

Township Master Plan

Mitchell Township Alcona County



Adopted
Planning Commission: August 4, 2008

Prepared with the assistance of:
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MITCHELL TOWNSHIP MASTER PLAN

Mitchell Township

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MITCHELL TOWNSHIP
MASTER PLAN

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Chapter 1 - Introduction

Location and Regional Setting

Mitchell Township is located in the western part of Alcona County. The County is situated in the northeastern region of Michigan's Lower Peninsula. **Figure 1.1** illustrates the Township's location in relation to other communities in Alcona County and Michigan. Mitchell Township comprises nearly 144 square miles of the County's 693 square miles. The Township is approximately 18 miles (north-south) and at its widest point 12 miles (east-west) and consists of four government surveyed townships.

Purpose and Planning Process

The purpose of the Mitchell Township Land Use Master Plan is to provide guidelines for future development within the community, while protecting the natural resources and rural township character. In compliance with the wishes and desires of the residents and property owners, the Planning Commission has developed this master plan to maintain Mitchell Township as a natural and rural community. The master plan provides a legal foundation for the Township Zoning Ordinance. The Township Planning Act 168 of 1959 authorizes townships to develop comprehensive or master plans. As stated in the enabling legislation: *The purpose of plans prepared pursuant to this act shall be to promote public health, safety and general welfare; to encourage the use of resources in accordance with their character and adaptability; to avoid the overcrowding of land by buildings or people; to lessen congestion on public roads and streets; to facilitate provision for a system of transportation, sewage disposal, safe and adequate water supply, recreation and other public improvements; and to consider the character of each township and its suitability for particular uses judged in terms of such factors as the trend in land and population development.*

This plan presents background information on social and economic data, natural resources, existing community services and facilities, and existing land uses. The background information is used to identify important characteristics, changes and trends in Mitchell Township. A special community workshop was held to gather input from residents and landowners. Based on information gathered at this workshop and the background data, the Township Planning Commission developed goals and objectives. These goals and objectives, along with a series of maps including soils, ownership, existing land use, and zoning, provide the basis for the Future Land Use Map. The future land use map recommends locations for various types of future development within the Township.

The Mitchell Township Planning Commission developed this Master Plan with the assistance from the Northeast Michigan Council of Governments (NEMCOG). This plan looks at a twenty year planning horizon, with revisits every five years or sooner if needed. A series of planning workshops were held over the two-year period. All workshops were open meetings with public welcomed and encouraged to comment on the plan. To further gather public input, a community visioning session was held.

The Status of Planning and Zoning

The Township exercised its legal right to establish and administer local zoning as authorized by the Township Rural Zoning Act (PA 184 of 1943.) A zoning ordinance regulating land use

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activities was enacted by the Mitchell Township Board on November 18, 1971 and took effect on January 1, 1972. For over 25 years, the ordinance has provided guidance in regulating the location, density and standards for local development.

Under the authorization of the Township Planning Act 168 of 1959, Mitchell Township developed its first Master Plan in 1988. The plan provided information on the environment, socio-economic data, community services, transportation, recreation, and zoning districts. The Plan also, addressed goals and objectives and recommendations.

Since the adoption of the Township's land use plan, a number of social, economic and environmental changes have occurred which affect the use of land and development patterns. By documenting these socio-economic changes along with other community changes within a comprehensive plan, the Township will be better able to formulate appropriate land use goals and policies to guide development, and serve as the basis for enforceable zoning. The revised and updated land use plan will in turn be used as a basis for re-examining the Township's zoning districts and land use development controls. The plan has not been updated since its adoption.

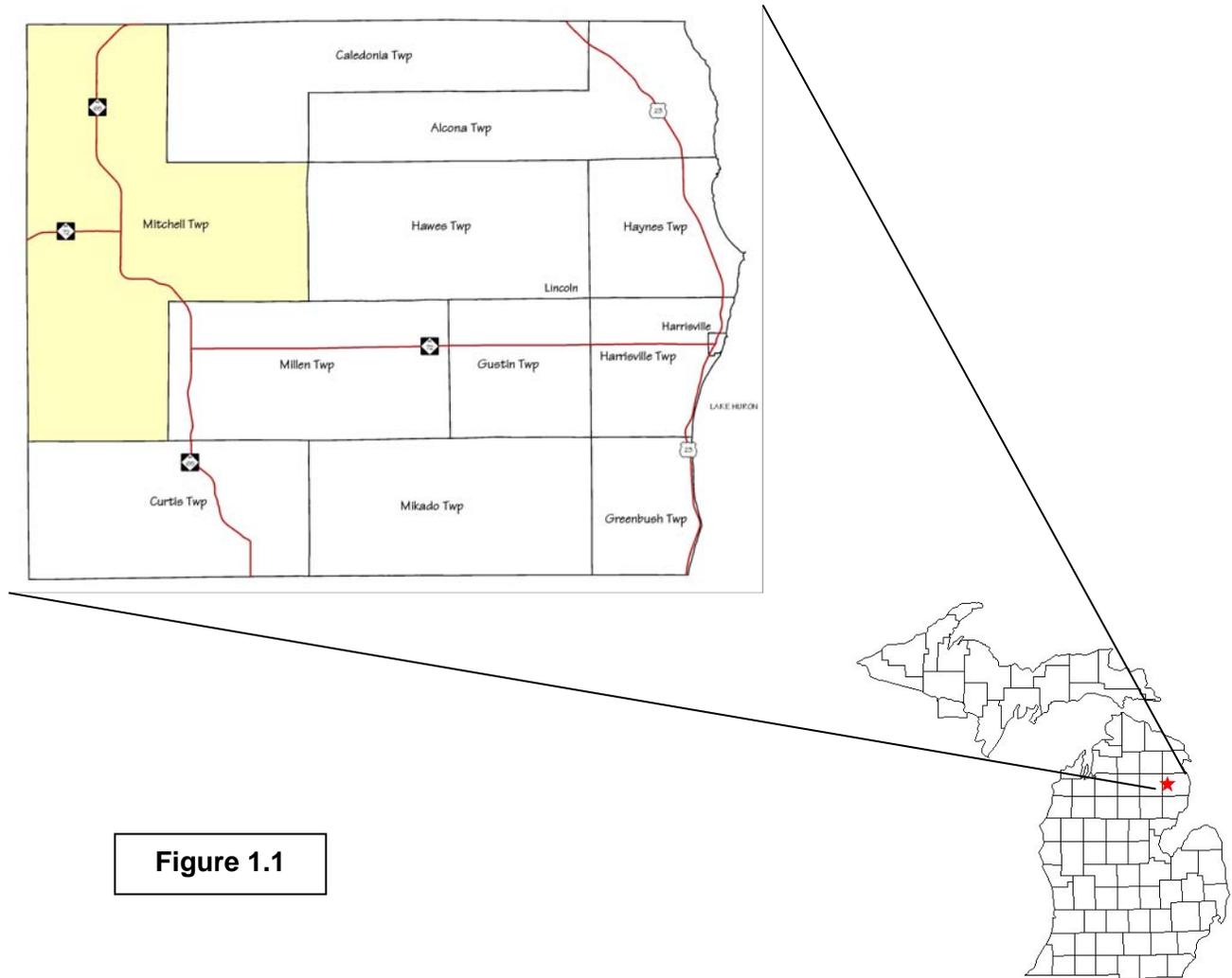


Figure 1.1

Chapter 2 - Socio-Economic Profile

Overview

One of the most important steps in understanding the future needs of a community is an analysis of population, households, housing, income, education and employment characteristics. Most of the information presented in this chapter is derived from the U. S. Census Bureau.

