

Bay Mills Township

Master Plan

2011



BAY MILLS TOWNSHIP BOARD OF TRUSTEES

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PREPARED BY THE BAY MILLS TOWNSHIP PLANNING COMMISSION

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COVER PHOTOS FROM THE
SUPERIOR WATERSHED PARTNERSHIP'S
GREAT LAKES VIEWER

With Assistance from the Eastern Upper Peninsula Regional Planning & Development Commission

**RESOLUTION OF ADOPTION
BY THE BAY MILLS TOWNSHIP PLANNING COMMISSION
BAY MILLS TOWNSHIP MASTER PLAN**

WHEREAS: The Bay Mills Township Planning Commission is required by Section 31 of P.A. 33 of 2008, as amended, to make and approve a master plan as a guide for the development within the Township, and;

WHEREAS: Bay Mills Township requested the services of the Eastern Upper Peninsula Regional Planning and Development Commission in preparation of this plan, and;

WHEREAS: The Bay Mills Township Planning Commission, in accordance with Section 39(2) of P.A. 33 of 2008, as amended, notified the adjacent Townships of the intent to develop a Master Plan and, in accordance with Section 41(2) of P.A. 33 of 2008, as amended, distributed the draft plan to adjacent Townships for review and comment, and;

WHEREAS: The Master Plan was presented to the public and a hearing held on October 3, 2011, before the Planning Commission, with notice of the hearing being published in the Soo Evening News on July 14, 2011 in accordance with Section 43(1) of P.A. 33 of 2008, as amended;

NOW THEREFORE BE IT RESOLVED THAT,

The content of this document, together with all the maps attached to and contained herein, along with the Future Land Use Map, are hereby adopted by the Bay Mills Township Planning Commission as the Bay Mills Township Master Plan on this 3rd day of October, 2011.

Motion: Betty Bunker

Second: A LaPlante

Ayes: 4

Nays: 0

Absent: 1

Certification

I hereby certify that the above is a true and correct copy of the resolution adopted at the October 3, 2011 meeting of the Bay Mills Township Planning Commission.


Chair
Bay Mills Township Planning Commission


Secretary
Bay Mills Township Planning Commission

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"Would you tell me, please, which way I ought to go from here?"

"That depends a good deal on where you want to get to."

"I don't much care where--"

"Then it doesn't matter which way you go." ---- Lewis Carroll's Alice's Adventures in Wonderland (1865)

Chapter One – Introduction and Brief History

Introduction

The purpose of developing this Master Plan is to provide Township leaders with guidelines for future community development, protection of natural resources, and the preservation of Bay Mills Township's rural character. Developing a Master Plan helps not only local officials, but also provides a framework for public input and participation in future community development. A Master Plan should not be thought of as "static" – a Master Plan should be a fluid document, which changes with growth and a community's vision – what the residents envision and support for the future of the Township. The Master Plan should also be used as a guide in updating and developing language for the Township's Zoning Ordinance.

Brief History

The beginning of the Bay Mills area was due largely to efforts of missionaries to convert the Anishabeg (known today as the Ojibwe) to Christianity. The 1840s proved hard for Sault Ste. Marie, as a crash in the international fur market and decline in population forced the settlement's industry to shift to fishing – which was best in Whitefish Bay. By the late 1840s, most of the Anishabeg moved to Naomikong Point to take advantage of the fishing and its associated industry. In 1849, a Methodist mission purchased sixty acres of land for a new mission at Naomikong Point. A group of Anishabeg, aided and directed by Rev. John Pitezel, moved to this mission. However, the mission began to decline as Rev. Pitezel left in 1852 to re-establish a larger mission nearer the Sault.



Photo provided by David Marone

Between 1870 and 1880, a lumber mill was built in the area. Soon after, two other mills were constructed, and by 1895 both pulp and paper mills were in operation. Almost two-thousand non-Indians settled at this site, where houses, two churches, and a post office were established. It was the establishment of these mills that the name Bay Mills was derived. A Treaty in 1820 (Treaty of Sault Ste. Marie) and again in 1836 (Treaty of Washington) ceded much of the land in the area to the United States. The 1850s saw a great deal of activity between Bands (Tribes) and the Federal Government; allotment of lands was back and forth for several years. It wasn't until 1871 that five of the six bands became part of the Point Iroquois settlement, later called the Bay Mills Indian Community.¹ Bay Mills Township was officially organized in January, 1902.

¹ Historic information credited to "The Place of the Pike", by Charles Cleland, 2001

The Master Plan's Purpose

The Michigan Planning Enabling Act (Public Act 33 of 2008, as amended), requires that Planning Commissions create and adopt a Master Plan. The purpose of this Master Plan is to:

- Promote public health, safety, and general welfare.
- Encourage the use of the Townships' natural resources according to their character and adaptability.
- Consider the Township character, and judge its suitability for particular uses based on factors such as land use trends and population levels.

The Planning Process

In preparing the Master Plan, the Township is authorized to:

- Conduct studies, investigations, and surveys relative to economic, social, and physical development of the Township.
- Formulate plans and make recommendations for the most effective economic, social and physical development of the Township.
- Cooperate with all departments of state and federal governments and other public agencies; and consult with adjacent townships.

This plan presents background information on social and economic data, natural resources, community services and facilities, and existing land use. The background information is used to identify important characteristics, changes, and trends in Bay Mills Township. A citizen input survey was out in July of 2010 to a representative sample of residents and land owners. This was done to gain an understanding of the issues and concerns of Township residents, landowners and local officials. This background information, along with the issues and visions of the Township Planning Commission and Township residents, was used to generate goals and objectives for the Township, as well as future land use. The 2010 survey is included as Appendix B.

In addition to this Master Plan, Bay Mills Township should also consider the following documents when making decisions that impact future sustainability:

- Eastern Upper Peninsula Comprehensive Economic Development Strategy - Eastern U.P. Regional Planning & Development Commission – updated annually.
- Hiawatha National Forest Plan - USDA Forest Service, 2006
- Whitefish Bay Scenic Byway Corridor Management Plan – USDA Forest Service, 2009

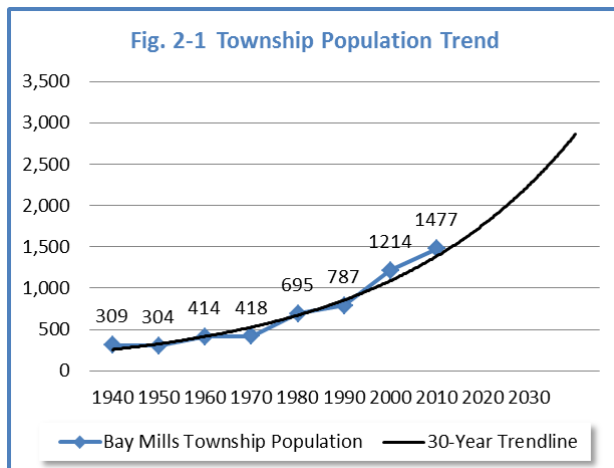
This Master Plan has been developed by the Bay Mills Township Planning Commission with the technical assistance of the Eastern Upper Peninsula Regional Planning & Development Commission (EUPRPDC). This plan looks at a twenty year planning horizon, with required reviews every five years or sooner if necessary. Annual reviews are recommended.

Chapter Two – Social, Demographic, and Economic Factors

This chapter will focus on the changing demographic and economic factors for Bay Mills Township and Chippewa County. Comparing historical data is useful in identifying patterns and trends that may affect a community’s approach to land use, economic development, and other general issues.

Population ¹

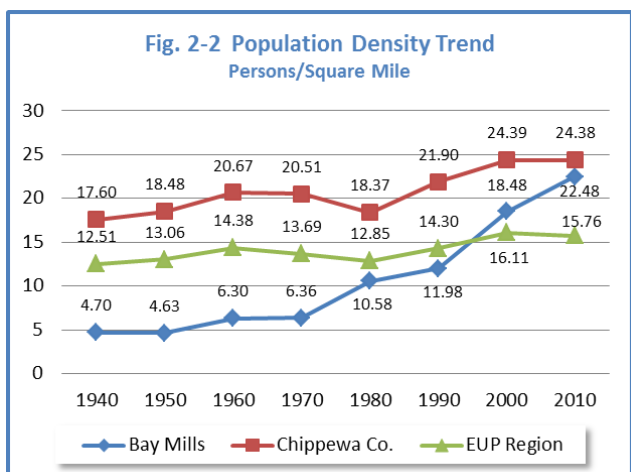
According to the 2010 U.S. Census, the population of Bay Mills Township was 1,477 persons; 714 male and 763 female. Since 1950, the Township’s population has been on a steady rise, with large increases in population in 1960 (36%), and again in 2000 (54%). Since 1940, the Township has been growing at an average of 16.69 people per year. It should be noted that a large factor to the population growth in Bay Mills Township has been the growth of the BMIC. A breakdown of both the 2000 and 2010 Census block figures shows that the Township’s population without the BMIC was 605 and 649, respectively. So without including the BMIC, the Township saw an actual growth of 7.2%. The BMIC saw an increase of 35.9% in that same time period. So an important factor in considering the growth of Bay Mills Township is the growth of the Bay Mills Indian Community, as population “spill-over” could result in both population and housing growth within the Township. If current population trends² continue, and the BMIC continues to grow as well, the Township may see an increase in population of twenty to twenty-five percent by 2030. Population by Census block for both 2000 and 2010 are shown on Maps 2-1 and 2-2.



Chippewa County has experienced a steady increase in population, with the exception of 1980 (after the Air Force Base closure). The County has been slowly growing since 1940, at an average of 179 people

per year. The 2010 Census revealed the County lost twenty-three (23) people. However, Townships within the County saw significant increases and decreases in populations.

Comparing population densities, the Township has seen a large increase in persons per square mile. In 1940, the Township density was 4.70 persons per square mile. In 2000, that amount increased to 18.48 persons per square mile. In 2010, that density increased again to 22.48 persons per square mile, an increase of 4 persons per square mile in ten years.



