions most affected by flooding, and therefore, most in need of mitigation efforts. The probability of future water supply contamination is **Low**. The overall risk from water supply contamination is **MODERATE** due to the impacts if it occurs.

Relationships with Other Hazards – Cascading Effects

Infectious diseases: Polluted human water sources can cause illness and epidemics in both humans and animals in Districts I, IIA, II and III.

Plans and Programs

Drinking water standards, requirements: The U.S. Environmental Protection Agency (EPA), as required by the Safe Drinking Water Act of 1974, sets uniform nationwide minimum standards for drinking water. State public health and environmental agencies have the primary responsibility for ensuring that these federal drinking water standards, or more stringent ones established by the state, are met by each public water supplier.

Public water supply monitoring: The EPA requires an ongoing water quality monitoring program to ensure public water systems are working properly. The Mille Lacs Band's DNRE's work together with the Minnesota Department of Health, the Indian Health Service and the EPA to ensure that all public water supplies are safe. Also, the EPA requires all tribal governments to promptly inform the public if their supply becomes contaminated.

Wellhead protection program: The Mille Lacs Band's DNRE established a wellhead protection program. Districts I, IIA, II and III have been established as wellhead protection zones.

Feedlot pollution prevention: Pollution from feedlots is not a major concern in this area.

Emergency Operations Plan: MLB has exercises all portions of the Emergency Operations Plan where water supply protection is a major exercise element.

Gaps and Deficiencies

The Commissioners of Natural Resources and Community Development identified that there were minimal issues to contend with because of the Band's cultural adherence to protection of water resources from future building projects.

2007 Plan Updates

Since 2007 the Reservation's DNR has routinely conducted water testing and monitoring. In 2012 due to heavy rains in District II East Lake Community that resulted in a Presidential declared area for the NE Region of Minnesota. The Reservation's DNR tested facility, corporate, community and private wells for any water contamination due to high

water. A few wells were showed signs of contamination and were treated in a timely fashion by the Band's DNR and Public Works departments to ensure safe drinking water. Bottled water was provided to those homes and facilities while their wells were being treated.

Hazard: Structural Fire

There are three types of structural fires including residential, public and mercantile, and industrial, manufacturing and other buildings. Residential fires include single-family dwellings, apartments, mobile homes, hotels and motels, along with dormitories. Public and mercantile fires include stores, restaurants, grocery stores, institutions, churches, public facilities, and educational buildings. Industrial, manufacturing and other building fires include basic industry, manufacturing, storage, residential garages, and vacant buildings.

The Mille Lacs Reservation has three districts, covering a wide geographic area in central Minnesota. District I borders Mille Lacs County, District II borders Aitkin County and District III borders Pine County. The Band does not have its own fire department, thereby relying on neighboring communities' departments for firefighting and related emergency services. The band has Mutual Aid Agreements and other agreements for the provision of these services. The primary providers of structural firefighting services are:

District	Fire Department
District I	Garrison Fire Department Onamia Fire Department (Mutual Aid)
District II	McGregor Fire Department
District IIA	Isle Fire Department
District III (Casino – Hinckley Area)	Hinckley Fire Department
District III (Lake Lena Area)	Danbury Fire Department Duxbury Fire Department

History

This section addresses fires to property that is not considered a wildfire. Structural fires have many causes: cooking, heating, open flame and arson are the typical leading causes each year. Other causes include careless smoking, misuse of materials, improper storage, equipment and appliance malfunctions, improper building wiring, industrial mishaps and instances such as train derailments or transportation collisions. The 1855 Mille Lacs Reservation is served by the following fire departments: Garrison, McGregor, Hinckley, Isle, Danbury, Duxbury and Onamia.

Fire Department Data for 2010

City	Fire Runs	Other Runs	Loss
GARRISON	25	163	DNR
MCGREGOR*	0	2	DNR
HINCKLEY	37	46	$289,000
ISLE	22	23	$503,700
DUXBURY	Did	not	report
ONAMIA	23	42	$27,500

Risk Assessment

Effects on people and housing: Risk associated with individual house fires in Districts I, II, IIA and III is slightly elevated due to on-site propane tanks, and associated emergencies (such as power failures or extreme temperatures).

Effects on commercial and industrial structures: Commercial and industrial structures in Districts I, II, IIA and III also pose threats for fire.

Effects on future development: Population increases in Districts I, II, IIA and III, together with a consortium of volunteer fire departments serving the community, will require continuous evaluation of fire-fighting capabilities to ensure a safe community.

Risk assessment conclusion. The probability of fires occurring in the future is High. Structural fires are a **MODERATE** concern for Districts I, II, IIA and III based on documented fire calls and community feedback. There is little risk of large fires involving significant portions of the community, unless it is associated with a wild fire. Risk associated with individual house fires is slightly elevated due to on-site propane tanks, and associated emergencies (such as power failures or extreme temperatures).

Relationship to Other Hazards – Cascading Effects

Service disruptions: Major fires can completely destroy structures, including essential public facilities, and utilities like electric and gas lines can be damaged and even destroyed.

Health risks: Destruction or damage to essential infrastructure such as water and wastewater facilities can cause public health risk.

Hazardous materials: Fires can start where hazardous materials are present. Hazardous material fires can cause public health risk.

Plans and Programs

Fire districts, departments: Local fire departments that serve District I, II, IIA and III maintain training.

Safety reviews and inspections

Emergency Management Coordinator

- Is a certified Fire Fighter II/EMT through the state and trains with local fire departments that respond to calls on Reservation lands
- Fire safety education presentations at both the upper and lower school during fire safety week each October with Garrison Fire Dept and Cuyuna Regional Fire Education Trailer
- Fire Drill at both schools and government building with Garrison Fire Dept participating
- Fire prevention week in October with community information in Mille Lacs Band news letter

Gaps or Deficiencies

- There is community concern about the lack of maintenance and reliability of fire hydrants in some community developments in District I that was expressed during public meetings which Public Works has provided additional training to its staff in the proper maintenance, flushing and draining of hydrants. They will in the near future be repainting the hydrant domes to meet NFPA standards for GPM.
- The Onamia Fire Department now has a ladder truck serving District I that would reach the upper floors of Grand Casino Mille Lacs Hotel. (The hotel meets all fire safety requirements, having adequate sprinkler system and other fire-safe construction).

2007 Plan Updates

Since 2007 the one loop of waterline that community members expressed concern with has not at this time been updated due to funding and the hydrants are no longer functional. To reduce the loss of uninhabited homes to fire the Commissioner of Community Development put out a Commissioner Order in 2012 that abandoned or uninhabitable homes that are deemed unsafe to reside will be torn down and disposed off by the Community Development Department. This will reduce the risk of arson and accidental fire that these

types of home have experienced in the past. The Reservation's DNR is working with the MN DNR on a hazard mitigation grant in 2012 to install underground water tanks in District III for wildland and structure fire fighting due to lack of water access in the community.

Hazard: Hazardous Materials

Hazardous materials are chemical substances, which if released or misused can pose a threat to the environment or health in Districts I, II, IIA and III. Hazardous materials come in the form of explosives, flammable and combustible substances, corrosives, poisons and radioactive materials. These chemicals are used in industry, agriculture, medicine, research and consumer goods; however, there are no identified facilities in Districts I, II, IIA and III that store extremely hazardous substances in excess of threshold planning quantities. Therefore, incidents from fixed facilities are highly unlikely.

A hazardous material spill or release can pose a risk to life, health and property. An incident can force the evacuation of a few people, a section of a facility or an entire neighborhood or community, resulting in significant economic impact and possible property damage. Spilled material can be costly to clean up and may render the area of the spill unusable for an extended period of time. Hazardous materials incidences are generally associated with transportation accidents or accidents at fixed facilities.

Hazardous materials are conveyed by road, rail, aircraft and pipeline, each presenting differing levels of risk of unwanted release of the hazardous materials. There are no railroads or pipelines transecting Districts I, II, IIA and III. The largest risk to Districts I, II, IIA and III is through truck transportation. Transported products include hazardous materials moving from producers to users, moving between storage and use facilities, and hazardous waste moving from generators to treatment and disposal facilities.

The challenge is to use, store and transport hazardous materials in a safe way that does not harm the community and prepare an effective response to unwanted releases of hazardous materials when they occur. A hazardous materials accident is not a predictable occurrence.

History

Districts I, IIA, II and III has not experienced a major hazardous materials spill or accident to date.

Risk Assessment

The risk is relatively the same as on any major thoroughfare in the country. Traffic, lighter than on many routes, however the curves on the roads, especially on 169 adjacent to Band property provides for increased risk. Data from U.S. Department of Transportation indicates approximately 54,000 transportation-related accidents in the U.S. involving hazardous materials.

Effects on people and housing: The risk of a major event is more severe along Hwy. 169 in District I and along Hwy. 65 in District II than other parts of the community. Band housing and commercial activity in Districts IIA and III is primarily set back from major highways. Maps identifying sheltering, evacuation routes and safe distances from hazardous materials spills on transportation routes are maintained in the Emergency Operations Plan.

Effects on commercial and industrial structures: Transportation hazardous materials accidents could impact Band businesses, such as Grand Casino Mille Lacs and Hinckley, Eddy's Resort, and Grand Market in Districts I and III. The Casinos and hotels have disaster plans which address disruption of business and protection of their guests. Maps identifying sheltering, evacuation routes and safe distances from hazardous materials spills at commercial and industrial sites are maintained in the Emergency Operations Plan.

Effects on public infrastructure: There is limited potential to affect public infrastructure in Districts I, IIA, II and III.

Impacts on future development: There is limited potential to have impact on future development in Districts I, IIA, II and III.

Risk assessment conclusions: Hazardous materials spills impact some of areas more than others in Mille Lacs. The probability of future hazardous material incidents is Low. The overall risk of an event is **LOW**. Districts I and II are the most likely to be impacted by hazardous material event.

Relationship to Other Hazards - Cascading Effects

Water supply contamination: If spilled, uncontained hazardous materials can runoff, impacting surface and ground water in Districts I, IIA, II and III.

Surface water contamination: Mille Lacs Lake is only one of the sensitive water bodies in that is located in District I that can be impacted by hazardous materials spills.

Plans and Programs

State and Federal agency cooperation. Mille Lacs works directly with the appropriate state and federal agencies through the Minnesota Duty Officer and National Call Center to address needs for responding to and mitigating the impacts of a hazardous event by adhering to NIMS.

Emergency Operations Plan, dated April 2005, and subsequent revisions outlines procedures for dealing with hazardous material accidents, spills or releases (refer to Annex L). The Emergency Manager, the TERC and impacted MLB staff and Tribal Officials regularly exercise areas of the EOP. A 2010 exercise in District II was held with neighboring jurisdictions, state and federal officials.

Community Development/Waste Wise and Community Cleanup Day: These programs promote responsible waste handling which has the potential to prevent or abate contamination of flood water in Districts I, IIA, II and III.

Brownfield's Program: Mille Lacs has committed to responding and reclaiming contaminated land through Brownfield's administered by the Band's DNRE.

Wellhead Protection Program: Protects groundwater through land management practices which is operated by the Band's DNRE.

GIS system Community Development and MLB DNRE have trained GIS specialists.