Population

The 2000 Census showed Alcona County with a population of 11,719. The county population density averages 17.4 persons per square mile, however, higher densities exist within the communities of Harrisville, Lincoln and Lost Lake Woods and around water bodies and coastline of Lake Huron (**Table 2.1**). Since 1990 there has been an increase in population of 15.5 percent (1,574 persons). Although not the fastest growing of the eight counties that make up the Northeast Region, Alcona County did experience a moderate rate of growth during the last decade.

Mitchell Township had a population increase of 36.2% between 1990 and 2000. Growing by 106 persons, the township experienced the highest growth rate in the county. However percentage of growth rate can be deceiving, since comparing the actual numbers of persons, Mitchell Township was number eight in persons added to its population over the decade. Much of the population growth can be attributed to people retiring and moving north to their seasonal residence.

Seasonal Population

Seasonal populations can have a significant impact on communities. Seasonal residents may include retirees that winter in the south or second home owners. Obtaining accurate numbers of seasonal residents and tourists is difficult. It is important to note the U. S. Census population figures do not include most of the seasonal population of the County. Since the census is taken in April, persons whose primary home is elsewhere are not counted in Alcona County. However, the US Census does report seasonal structures. Mitchell Township has a high percentage of seasonal dwellings at 72.0% (526 units). These figures indicate that the township's resident population can significantly increase during peak periods in the summer months. Using the 2.05 persons per household figure for Mitchell Township and the seasonal homes number, peak seasonal population could increase by approximately 1078 persons; thereby more than tripling the population of the township. This figure does not include those seasonal visitors or tourists staying in area motels, campgrounds or family homes. Special recreational events such as opening of deer hunting, salmon and trout fishing seasons can greatly increase this transient population.

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**Table 2.1
Population For Alcona County & Municipalities, 1990-2000**

Municipality	1990 Population	2000 Population	Population Change 1990-2000	Percent Change 1990-2000
Mitchell Township	290	396	106	36.6%
Alcona Township	906	1,089	183	20.2%
Caledonia Township	987	1,203	216	21.9%
Curtis Township	1,129	1,378	249	22.2%
Greenbush Township	1,373	1,499	126	9.2%
Gustin Township*	823	832	9	1.1%
Harrisville Township	1,315	1,411	96	7.3%
Hawes Township*	1,035	1,167	132	12.8%
Haynes Township	549	724	175	31.9%
Lost Lake Woods CDP**		339		
Mikado Township	852	1043	191	22.4%
Millen Township	417	463	46	11.0%
City of Harrisville	470	571	47	9.4%
Village of Lincoln	337	364	27	8.0%
Alcona County	10,145	11,719	1,574	15.5%
Source: U.S. Bureau of the Census				
* Includes parts of Village of Lincoln				
** Count also included in Alcona Township				

Population Projections

Population projections compiled by Northeast Michigan Council of Government (NEMCOG) predict the county's population will grow to 13,220 persons by the year 2010. Population is projected to grow to approximately 14,863 persons by the year 2020. With the increase in retirements associated with the aging population, communities with high percentages of seasonal/second homes are expected to absorb more of the anticipated population growth.

Age

2000 census data shows that 55.5 percent of Alcona County's population was 45 years old or older. The median age of residents in Alcona County increased 4.2 years to 49 during the period 1990-2000. This is a similar increase, but is still 13.5 years older than the median age for the State, which increased from 32.5 to 35.5 years. This increase in the median age can be attributed to the existing population getting older and the inward migration of retirees that are selling their primary year round residences and moving "north" to their seasonal homes. All of the County's municipalities had older median age figures than the State. Mitchell Township closely resembles the County in terms of median age, which are 53.3 and 49 years respectively.

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Table 2.2 shows age groups and median ages by minor civil division. The distribution of persons by age was relatively uniform throughout the Townships. However, the age distributions of the population within Alcona County contrast significantly with the State as a whole. In Alcona County, the percentage of the preschool and school aged children is lower and the percentage of the population 45 and older is higher than the statewide basis. This contrast is even greater in Mitchell Township.

Table 2.2													
Age Distribution by Municipality For Alcona County - 2000													
MUNICIPALITY	< 5 Yrs.	%*	5-19 Yrs.	%*	20-24 Yrs.	%*	25-44 Yrs.	%*	45-64 Yrs.	%*	65 Yrs. & >	%*	Medi an Age
Mitchell Twp	11	2.8	53	13.4	6	1.5	72	18.2	148	37.3	106	26.8	53.3
Alcona Twp.	28	2.6	148	13.6	20	1.8	180	16.6	337	31.0	376	34.5	57.6
Caledonia Twp.	39	3.2	184	15.3	43	3.6	251	20.8	388	32.2	298	24.8	50.5
Curtis Twp.	63	4.6	226	16.5	30	2.2	277	20.1	434	31.6	348	25.3	50.4
Greenbush Twp.	71	4.7	212	14.1	30	2.0	292	19.5	491	32.8	403	26.9	51.7
Gustin Twp.*	53	6.4	135	16.2	31	3.7	206	24.8	242	29.1	165	19.8	44.1
Harrisville Twp.	61	4.3	263	18.6	48	3.4	293	20.8	404	28.6	342	24.2	47.0
Hawes Twp.*	42	3.6	208	17.8	20	1.7	274	23.5	374	32.1	249	21.3	46.9
Haynes Twp.	31	4.3	127	17.5	27	3.7	140	19.3	252	34.8	147	20.3	49.0
Lost Lake Woods CDP**	3	0.9	13	3.9	2	0.6	28	8.2	107	31.6	186	54.9	67.1
Mikado Twp	64	6.1	222	21.2	34	3.3	271	26.0	285	27.3	167	16.0	40.5
Millen Twp.	17	3.7	78	16.9	17	3.7	88	19.0	148	32.0	115	24.8	50.3
City of Harrisville	25	4.9	71	13.8	24	4.7	111	21.6	133	25.8	150	29.2	48.5
Village of Lincoln	20	5.5	62	17.0	10	2.7	89	24.4	95	26.1	88	24.2	45.3
Alcona County	505	4.3	1927	16.4	330	2.8	2455	20.9	3636	31.0	2866	24.5	49.0
State of Michigan		6.8		23.2		6.5		29.8		22.5		12.3	35.5

Source: U.S. Bureau of the Census
 * Count includes parts of Lincoln
 ** Count also included in Alcona Township figures

Household Characteristics

Table 2.3 presents information on household characteristics gathered during the 2000 US Census. Information includes total number of households, average household size, householder living alone, householder 65 years & older living alone, and households with an individual 65 years & older. The average household size in Alcona County and Mitchell Township were smaller than the state average.