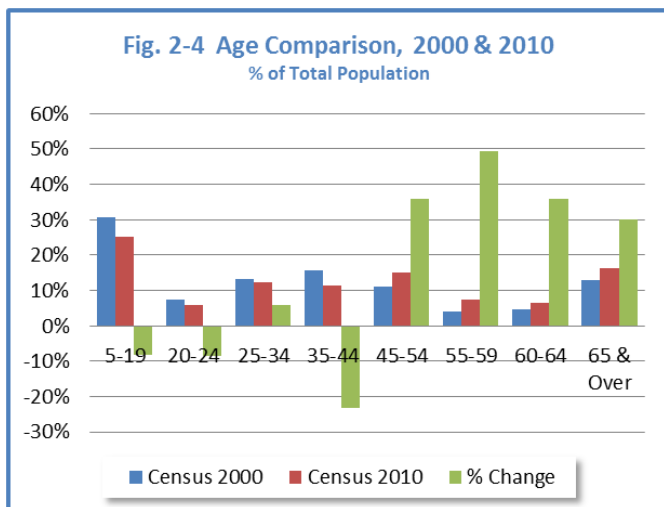
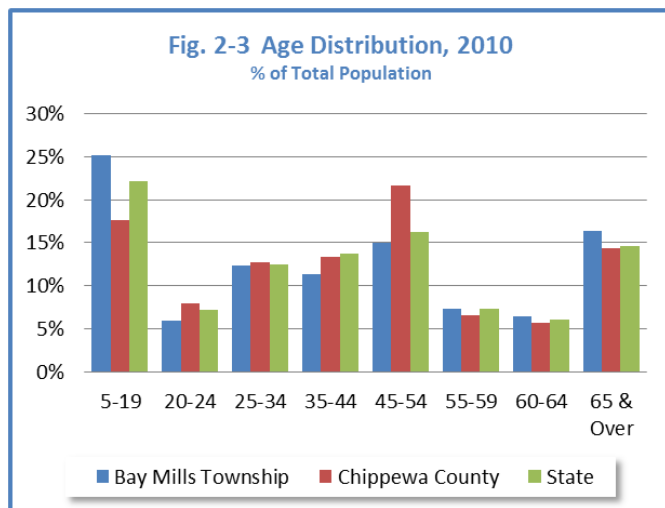
¹ U.S. Census figures **include** the Bay Mills Indian Community, which is located within the Township.

² Trendline is based on mathematical formula and does not account for all possible population factors, such as birth/death rate, migration, economics, environment, etc. Trendline should be considered an estimate.

Age, Race, and Disability

The age distribution between the Township, County, and State is similar for the following age groups: 25-34, 55-59, and 60-64. Other age groups show a varied difference. The Township has a very high percentage (25.13%) of children 5-19 years of age. The second largest group in the Township is, at 16.34%, those individuals 65 years and older. The 45-54 age group, at 15.03%, is the third largest in the Township. The percentage change between age groups from 2000 to 2010 is shown in Figure 2-5. Age groups younger than 35 years old had small decreases in change, while the older population had very large changes; a 23% decrease in 35-44 year olds, a 35.75% increase in 45 to 54 year olds, and a 49.5% increase in 55 to 59 year olds. The 60-64 year olds and 65 and older groups saw increases of 36% and 30%, respectively.

The median age for the Township was 38.6 in 2010, up from 33.4 in 2000. The Township’s median age in 2010 was younger than Chippewa County (39.5 years) and the State (38.9 years).



The racial make-up of the population in Bay Mills Township is mostly split between Caucasians and American Indians. Of the 1,477 persons counted in the Township during the 2010 Census; 623 were white only (42%), 745 were American Indian only (50%), 5 were Hispanic or Latino only (.3%), and the remaining were more than one race (6.6%).

Race	Bay Mills		Chippewa County		State
	Number	Percent	Number	Percent	Percent
White	623	42.2%	27,837	72.2%	78.9%
Black	3	0.2%	2,509	6.5%	14.2%
American Indian	745	50.5%	6,068	15.7%	0.6%
Asian	3	0.2%	230	0.6%	2.4%
Hispanic	5	0.3%	480	1.2%	4.4%
Two or more	97	6.6%	1,425	3.7%	2.3%

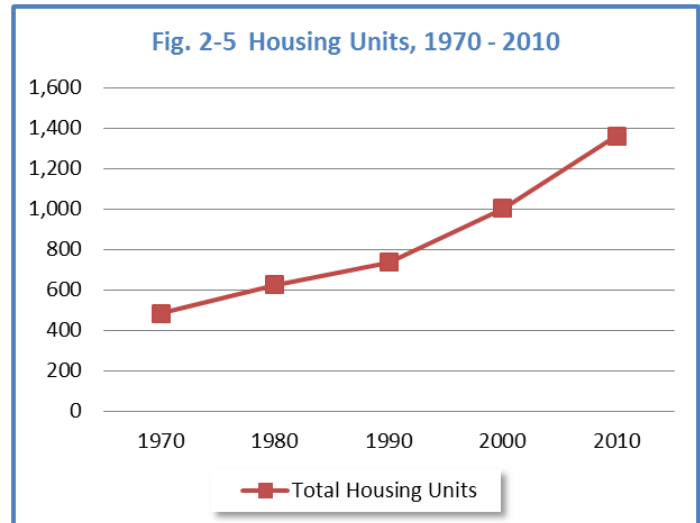
Source: U.S. Bureau of the Census, Census 2010

In 2000, Bay Mills Township had 151 persons with a disability. A person was classified as having a disability if they had any of the following disabilities: sensory, physical, mental, self-care, going outside the home, or employment. The disabled population is broken down into three age groups; 5-20 years, 21-64 years, and 65+ years. The largest number of disabled persons in the Township was between the ages of 21 and 64 years, at 90 persons or 7.4% of the total Township population. The second largest disabled group was older than 65 years, at 46 persons, or 3.8% of the total Township population. Those disabled that were younger than 20 years old was 15 persons, or 1.2% of the total Township population.

Households and Housing Characteristics

A **housing unit** is a house, an apartment, a mobile home or trailer, occupied as separate living quarters or, if vacant, intended for occupancy as separate living quarters. Separate living quarters are those in which the occupants live separately from any other people in the building and which have direct access from outside the building or through a common hall. Both occupied and vacant housing units are included in the housing unit inventory. A **household** includes all the persons who occupy a housing unit. People not living in households are classified as living in group quarters.

According to the 2000 Census, there were 1,004 total housing units in Bay Mills Township; this was a 38.7 percent increase from the 1990 Census. Single-family units accounted for 80.2 percent, whereas mobile homes accounted for 12.4 percent. The number of housing units in the Township has grown considerably over the decades and increases in single-family units have significantly outpaced any increases in multi-family structures. The 2010 Census shows an increase in housing units in the Township; 1,363 units in 2010. Housing units by census block, for both 2000 and 2010, are seen on Maps 2-3 and 2-4.



The 2000 Census reported 485 households in Bay Mills Township. Family households accounted for 346 of the 485 total households within the Township; 139 households were non-family. Just over half of family households were married-couple families (51.5 percent). Of the total households, 23.7 percent were a householder living alone. In Chippewa County, family households accounted for 66.5 percent of the total, with married-couple households accounting for 51.5 percent. Non-family households accounted for 33.5 percent in the County, with the householder living alone at 27.5 percent. In the Township, the average household size of owner-occupied units was 2.50 (down 8.9 percent from 1990) and 2.92 for renter-occupied units (down 10.2 percent from 1990).

In Chippewa County, 69.3 percent of the occupied housing units were owner-occupied units, as compared with 73.8 percent in the State. The percent owner-occupied housing in Bay Mills Township was even higher at 82.1 percent. The homeowner vacancy rate in Chippewa County was 2.6 percent, and the rental vacancy rate was 9.4 percent; compared with Bay Mills Township's vacancy rates of 2.0 and 18.7, respectively. The majority of housing in Bay Mills Township was owner-occupied (82.1 percent), with renter-occupied housing accounting for only 17.9 percent of the total occupied housing units.

An important factor to consider in the Eastern U.P. is that of seasonal residents, which is fairly common in the area. The Census does not count residents who reside elsewhere during the winter. Respondents are asked to declare a permanent residence different from their April location, if more than six months are spent at the alternate address. The 2000 Census reported that **47.0 percent** of all housing within the Township was categorized as seasonal, recreational or occasional-use homes. Seasonal housing units increased by 5.6 percent between 1990 and 2000. With such a large number of seasonal homes, the population of the Township during the summer months increases significantly.

Occupied housing units at the County level found that 49.4 percent of the housing units were heated with natural gas (utility), a 31.3 percent increase from 1990. Almost 21 percent heated with bottled, tank or LP gas, 11.9 percent with fuel oil or kerosene, 11 percent with electricity and 6 percent with wood. Other data shows 0.5 percent lacked complete plumbing facilities and 0.5 percent lacked complete kitchen facilities. A little over 3 percent of all housing units had no telephone service (420 units).

In Bay Mills Township, 53.3 percent of the homes used utility gas for heating fuel, while 24.7 percent of the homes were heated with bottled, tank or LP gas. Small percentages used fuel oil or kerosene (5.9 percent), electricity (10.0 percent), and wood (5.2 percent). Four units in the Township lacked complete plumbing facilities or kitchen facilities, and 2.9 percent had no telephone service.

The majority of the owner-occupied housing units in the Township were valued between \$50,000 and \$99,999. This represents a 253.5 percent increase from 1990.

Bay Mills Township’s median home value in 2000 was \$90,000; when adjusted for inflation in 2009, this value rises to \$115,896, which is higher than the adjusted median home value in Chippewa County (\$95,354), and slightly lower than the State of Michigan’s adjusted median home value (\$142,600). Land Use and State Equalized Value (SEV) show that 98.82 percent of the SEV is attributable to residential housing. In addition to the importance of the residential sector to the tax base, many homeowners consider the value of their home a large part of their net worth.

Education

A key factor in analyzing the capabilities of the township’s work force is education. The educational attainment of individuals age 25 years and older is tracked by the U.S. Census Bureau. The Township had an increase of over 16% in the number of high school students receiving diplomas, compared to the 1990 Census. There was a large jump in the number of Bachelor and Graduate Degrees in the Township between 1990 and 2000; a 160 percent increase for Bachelor and a 90 percent increase for Graduate.

Of the Township’s population age 3 years and over, 5.1 percent were enrolled in a nursery school or preschool, 5.1 percent were enrolled in Kindergarten, 42.6 percent we enrolled in an elementary school program, 18.8 percent were enrolled in high school and 28.4 percent were enrolled in a college or graduate school program.

Education Attainment, 1990-2000				
Attainment	2000		1990	
	Bay Mills Township	Chippewa County	Bay Mills Township - 1990	Chippewa County - 1990
Less than 9 th grade	1.8%	5.1%	9.5%	9.4%
9 th to 12 th no diploma	14.3%	12.6%	17.1%	17.0%
High School Diploma	32.1%	35.9%	41.7%	37.0%
Some college no degree	32.1%	25.9%	16.3%	19.6%
Associates Degree	3.4%	5.6%	4.5%	6.1%
Bachelor’s Degree	10.6%	10.2%	6.2%	7.0%
Graduate or Professional	5.7%	4.8%	4.5%	3.8%

Source: U.S. Bureau of the Census, Census 2000 Michigan STF-1A, 1990

Economic Characteristics

Historically, Chippewa County has struggled to sustain year-round, high-wage jobs. For this reason, a large number of Chippewa County residents commuted to Sault Ste. Marie or the Kincheloe Air Force Base. These areas offered a large number of high paying industrial or military jobs. In the mid 1970's, the Kincheloe Air Force base closed, causing the loss of over 2,000 government jobs (many of which were held by Chippewa County residents). In the late 1980's and early 1990's, industrial jobs began to materialize in both Sault Ste. Marie and at the former Air Force base. The base was transformed into

the Chippewa County Industrial Park and International Airport.