Training of emergency personnel: All emergency personnel are trained to at least the minimum Hazardous Materials Awareness level and all first responder groups conduct the required Occupational Health and Safety Administration training on a yearly basis. The Tribal Emergency Response Committee (TERC) is provide tabletop, functional and full scale exercises that deal the Hazardous Materials on the Tribal, regional, and state levels within the 5 year cycle of the hazard mitigation plan.

Program Gaps or Deficiencies

- Local radio and television stations do not provide a dependable service for tests of the Emergency Warning System. Districts I, II, IIA and III are now covered by the emergency alert system operated by NOAA from Duluth.
- The MLB is working with Mille Lacs, Aitkin and Pine County Sheriffs' Departments regularly on regional warning systems, but as yet, they do not cover the entire Mille Lacs Band Reservation. Many Band members in District II and III would be left without warning in the event of a major catastrophe because of the isolation of their homes which is being address in 2012 with an application for the Hazard Mitigation Grant program to apply and obtain additional outdoor warning sirens
- Additional communication needs identified in the District meetings include a desire for signage outside community centers that would provide alerts to residents, additional coverage from broadcast media accessible to all areas of Districts I, II, IIA and III, and signage outside the Metro office to alert band members to incidents affecting them.

2007 Plan Updates

Due to lack of funding much of the projects identified in the 2007 plan have not been able to be accomplished. Besides these projects, the Band's DNR would like to have a joint study with MNDOT on identification of chemicals traveling on the state highways through our Tribal lands in Mille Lacs, Aitkin and Pine counties.

Hazard: Nuclear Generating Plan Incidents

The 1855 Mille Lacs Reservation does not have jurisdiction or responsibility for Nuclear Generating Plants. Information regarding Hazard Mitigation should be obtained by the State of Minnesota Hazard Mitigation Plan.

Hazard: Infectious Disease

An infectious disease is defined as an organism or matter that has the potential to spread or affect a population in adverse ways. Infectious diseases have the potential to affect any form of life at any time based on local conditions, living standards, basic hygiene, pasteurization and water treatment. Despite medical breakthroughs and technology, infectious diseases continue to pose an important public health problem. Today, the issue of emerging and re-emerging infectious diseases is at the forefront of public health concern. The very young, older adults and hospitalized and institutionalized patients are at increased risk for many infectious diseases. Changes in demographics, lifestyle, technology, land use practices, food production and distribution methods, and child care practices, as well as increasing poverty, have a role in emerging infections.

Many infectious diseases are preventable and are controllable. Prevention and control of infectious diseases involve collection of accurate assessment data (such as surveillance data for specific conditions), outbreak detection and investigation, and development of appropriate control strategies (both short and long term) based on specific epidemiologic data. These activities require close collaboration between clinical providers (especially infection-control practitioners within hospitals), clinical laboratories, state and local health departments, and federal agencies. Furthermore, a need exists for continued education of industry (particularly food producers and food-service industries), health-care students and providers, along with research to improve immunizations, diagnostic methods, and therapeutic modalities. Thus, the prevention of infectious diseases requires multidisciplinary interventions involving public health professionals, medical practitioners, researchers, community-based organizations, volunteer and private groups, industrial representatives, and educational systems.

The primary infectious diseases that may impact the Districts I, II, IIA and III are:

Influenza (Flu). Influenza is a contagious disease that is caused by the influenza virus. It attacks the respiratory tract in humans (nose, throat and lungs). The flu is different from a cold. The flu usually comes on suddenly and may include these symptoms: fever, headache, tiredness (can be extreme), dry cough, sore throat, nasal congestion and body aches.

Influenza types A or B viruses cause epidemics of disease almost every winter. In the United States, these winter influenza epidemics can cause illness in 10 to 20 percent of

people and are associated with an average of 20,000 deaths and 114,000 hospitalizations per year. Getting a flu shot can prevent illness from types A and B influenza. Influenza type C infections cause a mild respiratory illness and are not thought to cause epidemics. The flu shot does not protect against type C influenza. Influenza type A viruses are divided into subtypes based on two proteins on the surface of the virus. These proteins are called hemagglutinin (H) and neuraminidase (N). The current subtypes of influenza A viruses found in people are A (H1N1) and A (H3N2). Influenza B virus is not divided into subtypes. Influenza A (H1N1), A (H3N2), and influenza B strains are included in each year's influenza vaccine.

Smallpox: Smallpox has not been an issue in the United States for more than 50 years, but with the threat of terrorism this disease has been thrust to the forefront of public concern and fear. Smallpox is a serious, contagious, and sometimes fatal infectious disease. There is no specific treatment for smallpox, and the only prevention is vaccination. The name *smallpox* is derived from the Latin word for "spotted" and refers to the raised bumps that appear on the face and body of an infected person.

There are two clinical forms of smallpox. Variola major is the severe and most common form of smallpox, with a more extensive rash and higher fever. There are four types of variola major smallpox: ordinary (the most frequent type, accounting for 90 percent or more of cases); modified (mild and occurring in previously vaccinated persons); flat; and hemorrhagic (both rare and very severe). Historically, variola major has an overall fatality rate of about 30 percent; however, flat and hemorrhagic smallpox usually are fatal. Variola minor is a less common presentation of smallpox, and a much less severe disease, with death rates historically of 1 percent or less.

Tuberculosis: Tuberculosis is a disease that is spread from person to person through the air. TB usually affects the lungs, but it can also affect other parts of the body, such as the brain, the kidneys or the spine. TB germs are put into the air when a person with TB of the lungs or throat coughs or sneezes. When a person inhales air that contains TB germs, he or she may become infected. People with TB infection do not feel sick and do not have any symptoms. However, they may develop TB at some time in the future. The general symptoms of TB include feeling sick or weak, weight loss, fever and night sweats. The symptoms of TB of the lungs include coughing, chest pain and coughing up blood. Other symptoms depend on the part of the body that is affected.

Hepatitis A: Hepatitis A is an enterically transmitted viral disease that causes fever, malaise, anorexia, nausea, and abdominal discomfort, followed within a few days by jaundice. The disease ranges in clinical severity from no symptoms to a mild illness lasting one and two weeks to a severely disabling disease lasting several months. In developing countries, hepatitis A virus is usually acquired during childhood, most frequently as an

asymptomatic or mild infection. Transmission can occur by direct person-to-person contact; through exposure to contaminated water, ice or shellfish harvested from sewage-contaminated water; or from fruits, vegetables, or other foods that are eaten uncooked, and which can become contaminated during harvesting or subsequent handling.

West Nile Virus (WNV): West Nile virus is a mosquito-transmitted virus that can cause encephalitis in some people. This virus usually circulates between mosquitoes and birds in Africa and Europe. However, in 1999, an outbreak of WN encephalitis was reported in New York City. Since then the virus has spread throughout much of the eastern United States, and was found as close as Madison, Wisconsin, and east-central Iowa in 2002.

Mad Cow Disease: Bovine Spongiform Encephalopathy (BSE), also known as Mad Cow Disease, is a chronic degenerative disease affecting the nervous system in cattle. It was first diagnosed in Great Britain in 1986. BSE is one of several transmissible spongiform encephalopathies (TSE). On December 23, 2003, a six-year-old Holstein cow in Washington State tested positive for Bovine Spongiform Encephalopathy (BSE). This positive-BSE case is the first in the United States.

Hoof and mouth Disease. Hoof and mouth disease is a highly contagious disease almost exclusive to cattle, sheep, swine, goats, and other cloven-hoofed animals. It is caused by a virus that was identified in 1897. Among its symptoms are fever, loss of appetite and weight, and blisters on the mucous membranes, especially those of the mouth, feet, and udder. Discharge from the blisters is heavily infected with the virus, as are saliva, milk, urine, and other secretions. Thus the disease is readily spread by contact; by contaminated food, water, soil, or other materials; or through the air. Humans, who seldom contract the disease, may be carriers, as many rats, dogs, birds, wild animals, and frozen meats. Quarantine, slaughter and complete disposal of infected animals, and disinfection of contaminated material, are prescribed to limit contagion. There is no effective treatment. With vaccines, introduced in 1938, and sanitary controls, foot-and-mouth disease has been excluded or eliminated from North and Central America, Australia and New Zealand, Japan, and Ireland; and occurrences have become infrequent in Great Britain and continental Europe. The disease persists through much of Asia, Africa, and South America.

History

From April 2009 to April 2010, Minnesota, along with the rest of the country and world experienced a pandemic Influenza outbreak. Minnesota experienced 67 deaths due to type A influenza, 63 of which were confirmed to be H1N1. This outbreak happened outside of the typical flu season, and engaged the emergency management systems of the state and local governments and medical facilities. The MLB, in coordination with vaccine distribution systems in the state, was able to vaccinate its population in a timely manner.

The preparedness for this event was influenced by national and international concern about Avian Flu Virus (H5N1). This potentially more deadly flu virus is still a concern. The H5N1 flu virus has affected hundreds of thousands of birds, and more than 500 humans worldwide. Health officials are concerned that it could become the next pandemic influenza strain in humans. However, it's very hard for people to get H5N1 bird flu from each other. Most people get it from direct contact with birds or their droppings. That's why there have been so few human cases. The worldwide concern is that the virus may mutate to make it easier to travel among humans.

In 1782, Sandy Lake community experienced a smallpox epidemic. In 1820, Lake Minnewawa, Lake Lena and Pine City communities experienced a measles epidemic. However, Minnesota has not had an infectious disease outbreak that has reached epidemic proportions in decades. The Districts I, II, IIA and III has experienced individual cases of infectious diseases over the last 50 years that have been considered isolated occurrences or minor exposures.

Risk Assessment

Infection rates and exposure risk will vary based on the disease, sanitation habits of individuals and personal choices. Large population concentrations and sites with large numbers of people are especially at risk in the event of an outbreak. In addition, the two Mille Lacs Band owned and operated casinos in Districts I and III attract many people from all over the country and these people may bring infectious diseases.

Effects on people: The entire population of this area is susceptible to exposure from an infectious disease because of the random nature of diseases. However, the risk is considered very low because of good prevention programs and quality health care. Certain groups of people such as the elderly, the very young and hospitalized and institutionalized people are at greater risk than the general public. Even for these people the risk is considered low to very low. The greatest risk would be in cities and the casinos in Districts I and III where densities are greater and areas where there are there are concentrations of the very young or the elderly. Health care providers, teachers and other public service providers such as police, fire and emergency response personnel also could be affected. Although the risk might be no greater for these groups of people, the impact on the community would be much greater.

Effect on housing: Virtually no affect in Districts I, II, IIA and III.

Effects on agriculture: Risks are considered minimal in Districts I, II, IIA and III.

Effects on commercial and industrial structures: Virtually no effects in District I, II, IIA and III. However, a negative impact on the economy would occur if a widespread outbreak occurred and businesses were forced to shut down for an extended period of time.

Effects on infrastructure: There would be no direct affect on physical infrastructure in Districts I, II, IIA and III. However, an infectious disease outbreak may cause wide spread absenteeism throughout Mille Lacs Band government operations, indirectly affecting infrastructure. An infectious disease outbreak might affect such highly specialized health and non-health sector workers in the police, fire, public works, emergency response, utility, transportation workers. Nay Ah Shing Schools could be closed if a large number of teachers or students were infected.