Mitchell Township had 193 households with an average household size of 2.05 persons. Nearly one half of the households have an individual 65 years or older. Households with older persons tend to need access to services such as medical, emergency and assisted.

Table 2.3					
Municipalities in Alcona County: Household Characteristics - 2000					
MUNICIPALITY	Total Households	Avg. Household Size	Householder Living Alone	Householder Alone 65 yrs. & Older	Household w/ Individual 65 yrs. & older
Mitchell Twp.	193	2.05	59	32	79
Alcona Township	524	2.08	154	98	260
Caledonia Twp.	535	2.25	129	69	217
Curtis Township	608	2.25	151	66	235
Greenbush Twp.	685	2.19	187	112	283
Gustin Township*	358	2.29	99	49	115
Harrisville Twp.	555	2.37	125	63	180
Hawes Twp.*	528	2.20	156	82	183
Haynes Township.	308	2.35	70	38	107
Lost Lake Woods CDP**	189	1.79	59	45	126
Mikado Township	397	2.60	81	38	119
Millen Township	202	2.24	56	28	74
Village of Lincoln	179	2.03	71	45	73
City of Harrisville	239	1.92	99	54	101
Alcona County	5,132	2.24	1,366	729	1,953
Michigan	-----	2.56	-----	-----	-----
Source: U.S. Bureau of the Census					
* Count includes parts of Lincoln					
** Count also included in Alcona Township figures					

Race and Ethnic Composition

Information found on **Table 2.4** shows that Alcona County has a very small minority population, a situation that has changed very little over the last several decades. A small increase in the minority population from 1990 to 2000 is mostly attributed to different reporting criteria in the 2000 Census. For the first time, respondents were given the opportunity to choose more than one race category. Excluding the two or more races category, Hispanic or Latino Origin was the largest minority group with 0.7 percent of the population, followed by American Indian at 0.6 percent, and Asian and Black both at 0.2 percent. The minority percentage for Mitchell Township reflects the countywide numbers.

Table 2.4 Population By Race And Hispanic Origin For Alcona County 2000		
	Number of Persons	% of Total Population
Total	11,719	100%
White	11,489	98.0%
Black	19	0.2%
American Indian	73	0.6%
Asian	21	0.2%
Two or More Races*	109	0.9%
Hispanic or Latino Origin**	81	0.7%
<small>* Census 2000 gave respondents the opportunity to choose more than one race category. ** Persons of Hispanic or Latino Origin may be of any race. Source: U.S. Bureau of the Census</small>		

Disability Status

A person was classified as having a disability if they had a sensory disability, physical disability, mental disability, self-care disability, going outside the home disability or an employment disability. The 2000 Census showed there were 2,844 disabled persons in Alcona County (see **Table 2.5**). In Mitchell Township the number of persons with disabilities in the age groups of 21 – 64 and 65 years and older were comparable at 55 and 56 respectively. A high percentage of the population 65 years and older was considered disabled. Only 5.5 of the population between 21-64 were employed. This is a much lower percentage than the County and State as a whole. The lower percentage is likely attributed to limited employment opportunities and lack of public transportation.

Educational Attainment

The U.S. Census Bureau tracks educational attainment for persons 25 years of age or older. Since 1990, educational attainment in Mitchell Township has improved as shown by **Table 2.6**. The number of people 25 and older that have a high school diploma or higher increased from 62.8% in 1990 to 74.9% in 2000. Additionally, the number of persons with less than a 9th grade education decreased over the last decade. In Alcona County, the percentage of persons with high school diplomas or higher increased from 68.6 percent in the 1990 Census to 79.7 percent in the 2000 US Census.

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Table 2.5 Municipalities in Alcona County Disability Status* - 2000							
LOCAL UNIT	Disabled persons 5-20	% Disabled 5-20	Disabled persons 21-64	% Disabled 21-64	% of disabled persons 21-64 employed	Disabled persons 65+	% Disabled 65+
Mitchell Twp.	4	10.8%	55	25.3%	5.5%	56	45.2%
Alcona Twp.	12	7.8%	124	23.1%	40.3%	118	31.9%
Caledonia Twp.	18	9.8%	164	23.2%	50.0%	115	40.2%
Curtis Twp.	27	11.2%	218	29.1%	28.9%	156	45.9%
Greenbush Twp.	13	6.0%	178	22.9%	33.1%	161	39.0%
Gustin Twp.	37	25.0%	109	22.3%	33.0%	67	37.9%
Harrisville Twp.	34	12.6%	150	21.3%	50.0%	76	29.0%
Hawes Twp.	5	2.2%	148	23.2%	32.4%	100	41.7%
Haynes Twp.	11	8.1%	95	24.2%	44.2%	64	39.8%
Mikado Twp.	15	6.3%	142	24.4%	38.7%	90	50.0%
Millen Twp.	16	19.5%	55	24.3%	38.2%	52	54.2%
City of Harrisville	2	2.8%	75	30.7%	25.3%	82	44.6%
Village of Lincoln	11	16.9%	38	20.2%	31.6%	51	56.0%
Alcona Co.	194	9.7%	1513	24.2%	36.5%	1137	40.1%

Source: U.S. Bureau of the Census
 *Disability of civilian non-institutionalized persons.

Table 2.6 Educational Attainment 1990 & 2000								
Degree	Alcona County				Mitchell Township			
	1990		2000		1990		2000	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Less than 9 th grade	883	12.0%	504	5.6%	22	9.6%	14	4.1%
9 th to 12 th no Diploma	1,434	19.5%	1,310	14.6%	63	27.6%	71	20.9%
High School Diploma	2,910	39.5%	3,750	41.9%	90	39.5%	160	47.2%
Some college no degree	1,100	14.9%	1,880	21.0%	31	13.6%	58	17.1%
Associates	376	5.1%	537	6.0%	15	6.6%	19	5.6%
Bachelors	425	5.8%	589	6.6%	0	0.0%	7	2.1%
Graduate or Professional	239	3.2%	388	4.3%	7	3.1%	10	2.9%

Source: U.S. Bureau of the Census

Housing Characteristics

The US Census reports a wide variety of housing characteristics. In 2000 there were 731 housing units in Mitchell Township. The total number of units includes single, mobile homes and RV. Single family, detached housing accounts for 504 or 75.4 % of the total number of units. There were 157 mobile homes reported in the 2000 Census. Twenty-nine percent of the structures were built prior to 1960. Since 1960 between 94 and 160 units have been built each decade, with greatest number built in the 90's (160 units).