During this same time period, the Sault Tribe of Chippewa Indians and the Bay Mills Indian Community began the development of several casinos in the area, creating thousands of jobs within the County. The King's Club Casino was opened in 1984, and the Bay Mills Resort and Casino opened in 1995. The Sault Tribe's Kewadin Casino opened in the mid-1980s.

Chippewa County's current economic development efforts have been focused on retaining and expanding industrial employment, particularly at the County Industrial Park. The County continues to support an Economic Development Corporation in order to work on retaining and attracting new private businesses and investment.

Major Regional Employers in the Eastern U.P.			
NAME	LOCATION	DESCRIPTION	EUPRPDC 2009
Sault Ste. Marie Tribe of Chippewa Indians	SSM	Includes Administration and Kewadin Casino	1430*
Bay Mills Indian Community	Brimley	Includes governmental unit and both casinos	753
War Memorial Hospital	SSM	Full service medical & surgical hospital	664
Michigan Dept. of Corrections	Kincheloe	Correctional institutions	1191
Lake Superior State University	SSM	4 year college	360
Sault Ste. Marie Public Schools	SSM	School/education	299
U.S. Coast Guard	SSM	Federal Government	200
Army Corps of Engineers	SSM	Soo Locks/Federal	96
Bay Mills Community College	Brimley	Community College	49
Ojibwe Charter School	Brimley	Education	20
*2005 data. Data for 2009 not available.			

In and around the City of Sault Ste. Marie, the industrial base fluctuates with the economy. However, Precision Edge and Key Plastics continue to lead the way in terms of industrial-based jobs. The Sault Tribe and Bay Mills Indian Community continue to provide a large number of jobs at their respective casino/resort establishments and through other governmental entities and their health care systems. War Memorial Hospital has become a major provider of health-care related employment.

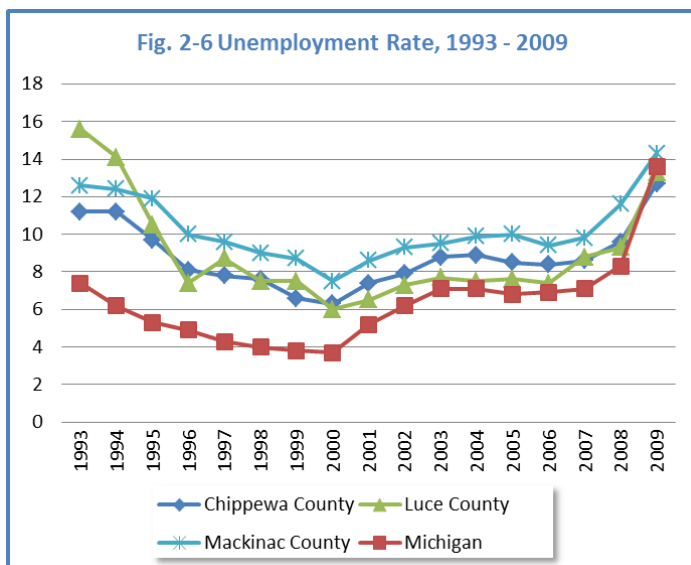
Employment and Labor Force

According to the 2000 U.S. Census, 66.6 percent of Bay Mills Township's population aged 16 and over were employed. This rate is higher than the County's employment rate of 47.8 percent and the State's employment rate of 60.8 percent. In the Township, 60.2 percent of those employed were private wage and salary workers, 37.9 percent were government workers, and 1.9 percent were self-employed.

A majority of the Township residents commute to work in nearby cities, townships, villages or Counties.

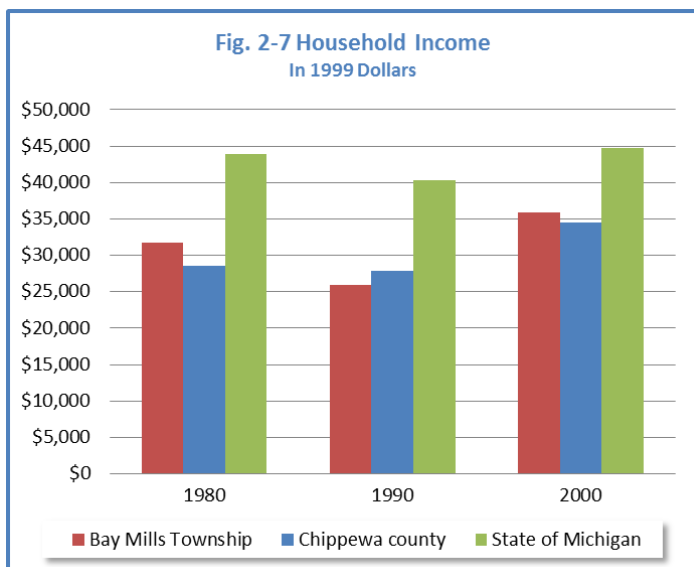
The City of Sault Ste. Marie, located approximately twenty-five miles to the east, provides jobs for many of the Township residents. Others, however, travel region-wide during the workweek to jobs available in other areas. The 2000 Census states the average time of commute for a Bay Mills Township resident is approximately eighteen minutes. The Bay Mills Township survey found that sixty-four percent of respondents travel twenty or more minutes to work.

Civilian Labor Force data is available only at the County level, but is still useful in showing trends that may occur. During the early part of the 1990's, the County saw significant increases in the number of employed persons, and the corresponding number of unemployed decreased. Following the events of September 11, 2001 (commonly known as 9/11) and the subsequent downturn in the economy, the County has posted only minimal gains in employment as the number of persons unemployed continues to rise. Overall the County's unemployment rate continues to be significantly higher than that of the State, but nowhere near the disparity found during the late 1990's. The County's unemployment rate has mirrored that of the State, albeit at a greater rate. The State's unemployment rate has risen dramatically from the 5 percent in 2000 to range to above 13 percent in 2010.



Income

The 2000 Census Demographic Profile 3 of Selected Economic Characteristics recorded a median household income of \$35,875 for Bay Mills Township. This number is slightly higher than that of Chippewa County as a whole, which had a median household income of \$34,464. Overall, median household incomes throughout the County tend to fall below those found in the State as a whole. When compared to the 1990 Census (using 1999 dollars), the median household income in Bay Mills Township increased by 28.5 percent, and in Chippewa County by 23.8 percent.

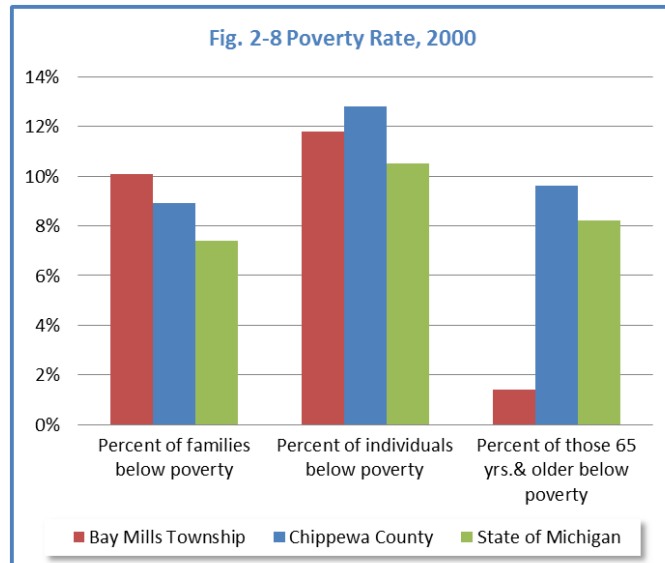


In Bay Mills Township, the median family income increased by 25.0 percent when adjusted for inflation. While this was slightly lower than the increase for Chippewa County (25.8 percent), it was significantly higher than the State's 12.4 percent change during this same time period. It is worthwhile to note the type of income earned as a percentage of the total household population in the Township. In 2000, 80.1 percent of all households in the Township had earnings, 27.6 percent had social security income, 3.0 percent accounted for supplemental security income and public assistance income, and 20.3 percent had

retirement income. When compared to the County and State percentages of total household income, Bay Mills Township had a greater percentage with earnings than both the County and State. However, fewer households in the Township had supplement security, social security income, public assistance, and retirement income than that recorded in the County and State.

Poverty

Poverty statistics from the 2000 U.S. Census show that Bay Mills Township’s poverty rates are slightly higher than those found at the County and State level. For example, in 1999, the percent of families in poverty was 8.9 percent for the County and 7.4 percent for the State, compared to 10.1 percent in Bay Mills Township. The percentage of families with a female householder in Chippewa County was significantly higher (32.4 percent) than in the State (24.0 percent). In Bay Mills Township, this number was slightly less than the County’s, at 28.4 percent. In Bay Mills Township, individuals aged 65 years and over fell below the poverty rate at a much less rate than the County or State, with only 1.4 percent living below poverty. Chippewa County’s rate was 9.6 percent and the State’s was 8.2 percent.



Chapter Three – Community Services and Infrastructure

Quality of life is important in a community. One of the key factors that contribute to the quality of life in a community is the services that are available to its residents. Rural communities do not normally have the financial backbone to provide many of the services provided in more populated areas. Typically, rural communities work cooperatively with surrounding communities to provide these services to its residents. This chapter will look at the types of services available to residents in Bay Mills Township. Although current services may be sufficient, population growth or future development may increase the demand for these services.

Water Supply & Sewage Disposal

Public water service is not available in Bay Mills Township. Township residents rely on private wells for drinking water, which are regulated by the Chippewa County Health Department under the Public Health Code. Wells for facilities serving the public, such as motels, fall under regulations of the Federal and State Safe Drinking Water Acts, where isolation distances, minimum yield and water quality testing requirements are more stringent than for a private residential well. Permits for residential and commercial wells are issued by the Health Department. Well depths are required to be a minimum of 25 feet of solid casing below ground. In addition, if the well is located in an area of shallow bedrock, sufficient casing must be installed to ensure the casing terminates in competent bedrock, and be grouted with neat cement. If a flowing well is drilled, flowing well discharge control must be used to conserve groundwater and to prevent the loss of artesian head by preventing or reducing continuous discharges. A flowing well discharge pipe, when installed, must not be directly connected to a sewer or other source of contamination. The flowing well must also be grouted to protect the artesian aquifer, prevent erosion of overlying geologic materials, and confine the flow to within the casing. Wells and water table depth are shown on Map 3-1.