Impacts on future development: There will be very little impact from future growth in Districts I, II, IIA and III. Growth and concentration in several cities and the casinos in Districts I and III will lead to somewhat higher exposure risks.

Risk assessment conclusion: Risk from infectious diseases is low throughout Districts I, II, IIA and III, mainly because of good prevention programs and quality health care. However, areas with population densities have a slightly higher risk if a disease exists. The casinos in Districts I and III are facilities where an infectious disease outbreak is more likely. Also, an outbreak might affect specific groups of people more than others including police, fire, public works and emergency response workers. The probability of a large scale infectious disease outbreak is Moderate, especially regarding Influenza. The risk from infectious diseases is **Moderate**

Relationship with Other Hazards - Cascading Effects

Infectious disease outbreaks in Districts I, II, IIA and III may occur as an isolated or single event or may be secondary to a previous disaster such as a terrorist attack, biological accident or natural hazard. Infectious diseases have the potential to be local, regional, statewide or national in scope and magnitude. Tribal Emergency Response Committee has made the decision on which employees would be considered "mission critical" by MDH standards and have listed those in the EOP and signed off by the Chief Executive for continued government operations during a outbreak to services. This process helped to identify where absenteeism would pose a serious threat to public safety or would significantly interfere with the ongoing response to the outbreak.

Riots: Misinformation associated with an infectious disease outbreak could cause panic and general disruption in Districts I, II, IIA and III and needlessly overwhelm the health care system. If an epidemic event were to occur, deaths, fear and misinformation could trigger large-scale riots, panic and lawlessness in Districts I, II, IIA and III.

Plans and Programs

Emergency operations plan: The MLB has an all-hazards emergency operations plan. This plan contains a public health annex dealing with disease outbreaks to meet MDH and CDC requirements for pandemic planning. The EOP contains procedures for the Tribal Emergency Response Committee (TERC) for contacting appropriate state and federal

agencies and provides guidelines and strategies for dealing with infectious diseases and command structure adhering to NIMS. The MLB has been involved with tabletop, functional, and full scale exercises on the Tribal, regional, and state level to test the disease outbreak annex of its emergency response plan to meet MDH and HSEM requirements.

Cooperation with state health department: The MLB Public Health Department and Human Services works with the Indian Health Service and the Minnesota Department of Health to address infectious diseases that are listed in Chapter 4605.7040 Disease and Reports (such as Encephalitis, Hepatitis, Influenza, Lyme disease, Tuberculosis and Syphilis). The Band is part of the State's Health Alert, MNTRAIN and MNTrack Networks

Media outreach: The MLB will work with local media through its TERC PIOs in the event of an infectious disease outbreak.

Vaccination program: The MLB Health and Human Department has a vaccination program for children living in Districts I, II, IIA and III. The program is designed to assist families of need in protecting their children from infectious diseases. MLB participates in statewide vaccination programs, for example, the recent H1N1 flu vaccination program. In addition, MLB maintains and coordinates with the Indian Health Services.

Environmental health regulations and policies: The Band Health and Human Services Department, Natural Resources Department, and Indian Health Services have worked to develop environmental health regulations and programs for Districts I, II, IIA and III.

Quarantine plan: The 1855 Mille Lacs Reservation does have a draft quarantine plan which is being review by the Band's Solicitor General's Office. When approved it will provide guidance and legal direction to the Band's TERC, doctors and other health professionals, hospitals and clinics in District I, II, IIA and III to prevent people from entering or leaving the area in the event of an epidemic outbreak of an infectious disease.

Program Gaps or Deficiencies

- The MLB does have a limited systematic information service that provides useful and factual information to the public about infectious diseases that may be of concern in the future. Much of this information can be obtained through the Indian Health Services, Center for Disease Control and the Minnesota Department of Health.
- The MLB does not have an approved quarantine plan for Districts I, II, IIA and III at this time as it is waiting for the draft plan to be approved

2007 Plan Update

Since 2007 the quarantine plan has not been finalized but the Band's Public Health Dept and Emergency Management has been in active in local, regional and state exercise dealing with disease outbreaks. The Public Health Department now has an Emergency Preparedness trailer that can be brought to incidents that need mass dispensing, triage, or medical response.

Hazard: Solar Storms and Flares

A flare is defined as a sudden, rapid, and intense variation in brightness. A solar flare occurs when magnetic energy that has built up in the solar atmosphere is suddenly released. Solar flares produce high energy particles and radiation; however, at the surface of the Earth we are well protected from the effects of solar flares and other solar activity by the Earth's magnetic field and atmosphere. The most dangerous emissions from flares are energetic charged particles (primarily high-energy protons) and electromagnetic radiation (primarily x-rays).

The x-rays from flares are stopped by our atmosphere well above the Earth's surface. They do disturb the Earth's ionosphere which in turn disturbs some **radio communications.** Along with energetic ultraviolet radiation, they heat the Earth's outer atmosphere, causing it to expand. This increases the drag on Earth-orbiting satellites, reducing their lifetime in orbit. Also, both intense radio emission from flares and these changes in the atmosphere can degrade the precision of **Global Positioning System (GPS)** measurements.

The energetic particles produced at the Sun in flares seldom reach the Earth. When they do, the Earth's magnetic field prevents almost all of them from reaching the Earth's surface. The small number of very high energy particles that does reach the surface does not significantly increase the level of radiation that we experience every day.

History

In March 1989, in Montreal, six million people were without electric power for nine hours as a result of such a storm. This same storm caused widespread power outages in the northeastern United States and in Sweden.

The most serious effects on human activity occur during major geomagnetic storms. It is now understood that the major geomagnetic storms are induced by coronal mass ejections (CMEs). Coronal mass ejections are usually associated with flares, but sometimes no flare is observed when they occur. Like flares, CMEs are more frequent during the active phase of the Sun's approximately 11 year cycle. The last maximum in solar activity was in the year 2000. The next maximum is expected to occur in late 2011 or in 2012.

No solar storm effects have been recorded on Mille Lacs Reservation land located in Mille Lacs, Aitkin, or Pine Counties.

Risk Assessment

The potential for effect on Mille Lacs Band's resources, including people, housing and commercial and industrial structures, is minimal, the risk **LOW.** Computers and other technology-related products may be impacted. Also, a solar storm may knock out electrical transmission equipment, including power lines and other utilities transmitting power. Emergency back-up systems designed to protect critical facilities from other power outage hazards should also protect disruptions from solar storms. Other mitigation efforts are more appropriately handled by earth scientists and technological experts at the state and federal levels.

Relationship with Other Hazards – Cascading Effects

One serious problem that can occur during a geomagnetic storm is damage to Earth-orbiting satellites, especially those in high, geosynchronous orbits. Communications satellites are generally in these high orbits. This may have an effect on communication systems, such **broadcasting and satellite phones**. We are not able to predict when and where a satellite in a high orbit may be damaged during a geomagnetic storm.

Another major problem that has occurred during geomagnetic storms has been the **temporary loss of electrical power** over a large region. The best known case of this occurred in 1989 in Quebec. High currents in the magnetosphere induce high currents in power lines, blowing out electric transformers and power stations. This is most likely to happen at high latitudes, where the induced currents are greatest, and in regions having long power lines and where the ground is poorly conducting.

These are the most serious problems that have occurred as a result of short-term solar activity and the resulting geomagnetic storms. A positive aspect of geomagnetic storms, from an aesthetic point of view, is that the Earth's auroras are enhanced.

The damage to satellites and power grids can be very expensive and disruptive. Fortunately, this kind of damage is not frequent. Geomagnetic storms are more disruptive now than in the past because of our greater dependence on technical systems that can be affected by electric currents and energetic particles high in the Earth's magnetosphere.

Solar flares and other related eruptions from the sun blast energy and energy-charged material through interplanetary space at more than 600,000 mph. As this energy impacts the Earth's protective upper atmosphere, magnetic storms are produced that affect our climate and occasionally result in temporary damages to some critical technological systems.

Plans and Programs

Not Applicable

Program Gaps or Deficiencies

Not Applicable

2007 Plan Updates

No updates for this section since 2007

Hazard: Terrorism

History

Terrorism is human induced acts of violence intended to cause disasters against people and property. There are no international terrorism targets located within Districts I, IIA, II and III. Acts of terrorism are random and cannot be predicted with any frequency or scale. Predictions come in the form of intelligence prevention activities. Most of these activities are federal law enforcement responsibilities, working with state and local law enforcement in partnership where feasible. The MLB has experienced bomb threats and other incidents of "local" terrorism.

Risk Assessment

Effects on people: There is a very low risk to residents in Districts I, IIA, II and III with regard to international terrorism.

Effects on housing: There is a very low risk to housing in Districts I, IIA, II and III.

Effect on commercial and industrial structures: For the majority of structures the risk is very low in Districts I, IIA, II and III. The greatest risk would be in to the casinos and associated buildings in Districts I and III. The wastewater treatment facility would be a moderate risk located in District I.

Effect on infrastructure: The risk to public infrastructure is low in the cities with the concentration of people, facilities and services in Districts I and III. The wastewater treatment plant is a significant public facility in District I where the potential for damage is moderate.

Impacts on future development: Not Applicable

Risk assessment conclusion: Districts I, IIA, II and III are at risk of terrorism. The probability of a future event is **LOW**, the probability of lesser criminal activity is Moderate.

The overall risk to the community is **LOW**. Risk mainly stems from the potential damage on infrastructure, including the casinos.

Relationship to other hazards - Cascading effects. Cascading impacts are highly dependent on the specific mode used and asset targeted. Fires and secondary explosions are possible and fires from arson attacks can extend beyond the intended targets in Districts I, IIA, II and III.

Plans and Programs

Cooperation with state, federal officials: The Tribal Emergency Response Committee (TERC) are working with local, state and federal officials on domestic preparedness efforts, including with the Department of Health to ensure that health care facilities are prepared for bio-terrorism events. In 2012 the Band TERC has requested the US Dept of Homeland Security to conduct a Critical Infrastructure survey tool on all Band and Corporate facilities which all Band facilities are currently done and this information has been put into PCII protected dashboards and into ACAMS

Standardized emergency procedures: All departments in Districts I, IIA, II and III have the same standardized emergency procedures, and are consistently trained by safety and emergency services personnel.

Emergency Operations Plan: The Emergency Operations Plan outlines procedures for dealing with terrorist activities. The Emergency Manager, the TERC and impacted MLB staff and Tribal Officials regularly exercise areas of the EOP. Exercises have been held with neighboring jurisdictions.

Gaps and Deficiencies

Communications systems in districts are spotty, including broadband and cell phone coverage. Broadcast news and information does not adequately cover specific MLB concerns.

2007 Plan Updates

Since 2007, no incidents of terrorism have occurred on Tribal lands of the Mille Lacs Reservation. The Reservation's Emergency Manager has PCII approval, HSIN access, ACAMS access, ICEFISHX daily updates from the MN Dept of Public Safety and BIA daily updates in the area of homeland security. In 2012, the Band's Tribal Emergency Response Committee (TERC) gave permission to have critical infrastructure surveys completed on all Band government and corporate facilities by the U.S Dept of Homeland Security. The government facilities have been completed and results are now being reviewed by different members of the TERC and their staff.