Information reported on occupied housing units in Mitchell Township, 65.5% of the homes are heated with bottled, tank, or LP gas, while 12.2% use wood, 10.2% use fuel oil or kerosene and 11.2% electricity. Also in the township, 1.0 percent of the homes lack complete plumbing service and 4.6% are without telephone service. Housing characteristics for Mitchell Township and Alcona County are found in **Table 2.7**. Certain characteristics contrast sharply with the state as a whole. For example, 72% of the housing in Mitchell Township and 48% in the County were classified as seasonal as compared to 5.5 percent in the state. In the Township, 94.3% of the occupied housing units are owner occupied as compared to 73.8 percent in the state as a whole. Throughout the county, owner vacancy rates are fairly low, with the vacancy rates between 0.7 percent in Haynes Township and 2.2% in Mitchell Township.

Economic Characteristics

Alcona County is a rural, sparsely populated county sandwiched between two larger, more urbanized counties (Alpena and Iosco). The opportunity for year-round higher wage jobs has traditionally not been good in Alcona County. For this reason, a large number of Alcona County residents commuted to the Wurtsmith Air Force Base in Iosco County to work. Others commuted to Alpena County, where a large number of good paying industrial jobs could be found. Over the last decade, however, this picture has changed a great deal. In 1992, the Wurtsmith Air Force Base was closed, causing the loss of over 600 government jobs, some of which were held by Alcona County residents. In the late 1980's and early 1990's many hundreds of industrial jobs were lost in Alpena County due to severe cut backs and closures of several of their major employers. Alpena County was hard hit again in 2000 when the Fletcher Paper Co. closed its doors, leaving 230 employees without jobs. These job losses impacted Alcona County employment, as well.

During the 1990's major efforts have been underway in all three counties with the goal of improving and diversifying the local economy of each. For example, efforts to re-use the Wurtsmith Air Force Base as an industrial park have yielded many new manufacturing jobs. Enterprise zones using State tax incentive tools have been established at the Alpena County airport. Development of medical and educational facilities has also created new jobs. Unfortunately, the recent downturn in the U.S. economy has negatively affected this area again, leading to closures and/or cut-back in some of the newer businesses. Considering the fact that there are available buildings and infrastructure in place, it is hoped that these jobs can be replaced in the not too distant future.

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Table 2.7								
Alcona County: Housing Characteristics – 2000								
MUNICIPALITY	Total Housing Units	Total Occupied Housing Units	% Owner Occupied	% Renter Occupied	Total Seasonal Housing Units	% Seasonal *	Total Vacant % Owner	Total Vacant % Renter
Mitchell Twp.	731	193	94.3%	5.7%	526	72.0%	2.2%	8.3%
Alcona Township	1313	524	94.5%	5.5%	748	57.0%	3.3%	9.4%
Caledonia Twp.	1074	535	92.9%	7.1%	513	47.8%	2.0%	11.6%
Curtis Township	1605	608	91.9%	8.1%	924	57.6%	4.9%	9.3%
Greenbush Twp.	1453	685	90.2%	9.8%	733	50.4%	2.2%	10.7%
Gustin Township**	483	358	80.2%	19.8%	87	18.0%	2.0%	12.3%
Harrisville Twp.	790	555	90.8%	9.2%	205	25.9%	1.9%	12.1%
Hawes Twp.**	1003	528	91.5%	8.5%	433	43.2%	2.4%	18.2%
Haynes Township.	598	308	93.5%	6.5%	276	46.2%	0.7%	0.0%
Lost Lake Woods CDP***	511	189	98.9%	1.1%	306	59.9%	5.1%	50.0%
Mikado Township	666	397	90.7%	9.3%	229	34.4%	3.2%	5.1%
Millen Township	541	202	91.1%	8.9%	327	60.4%	1.6%	0.0%
Village of Lincoln	246	179	74.3%	25.7%	40	16.3%	4.3%	17.9%
City of Harrisville	327	239	64.9%	35.1%	66	20.2%	3.1%	13.4%
Alcona Co.	10584	5132	89.9%	10.1%	5067	47.9%	2.6%	11.0%
Michigan	-----	-----	73.8%	26.2%	-----	5.5%	1.6%	6.8%

Source: U.S. Bureau of the Census
 * Figure shows the seasonal housing units as a percentage of the unit's total housing units.
 ** Count includes parts of Lincoln
 *** Count also included in Alcona Township figures

Alpena County's economic development efforts have been aimed at retaining and expanding industrial employment, while attracting employers in other sectors, such as retail and services, especially health care. Alcona County has reinvigorated their Economic Development Corporation (EDC) in order to work on retaining and attracting new private businesses and investment. Alcona County has also become better known as an attractive and reasonably priced community for retirees. The influx of new residents has also positively impacted the local economy in that area.

Income

According to the U.S. Census, between 1989 and 1999, Mitchell Township’s median household income increased by a greater percentage than did Alcona County and the State's rate, even though it lags behind both (see **Table 2.8**). During the last decade Alcona County's median family income increased by over one-third (34.2%), while the State's rate only increased by 10.9 percent. Mitchell Township had an increase of 47.3% in median household income. This rise in the area's average income is most likely due to the fact that some financially stable retirees moved into that county during the period. In spite of this healthy boost to the area's overall income, Alcona County's 1999 median household income was still 29.8 percent lower than the State's rate during that year. Mitchell Township’s median household income was lower than both the state and the county.

	1989	1989 (In 1999 \$*)	1999	% Change**
Mitchell Township	\$18,250	\$23,686	\$26,875	47.3%
Alcona Co.	\$18,013	\$23,378	\$31,362	34.2%
Michigan	\$31,020	\$40,260	\$44,667	10.9%

* 1989 income converted into 1999 dollars.
 ** Percent change from 1989 income (using 1999 dollar conversion) to 1999 income.
 Source: U.S. Bureau of the Census

Poverty

Poverty statistics from the U.S. Census show (see **Table 2.9**) that Mitchell Township percentage rates in nearly all categories are considerably higher than the State rates (1999 data). For example, the percent of families who fell below the poverty rate in 1999 was 16.0 for the Township, 9.1 for the County and 7.4 for the State. Seventeen percent of individuals 65 years and older fell below the poverty rate in Mitchell Township, compared to the County’s figure of 9.0 percent and the State's figure of 8.2 percent. Additionally, the percentage of Mitchell Township female-headed households that fell below poverty was much higher than the State's rate in 1999. Forty percent of the county's total female-headed households fell below poverty during that year, while over one-half (56%) of the female-headed households containing related children under 18 years of age fell below poverty. In Alcona County, the poverty rate for female-headed households was 32.3 percent.