Township residents rely on private on-site septic systems. Generally, these systems are satisfactory when development is scattered or seasonal in nature. Important determinants for siting a septic system are soil types, water table, and steepness of slopes. In areas with clay soils, steep slopes and small lots, siting and maintaining septic systems can pose problems. The Chippewa County Public Health Code requires a minimum lot size of 10 acres for lagoon systems, with the lagoon at least one-hundred (100) feet from all property lines. In lieu of a lagoon, lots with clay soil may require a mounded septic system, and a minimum lot size of two (2) acres. For other septic systems, a minimum lot size of one (1) acre is required. If a lot size is less than one (1) acre, the County Health Department must refer to State criteria, which is typically stricter in nature.¹

The Bay Mills Indian Community offers public water and sewer service to residents and business within the Community. The BMCC is currently working with the Sault Indian Health Services office to develop a Public Works Master Plan for the BMIC. The possibility exists to expand the current BMIC public works service to the Birch Point area within Bay Mills Township.

¹ Taken from the Superior Environmental Health Code, provided by the Chippewa County Health Department

Utilities

Electricity to Bay Mills Township is provided by Cloverland Electric Co-Op. DTE/MichCon provides natural gas service to a limited number of areas in the Township. Various private companies deliver home heating oil or LP gas in the area. Television service is provided by Charter (cable TV) and various satellite companies (Dish Network & DirecTV). Some residents receive digital Over-The-Air TV service. High-Speed Internet is limited in the Township – cable broadband, DSL, wireless broadband, or mobile wireless broadband are all offered in certain parts of the Township. Land-line phone service is provided by AT&T and Charter (in some areas of the Township) and Hiawatha Telephone Co. Cell phone service in the area is provided mainly by Verizon Wireless, AT&T, or Sprint.

Two of the biggest concerns on the Township survey were the lack of both natural gas service and cell phone service in the Township. The lack of high speed internet was also a concern. The Township should continue to contact DTE/MichCon about future natural gas service, and should also continue to urge cell phone providers to improve service in the area.

Solid Waste

The Dafter Sanitary Landfill, Inc. (a Waste Management Inc. Company) is a Type II landfill, located about eight miles southeast, in Dafter Township. The total facility area is 87 acres, with 43.5 acres sited for use, 33 acres permitted and 29.5 acres currently operational. Located near the 12 Mile and Mackinac Trail intersection, the landfill accepts residential, commercial and industrial Type II and Type III special wastes. Hours of operation are Monday through Friday, 8 a.m. to 4 p.m. Residents can dispose of bagged trash, refrigerators/freezers, metal scraps and “loose” trash for a fee. Waste Management and Smith Sanitation provide door to door pick-up for residents and dumpsters for businesses.

The Chippewa County Recycling Center, located in Sault Ste. Marie, a non-profit, volunteer-based organization has been offering County residents the opportunity to recycle household waste for approximately ten years. A drop-off center is located in Sault Ste. Marie and is available 24 hours a day, 7 days week (excluding holidays). The Center is supported by a County-wide millage to fund the operation of the recycling program. During 2007 approximately 2,438 tons of recyclable materials were collected and processed. The following items are presently collected: “all plastics”, cans and tin, glass, brown paper grocery bags, box board, corrugated cardboard, newspaper, magazines, and white office paper. County residents can dispose of household hazardous waste at this site, roughly four times annually. Bay Mills Township offers a recycling trailer, located at the Township Hall, for residents to drop off materials.



Recycling Trailer at Township Hall

Photo taken by EUPRPDC

Recycling was one of the concerns residents noted on the Township survey. Although 60% of respondents were satisfied with the current recycling program, several comments suggested the Township trailer should be emptied more often, as more and more people decide to recycle.

Schools

Brimley Area Schools, located in the town of Brimley in neighboring Superior Township, offers K-12 education. The Ojibwe Charter School, located within the Bay Mills Indian Community, also offers K-12 education to both Tribal members and other families in the area.

Bay Mills Community College (BMCC) is located both within the BMIC and the Township. BMCC's main campus is located within the Bay Mills Indian Community. The West Campus of BMCC is located about five miles west along Lakeshore Drive. BMCC is one of only three tribally controlled colleges in the State of Michigan, and the only community college in the Eastern Upper Peninsula; it is committed to providing affordable, culturally relevant, accessible, and high quality educational opportunities to all tribal communities in Michigan and their neighbors. BMCC is also committed to providing leadership in the areas of economic and community development for the Bay Mills Indian Community and the EUP. The BMCC is currently developing a new Administrative/Classroom building on the main campus. Development is currently in the design stages, and the building is expected to cost approximately three million dollars with funding assistance from USDA Rural Development.

Lake Superior State University (LSSU) in Sault Ste. Marie offers undergraduate degrees in forty-five (45) areas of study and is located on a 115-acre campus, situated on the site of the former U.S. Army's Fort Brady. LSSU offers numerous Associate degrees in addition to the Bachelor's program.

Libraries

Bay Mills Township is surrounded by several public libraries; the Bayliss Public Library in Sault Ste. Marie, Bay Mills Community College in Bay Mills, Lake Superior State University in Sault Ste. Marie, the Whitefish Township Community Library located in Paradise, and the Rudyard Public Library located at the Rudyard Area School building. The Bayliss Public Library also has a branch in Pickford, one of several throughout the Eastern U.P.

Cemeteries

Three known cemeteries exist within the Township: Dollar Settlement, near Ranger Road and Pendills Lake Road; Mission Hill on Tower Road; and Old Mission Indian Cemetery on Lakeshore Drive.

Public Safety/Emergency Response

There are no municipal law enforcement agencies within Bay Mills Township. The law is enforced by the Chippewa County Sheriff's Department and supplemented by the Michigan State Police, Sault Post. The Bay Mills Indian Community also has a Tribal Police Force that enforces the law in and around the BMIC. The U.S. Department of Homeland Security operates a Border and Customs Protection station in Sault Ste. Marie.

Advanced life support service in the area is provided by the Bay Mills Emergency Connection. The county-wide enhanced 911 emergency services, operated from the Chippewa County OES in Kincheloe,



Photo taken by EUPRPDC

are available for all County residents. Chippewa County pays for the costs of ambulance service through the Ambulance Fund millage.

The Bay Mills Township Volunteer Fire Department provides fire service. According to a 2007 Critical Asset Inventory, completed by EUPRPDC, the Bay Mills Township Fire Department's current inventory (updated as of March, 2011) includes: 1 Type I Pumper Fire Engine w/ foam capability, 1 Type I Water Tender Tanker (2100 gallons), 1 Type VI Brush Patrol Engine w/ 250 gallon skid unit, 1 light duty rescue truck w/ rescue & extraction equipment, 1 incident command trailer (doubles as UTV hauler, rehabilitation & on-scene shelter), 1 Polaris Utility Terrain Vehicle w/75 gallon skid unit, and 4 Type II 250 GPM portable pumps. The Bay Mills Tribe has: 1 Type III Disaster Medical Assistance Team (DMAT), 1 Type II Stress Management Team (SMT) and 1 Type III 50 GPM Portable Pump.

The Michigan Department of Natural Resources (MDNR) is responsible for fire protection on all timberland in the Township. Both the United States Forest Service (USFS) and DNR work closely with the Bay Mills Township Fire Department whenever the danger of woodland and urban fires is elevated. Additionally, all fire departments within Chippewa County have mutual aid with each other, and Chippewa County has an "all encompassing" mutual aid agreement with the adjoining Counties of Mackinac and Luce, which provides for assistance outside the realm of normal emergency services.

The Township survey showed that 60% of respondents are currently satisfied with the level of support from police, fire, and ambulance services. All three services are strongly supported.

Medical Facilities

Clinics, doctor and dentist offices are located primarily in Sault Ste. Marie. War Memorial Hospital is located in Sault Ste. Marie, and the Straits Area Hospital is located in St. Ignace. The Bay Mills Health Center provides medical and dental treatments for families in the area. For health care services not available at these facilities, residents travel to Marquette General (Marquette), Northern Michigan Regional Hospital (Petoskey) or the Munson Medical Center (Traverse City).

The Chippewa County Health Department is often able to fill health care needs of the community, which are not available or affordable elsewhere. Programs are offered by the Health Department in three categories: home health care services, environmental health services and personal health services. Health Department offices are located in Sault Ste. Marie.

Hiawatha Behavioral Health Services provides support services to developmentally disabled persons as well as persons needing mental health services. The Hiawatha Behavioral Health service area covers Chippewa, Luce, Mackinac, Alger and Schoolcraft Counties.

Public Transit

The Eastern U.P. Transit Authority (EUPTA) operates a bussing service throughout Chippewa County and a Dial-a-Ride service in Luce County. EUPTA's scheduled stops include; Kincheloe, Brimley, Rudyard, Eckerman Corners, and Trout Lake. The Chippewa-Luce-Mackinac Community Action Agency (CLMCAA), located in Sault Ste. Marie, also offers a Dial-A-Ride program within the City of Sault Ste. Marie.

Improved public transit was not a top priority on the Township survey, but several respondents felt it would be an improvement if more public transportation was offered throughout the Township. It is recommended that Bay Mills Township work with EUPTA to possibly expand services in the Township.

Air Service

Chippewa County's only commercial airport - Chippewa International Airport - is located in Kinross Charter Township, handling regional and international air travel. CIU is a U.S. Customs Port of Entry. Passenger air service connecting to Detroit and Alpena is offered by Mesaba Airlines (operating as part of the Delta connection). Regional airports are located in Traverse City, Midland, Grand Rapids and Flint. Air-freight service is provided by United Express, United Parcel Service and Federal Express. A general aviation field, Sanderson Field, is located in Sault Ste. Marie.

Other Facilities

The Chippewa County Courthouse is located in the City of Sault Ste. Marie at 325 Court Street. The Chippewa County Sheriff Department and associated facilities are located adjacent to the courthouse. The Chippewa County Road Commission offices and garage are on Mackinac Trail, just south of Sault Ste. Marie. There is a DNR field office, which is no longer open to the public, located in Sault Ste. Marie. To serve the area postal service needs, a United States Post Office is located in Brimley.

Map 3-2 displays several different types of facilities and points of interest within the Township. These include recreational, public, private, and other facilities or structures of interest. Map 3-3 shows the density of structures per quarter-quarter section. This map was developed using 911 address data and performing a count of the number of structures in each quarter-quarter section. This displays a type of density map that shows the areas where the most development exists based on structures that have an address.

Township Facilities

Bay Mills Township owns and operates several facilities and pieces of property. The Bay Mills Township Hall is located roughly two miles west of the Iroquois Point Lighthouse. The Township owns and operates two cemeteries; one located at Dollar Settlement and the other at Mission Hill. The former Township landfill, located just north of the Dump Rd in Section 35, has been closed since 1986. The site is just over 5 acres in size, and testing is needed periodically at the site. The County Health Department and MDEQ have an agreement with the Township in regards to maintaining the site. There is also an old fire hall located near McNearney Lake, which the Township uses for equipment storage.