Summary

The probability of future occurrence for each hazard was identified in the risk assessment conclusions portion of each hazard analysis. The probability of occurrence has been classified into one of three categories: High, Moderate, or Low Based on TERC assessments of the hazard history. Overall risk was determined by TERC assessments of hazard areas, hazard impacts, and probability of occurrence.

Hazard	Probability	Impact	Overall Risk
Wild Fires	High	Moderate to High	High
Flood	Low	Moderate	Low
Violent Storms	High	Moderate	High
Extreme Temperatures	High	Moderate	Moderate
Drought	Low	Low	Low
Water Supply Contamination (can be secondary effect)	Low	High	Moderate
Structural Fire	Moderate	Moderate	Moderate
Hazardous Materials	Low	Moderate	Moderate
Infectious Disease	Moderate	Moderate	Moderate
Nuclear Accidents*	Low	Moderate to High	Low
Solar Storms/Flares*	Low	Moderate	Moderate
Dam Failure*	Low	Low	Low
Earthquake*	Low	Low	Low
Sinkholes and Land Subsidence*	Low	Low to Moderate	Low
Landslide*	Low	Low to Moderate	Low
Terrorism*	Low	Low	Low

*** Hazards not addressed in strategies**

Hazards Not Addressed In This Plan

Five hazards addressed by Minnesota's All-Hazard Mitigation Plan are not addressed they are: dam failure, earthquake, landslide, sinkholes & land subsidence and nuclear accidents. After profiling these five hazards, it was determined that a full risk assessment was not necessary because risks from these hazards are extremely low for Mille Lacs Reservation land located in Mille Lacs, Aitkin and Pine Counties and mitigation efforts either are unnecessary or difficult to address. Also, it was determined that two additional hazards would be a low overall risk to the Mille Lacs Reservation. They are solar storms/flares and terrorism. Therefore, these two additional hazards will not be addressed.

Hazards Addressed In This Plan

The TERC has decided to focus on addressing the following hazards in this Plan update: Wildfire, Flood, Violent Storms (includes both winter storms and summer storms), Extreme

Temperatures, Drought, Water Supply Contamination, Structural Fire, Hazardous Materials and Infectious Disease.

Goals and Mitigation Strategies

A review of the mitigation goals and objectives by the TERC confirmed that there was a need to update the mitigation goals and objectives. The goals in the 2007 Plan were very narrow and specific. The TERC determined that the goals should be more broad and general and not so narrowly defined. Also, the strategies/actions were deleted from this section and included using a table format in Appendix A.

Hazard Mitigation, as defined by the Disaster Mitigation Act of 2000, is any sustained action taken to reduce or eliminate the long-term risk to human life and property from hazards. Studies on Hazard Mitigation show that for each dollar spend on mitigation; society saves an average of four dollars in avoided future losses (Multi-hazard Mitigation Council, 2001). Mitigation can take many different forms from planning, construction projects to public education.

This mitigation strategy for the 1855 Mille Lacs Reservation, in partnership with federal and state planning activities establish a common set of goals. The goals are broad, forward-looking statements that outline in general terms what Mille Lacs would like to accomplish.

Mitigations Goals:

1. Maintain and enhance the 1855 Mille Lacs Reservation's capacity to continuously make it less vulnerable to all hazards.
2. Improve the coordination and communication with Federal, State, Other Tribal, Regional, Local emergency management personnel and other potential partners.
3. Improve communication with Band members to make the community less vulnerable to all hazards, and increase their understanding of hazard mitigation.

Objectives:

1. Prevent hazard losses through planning and administrative activities
2. Protect property by structural modifications, security measures or other risk reduction
3. Educate Mille Lacs Band members through outreach projects, media campaigns, and social media about safety and risk reduction
4. Protect natural, historical, cultural and spiritual resources
5. Provide emergency services, including warning and communication systems, emergency response services and protection of critical facilities

6. **Improve and maintain structures and infrastructure to reduce the impact of hazards on people and property**

Mitigation Strategy

While these goals and objectives are important, it is important to focus on specific mitigation actions. Appendix A includes details of potential mitigation actions, and provides for the review and approval of these actions by the TERC. Sources of these potential actions come from a number of sources, including 1855 Mille Lacs Reservations Executive Branch, the Band Assembly, community meetings, and specific review under the Enhanced Critical Infrastructure Protection (ECIP) Program.

Mille Lacs has been working with the DHS and HSEM Protective Services Advisors to conduct Critical Infrastructure surveys to assess overall site security, identify gaps and potential improvements, and help with communication and information sharing among the MLB, DHS, State governments, and other security partners. Information collected during ECIP visits is used to develop PCII dashboards; conduct sector-by-sector and cross-sector vulnerability comparisons; identify security gaps and trends and track progress toward improving security through activities, programs, outreach, and training. This information will also be put into the ACAMS system for further access.

The data being collected are used in a framework consistent with the National Infrastructure Protection Plan (NIPP) risk criteria (DHS 2009). The NIPP framework incorporates consequence, threat, and vulnerability components and addresses all hazards. The analysis of the vulnerability data needs to be reproducible, support risk analysis, and go beyond protection. It also needs to address important security/vulnerability topics, such as physical security, cyber security, systems analysis, and dependencies and interdependencies.

This report provides an overview of the approach being developed to estimate vulnerability and provide vulnerability comparisons with similar business and government sectors. The information will be used to analyze existing protective measures and vulnerabilities at facilities, to identify potential ways to reduce vulnerabilities, and to assist in preparing risk estimates. Mille Lacs receives an analysis of the data collected for a specific asset, showing a comparison between the facility's protection posture and vulnerability index and those of other sector/subsector sites visited. This comparison gives the Mille Lacs an indication of the asset's security strengths and weaknesses that may be contributing factors to its vulnerability and protection posture. The information provided to the owner/operator shows how the asset compares to other similar assets within the asset's sector or subsector.

A "dashboard" display is used to illustrate the results in a convenient format. The dashboard allows the MLB to analyze the implementation of additional protective measures and to illustrate how such actions would impact the asset's Vulnerability.

Mille Lacs Emergency Management is coordinating these assessments, and has now brought the results to the TERC regard Band facilities in May 2012. The information gained through these reviews will help inform potential mitigation measures and projects to protect the MLB infrastructure. The Band is currently conducting a long range strategy plan which an outside consultant which information from the Hazard Mitigation Plan and CI Survey will be an invaluable part of this long range plan

As of 2011, reviews have been completed on:

- Districts I, II, IIA and III Community Centers
- All Health and Human Services facilities
- Nay Ah Shing Schools and Tribal College
- The 1855 Mille Lacs Band Government Center

The 1855 Mille Lacs Reservation's Mitigation Strategy is:

- Ongoing with a long range strategy plan being currently conducted
- Reviewed periodically with the Tribal Emergency Response Committee
- Agile in order to address current needs within the overall goals of the Plan
- Coordinated closely with the Emergency Operations Plan
- Coordinated with community development, DNRE, Risk Management, and all other appropriate departments of the Tribal Government
- Responsive to the community
- Coordinated with partners

Priorities

The coordination of the process to establish priorities for the hazard mitigation action plan is the responsibility of the TERC, which is made up of Mille Lacs Commissioners and designees. Depending on the type, extent, cost and other factors about specific actions, the responsibility for approvals, funding and approaches may fall with another part of the Tribal Government.

Prioritization of Hazard

The Mille Lacs Band of Ojibwe is susceptible to a number of hazards, ranging from natural hazards to deliberate acts of vandalism, sabotage and violence in Districts I, IIA, II and III. MLB has identified sixteen potential hazards in which the highest risks based on past

historical data from city, county, state and federal records and community comment meetings conducted in Districts I, IIA, II and III is the risk of wildfire, winter storms (change once the major risks are determined by the TERC.)

Chapter III, Hazards Facing the Community, documented how hazards affect the Mille Lacs Community and assessed the risks these hazards pose to Districts I, II, IIA, III and their physical assets. It also noted the plans and programs that address these hazards and the gaps and deficiencies in them. These risks are listed in the above section and are broken down into history, risk assessment, relationship to other hazards, plans and programs to address the risks identified and any gaps or deficiencies.

Although it is beneficial to review and prepare for likely, specific hazards, such as Wildfires and Winter Storms, which are frequent and have the potential to be a threat to human life and infrastructure, this approach alone does not protect the community. For example, in the summer of 2011, District III experienced the ravages of a summer storm, which may have been a tornado or straight line winds that was devastating to the community. A national disaster was declared. The overall risk of a summer storm such as the July 2011 event was relatively low.

Because of this, the goals, objectives and strategies are not based on individual threats of specific Hazards, but the resource being protected. Many of these resources are vulnerable to specific hazards, and risk from those specific hazards will be addressed.

Prioritizing Strategies

The process used by the Mille Lacs Band's Emergency Management Coordinator and the Band's Hazard Mitigation Consultant involved first identifying goals and their respective objectives based Mille Lacs Band Elder and member comments documented during the community meetings and risk assessments for Districts I, II, IIA and III and review of the historical risks and probabilities.

This information was presented to the TERC by the Emergency Management Coordinator. The TERC reviewed the information based on the following.

Actions are based on:

1. the potential risk associated with each particular hazard
2. the ability of the proposed action to have a positive impact upon minimizing or eliminating the risk from the hazard
3. overall cost of associated with the proposed action
4. the ability of resources to fund and implement the action in a timely manner.

Capability Assessment

In the last five years, the Mille Lacs Band has elected a new Chief Executive. With this change in leadership there has been a focus on enhancing the Grants Department. The staff in the Grants Department has been increased from one to four. This department will now be able to monitor grant availability, write and apply for grants and to administer the grants. Outside of the change to the Grants Department the Mille Lacs Band has not experienced any other changes to management laws, policies, programs, capabilities or funding capabilities that will have any impact on this plan update.

Throughout Indian Country, the importance of disaster prevention and hazard mitigation has been increasing recognized as an area that DHS FEMA, with its Tribal Liaisons and state emergency management departments need to increase participation from Tribes due to the number of disasters that have affected Indian Country in the last few years. The Minnesota Dept of Public Safety Homeland Security and Emergency Management Division have always understood the government to government relationship each state agency is required to have with the 11 Tribal Governments per the governor's directive each year.

This benefits the 1855 Mille Lacs Reservation in obtaining grant funding for equipment and hazard mitigation plan updates as MNHSEM includes Tribal Governments as an eligible government entity both on the regional and state level. This process demonstrates the commitment MNHSEM has to the Tribal Governments than having them apply through the county which contains their Tribal lands or directly to the federal government for these. MNHSEM Grants Office works cooperatively with the Reservation's Grants Department and Office of Management and Budget in the application and grant monitoring process.

Minnesota Homeland Security and Emergency Management do not at this time provide EMPG funding to any of the 11 Tribal Governments in Minnesota. It does provide EMPG to the 87 counties and cities of the first class and many of the Tribes including Mille Lacs would benefit from being able to receive this funding than having to rely solely on funding from the Reservation's direct revenue. The 1855 Mille Lacs Reservation by its Band statutes is able to receive grant funding routinely from Federal agencies such as HUD, BIA, BIE, EPA, DOJ, HHS, DOE, and Indian Health Service. The Tribes Emergency Management Department has applied for DHS fire prevention grants for safety and education but has not applied for the DHS Tribal Homeland Security Grant due to its initial size of application or a suitable project to apply that meets the requirements.