	Alcona County	Mitchell Twp		State of Michigan
	Percent	Percent	Number	Percent
Percent of families below poverty	9.1%	16.0%	21	7.4%
Percent with related children < 18 yrs.	15.2%	25.0%	6	11.3%
Percent of female headed households below poverty	32.3%	40.0%	6	24.0%
Percent with related children < 18 yrs.	44.4%	50.0%	3	31.5%
Percent with related children 0 - 5 yrs.	56%	0%	0	44.2%
Percent of individuals below poverty	12.6%	16.5%	64	10.5%
Percent 18 yrs. old and >	11.3%	14.6%	50	9.3%
Percent 65 yrs. old and >	9.0%	17.7%	22	8.2%

Labor Force

Employment and Unemployment

The civilian labor force is defined as all civilian individuals over age 16 who are employed or actively seeking employment. Labor force numbers can change rather quickly, in response to economic conditions. During prolonged periods of unemployment, unsuccessful job seekers can drop out of the work force by going back to school, leaving the area in search of work elsewhere or by stopping the search for work.

Table 2.10 shows the annual average civilian labor force for Alcona County over the last ten years (1993 - 2002). When comparing 1996 to 2006, the civilian labor force showed a gain in the late 90's but had a steady decline to 2006. This is a good example of how the labor force numbers can fluctuate from year to year based on the availability of jobs in the area.

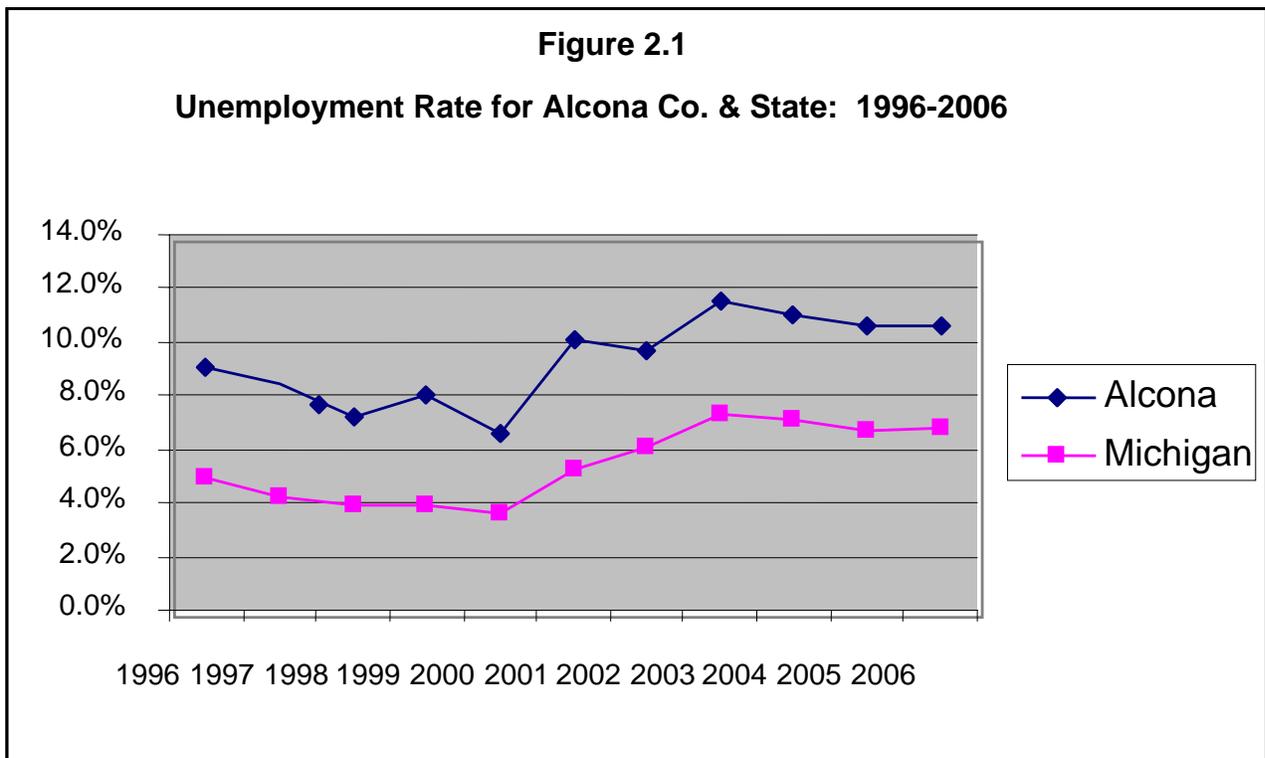
Data found on **Table 2.10** and in **Figure 2.1** shows that over the past ten years Alcona County's unemployment rate has followed the same trend line as the State's rate, except in 1999 and in 2002. During this period the county's annual unemployment rate has been consistently higher than the State's rate by a difference of between three and six percentage points. In 2001, Alcona County's unemployment rate was very high (over 10% annual average rate). This was in response to the job losses in Iosco County and in Alpena County. During the mid to late 1990's the county's unemployment rate fell nearly every year, until it reached a low of 6.6 percent in 2000. The overall economy for the State and US was very good during those years, which was helpful in boosting the employment opportunities for Alcona County and adjacent Iosco and Alpena Counties.

In 2001 the county's unemployment rate increased sharply taking it into the ten percent range again. The recent national recession was directly responsible for this increase, which is also reflected in the State's unemployment rate for those years. Alcona County's unemployment rate has hovered near 11 percent throughout this decade.