Photo taken by EUPRPDC

Recreation

The lakes, streams and woodlands in the Eastern U.P. provide a remarkable source for recreation activities, such as fishing, boating, camping, snowmobiling, hunting and hiking. These activities are



Photo taken by EUPRPDC

important economic factors for the region. In Bay Mills Township, recreational opportunities are the main economic base. The Hiawatha National Forest, which accounts for forty-seven (47) square miles or roughly 70% of the Township, provides great recreational opportunities. The United States Forest Service (USFS) maintains several facilities within the National Forest. Monocle Lake Campground is the most well-known site in the area, and provides ample recreational opportunities to residents and visitors. Monocle Lake offers 39 campsites, a boat

launch, fishing, hiking, picnicking, and swimming at a public beach.

Based on DNR data from 2007, Bay Mills Township contains roughly eighteen (18) miles of snowmobile trails. Snowmobiling was listed as a moderately important activity on the Bay Mills survey – 30% of respondents indicated it was important. Bay Mills Township also contains part of the North Country Trail. The North Country Trail (NCT) is a national scenic trail that stretches 4,600 miles - from New York to North Dakota – and links seven (7) states, ten (10) national forests and more than 150 public lands. The NCT provides year-round recreational opportunities, such as hiking and skiing/snowshoeing.

The Whitefish Bay Scenic Byway, which follows Lakeshore Drive from the Spectacle Lake Overlook to State Highway 123, is a USFS designated Scenic Route that provides historical, recreational, and scenic opportunities along twenty-five miles (25) of roadway, parallel to Lake Superior.

The Little Traverse Nature Conservancy has two nature preserves within Bay Mills Township. The Round Island Point Nature Preserve is a 1,024 acre preserve located at the very eastern end of the Township. A walking trail and viewing area are available in this ruggedly preserved area. This is the Conservancy's second largest nature preserve. Iroquois Island is another preserve, located just north of Iroquois Point.

The Bay Mills Township Recreation Committee developed a Township Recreation Plan in 2008. This plan lists available recreational opportunities in the Township and surrounding areas, and also details future projects and recreational opportunities the Township wishes to see occur.

The Township survey showed that fishing, hunting, hiking, picnicking, camping, skiing, and snowshoeing were all important recreational activities, and there was a great deal of support to enhance those opportunities were feasible.

Roads

The main mode of transportation in today's world is vehicular. The design and construction of a road depends mainly on its proposed function and the volume of traffic expected on that road. By defining the function and volume of roads in Bay Mills Township, appropriate land uses can be encouraged based upon the capacity of the roadway.

County Road System

The Chippewa County Road Commission is the agency responsible for maintenance, snow removal and improvements of roads within Bay Mills Township. The Township contributes to the cost of local road maintenance and road projects. Because no state highways run through the Township, residents and visitors rely on the local County road system for travel. In accordance with Public Act 51, the Chippewa County Road Commission designates roads as primary or local. The Federal Highway Administration's (FHWA) National Functional Class (NFC) classifies a road based on the type of service the road is intended to provide. Roads are classified in one of three general categories; arterial, collector, and local. Bay Mills Township contains major collector and local roads (the small portion of 6 Mile Rd. east of Lower Birch Point Rd. is a minor arterial road. Minor arterial roads link cities to towns and are expected to carry more traffic volume and have higher speed limits).

Collector roads generally serve intracounty traffic, and typically travel distances are shorter than on arterial routes. Consequently, more moderate speeds may be typical. Major collector roads should: (1) Provide service to any county seat not on an arterial route, to the larger towns not directly served by the higher systems, and to other traffic generators of equivalent intracounty importance, such as consolidated schools, shipping points, county parks, important agricultural areas, etc. ; (2) link these places with nearby larger towns or cities, or with routes of higher classification; and (3) serve the more important intracounty travel corridors. The local road system should serve primarily to provide access to adjacent land provide service to travel over relatively short distances as compared to collectors or other higher systems. County major collector roads account for about thirty (30) miles of road in Bay Mills Township. County local roads account for fifty-two (52) miles of road within the Township. Roughly seventeen (17) miles of road are classified as "not a certified public road", meaning they are typically private drives or a road that is not open to public traffic. Map 1-2 shows the road network for the Township, and classifies roads by National Function Class (NFC).

The Hiawatha National Forest contains almost 175 miles of USFS roads and trails, according to the latest USFS data. The USFS is responsible for maintenance and upkeep of designated forest service roads.

The Annual Average Daily Traffic (AADT) is the total volume of traffic for a specific roadway. The AADT is a way to determine how "busy" a road is. The AADT can be used to determine how much maintenance a roadway needs or if enforcement of speed limits needs to be increased. AADT can also be a factor in roadway funding. In 2005, EUPRPDC performed two counts in Bay Mills Township; 6 Mile Rd. near Piche Rd. had an AADT of 3,199 and Lakeshore Drive near Monocle Lake had an AADT of 949. In comparison, the AADT of M-28 at M-221 in 2005 was 3,317. This clearly shows that 6 Mile Rd., which is a minor arterial road, is indeed heavily traveled, mostly due to commuters traveling to/from work in the City, and from the casino located in the BMIC. In 2010, MDOT performed several counts within the Township. The AADT for these locations was based off a 24-hour count. Riverside Drive, just west of Ranger Road, had an AADT of 291. Ranger Road, near Lakeshore Drive, had an AADT of 266. Lakeshore Drive near Monocle Lake had an AADT of 4262.

The Township survey indicated that upkeep and maintenance of roads was important, but the upkeep of the ditches and shoulders was also just as important. Many respondents noted the importance of keeping the grass trimmed and the ditches clear along the County roads in the Township.

Of course, these types of maintenance activities are interconnected to the amount of funding the Chippewa County Road Commission has for performing them, but the Township should work more closely with the CCRC to possibly have these activities done more frequently throughout the summer months.

Current Road Conditions – PASER System

The Chippewa County Road Commission utilizes the Pavement Surface Evaluation and Rating (PASER) system for assessing the condition of federal-aid eligible paved roads in the County. In 2009 and 2010, the CCRC inventoried and rated local non-federal aid paved roads throughout the County. All the paved County roads in Bay Mills Township were evaluated in 2010 and the ratings are shown on Map 3-4.

PASER is a visual pavement survey method developed by the University of Wisconsin to evaluate surface road conditions. A rating scale of 1-10 (1 being a failed paved road, 10 being a newly paved road) is used to evaluate the surface distress of the pavement based on pavement material and types of deterioration present. The ratings are then grouped into three categories based on the type of work required; Routine Maintenance (8-10), Capital Preventive Maintenance (5-7), and Structural Improvement (1-4).

- Routine Maintenance includes regularly scheduled preventative treatments such as drainage clearing, shoulder grading, and crack sealing.
- Capital Preventive Maintenance consists of planned treatments applied to existing roadways to hinder further deterioration, such as a sealcoat, thin overlay, or crack sealing.
- Roads rated as needing Structural Improvement are those in need of a re-construct to improve the structural integrity of the pavement, such as a thick overlay or a mill & fill.

In Bay Mills Township, roads needing structural improvements include portions of Salt Point Rd and Lakeshore Drive, portions of Ranger Rd., and a portion of Birch Point Rd. Roads needing capital preventative maintenance include 6 Mile Rd, portions of Lakeshore Drive, portions of Ranger Rd, and portions of Tower Rd. The CCRC works with Bay Mills Township annually for any projects that the Township would like to have done.

Chapter Four – Natural Resources

When planning for future development and addressing land use issues, it's important to consider what environmental issues and natural features may be present. This chapter will look at the current natural resources and environmental factors in Bay Mills Township.



Spectacle Lake Overlook Photo taken by EUPRPDC

Coastal and Surface Water Features

Because of its location along Lake Superior (35 miles of shoreline), Bay Mills Township provides both scenic and recreational beauty. Surface water area in the Township covers about 685 acres. Because the Township relies heavily on recreational activities, many of the lakes within the Township are a vital piece to the tourism and economics. Monocle, Spectacle, Pendills, and McNearney Lakes provide the bulk of surface water area. A few small ponds and lakes are also present within the Township.

Topography

Topographic features influence drainage, erosion, and construction limits. Bay Mills Township is, topographically, one of the more unique Townships in the Eastern U.P. Being a shoreline Township, the elevation at Lake Superior is fairly low, about 600 feet above sea level. In the eastern part of the Township, near Point Iroquois, a sharp rise in elevation occurs near Monocle Lake, rising to approximately 1000 feet above sea level. In the western part of the Township, the elevation rises gradually until the McNearney Lake area, where elevation reaches 1000 feet. Map 4.1 shows this unique topographic area.

Geology/Bedrock

The Township is comprised of three types of bedrock, all of which is sandstone (Jacobsville, Munising, & Prairie Du Chien). Bedrock depth varies in the Township, from ten feet to almost 370 feet. These depths were determined by utilizing drinking water well data and using an interpolation method known as the Inverse Distance Weighted (IDW) method. This information can be seen on Map 4-2. Normally, if bedrock is within ten feet of the surface, the overlying land is considered unsuitable for development, particularly where public sewer and water facilities are not available. Areas with shallow bedrock have severe limitations for on-site sewage disposal systems.

Soils

Soils play a crucial role not only in the development of structures and septic systems, but also in farming activities, resource preservation, and erosion prevention. An updated soil survey, performed in the early 90's, is the most reliable source of soil information in Chippewa County. Bay Mills Township is covered with mostly sandy loams, sandy soils, and complex soils. Other types of soils are present in the Township, but are not as dominant. These include peats, silt loams, entisols, muck, silty clay loams, and fine sand. A **loam** is a combination of sand, silt, and clay. Loam soils generally contain more nutrients and humus than sandy soils, have better infiltration and drainage than silty soils, and are easier to till than clay soils. Loams are gritty, moist, and retain water easily. Different proportions of sand, silt, and clay in the soil define what type of loam is present. For example, a loam with 65% sand, 30% silt, and 5% clay would be referred to as a sandy loam, as sand is the predominant soil type in the mixture.

A soil **complex** consists of areas of two or more soils, so intricately mixed or so small in size that they cannot be shown separately on the soil map. Each area of a complex contains some of each of the two or more dominant soils, and the pattern and relative proportions are about the same in all areas. Generally, the name of a soil complex consists of the names of the dominant soils, joined by a hyphen. For example, in Bay Mills Township, Allendale-Croswell and Ontonogon-Pickford are two of the many types of complexes found. **Peat** soil is an accumulation of partially decayed vegetation matter, and normally forms in wetland bogs or very moist areas. **Muck** is a soil made up primarily of humus from drained swampland. **Entisols** are defined as soils that do not show any profile development other than an A horizon. Many entisols are either sandy or shallow. Map 4-3 displays the general soil types throughout the Township. Sandy soils cover over 54% of the Township, while sandy loams cover roughly 10% of the Township.