The 1855 Mille Lacs Reservation operates what is known as "self governance" which it role models its government after the federal government with its executive, legislative and judicial branches. This form of government allows different departments to have programs or mechanisms already in place that reduce the risk associated with hazards especially in

the areas of historical preservation, wildfire reduction, and protection of wild rice beds. There are still areas the Reservation should increase its emphasis on mitigation in general to reflect new federal requirements from EPA, DHS FEMA, and BIA. The Reservation's current "hazard mitigation capability" relies on Band statute, department policies, land status, budget allocations, personnel training, and public outreach. Many of the Reservations capabilities are also strengthened by agreements with EPA, BIA, MPCA, UFWS, MNDNR, GLIFWC and local fire department.

The TERC created a plan that addressed the gaps and deficiencies of the three areas identified. It determined the Tribal Emergency Response Committee member's department responsible for implementing the strategies, creating a functional timeline for completion and costs involved for mitigating and reducing identified risks. During this process the TERC members department conducted a review to prioritize mitigation strategies which will yield the greatest benefit in reducing identified risks while staying within the budget set by the Mille Lacs Band General Assembly. The end result is a hazard mitigation action plan with a prioritized list of strategies that Districts I, II, IIA, and III of the Mille Lacs Band of Ojibwe expects to carry out from 2012 – 2017.

The Planning Process

In June 2009, the review process for the plan update was begun. The Tribal Emergency Response Committee (TERC) for the 1855 Mille Lacs Reservation All-Hazards Mitigation Plan review and update consisted of the same positions as before. Personnel in those positions may have changed, but the staffing of the TERC has remained the same. The departments that had been identified to create the initial plan remained the same for the update.

The Mille Lacs Band (MLB) authorized the addition of a consultant to assist in the update process. This consultant was a different consultant than the one that assisted with the development of the 2007 Plan. The TERC's function was to work with the consultant to coordinate, research and to perform the planning activities to update the plan. During the review process, consideration was given to occurrences of hazards, development changes, progress in mitigation efforts and changes in priorities. This task was accomplished through the following meetings and on-going correspondence:

The TERC reviewed each section and identified the required updates which are identified and discussed at the beginning of each section. The basic planning process used for the 2007 Plan was used again for this update and is identified on the next page.

The Mille Lacs Band of Ojibwe used the planning process developed by the Federal Emergency Management Agency (now U.S Dept of Homeland Security/FEMA) as a guide for its planning process. The four elements of that process are:

1. Organize Resources
    a. Existing Emergency Operations Plans from the Band and Mille, Aitkin and Pine County Emergency Management
    b. Interested Community Members from Districts I, II, IIA and III
    c. Technical Experts from the TERC, HSEM, DHS FEMA, EPA, MnDNR, BIA, and Mille Lacs, Aitkin, and Pine County Departments.
    d. Printed or other printable resources
2. Assess Risk
    a. Identify and prioritize natural, technical and human caused hazards in Districts I, II, IIA and III
    b. Prioritize those hazards in Districts I, II, IIA and III
    c. Identify how those hazards could affect key facilities in Districts I, II, IIA and III
3. Develop Mitigation Plan
    a. Develop mitigation strategies for Districts I, II, IIA and III
    b. Determine priorities of addressing potential hazards in Districts I, II, IIA and III
4. Implement the plan and monitor the progress
    a. Community members from Districts I, II, IIA and III and emergency response personnel from the Band and Mille Lacs, Aitkin, and Pine Counties put the plan into action
    b. Evaluate efforts for effectiveness in Districts I, II, IIA and III
    c. Revisit and revise plans every April in conjunction with the Band's Emergency Operations Plan as changes occur both in the Band's plan and Mille Lacs, Aitkin, and Pine Counties Plans where the Band is listed as a government entity.

Authority

- The Mille Lacs Band of Ojibwe Emergency Operations Plan, governing the response to disasters and other emergencies, adopted by the Band in April 2005
- U.S. Public Law 106-390 (Disaster Mitigation Act of 2000).

Documentation of the Planning Process:

The Mille Lacs Band of Ojibwe assigned the Tribal Emergency Response Committee (TERC) as the entity responsible to guide and direct the planning process. The TERC whose members include the Commissioners of Administration, DNRE, HHS, Community

Development, Finance, Corporate Commission, Education, plus the Band's PIO, and Department of Public Safety directed the decision-making process to start in June 2009 and to be implemented and managed by the Emergency Management Coordinator (EMC) starting April 2012 until 2017. MLB hired Linda Prail, Consultant of St. Paul, who contributed to the Mille Lacs Band All Hazard EOP and updates to assist with project coordination, public participation, research and writing of the plan with the assistance of planning agencies and emergency managers from Mille Lacs, Aitkin, and Pine Counties.

Although the boundaries of the Mille Lacs Band of Ojibwe reservation encompass parts of 15 Minnesota Counties, MLB coordinated primarily with 3 counties and the Urban Office – Mille Lacs, Aitkin and Pine. These three counties border the 3 MLB Districts. Emergency services professionals from Mille Lacs, Aitkin and Pine counties are invited to MLB TERC meetings where the Disaster Mitigation Planning is discussed. In addition to that coordination, in 2005, MLB's Emergency Management Coordinator collaborated with Mille Lacs, Aitkin and Pine County Emergency Management to insure that the Mille Lacs Band is clearly listed and represented in their county's hazard mitigation plans as well as the counties best interest is represented in the 1855 Mille Lacs Reservation's plans. This relationship is ongoing, and has grown to the point that all parties are full partners and exercise plans together.

Key government Band officials and staff were interviewed about the hazards facing the Band and what mitigation steps are in place and planned for the future. The MnDNR and Homeland Security and Emergency Management and Mille Lacs, Aitkin, and Pine Counties highway departments and environmental services were contacted for information. NOAA severe weather, and MnDNR Wildfire reports and maps were reviewed and new maps created for the plan. The TERC directed the Emergency Management Coordinator to complete all elements for the plan and to send them timely updates.

Public Participation:

MLB conducts monthly community meetings sponsored by the District Elected Representatives for Districts I, II, IIA, III and the Urban Area. These same meetings were used as the platform to inform the community about the Band's Hazard Mitigation grant and planning. In addition Band member feedback about past hazards and concerns were documented and recorded at these same meetings to meet the hazard mitigation grant requirements. These monthly meetings involve Mille Lacs Band Members, community residents and interested parties in the operations of their district. These community meetings were advertised in the Band wide newspaper the Ojibwe Inaajimowin through Band Member Kelly Sam of Goff Public media firm of St. Paul and in each districts individual newsletter which are mailed to all Band members living in each district on a monthly basis.

Monte Fronk, MLB Emergency Management Coordinator, requested to be placed on the monthly agenda to facilitate the discussion on hazard mitigation planning. The Band's consultant, Linda Prail and associates documented the Band member's comments on past hazards such as wind storms, tornadoes, power outages, snow storms and wildfires which in turn will be utilized in the plan so that life and property will be saved in the future. This information was used in the risk assessments and action plans.

Community monthly meetings sponsored by each district's elected representative were held in Pine County at the Hinckley Casino on March 16, 2011 at 5:30 p.m. for District III., at the All Nations Church in Minneapolis representing the Urban Office on March 24, 2011, in Mille Lacs County in Isle at the Chiminising Community Center on the January 26, at 5:30 p.m. for District IIA., in Aitkin County at the East Lake Community Center on April 28, 2011 for District II., in Mille Lacs County at the Community Center on March 9, 2011 at 5:30 p.m. for District I. Participants provided valuable information to be used in the hazard risk assessment and vulnerability analysis.

Each of the district representatives were left with additional forms so that Band Members who were unable to attend the meetings had a chance to provide feedback to the Emergency Management Coordinator and the consultants.

The Hazard Mitigation Plan Survey (copy included on the next three pages) was given out at each of the District meetings to the community members who were attending the meeting. The community members returned the survey to the Tribal Emergency Management Coordinator. On these surveys, the community members expressed their highest concerns. These surveys were used to assist in determining the focus of the strategies/actions to be addressed.

HAZARD MITIGATION PLAN SURVEY

The Reservation's Emergency Management Office is currently in the process of updating its Hazard Mitigation Plan. An important area is to receive community feedback on what hazards are facing residents of District I that may affect their daily lives.

Below is a list of hazards which we would like to have you make comments on about your concerns if any of these would affect you or your families. Also, if there are areas we missed, please feel free to add those concerns. We have also provided an area for comments – you may use this area to provide any information or opinion you believe we should incorporate into the planning.

NATURAL DISASTERS

Wild Fires?

□Very Concerned □Somewhat Concerned □Not Concerned

Comments:

Floods or Washout Area?

□Very Concerned □Somewhat Concerned □Not Concerned

Comments:

Winter Storms (Blizzards, High Winds, Heavy Snow)?

□Very Concerned □Somewhat Concerned □Not Concerned

Comments:

Summer Storms (Tornadoes, Thunderstorms)?

□Very Concerned □Somewhat Concerned □Not Concerned

Comments:

Extreme Temperatures (Heat or Cold)?

□Very Concerned □Somewhat Concerned □Not Concerned

Comments:

Drought?

□Very Concerned □Somewhat Concerned □Not Concerned

Comments:

Solar Flares?

□Very Concerned □Somewhat Concerned □Not Concerned

Comments:

Earthquakes?

□Very Concerned □Somewhat Concerned □Not Concerned

Comments:

TECHNICAL/HUMAN INDUCED

Structural Fire?

□Very Concerned □Somewhat Concerned □Not Concerned

Comments:

Hazardous Materials in Buildings?

□Very Concerned □Somewhat Concerned □Not Concerned

Comments:

Hazardous Materials Transported on Roadways?

□Very Concerned □Somewhat Concerned □Not Concerned

Comments:

Widespread Power Failure?

□Very Concerned □Somewhat Concerned □Not Concerned

Comments:

Criminal Activity?

□Very Concerned □Somewhat Concerned □Not Concerned

Comments:

Water Supply Contamination?

□Very Concerned □Somewhat Concerned □Not Concerned

Comments:

Infectious Disease?

□Very Concerned □Somewhat Concerned □Not Concerned

Comments:

Other?

□Very Concerned □Somewhat Concerned □Not Concerned

Comments:

Other?

□Very Concerned □Somewhat Concerned □Not Concerned

Comments:

Once you have written your comments please bring back to the next Community Meeting for pick up or bring them to the DNR building where the Emergency Management Office is located or if you have questions call 532-4181 Ext 2558

Continued Public Involvement:

Community involvement is an essential ingredient of the planning process. The MLB TERC will continue to use all of its communications opportunities, including regularly scheduled Districts I, II, IIA and III meetings, its website and the Band's newsletter to engage the community in its mitigation planning and implementation. In addition, with the attendance of Emergency Management from Pine, Aitkin and Mille Lacs counties at TERC meetings and the Emergency Services Coordinator continued collaboration with all of the counties in the region, new opportunities for public involvement with continue to be explored.