Table 2.10
Alcona County Civilian Labor Force: 1993 - 2002

	Civilian Labor Force		Employment		Unemployment		Unemp. Rate	Mich. Unemp. Rate
	#	% Dif*	#	% Dif*	#	% Dif*	%	%
1996	5,000	2.6%	4,550	4.0%	450	-10.0%	9.1%	4.9%
1997	5,125	2.5%	4,675	2.7%	425	-5.6%	8.4%	4.2%
1998	5,050	-1.5%	4,675	0.0%	375	-11.8%	7.2%	3.9%
1999	5,025	-0.5%	4,625	-1.1%	400	6.7%	8.0%	3.9%
2000	4,975	-1.0%	4,650	0.5%	325	-18.8%	6.6%	3.6%
2001	4,700	-5.5%	4,225	-9.1%	475	46.2%	10.1%	5.3%
2002	4,525	-3.7%	4,100	-3.0%	450	-5.3%	9.7%	6.1%
2003	4,476	0.6%	3,975	-0.6%	525	16.7%	11.5%	7.3%
2004	4,210	-5.9%	3,746	-5.8%	464	-11.6%	11.0%	7.1%
2005	4,304	2.2%	3,799	1.4%	426	-8.2%	10.6%	6.7%
2006	4,225	-1.8%	3,850	1.3%	454	6.6%	10.6%	6.8%

* Figure shows percent difference from preceding year.
Source: Mich. Dept. of Career Dev., Employment Services Agency, Office of Labor Market Information

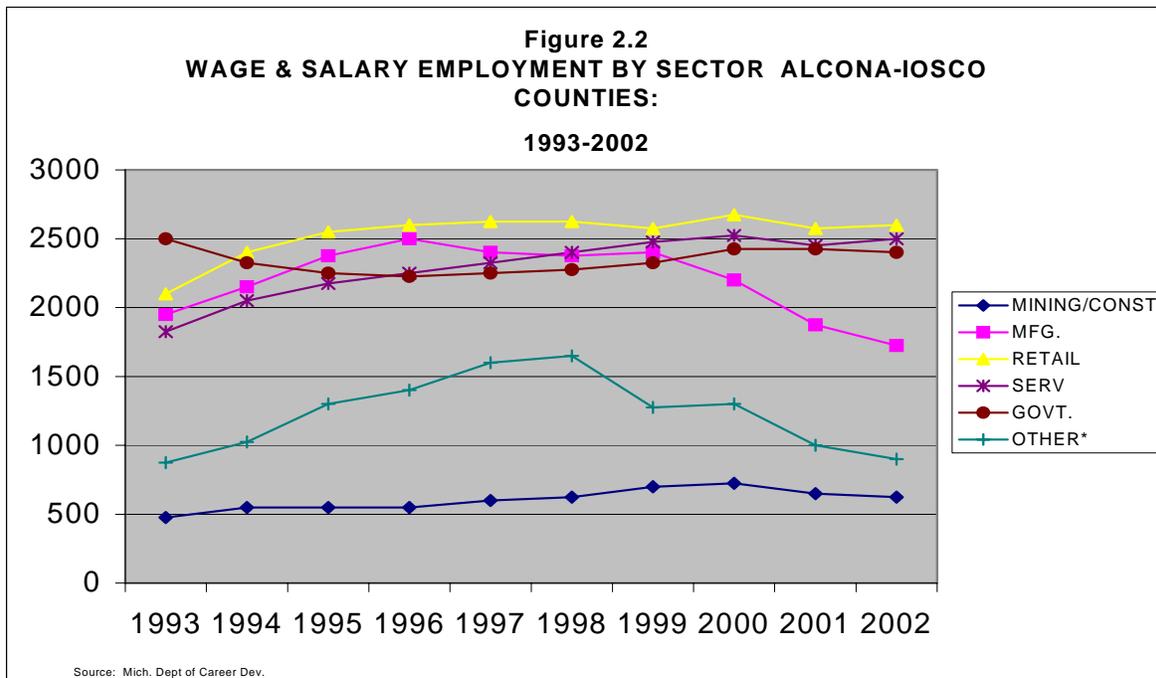


Wage and Salary Employment

Wage and salary employment in Alcona County (and Iosco County) has historically been concentrated in government jobs.¹ (see **Table 2.11** and **Figure 2.2**). Employment in that sector, however, dropped substantially starting in 1992, due to the loss of over 600 government jobs when the Wurtsmith Air Force Base closed in Iosco County.

The largest employment sector found in Alcona and Iosco Counties is now retail employment (24.1% of the wage and salary employment in 2002). Service sector and government employment come in very close to one another at 23.2 percent and 22.3 percent, respectively. Manufacturing employment in 2002 was 16 percent of the wage and salary employment. Employment in "other" sectors ("other" includes transportation, communications & utilities, wholesale trade & finance, insurance and real estate) accounted for 8.4 percent of the wage and salary employment, while the mining and construction sector was last at 5.8 percent.

Alcona and Iosco Counties combined added 1,025 new jobs between 1993 and 2002 for an overall increase of 10.5 percent total wage and salary employment. Between 2001 and 2002, however, Alcona and Iosco Counties' total wage and salary employment decreased by 1.8 percent (-200 jobs). Most of the job losses were found in the manufacturing and other sectors. The majority of these job losses were in Iosco County, rather than Alcona County. The loss of manufacturing employment was largely due to the closure of the ITT facility, while the loss of jobs in the "other" sectors was mostly related to the closure of TimCo, a transportation firm. In spite of these job losses, however, the Alcona/Iosco County area still has the second largest number of jobs in the manufacturing sector of any area in Northeast Michigan. Table 2.13 shows employment by sector for Alcona County.



¹ Note: Data for Alcona County includes Iosco County. Iosco County numbers overshadow Alcona County because of population differences. However, the economies of the two areas are very closely linked because many people who live in Alcona County work in Iosco County.

**Table 2.11
Alcona-Iosco Counties
Wage and Salary Employment by Sector
1993 - 2002**

	Mining & Const.	Mfg.	Retail	Service	Govt.	Other*	Total**
1993	475	1,950	2,100	1,825	2,500	875	9,750
% Dif***	0.0%	2.6%	-7.7%	1.4%	-19.4%	6.1%	-6.3%
1994	550	2,150	2,400	2,050	2,325	1,025	10,525
% Dif***	15.8%	10.3%	14.3%	12.3%	-7.0%	17.1%	7.9%
1995	550	2,375	2,550	2,175	2,250	1,300	11,125
% Dif***	0.0%	10.5%	6.3%	6.1%	-3.2%	26.8%	5.7%
1996	550	2,500	2,600	2,250	2,225	1,400	11,525
% Dif***	0.0%	5.3%	2.0%	3.4%	-1.1%	7.7%	3.6%
1997	600	2,400	2,625	2,325	2,250	1,600	11,775
% Dif**	9.1%	-4.0%	1.0%	3.3%	1.1%	14.3%	2.2%
1998	625	2,375	2,625	2,400	2,275	1,650	11,950
% Dif***	4.2%	-1.0%	0.0%	3.2%	1.1%	3.1%	1.5%
1999	700	2,400	2,575	2,475	2,325	1,275	11,750
% Dif***	12.0%	1.1%	-1.9%	3.1%	2.2%	-22.7%	-1.7%
2000	725	2,200	2,675	2,525	2,425	1,300	11,850
% Dif***	3.6%	-8.3%	3.9%	2.0%	4.3%	2.0%	0.9%
2001	650	1,875	2,575	2,450	2,425	1,000	10,975
% Dif***	-10.3%	-14.8%	-3.7%	-3.0%	0.0%	-23.1%	-7.4%
2002	625	1,725	2,600	2,500	2,400	900	10,775
% Dif***	-3.8%	-8.0%	1.0%	2.0%	-1.0%	-10.0%	-1.8%

* Other = Transportation, Communications & Utilities, Wholesale Trade & Finance, Insurance & Real Estate.