Farm classification of soils in Bay Mills Township reveals 20% of the soil is classified as "farmland of local importance". NRCS defines this: "In some areas that are not identified as having national or statewide importance, land is considered to be "farmland of local importance" for the production of food, feed, fiber, forage, and oilseed crops. This farmland is identified by the appropriate local agencies. Farmland of local importance may include tracts of land that have been designated for agriculture by local ordinance." About 72% of Bay Mills Township is classified as "not prime farmland", which means the soils in those areas do not meet the best combination for growing and producing crops. Farm classifications are shown on Map 4-4.

Soil permeability, (sometimes referred to as saturated hydraulic conductivity (Ksat)), refers to the ability of a soil to transmit water or air. These estimates, normally expressed in micrometers per second, indicate the rate of water movement. They are based on soil characteristics observed in the field, particularly structure, porosity, and texture. Ksat is considered in the design of soil drainage systems and septic tank absorption fields. The supernate from a septic tank would pollute streams and the groundwater if it came in contact with them before trickling down through the soil. As a result, soil permeability must be carefully tested before installing a septic system. Septic systems do not work well in clay soils since these relatively impermeable soils do not allow the supernate to soak in. Instead, if a septic system is installed in a clay soil, the supernate often rises to the surface of the ground, producing an obviously unsanitary situation. Because the majority of the Township is covered by sandy type soils, the permeability of Bay Mills Township is relatively high in most areas. This can be seen on Map 4-5.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). These soils, under natural conditions, are either saturated or inundated long enough during the growing season to support the

growth and reproduction of hydrophytic vegetation. The majority of the Township is classified as either not hydric or partially hydric, as seen on Map 4-6. Many areas are unknown, meaning data was not available for classification.

Part 353 of the Natural Resources & Environmental Protection Act (Act 451 of 1994) designated certain areas throughout the State of Michigan as critical dune areas, and provided regulations for the protection of these dunes from sand mining as well as developmental, silvicultural and recreational activities. Local units of government have the opportunity to assume permitting authority under the Act by adopting or amending a zoning ordinance. The local ordinance must provide the same or a greater level of protection for critical dune areas as the state regulations, and must be approved by the Department of Environmental Quality (DEQ). In Bay Mills Township, a critical sand dune exists immediately to the west of Monocle Lake. The critical area covers 660 acres, 87% of which is inside the Hiawatha National Forest. Bay Mills Township should take special consideration with possible development in that area.

Slope

Slopes play a significant role in determining where certain developments can occur. Typically, on slopes of 0% to 10%, most building can occur easily without major clearing or grading. Slopes of 10% to 15% may require little to moderate leveling or grading, and retaining walls may be needed. Slopes of 15% to 25% require more planning and care when grading as to not create extremely steep slopes. Slopes of 25% or more should require extreme care and planning, and development should be limited in these areas unless absolutely necessary.

Map 4-7 shows the slopes in Bay Mills Township. Sharp slopes occur on the bluff near the Monocle/Spectacle Lake area, and also near McNearney Lake. Most areas in the Township have less than a 25% slope, which is typically fine for development.

Wetlands and Forest Cover

Wetlands provide a multitude of ecological, economic and social benefits. Wetlands can be thought of as giant sponges. They absorb water from many different sources during wet periods, and they release it slowly into the surrounding areas during dry periods. In this way, wetlands can help to reduce flooding, ease the impact of drought and recharge groundwater supplies. In addition to water storage and filtration, wetlands are home to a wide variety of plant and animal life.

With the Clean Water Act of 1972, the Federal Government began instituting a series of laws and acts that would protect wetlands from further degradation. Many State and Federal agencies have established programs designed to assist private landowners with restoration of wetlands on private property. Michigan is also fortunate enough to have a completed wetland inventory, provided by the United States Fish & Wildlife Service (USFWS) & Ducks Unlimited. This inventory, performed in the late 1980s and early 1990s, is useful in determining where wetlands are located. However, because this inventory is based on interpretation, specific locations of wetlands should be done with on-site evaluations. The NWI (shown on map 4-8) is only used a planning tool.



Photo taken by EUPRPDC

Bay Mills Township has over 5,200 acres of wetlands, and is predominately covered by three types of wetlands – emergent (3%), forested (71%), and scrub/shrub (25%). Emergent wetlands are characterized by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. This vegetation is present for most of the growing season in most years. These wetlands are usually dominated by perennial plants. Emergent wetlands are known by many names, including marsh, meadow, fen, prairie pothole, and slough. Scrub/Shrub wetlands include areas dominated by woody vegetation less than 6 m (20 feet) tall. The species include true shrubs, young trees, and trees or shrubs that are small or stunted because of environmental conditions. Forested wetlands are characterized by woody vegetation that is 6 m tall or taller.

Wetlands not regulated by the State (isolated, non-contiguous wetlands smaller than 5 acres) can be regulated by a local government if those regulations are at least as restrictive as State regulations, and the MDEQ must be notified. When a local government takes on the role of wetland regulation, it must issue permits via a local permit review process and State review process concurrently. Alternately, local governments can address wetland protection in site plan review, however this may not allow for small-scale control as site plan reviews usually involve large-scale projects.

Roughly 42% of the Township is covered by deciduous forest, which is defined as a type of forest characterized by trees that seasonally shed their leaves. Evergreen forests, defined as trees that maintain foliage year round, cover roughly 24% of the Township. In Northern climates, deciduous trees typically include maple, oak, poplar, and elm. Evergreen trees typically include conifers such as hemlock, spruce, balsam, and cedar. About 10% of the Township is considered mixed forest, consisting of both deciduous and evergreen trees. Most of this forest coverage is due to the large area of the Hiawatha National Forest that is within the Township.

The Hiawatha National Forest has a current Forest Plan, which details what certain management areas are to be used for. According to this Forest Plan, the western portion of the National Forest that is located within the Township is suited for timber management, while the eastern portion is more suitable for wildlife habitat preservation. A small portion along the Lake Superior shoreline is best suited to provide semi-primitive motorized (SPM) recreation with access to fishing and canoeing. More information can be found in the 2006 Hiawatha Forest Plan.

Wildlife and Protected Species

Wildlife in Bay Mills Township is similar to most communities in the Eastern U.P. Larger animals such as whitetail deer, black bear, coyote, and wolves are often seen. In addition to the many common animals and birds in the area, Bay Mills Township also has several protected plant and animal species. Map 4-9 shows the probability of finding rare plants, animals, or plant communities in Bay Mills Township. This probability model was released by the Michigan Natural Features Inventory. It is designed to help protect areas by directing development away from those areas with a high likelihood of encountering a sensitive species. The model is based on the spatial extent of documented occurrences, the presence of potential habitat within the known extent of the occurrences, and the age of each occurrence. The table below lists endangered and threatened species in Bay Mills Township. Species are listed as Special Concern (SC), Endangered (E) or Threatened (T).



Photo taken by David Marone

Common Name	State Status	Species
Northern Goshawk	SC	Bird
Bald Eagle	SC	Bird
Auricled Twayblade	SC	Plant
Lake Huron Tansy	T	Plant
Sharp-Tailed Grouse	SC	Bird
Moose	SC	Animal
Common Loon	T	Bird
Lake Sturgeon	T	Fish
Lake Herring	T	Fish
Osprey	SC	Bird
Kirtland's Warbler	E	Bird
Vasey's Rush	T	Plant
Migrant Loggerhead Shrike	E	Bird
Black Tern	SC	Bird

Sites of Environmental Contamination

Part 213 of the Natural Resources and Environmental Protection Act (1994 PA 451, as amended) regulates underground storage tanks in Michigan. The Department of Environmental Quality (MDEQ) maintains a database of closed & active underground storage tanks. The following is a listing of 213 Sites in Bay Mills Township.

Per the Michigan DEQ, remedial action of a contaminated site can occur in several ways. Currently, the owners of the property at the time a leak occurred are ultimately responsible for cleanup of a contaminated site. However, if the property is either in foreclosure or another party is interested in purchasing the site (but does not want to be responsible for cleanup), the DEQ allows for a Baseline Environmental Assessment (BEA) to be performed at the property to determine what contamination, if any, exists at the site. A properly conducted BEA allows the property to be acquired or for an individual to begin operating a facility without being held liable for existing contamination. BEAs are used to gather enough information about the property being transferred so existing contamination can be distinguished from any possible new releases that might occur after the new owner or operator takes over the property. More information about BEAs is available from the MDEQ.

Site Status:

- **An OPEN LUST** site means a location where a release has occurred from an underground storage tank system, and where corrective actions have not been completed to meet the appropriate land use criteria. An OPEN LUST site may have more than one confirmed release.
- **A CLOSED LUST** site means a location where a release has occurred from an underground storage tank system, and where corrective actions have been completed to meet the appropriate land use criteria. The MDEQ may or may not have reviewed and concurred with the conclusion that the corrective actions described in a closure report meets criteria.

Site ID: 00015279
Site Name: Pendills Crk Ntl Fish Hatch
Site Address: RTE 1 BOX 420
City: Brimley
Zip Code: 49715
County: Chippewa
Substance(s): Gasoline
of Tanks: 2
Leak ID: C-2064-90
Leak Status: Open
Tank Status: Removed from Ground

Site ID: 00013843
Site Name: Iroquois Grocery
Site Address: 14713 Lakeshore
City: Brimley
Zip Code: 49715
County: Chippewa
Substance(s): Gasoline, Fuel-Oil
of Tanks: 3
Leak ID: C-0120-98
Leak Status: Open
Tank Status: Removed from Ground

Site ID: 50001615
Site Name: Former Dillions Store
Site Address:
City: Brimley
Zip Code: 49715
County: Chippewa
Substance(s): Unknown
of Tanks: 1
Leak ID: C-1079-85
Leak Status: Closed
Tank Status: Removed from Ground

Alternative Energy Resources



Vertical Wind Turbine

In recent years, technologies geared towards alternative energy production have increased greatly. Private companies have approached landowners regarding land for wind towers; local universities are researching the possibilities of growing biofuels and utilizing wood waste for biomass; solar panels are becoming popular; and geothermal energy has become an option for both private and commercial uses. In the past, wind turbines were thought of as noisy and bulky. However, newer technologies have allowed small wind turbines to be more residential friendly, and the designs for larger turbines seen on “wind farms” are becoming more refined.

Map 4-10 shows the potential for wind energy in Bay Mills Township based on wind resources at fifty (50) meters high. This data was created for the U.S. Department of Energy in 2007 by the National Renewable Energy Laboratory.



Horizontal Wind Turbine

The wind resource assessment was based on surface wind data, coastal marine area data, and upper-air data, where applicable. In data-sparse areas, three qualitative indicators of wind speed or power were used when applicable: topographic/meteorological indicators (e.g. gorges, mountain summits, sheltered valleys); wind deformed vegetation; and eolian landforms (e.g. playas, sand dunes).¹

With so many alternative energy initiatives, it is important for Bay Mills Township to remain educated on the technologies, and work with private landowners to effectively and safely allow these alternative energy sources through the enforcement of the Bay Mills Township Zoning Ordinance.