Mille Lacs Band of Ojibwe Government Departments

Through assignment from the TERC, or through individual information and assistance requests, nearly all band departments provided input into the Hazard Mitigation Plan. Lead departments include Community Development, Natural Resources, Public Health, Finance and Administration. The MLB Commissioner of Administration assured that the Administrative Policy Board and all departments provided the resources necessary to complete the plan.

Project Implementation

Project implementation will be the responsibility of the MLB departments under the TERC which comprise of all appointed Commissioners for the four divisions of the Mille Lacs Band plus Public Safety and Public information to be responsible for the activity.

Each year the action plan will be reviewed and updated every year during the month of April by the Emergency Management Coordinator in consultation with department heads and the TERC. The first year of implementation as those activities identified in the Band's Hazard Mitigation Plan are completed in Districts I, II, IIA and III an additional year will be added to reflect activities not completed so that the action plan always reflects a five year time frame and remains current. Strategies undertaken and completed will be evaluated as to their effectiveness by letters sent by the Emergency Management Coordinator to the members of the TERC whose departments oversaw the projects. The Emergency Management Coordinator will also attend the monthly community meetings in Districts I, II, IIA, and III to inform Band members in which projects have been completed and those left to be implemented. Those activities not completed in Districts I, II, IIA and III during the first year will be re-evaluated and included in the first year of the new action plan if deemed appropriate by the TERC members.

Even though individual strategies have been assigned a Tribal Emergency Response Committee (TERC) member contact will be made to ensure implementation, overall responsibility, oversight and general monitoring of the action plan has been assigned to the Band's Emergency Management Coordinator. The Emergency Management Coordinator

will also provide periodic updates to the TERC Committee on progress being made by letter, email or group wise.

Incorporation into Existing Planning Resources

The Emergency Management Coordinator will also be responsible for ensuring that requirements of this plan will be incorporated into other planning resources already in use in the community. The Emergency Management Coordinator will provide a letter to all plan and program managers requesting that they incorporate relevant portions of this plan into their existing planning mechanisms. Incorporation will be done in accordance with revision protocols established for each particular plan or program.

Plans available for incorporating mitigation items include the MLB Capital Improvement Plan, the MLB All Hazards Emergency Operations Plan, the DNRE Integrated Resource Management Plan (IRMP), the Comprehensive Plans of Aitkin, Pine, and Mille Lacs County, and the Mitigation Plans of Aitkin, Pine, and Mille Lacs County. Additional planning mechanisms may be identified in the future and these will be included in updates of this plan.

This action plan serves as a guide to spending priorities but will be adjusted annually to reflect current needs and financial resources in Districts I, II, IIA and III. Some strategies will require outside funding from the state or federal agencies to implement. If outside funding is not available the strategy will be set aside until new sources of funding can be identified for Districts I, II, IIA and III. In these situations the Tribal Emergency Response Committee (TERC) will consider other options such as the direct funding from Band administration. Then, based on the availability of funds, the TERC will determine which strategies should be continued and which should be set aside, at least temporarily.

Project Monitoring, Evaluation Updating and Plan Adoption

In reviewing the plan process that was used over the last five years, the TERC determined that the process worked well. The one major change is starting the formal plan update process earlier at the beginning of year four. Some minor details were added to more fully explain the process.

The Hazard Mitigation will be reviewed and updated yearly by the Emergency Management Coordinator in the month of April or following a major disaster. The updating process will involve the Tribal Emergency Response Committee (TERC) and Band member feedback from monthly community meetings in Districts I, II, IIA and III. The Emergency Management Coordinator will advise the TERC and the community 30 days in advance of the monthly community meeting in the Districts of the intent to review the mitigation plan. Each District will review the Plan as it relates to their area prior to the monthly community meeting. The content and scope of the Plan review and evaluation will address the following questions:

- Hazard Identification: Have the risks and hazards changed?
- Goals and objectives: Are the goals and objectives still able to address the current and expected conditions?
- Mitigation Projects and Actions: What is the status of the project? Has it been completed? If not completed, has it been started? Identify the date that the project was started and any challenges faced. What percentage has been completed and the amount of funds expended? The status of funding for the project: projected costs less than expected, currently on target or will require additional funds.

Prior to the monthly community meeting, the District will supply an informal memorandum to the Emergency Management Coordinator. During the annual plan review at the monthly community meeting the District will have an opportunity to summarize their review findings to the group and discuss any concerns or successes.

The Emergency Management Coordinator upon receiving the comments, and feedback from the yearly review of the Band's Hazard Mitigation plan, will remove any mitigation projects completed or add new project if needed. This review will also include any new language to the plan that may be a new federal requirement. If funding is not available to complete certain mitigation actions this will be documented in the plan and set aside until it can be funded and completed. A "keep or drop" decision will be made on projects. Projects in-progress will be noted with percentage of completion information and the anticipated completion date.

For FEMA supported projects, progress reports will be submitted to FEMA on a quarterly basis, or as required throughout the project duration. The quarterly reporting will depend on the type of project, its funding source and the associated requirements. At a minimum, the quarterly report shall address:

1. Project Completion Status
2. Project Challenges/Issues (if any)
3. Budgetary Considerations (Cost Overruns or Underruns)
4. Detailed Documentation of Expenditures

All reports will be handled using the following division of responsibilities. The Grants Department will handle the financial reports and the Tribal Emergency Management Coordinator will monitor and prepare the progress reports. When FEMA supported projects are completed, the project closeout documents will be prepared by the Grants Department with any necessary input by the Tribal Emergency Management Coordinator.

DMA 2000 requires the Plan to be updated and approved by FEMA every five years. Approximately one year prior to the plan expiration date, the Emergency Management Coordinator will reconvene the TERC to begin the Plan update process. The TERC will

review and assess the Plan. The appropriate or affected portions of the Plan will be revised and updated.

At the end of the initial five year review cycle the revised Band's Hazard Mitigation Plan will then be sent to the MN Department of Public Safety Division of Homeland Security and Emergency Management for another state review to ensure consistency in the Band's plans for implementation and usage by the Mille Lacs Band's TERC and different departments with its divisions.

The State and FEMA approved Plan will be presented before the TERC for an official concurrence and adoption of the changes. This updated and approved plan will be presented to the Chief Elected Official for approval. Once the Plan has been approved and adopted it will be available to the TERC. The Tribal Emergency Management Coordinator will request the Minnesota Department of Health on MN.TRAIN to post the Plan at http://mn.train.org/ Each of the TERC members will have access via password to review the plan from any location. Community members will have access to the Plan at the office of the Tribal Emergency Management Coordinator.

Tribal Assurances

The Mille Lacs Band will continue to comply with all applicable Federal statutes and regulations in effect for those periods when the MLB receives grant funding per the DMA2K requirement (CFR #44, Vol.1, Chpt.1, Part 13.11 (c).)

Appendix A

HAZARD MITIGATION STRATEGY/ACTIONS

This appendix is new and has been completed to reflect the 2007 and 2012 strategies/actions. A discussion of the implementation process for the 2007 strategy/actions is shown below. The 2007 strategy/actions have been evaluated and have been identified as either: ongoing, could not be done because of funding, not applicable or completed and shown in this appendix. The TERC determined that it was necessary to identify new broad and general goals, objectives and strategy/actions for the 2012 Plan update. All of the new 2012 strategies/actions have been identified and included in this appendix.

2007 Mitigation Goals

1. Wildfires risks reduced in Districts I, II, IIA and III.
2. Delay of winter/summer storm alerts risks reduced in Districts I, II, IIA and III.
3. Flooding risking reduced in District III.
4. Eliminate non-conforming structures in the identified 100 year flood plain.
5. Terrorism/Criminal activity risks reduced in Districts I, II, IIA and III.

Each of the 2007 mitigation strategy/actions is discussed below:

1) Ensure new residential home sites have large enough fire breaks to reduce wildfire risks, and conduct yearly controlled burns from early spring till green up in Districts I, II, IIA and III.

> The TERC member Commission of Community Development has initiated this action and it has been determined to be a viable ongoing strategy/action.

2) NOAA weather radios to be placed in all government buildings for early storm warnings in Districts I, II, IIA and III.

> This strategy/action was completed. They will maintain their rating as a NOAA Storm Ready Community by recertifying every two years.

3) Update land use plans to include flood plains; prepare flood maps

> This was not done because the Mille Lacs Reservation does not have any Special Flood Hazard Areas (SFHA). Therefore, this will not be a strategy/action in the 2012 Plan.

4) Insure Ojibwe traditions are being utilized in land and water management

The Mille Lacs Band has a tradition of preserving the land and water. This will be an ongoing strategy/action.

5) Increase enforcement activities by adding extra patrols, both Tribal Police and Housing Security, and adding another investigator.

This strategy/action was not done because of the lack of funding. At this time, we do not anticipate funding being available and will not be identified as a 2012 strategy/action.

2012 Mitigation Goals

1. Maintain and enhance the 1855 Mille Lacs Reservation's capacity to continuously make it less vulnerable to hazards.
2. Improve the coordination and communication with Federal, State, Other Tribal, Regional, Local emergency management personnel and other potential partners.
3. Improve communication with Band members to make the community less vulnerable to all hazards, and increase their understanding of hazard mitigation.

After the assessment was completed, the Tribal Emergency Management Coordinator, using the response from the community members, then brainstormed new strategies/actions to be added, reviewing the results of the vulnerability analysis, the capability assessment, and the goals and objectives. The Mille Lacs Band has a cultural history of evaluating the impact or the benefit to the next seven generations of Band members. Each strategy/action was reviewed based on the categories of Ojibwe cultural beliefs, spirituality, care takers of the land and to ensure adherence to Mille Lacs Band Tribal laws, statutes and commissioners orders were also taken into consideration. Once the strategies/actions were finalized, the lead agency, potential funding sources and timeframe was completed for each strategy/action.

The following table includes the strategies/actions from the 2007 plan and new strategies for the 2012 plan update and indicates the status of the actions, who is responsible (lead agency) potential funding sources and the timeframe.