** Total may not add due to rounding

** Percent difference from preceding year

Source: Mich. Dept. of Career Dev., Employment Services Agency

Major Employers

Information found below on **Table 2.13** shows the top ten major employers for Alcona County. Six of the ten shown are either public entities, such as the school system, or are medical facilities such as nursing homes. While many of these employers are located in the county seat of Harrisville, several are located in other communities, such as Lincoln or are in scattered sites throughout the county.

Employer	# of Emp.
Alcona Community Schools	162
Alcona County	120
Lincoln Haven Health Care Center	60
Jammieson Nursing Home	50
Alcona Tool & Machine	50
Alcona Motors	40
Lincoln Precision Carbide	40
Lost Lake Woods Association	38
Alcona County Road Commission	36
Alcona Health Center	35

Source: "2002 Michigan Industrial Directory" and "2002 Michigan Services Directory" by Harris InfoSource and Northeast Michigan Council of Governments

NAICS Code*	NAICS Title	Average Monthly Employ**	Percent Of Total	Average Weekly Wages
0	Total, All Industries	1,379	100.0%	\$436
11	Agriculture, forestry, fishing and hunting	22	2%	\$486
21	Mining	s	s	s
22	Utilities	s	s	s
23	Construction	120	8.0%	\$422
31	Manufacturing	225	16.3%	\$566
42	Wholesale trade	18	1.3%	\$472
44	Retail trade	281	20.3%	\$320
48	Transportation and warehousing	s	s	s
51	Information	s	s	s
52	Finance and insurance	37	2.6%	\$359
53	Real estate and rental and leasing	34	2.5%	\$229
54	Professional and technical services	24	1.7%	\$485
56	Administrative and waste services	53	3.8%	\$374
61	Educational services	s	s	s
62	Health care and social assistance	247	17.9%	\$707
71	Arts, entertainment, and recreation	107	7.8%	\$207
72	Accommodations and food services	124	9%	\$140
81	Other services, except public administration	54	3.9%	\$192

*NAICS = North American Industrial Classification System
s= data not disclosed
**=Total may not add due to rounding and/or data that is not disclosed.
Source: Michigan Dept. of Labor and Economic Growth
Bureau of Labor Market Information and Strategic Initiatives

Chapter 3 - Community Services and Facilities

Key factors that contribute to the quality of life of a community are the type and variety of services available to residents and visitors. Unlike more populated communities, smaller rural communities do not have the financial resources to provide many of the services that would normally be considered essential. In the case of fire and ambulance, many rural communities work cooperatively with adjacent communities to provide essential services.

This chapter of the Master Plan will identify the types and extent of services available to residents and businesses in Mitchell Township. Although these services may be sufficient for the needs of the current population, future development may increase the demand to upgrade or expand the services and facilities to maintain a satisfactory living environment.

Water Supply

Public drinking water is not available in Mitchell Township. Residents rely on on-site private wells for domestic drinking water. Private drinking water wells are regulated by the District Health Department under the Public Health Code. Wells for facilities such as schools or motels serving the public fall under regulations of the Federal and State Safe Drinking Water Acts, where isolation distance, minimum yield and water quality testing requirements are more stringent than for a private residential well.

According to District 2 Health Department, most drinking water wells in Mitchell Township are drilled to a depth of 30 to 200 feet in glacial materials. There are flowing wells in the vicinity of the Township Hall in Curran. Wells located in unconsolidated sands and gravels generally yield sufficient water for domestic supply. In some areas of the Township, residents experience problems with iron and water hardness. Areas of concern would be shallow wells located in sandy soils, particularly in more compact developments and around lakes. These aquifers are vulnerable to groundwater contamination from septage and chemical spills.

Sewage Disposal

There are no public sewage or wastewater disposal systems in Mitchell Township. Residents must rely on private on-site septic systems. Generally, these systems are satisfactory when development is scattered or seasonal in nature. Two important determinants for siting a septic system are soil types and steepness of slopes. In areas with clay soils, steep slopes and small lots, siting and maintaining septic systems can pose problems. The same holds true on lakefront properties, where older systems must be upgraded to accommodate increased usage from year round living or building larger homes. In some cases it is not possible to expand septic systems due to small lot sizes, and required isolation distances from water wells and surface water. Chapter 4 - Natural Resources provides color thematic maps depicting soil constraints in Mitchell Township.

Solid Waste

Residents use curbside pick-up through contracted vendors and paid drop-off dumpsters located at Bugg's or the Curran EZ-Mart.

Recycle Alcona County (RAC), a non-profit, volunteer-based organization, has been offering county residents the opportunity to recycle household waste. Household hazardous waste disposal is offered in the county once per year or residents can dispose of household hazardous waste at a site in Alpena during other times of the year.

Utilities

Due to the large amount of public land and internal parcels, utility services are lacking in some areas of the township. Consumers Energy and Presque Isle Electric & Gas provides electricity to customers in Mitchell Township.

Various private companies deliver home heating oil or LP gas in the area. Natural gas service and cable television service is not available in Mitchell Township.

The costs of providing telephone service to isolated residences can be prohibitively high. Since these landowners must pay the cost of running the lines, some have chosen not to bear the expense, instead relying on cellular telephones. Verizon provides phone service within Mitchell Township. There are unserved areas within the Township. Allband Communication, a private cooperative, is working to provide phone and internet service to these unserved areas.

Other Public Facilities

The Alcona County Courthouse is located in the City of Harrisville at the intersection of M-72 and US-23. Alcona County Sheriff Department and associated facilities are located adjacent to the courthouse. The Alcona County Road Commission offices and garage are located in the Village of Lincoln. There is a DNR field office, which is no longer open to the public, located in Lincoln.

Mitchell Township Hall is located in Curran on a six-acre lot. The facility is used for township meetings and is open for public use. The grounds surrounding the hall have a picnic area, tennis court, ball field, and playground area. Mitchell Township Fire Hall is located in Curran.

Postal Service

Residents of the Township are served by post offices located in Barton City, Curran and Glennie.

Schools

Mitchell Township is located in the Fairview Area School District. The Glennie Elementary School, associated with Oscoda Area School District, is located in the County. Middle School

and High School buildings are located outside the county in the community of Fairview in Oscoda County.