¹ Taken from the National Renewable Energy Laboratory (NREL) website: <http://www.nrel.gov/gis/wind.html>

Chapter Five – Current Land Use/Land Cover

Before determining potential future land uses and developing the future land use map, the Township must have an accurate assessment of existing land uses. This process identifies urban built-up land uses along with natural land cover types like forest and wetlands.

Land Division Patterns

Bay Mills Township covers 77.8 square miles (49,792 acres), of which 65.7 square miles (42,048 acres) is land. Nearly 565 acres are open water (lakes or ponds). Approximately 47 square miles (30,385 acres) are National Forest. The Bay Mills Indian Community accounts for approximately 1,928 acres within Bay Mills Township. Land ownership can be seen on Map 5-1. Because the Township has no jurisdiction over Tribal land, the 1,928 acres of Tribal land is not counted in the 2008 land use/land cover update below nor depicted on Map 5-2. This results in a Township land area of 40,120 acres.

Table 5-1: Land Cover/Use (1978 & 2008) (in acres)

	1978	% of Twp	2008	% of Twp
Urban	1,219.80	2.90%	1,321.40	3.14%
Residential	1,061.30	2.53%	1,226.20	2.92%
Commercial	47.30	0.11%	28.60	0.07%
Industrial	72.10	0.17%	66.60	0.16%
Other Urban	39.10	0.09%	45.50	0.11%
Agriculture	314.10	0.75%	117.00	0.28%
Rangeland	838.50	2.00%	489.20	1.16%
Forest Land	37,873.30	90.14%	32,223.80	76.64%
Open Water	657.30	1.56%	563.80	1.34%
Wetlands	1,104.50	2.63%	5,245.80	12.48%
Beaches/Sand	8.30	0.02%	116.80	0.28%
Total	42,015.80	100.00%	40,123.30	100.00%

Source: 1978 MIRIS, 2008 EUPRPDC Update, NWI

Existing Land Cover/Use Characteristics

The following land use data is based from a combination of original 1978 Michigan Resource Information Systems (MIRIS) Land Cover Maps, the National Wetlands Inventory, the 2006 National Land Cover Data (NLCD) and general updates performed through analysis of 2008 aerial photography.

Urban

The Urban category includes such uses as residential, commercial, recreational, extractive (gravel pits, mines), and industrial. When compared to farmland, forest land, and wetlands, the urban category covers a small portion of the Township – just under three and a half percent. The majority of this category is residential homes. The amount of urban cover has increased by about 10% since 1978, confirming that more homes are being built and more people are moving into the Township (discussed in Chapter 2).

Agricultural

The Agricultural category includes pasture and cropland. Bay Mills Township contains roughly 117 acres of agricultural land. When compared to 1978, the agricultural land has decreased by about half. However, because of the extremely small amount of actively farmable land within the Township, this decrease is not surprising. The most reasonable explanation is that much of the land that was being farmed in 1978 is now grown over with trees or shrubs and is not actively being used for farming.

Rangeland

Rangelands are areas of land that are predominately covered with grass and have very few trees or shrubs. In Bay Mills Township, the reduction in rangeland between 1978 and 2008 is most attributed to these areas filling in with trees and shrubs, thus changing their classification from rangeland to forest land.

Forest Land

Forest covers a significant portion of the Township – almost eighty percent. When comparing forest cover in 2008 with cover in 1978, one can see a large decrease of about 5,000 acres. This can be most attributed to the conversion of forest to wetlands during the national wetland inventory. Logging operations can account for a small portion of this percentage as well. The land use category “Mechanically Altered Forest” are forested areas that were once cut and now have regrowth, or were more recently cut and are still somewhat open.

Open Water

Open water included large lakes and small ponds. There was a slight reduction in this category not because water is disappearing, but because several areas in and around wetlands, which were once open water, have now filled in with shrubs or trees. Many of these areas are rather large. In terms of small ponds, there was actually an increase, but the reduction in the large swampy areas trumped the increase in ponds.

Wetlands

Wetlands are scattered throughout most of Bay Mills Township. The larger areas include the northwestern corner of the Township, the Pendills Lake area, the BMIC’s Wetland Preserve, and the Birch Point area. There is a tremendous increase when comparing the wetland cover from 1978 to 2008. This is due to the national wetland inventory that was performed in the early 1990’s, which offered a more detailed dataset of wetlands than the 1978 MIRIS cover dataset. The 2006 NLCD and 2009 infrared imagery also aided in updating the wetlands for the 2008 land use inventory. In Bay Mills Township, roughly 3,500 acres are forested wetlands, while just over 1,500 acres are scrub/shrub. Just over 200 acres are emergent.

Beaches/Sand

The beaches/sand category was re-developed during the 2008 aerial imagery analysis. The 1978 MIRIS dataset only had a small, eight acre area designated as beach. During the imagery analysis, the beaches and sand all along the shoreline were digitized and included in this category. This is the reason for the large increase in acreage – the inventory was simply expanded to include the entire shoreline.

Chapter Six – Future Land Use and Zoning Plan

The final step in completing a Master Plan is to determine the types, location and intensities of development that will occur in the future. Future land use planning establishes the desired amounts and locations of residential, commercial, and industrial development; public facilities; environmental conservation and recreational areas; and changes or improvements to the local transportation system. With the establishment of a Future Land Use Plan, Bay Mills Township intends to ensure that existing land uses can continue; that natural resources such as lakes, wetlands, and forestlands will be protected; and that reasonable growth can be accommodated with minimal land use conflicts or negative environmental impacts. While future land uses are difficult to predict, a future land use plan provides a scenario with which Bay Mills Township may use as a guide when considering land use and development decisions.

The Michigan Zoning Enabling Act (MZEA), as amended, requires in Section 203 (1) that zoning be based on a plan. Similarly, Section 33 (2) (d) of the Michigan Planning Enabling Act (MPEA), as amended, sets forth the purpose for developing a zoning plan. This Chapter includes the Zoning Plan, which is intended to guide the implementation of and future changes to the Township Zoning Ordinance. The Zoning Plan describes:

- the purpose, general location, and general uses allowed for each existing and proposed zoning district;
- the differences between future land use categories on the Future Land Use Map and the existing and proposed zoning districts;
- a recommendation of dimensional standards for existing and proposed zoning districts
- the existing zoning map;

The relationship between the Master Plan and Zoning Ordinance is often misunderstood. The Master Plan is a guide for land use for the future; the Zoning Ordinance regulates the use of land in the present. The Master Plan is not a binding, legal document; the Zoning Ordinance is a law that must be followed by the community's residents and others wishing to develop or do business in the Township. The future land use recommended for an area may be the same as the existing zoning for that area, while in some cases the future land use recommended is different from the existing zoning. The Future Land Use Map does not change the existing zoning in an area. A property owner must use the property as it is currently zoned.

The Future Land Use Map reflects the assumption that land use patterns in Bay Mills Township will continue to be heavily influenced by recreation and residential uses. Potential updates to the Bay Mills Township Zoning Ordinance are discussed throughout this chapter. These changes can be pursued as the need or opportunity presents itself. The Planning Commission can identify major policies it wishes to implement and begin to work on the corresponding zoning changes at the same time.

Future Land Use

The Future Land Use Map is not the same as the Zoning Map, either in the legal sense or in its purpose. A land use map is a graphic representation of how land is physically being used. The future land use map is general in nature and is an official description of where and to what level future zoning should be permitted. The zoning map is a graphic representation of the boundaries for which zoning regulations have been adopted by Bay Mills Township. The Future Land Use Map, along with its associated descriptions for future land use classifications, makes up the Future Land Use Plan. The Future Land Use Map should serve as a guide for making decisions on the rezoning of land.

The following table shows the relationship between the five Future Land Use Categories and the existing (and future) Zoning Districts. This Master Plan identifies only one addition to the current Township Zoning Ordinance - the Residential Commercial District (mixed use).

Future Land Use Categories and Associated Zoning Districts	
Future Land Use Categories	Zoning District(s)
General Residential	R-1, Residential District
Lakefront Residential	R-2, Waterfront Residential District
Agriculture, Forestry, Recreation	AFR-1, Agricultural, Forest, Recreation District
Business/Commercial	C-1, General Business District
Mixed Use – Commercial/Residential	C-2, Residential Commercial District

The Bay Mills Township Planning Commission, with public input and assistance from EUPRPDC, has developed the following future land use recommendations for the Township, depicted on Map 7-1.

General Residential

The General Residential Category is established and maintained to primarily provide for medium-density residential uses. This district generally includes existing low density residential areas, but also includes areas with higher density and smaller lots. Principal uses will include single-family dwellings and two-family dwellings.

Where compatible with residential uses, other uses to be considered include; recreational vehicles and tents temporarily used for recreation, cabins, home occupations contained within the dwelling, churches and associated structures, parks and playgrounds, schools, and community buildings and publicly owned buildings. The Township Zoning Ordinance lists all permitted and special uses in the Residential district.

Lakefront Residential

Bay Mills Township contains several areas of smaller, concentrated lots along the shoreline of Lake Superior and on McNearney & Monocle Lakes. The Lakefront Residential future land use area is intended to preserve existing residential development where land has already been subdivided into smaller lots and to expand specific areas for future residential growth. This document does not propose large changes in the location of the Waterfront Residential Zoning District and recommends reviewing setbacks in the Zoning Ordinance. Reviewing the current setbacks with what has been enforced and developed is an effective way to ensure that additional development along the water is consistent with existing structures and that these areas do not become over-developed. Uses, setbacks, and other regulations in the Township Zoning Ordinance should be carefully considered with lakefront/waterfront properties as to avoid over-development and/or shoreline erosion.

Agriculture, Forestry, and Recreation

The Agriculture, Forestry, and Recreation Category is designed to provide low-density development while maintaining a peaceful, more rural atmosphere. The primary uses in this category include single-family dwellings on larger lots (5 acre minimum), cabins, farms and farm dwellings, motels and lodging establishments, and recreational dwellings and structures. Other permitted and special uses are defined in the Township Zoning Ordinance. This category is designed to protect existing & future agricultural and recreational development and allow for low-impact development as needed.

Business/Commercial

The Business/Commercial Category is designed to allow for retail and business development. Lot sizes may vary depending on the type of commercial use, but should be closely regulated by the Township Zoning Ordinance. Uses in this category include; all permitted uses in the Residential District and the Agricultural, Forest, and Recreation District, stores and shops of retail business, offices, personal service shops, banks, hotels, restaurants, gas and oil service stations, and automobile sales establishments. Other permitted and special uses are defined in the Township Zoning Ordinance.