Strategies/Actions to Mitigate Effects of Hazards					
Goal	**Strategy/Action**	**Status:** New/On-going /Completed	**Lead Agency**	**Potential Funding Sources**	**Timeframe**
		ALL HAZARDS			
2012 #3	Band members unaware of emergencies—determine best notification method: direct contact, reverse 911, community message board or weather radios (Metro District and District II-lower orchard).	New	Public Safety - Emergency Management Coordinator	Net Revenue	Ongoing
2012 #3	Public Education and Awareness for Elders: safety checks for smoke detectors and CO monitors, discuss storm sheltering and need for cell phones.	New	Public Safety Emergency Management Coordinator	Fire Grants	Ongoing
2012 #1	Abandoned Homes-decide quickly if can be salvaged or demolished for safety.	New	Commissioner of Community Development	Net Revenue	Ongoing
2012 #1	Street names and maps do not match: develop current maps and get signage for new housing area to assist in emergency response.	New	Commissioner of Community Development	Net Revenue	Ongoing
2012 #1	A shortage of first responders was identified in District IIA—initiate training for community members.	New	Public Safety Emergency Management Coordinator	Tribal Health Services	Ongoing
2012 #2	Power outage knocks out alarm systems and key card access. Work with utilities to address power outages.	New	Commissioner of Administration	East Central and Mille Lacs Energy	Ongoing
		WILDFIRES *Probability*-High, *Impact*-Moderate to High and *Overall Risk*-High			
2007 #1	Ensure new residential home sites have large enough fire breaks to reduce wildfire risks, and conduct yearly controlled burns from early spring till green up in Districts I, II, IIA and III.	Ongoing	Commissioner of Community Development and Tribal DNR	Net Revenue	Ongoing

Strategies/Actions to Mitigate Effects of Hazards					
Goal	**Strategy/Action**	**Status:** New/On-going /Completed	**Lead Agency**	**Potential Funding Sources**	**Timeframe**
2012 #1	Two 4,000 gallon in-ground storage tanks	New	MNDNR	MNDNR HMGP Grant	2013
	FLOOD *Probability*-Low, *Impact*-Moderate and *Overall Risk*-Low				
2007 #3	Update land use plans to include flood plains; prepare flood maps	No SFHA Not included in the 2012 plan	Commissioner of Community Development and Tribal DNR planning staff	N/A	N/A
2007 #4	Insure Ojibwe traditions are being utilized in land and water management	Ongoing	Tribal DNR	Net Revenue	Ongoing
2012 #1	Utilities at Urban Office unprotected and unsafe. Move utilities off the floor.	New	Commissioner of Administration	Net Revenue	2013
2012 #1	Records loss due to office building flooding: obtain rack for server boxes, water-proof and fire-proof workforce center paper files (other storage or digital records).	New	Commissioner of Administration	Net Revenue	2013
2012 #2	Coordinate flooding needs with Aitkin County for District II. (Map to identify elders and handicapped)	New	Commissioner of Community Development	Net Revenue	Ongoing
	VIOLENT STORMS (Includes both Winter Storms and Summer Storms) *Probability*-High, *Impact*-Moderate and *Overall Risk*-High				
2007 #2	NOAA weather radios to be placed in all government buildings for early storm warnings in Districts I, II, IIA and III.	**Completed**	Director of Public Safety		
2012 #2	Maintain NOAA Storm Ready Community status	New	Director of Public Safety	N/A	Ongoing
2012 #2	Coordinate snow removal with Aitkin County for District II. (Map to identify elders and handicapped)	New	Commissioner of Community Development	Net Revenue	Ongoing

Strategies/Actions to Mitigate Effects of Hazards					
Goal	**Strategy/Action**	**Status:** New/On-going /Completed	**Lead Agency**	**Potential Funding Sources**	**Timeframe**
2012 #1	Need storm protection areas and shelters in community.	New	Commissioner of Community Development	HUD, BIA, HMGP Grant, Net Revenue	Ongoing
2012 #3	NOAA Weather Radios for elders (468)	New	Tribal Health Services	Free	2013
2012 #1	Concrete shelters in garages	New	Commissioner of Community Development	HUD, BIA, Net Revenue	Ongoing
	EXTREME TEMPERATURES *Probability*-High, *Impact*-Moderate and *Overall Risk*-Moderate				
2012 #1	All elders have air conditioning	New	Commissioner of Community Development	Net Revenue	Ongoing
2012 #1	Evacuate to Casino if power fails	New	Corporate Commissioner and the Commissioner of School Buses	Net Revenue	Ongoing
	DROUGHT *Probability*-Low, *Impact*-Low and *Overall Risk*-Low				
2012 #1	Cultural belief is not to irrigate	New	Mille Lacs Band	N/A	Ongoing
	WATER SUPPLY CONTAMINATION *Probability*-Low, *Impact*-High and *Overall Risk*-Moderate				
2012 #1	Source Water Protection Plan	New **Completed**	Tribal DNR	Grants	Ongoing

Strategies/Actions to Mitigate Effects of Hazards					
Goal	**Strategy/Action**	**Status:** New/On-going /Completed	**Lead Agency**	**Potential Funding Sources**	**Timeframe**
2012 #1	Water testing	New	Tribal DNR	Net Revenue	Ongoing
	STRUCTURE FIRE *Probability*-Moderate, *Impact*-Moderate and *Overall Risk*-Moderate				
2012 #1	General Urban Office building safety-update evacuation plan and share plan with Minneapolis emergency services, regularly inspect smoke detectors and sprinkler system, conduct regular fire drills.	New	Minneapolis Fire Department	City of Minneapolis	Ongoing
2012 #1	Records loss due to office building flooding: obtain rack for server boxes, water-proof and fire-proof workforce center paper files (other storage or digital records).	New	Commissioner of Administration	Net Revenue	2013
	HAZARDOUS MATERIALS *Probability*-low, *Impact*-Moderate and *Overall Risk*-Moderate				
2012 #1	Response to transportation accidents: 4 major highway—emergency response for victims and environmental clean-up	New	TERC, MNDOT, DNR Brownfield, Public Safety	EPA MNDOT	As needed
	INFECTIOUS DISEASE *Probability*-Moderate, *Impact*-Moderate and *Overall Risk*-Moderate				
2012 #1	Keep the EOP updated.	New	MN Department of Public Health	PHEP Grant	Ongoing

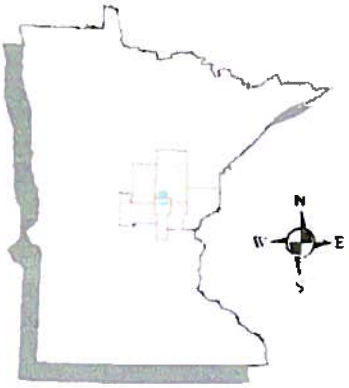
Other Community Concerns:

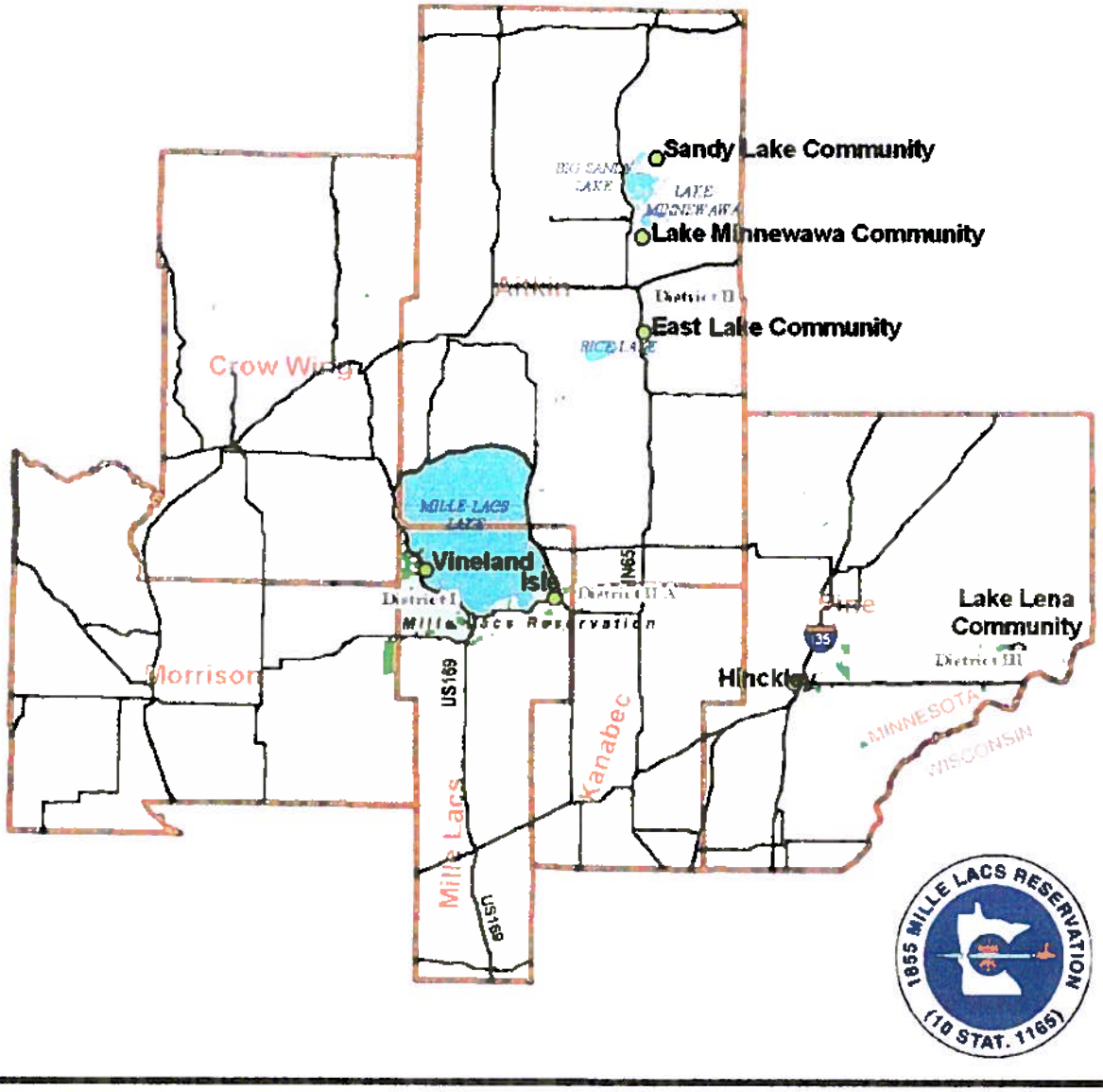
When the Hazard Mitigation Plan Surveys were returned by the community members from all of the Districts, the following list of concerns was provided by the community members. These are valid safety concerns that do not specifically relate to a hazard being addressed in this Plan or fall into a mitigation strategy/action. These are issues that will be addressed outside of the parameters of this Hazard Mitigation Plan.

Goal

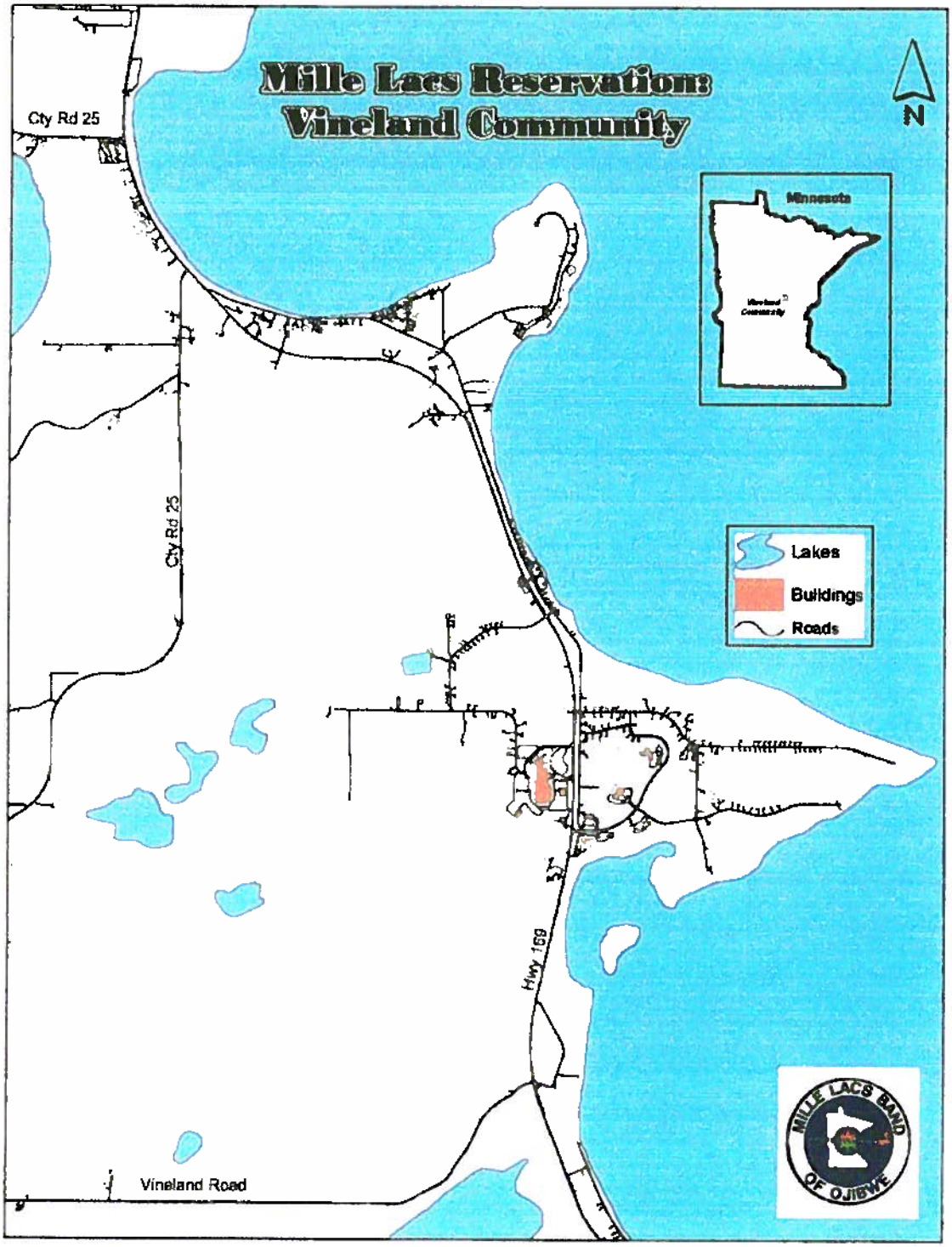
1	Traffic hazards on Franklin Avenue
1	Metro building/workforce center not accessible to handicapped, elders and vulnerable populations
1	General neighborhood safety
1	Traffic hazards in Isle: streetlights, sidewalks and crosswalks
1	Vulnerable population isolation (better transportation needs, busses and vans)
1	Snow removal with the common areas and sidewalks for District 1
1	Dogs running at large
1	Loss of historical preservation areas
1	Cemetery does not have adequate space for Band Members
1	Traffic control hazards at Moose drive
1	Lack of first aid equipment at boat landings
1	There is a shortage of safe pedestrian paths in District II
1	Inadequate snow removal for elders and handicapped members (Does the EOP have a list of these people so an early response can be provided to these members?)
1	Handicapped accessibility problems in housing
1	Established outdoor playground equipment deteriorating
1	Not enough police coverage in District II; no night coverage
1	Inadequate security in Tribal Buildings in District II
1	Outdoor lighting is inadequate
1	Windows/doors at Urban Office are vulnerable. Reinforce door/replace windows.

MILLE LACS RESERVATION, DISTRICTS & TRIBAL LANDS





Appendix B: Maps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Vineland Community
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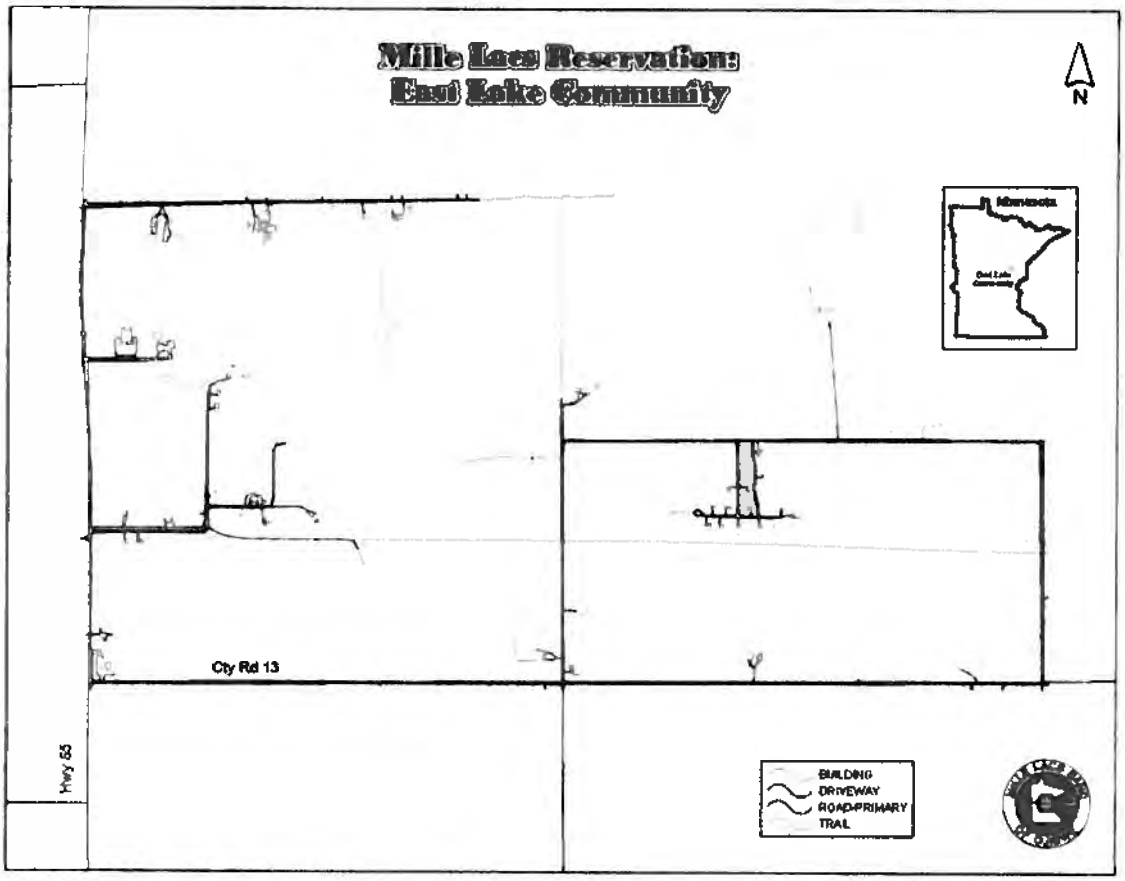
Cty Rd 25
Minnesota
Lakes
Buildings
Roads
Hwy 169
Vineland Road
MILLE LACS BAND OF OJIBWE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East Lake Community
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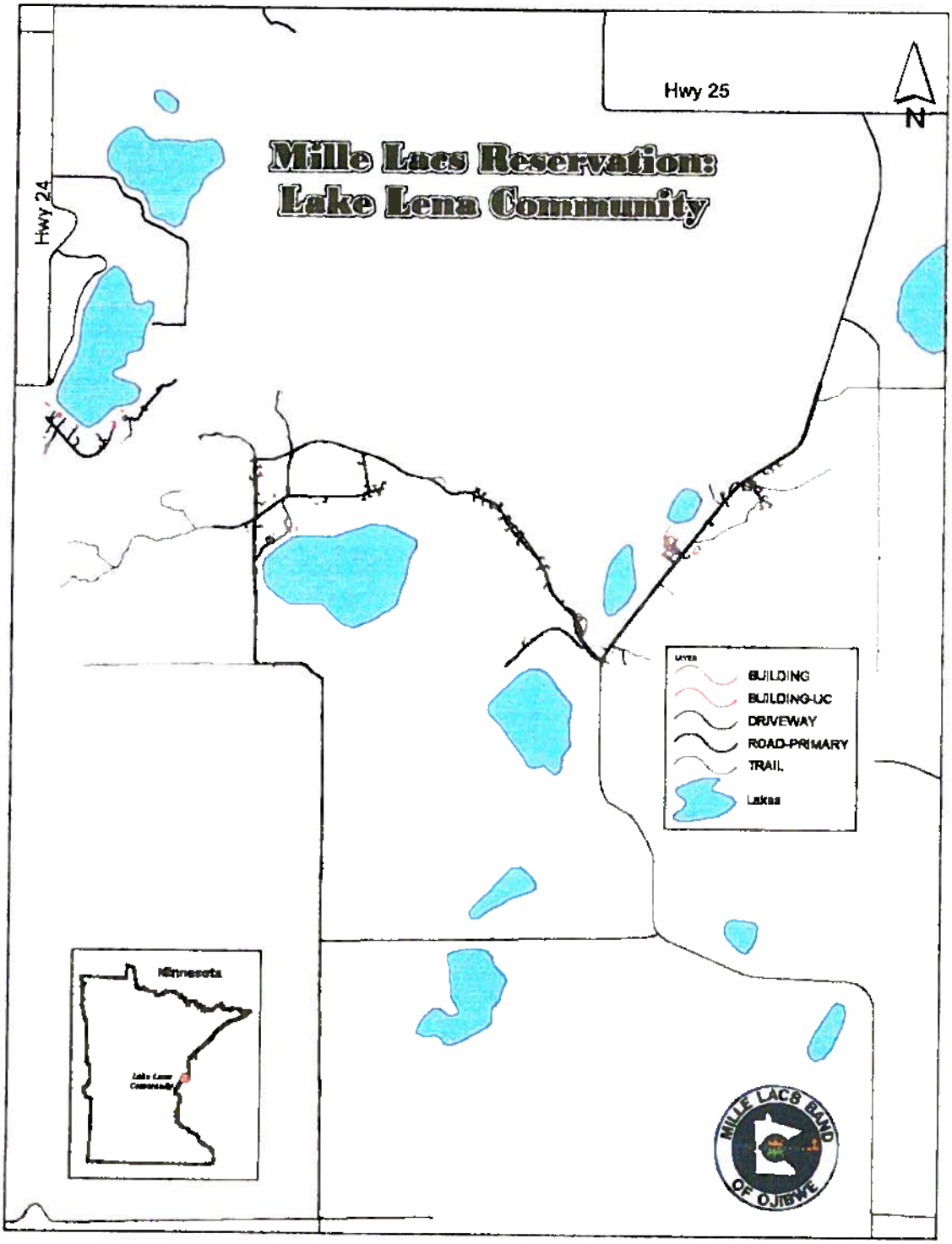
Cty Rd 13
Hwy 65
BUILDING
DRIVEWAY
ROAD-PRIMARY
TRAIL


Hwy 25
N
Hwy 24
Mille Lacs Reservation:
Lake Lena Community
BUILDING
BUILDING-UC
DRIVEWAY
ROAD-PRIMARY
TRAIL
Lakes
Minnesota
MILLE LACS BAND OF OJIBWE