Mixed Use – Commercial/Residential

The Mixed Use Category is designed to allow a variety of residential and commercial land uses which are compatible with each other. In the past, the trend has been to try to separate land uses; however, Bay Mills Township recognizes that certain areas may require a mix of compatible residential development and neighborhood businesses or smaller commercial operations. Commercial development within these areas should be as consistent as possible with existing residential development. Permitted commercial land uses in this category should be low impact with standard business hours which are compatible with residential uses and result in fairly low traffic generation. Professional offices, landscaping businesses, and specialty shops are examples of possible permitted uses within the Mixed Use designation. As the Zoning Ordinance is updated, development regulations will be incorporated which insure compatibility between uses.

Existing Zoning Districts

Residential

The Residential district is primarily designed to accommodate one-family and two-family dwellings. The residential district is intended to preserve existing residential development where land has already been subdivided into smaller lots (not less than 20,000 square feet). Principal uses would include one-family dwellings, two-family dwellings, and cabins. Special uses, as defined in the Zoning Ordinance, may be allowed if they are designed to be compatible with residential development.

Waterfront Residential

The Waterfront Residential district is designed to accommodate residential development along shoreline areas, allowing landowners slightly larger lots (not less than 25,000 square feet) and dwelling sizes. This district is designed to accommodate one-family or two-family dwellings. Special uses, as defined in the Zoning Ordinance, may be allowed if they are designed to be compatible with low density residential.

Agricultural, Forest, Recreation

This district is intended to protect and stabilize the essential character of agricultural & forested areas within the Township. Farm dwellings and agricultural accessory buildings are allowed, as well as crop production and the raising of livestock normally associated with farming activities. Plant or tree nurseries, greenhouses, stables, and sod farms are also allowed. Lots shall not be less than five acres in size.

General Business

The commercial district is designed to provide areas suitable for a variety of commercial and service establishments including personal, professional, and other services commonly associated with local commercial and business centers. Principal uses include retail stores and shops, personal service shops, business and professional offices, restaurants, etc. Site plan review is required for non-residential development.

Existing Dimensional Standards

Section 33 (2)(d) of the MPEA states that "...a zoning plan for various zoning districts controlling the height, area, bulk, location, and use of buildings and premises." The following table lists the existing schedule of regulations in the current Township Zoning Ordinance. This shall be used as a guide to update regulations in existing districts and develop new standards for any proposed districts in the Township Zoning Ordinance.

Schedule of Regulations						
Dimensional Standards		Districts	RES	WRES	BUS	AG,F,R
			R-1	R-2	C-1	FR-1
Maximum Building Height	Feet		30			
	Stories					
Lot Standards	Min. Width (ft)		100			
	Min. Depth (ft)				10	
	Min. Area		20,000 sq. ft.	25,000 sq. ft. _c		5 Acres
Setback Standards (ft)	Front Yard ^A		25	25	None	
	Side Yard		10	10		
	Back Yard		25	25	10	
	Setback from Shoreline			100 ^B		
Minimum Floor Area (MFA)			480 sq. ft.	700 sq. ft.	None	600 sq. ft.

Table Footnotes

- A Where a lot is located at the intersection of two or more roads or highways, there shall be a front yard setback on each road or highway side of each corner lot. No accessory building shall project beyond the front yard setback line of either road.
- B Any permitted structures to be placed at a minimum distance of less than 50 feet from the established shoreline of an inland lake shall be submitted to the Zoning Board for approval.
- C Waterfront side having at a minimum of 100 feet along the waters edge.

General Zoning Recommendations

Because this plan recommends several land-use changes and other measures related to preserving and improving quality of life in Bay Mills Township, there are changes to the Zoning Ordinance that should be made to make it fully consistent with the Future Land Use Plan.

Priority Recommendations

- Develop language in the Zoning Ordinance for a Mixed Use District.
- Code all zoning districts for clarification. (i.e. R-1, C-1, C-2, etc.)
- Develop language that describes the boundaries of zoning districts and update the zoning map.
- Review and update zoning definitions.
- Add provisions to allow siting of both large-scale and small-scale solar and wind energy facilities.
- Add provisions for the development of medical marijuana facilities.

Other Recommendations

- Review Site Plan Review process. The site plan review process is one most useful and powerful tools in the zoning ordinance. Good site plan review regulations allow the community to insure the requirements of the ordinance are being followed and to insure that adequate and necessary conditions or restrictions are placed on land uses to mitigate any possible negative impacts.
- Review Site Design Standards. These standards should contain specific criteria for unique or intense special land uses such as cellular towers, pits and quarries, outdoor commercial storage facilities, wind turbines, and sexually-oriented businesses.
- Work with the Conservation District and Natural Resources Conservation Service to develop standards to protect the Lake Superior shoreline and help prevent and mitigate shoreline erosion and other issues that may occur.
- Review enforcement and penalties language within the Township Zoning Ordinance to provide better enforcement of zoning and blight laws.
- Research and develop possible language for Planned Unit Developments (PUDs), and plan for potential areas that PUDs may be appropriate.
- Review Zoning Board of Appeals language to conform to any new requirements per the Michigan Planning Enabling Act.

Chapter Seven – Goals and Objectives

The character of Bay Mills Township's shoreline, inland lakes, and forest lands creates a scenic landscape worth preserving. The rural atmosphere and scenic beauty are important to the quality of life in Bay Mills Township. The residents of Bay Mills Township value peace, tranquility, and a recreational lifestyle.

Part of the Master Plan process includes developing a set of goals and objectives that meet and satisfy the desires and wishes of Bay Mills Township residents. After reviewing the citizen input surveys, discussing issues with residents at the workshop, and considering existing and future conditions of the Township, the Planning Commission established the following Goals and Objectives. These goals and objectives will provide guidance to the Bay Mills Township Planning Commission and Township Board.

Natural Resources

Goal: Recognize that natural resources are the foremost role in Bay Mills Township's rural character, and provide means of an economic base, and that the Township should support the preservation of these natural resources.



Spectacle Lake Overlook Photo taken by EUPRPDC

Objectives:

- Strengthen the zoning ordinance to protect lakefront property, forest lands, open spaces, clean air, groundwater, and surface water.
- Collaborate with the Bay Mills Indian Community and US Forest Service to research funding opportunities to protect watersheds and shoreline.

Recreation

Goal: Preserve and improve access to public recreational areas for the enjoyment of residents, visitors, and future generations.

Objectives:

- Support the development of social and recreational activities for community youth.
- Support the creation of non-motorized recreation trails, such as cross-country ski trails and multi-use trails on both public and private lands.
- Support the development of motorized trails, where feasible, both in the Township and region-wide, whereas these trails do not conflict with non-motorized and silent sport areas.

- Work cooperatively with the Chippewa County Road Commission to address non-motorized concerns along Lakeshore Drive as addressed in the 2009 MDOT Superior Region Non-Motorized Transportation Plan & Investment Strategy.
- In a cooperative effort, work with local snowmobile clubs, MDNR, USFS, County Road Commission, MDOT and County Law Enforcement to maintain a regional snowmobile network.
- Work cooperatively with the US Forest Service to preserve and enhance recreational facilities in the Hiawatha National Forest.
- Support events held within the Township that promotes non-motorized activities and silent sports.
- Work with the USFS and local hunting and fishing groups/organizations to preserve and enhance the hunting and fishing opportunities within the Township.
- Investigate and research the development of and funding for a Township boat launch, with the vision to enhance this facility to a Township marina.
 - Maintain and update the Township Recreation Plan as needed.



BMIC construction

Photo taken by EUPRPDC

Community Development

Goal: Maintain existing public facilities and encourage the development of new public facilities and services that support residential, commercial, forestry, and recreational activities of residents and visitors.

Objectives:

- Support the maintenance and enhancement of the Township's emergency services.
- Continue to work with the Chippewa County Road Commission to plan for future upgrades of roads and the continued maintenance of existing roads.
- Approach EUPTA to better enhance the public transportation opportunities within the Township.
- Evaluate the creation of a Planned Unit Development for senior citizens.
- Decentralize the existing Township Recycling Program to better support residents in all areas of the Township by placing recycling trailers throughout the Township.
- Support the expansion and coverage of telecommunications throughout Bay Mills Township.
- Approach Cloverland Electric to bury electric lines where feasible.
- Create the opportunity for a farmer's market to allow the purchase of fresh foods produced on local agricultural land and support local farmers.
- Review the zoning ordinance to possibly allow smaller primary residential structures that are handicapped accessible, more affordable, and easier to manage by elderly and single-people.
- Review the zoning ordinance to allow temporary accessory structures designed for senior citizens to live independently but still remain close to family members.
- Improve public communications through the development of social networking websites and maintaining the Township's official website.

Business/Economic Development

Goal: Promote a varied and appropriate business environment, and encourage retention, expansion, and enhancement of businesses to meet the needs of residents and tourists, while preserving the natural environment and rural character of Bay Mills Township.



Photo taken by David Marone

Objectives:

- Encourage small business expansion and growth within the Township to address the issues of year-round, sustainable employment.
- Continue to regulate signs and billboards in the appropriate areas so that safety and visual impacts are considered, while still emphasizing the need to advertise.
- Promote the use of tax incentives to stimulate new and future small business expansion.
- Work with the Chippewa County Economic Development Corporation (EDC) to explore new and innovative development opportunities, as well as home-based opportunities, in Bay Mills Township.
- Promote and support the development of broadband infrastructure for residents, existing businesses, and future businesses.

Alternative Energy

Goal: Encourage the development of alternative or renewable energy sources, where practical and/or feasible, and acceptable to neighboring properties.

Objectives:

- Develop standards in the Township Zoning Ordinance to regulate the development of both private and commercial alternative energy infrastructure.
- Work cooperatively with Bay Mills Community College, Lake Superior State University, the Chippewa County MSU Extension office, Chippewa-East Mackinac Conservation District, USDA, NRCS, and other state and federal agencies to promote the utilization of biofuels as an alternative energy source.

Master Plan Conclusion

Planning is intended to guide the forces of change in ways that encourage desirable outcomes while striking an appropriate balance with development and preservation. The Michigan Planning Enabling Act requires that the Master Plan must be reviewed at least every five years to determine if updates are needed. It is strongly recommended that this Master Plan be reviewed annually, and changes be made as necessary to maintain its use as a reliable planning tool.

As the developers and most frequent users of this document, the Bay Mills Township Planning Commission will be responsible for reviewing the recommendations and progress of the Plan. An outdated Master Plan that is not frequently reviewed can diminish the decision making process. Therefore, it is recommended the Planning Commission conduct an annual review of the Master Plan and amend it as appropriate.

Amendments that should occur include:

- Deleting goals and recommendations that have been accomplished and add new recommendations as needs and desires arise.
- Modifying the Future Land Use Map to reflect any zoning decisions that have changed the direction of development in the Township.

This Master Plan represents over fifteen months' worth of effort by the Bay Mills Township Planning Commission. This Master Plan sets forth recommendations, and as such, this Plan will only be as successful as the implementation measures taken to achieve the vision set forth in previous chapters.

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