Kirtland Community College (KCC) located in Roscommon and Alpena Community College (ACC) located in Alpena are two-year institutions serving the higher education needs of area residents. Alpena Community College's main campus is located in City of Alpena. ACC's Huron Shores Campus in Oscoda serves the surrounding area. ACC offers two-year degrees, one-year certificates, and customized training. The college offers Associate in Arts, Associate in Science, Associate in Applied Science and Associate in General Studies Degrees. Additionally, the World Center for Concrete Technology has an associate degree concrete technology program and the Blockmakers Workshop program at ACC's campus in Alpena. Alpena Community College is also a member of the Michigan Community College Virtual Learning Collaborative and offers selected courses online to students who have difficulty attending classes on campus. The Madeline Briggs University Center at Alpena Community College houses offices of accredited four-year institutions who are cooperating with ACC to make completion programs for selected bachelor's and master's degrees available in Northeast Michigan. These institutions include Spring Arbor University, Central Michigan University, and Northwood University.

Kirtland Community College offers associate degrees and certificate programs in automotive, business, cosmetology, criminal justice, health occupations, industrial technologies, and office information systems as well as associate/transfer degrees in arts, fine arts, business, administration, criminal justice, computers and science.

Libraries

Residents of the Township use the Oscoda County Library in Mio and the Alcona County Libraries in Harrisville and Glennie in addition to a book exchange cabinet located in the Curran Post Office.

Cemeteries

The Township owns and operates the Curran Cemetery and Flynn Valley Cemetery.

Public Safety

There are no municipal law enforcement agencies in Mitchell Township. The law is enforced by the Alcona County Sheriff's Department and supplemented by the Michigan State Police, Alpena Post. Citizen Watch groups assist by keeping an eye on their neighborhoods and the Michigan State Police added a satellite office in the Village of Lincoln in 1999. The satellite office has one full time trooper assigned.

Advanced life support service is provided by Alcona County EMS. The countywide enhanced 911 emergency services, operated from the 911 Authority Board, are available for all county residents. Alcona County pays for the costs of ambulance service through the Ambulance Fund millage. There are currently two full time emergency medical service stations operating in Alcona County. The Harrisville Station, or East Station and the Glennie, or West Station are currently rated at the *advanced level*. The West Station is located on M-65, just south of the M-72/M-65 junction, north of Glennie, and the East Station is located at 2600 East M-72, six miles

Mitchell Township Master Plan

west of the City of Harrisville in Harrisville Township. The West Station Ambulance was completed in 2000 and the East Station Ambulance Barn was completed in 2001.

The Mitchell Township Fire Department maintains a fire station in the community of Curran

Fire Department

Number of volunteers: 14 volunteers
Equipment: 2 pumper/tankers 1000 gallons and 2000 gallons
1 mini pumper truck
1 pick-up grass rig with 200 gallon skid unit
Facility: 80'x40' building with back room

Medical First Responders

Number of volunteers: 4 licensed and 2 unlicensed volunteers
Equipment: 1996 Ford Ambulance with medical supplies and A.E.D. equipment
Facility: Located in fire hall

The U.S. Forest Service is responsible for fire protection in the Huron National Forest and the Department of Natural Resources (DNR) is responsible for fire protection on State forested land. Both the Forest Service and DNR work closely with Mitchell Township Fire Department whenever the danger of woodland and urban fires is elevated. Additionally, all fire departments in Alcona County have mutual aid with each other. The County has an "all encompassing:" mutual aid agreement with the adjoining counties of Iosco, Alpena, and Oscoda that provides for assistance outside the realm of normal emergency services.

Medical Facilities

There are no medical facilities located in Mitchell Township. Clinics, doctor and dentist offices are located in other communities such as Oscoda, Fairview, Tawas, Harrisville, Lincoln and Alpena. The Alcona Health Center is located in Lincoln and the VA Health Center is located in Oscoda. For health care services not available at these facilities, residents travel to Alpena General Hospital in Alpena, Grayling Mercy Hospital in Grayling, Tolfree Memorial Hospital in West Branch, Tawas St. Joseph Hospital in Tawas City and Munson Medical Center in Traverse City.

District Health Department #2 is often able to fill health care needs of the community, which are not available or affordable elsewhere. The Health Department service area includes Alcona, Iosco, Ogemaw and Oscoda Counties. Programs offered by the Health Department fall under three categories: home health care services, environmental health services and personal health services. Health Department offices are located in Harrisville.

Northeast Michigan Community Mental Health provides support services to developmentally disabled persons as well as persons needing mental health services. The Northeast Michigan Community Mental Health service area covers Alcona, Alpena, Montmorency and Presque Isle Counties.

Roads

The Michigan Center for Geographic Information maintains the Framework data set that

contains up-to-date road information for each county. According to the Framework there are 19.6 miles of state trunkline (M-65 and M-72), 24.3 miles of county primary roads and 48.1 miles of county secondary roads. There are an additional 268 miles of unclassified roads in the Township. County primary roads include W. McCollum Road, McCollum Lake Road, F-32, F-401, N. Aspen Alley Road, S. Au Sable Road, S. Brodie Road, and W. Hubbard Lake Trail, see **Figure 3.1**. Alcona County Road Commission is the agency responsible for maintenance, snow removal and improvements. Mitchell Township contributes to the cost of local road maintenance as funds are available.

Public Transit

There is no countywide dial-a-ride bus service available in Alcona County. However, Thunder Bay Transportation, based in Alpena, provides limited specialized transportation services in the County. The Thunder Bay Regional Ride, in cooperation with medical care facilities in the region, provides inter-county transportation for medical and other needs. Limited statewide passenger service is available from Indian Trails Bus Lines. The County is supporting a multi-county transportation authority. The system functions under Thunder Bay Transportation and is designed to provide a higher level of public transportation than currently available in the County.

Air Service

Alcona County's only public airport is located in the City of Harrisville, handling small aircraft. Regional air service is available at Alpena County Regional Airport (Phelps Collins) which is a U.S. Customs Port of Entry. Passenger air service connecting to Detroit and Sault Ste. Marie is offered by Mesaba Airlines as part of the Northwest Airlink service. Regional airports are located in Traverse City, Midland, Grand Rapids and Flint. Aviation North operates charter services from the airport. Air-freight service is provided by United Express, United Parcel Service and Federal Express. The Michigan Air National Guard maintains a Combat Readiness Training Center at the airport in Alpena.

Recreation

The lakes, streams and woodlands provide a remarkable source for recreation activities, such as fishing, boating, camping, hunting and hiking, just to list a few. These activities are important economic factors for the region. A Countywide recreation plan was developed by the County and approved by the MDNR in 2005. The plan provides a means by which the county and local governments may apply for recreation funding for projects listed in the plan. An inventory of publicly owned recreation sites for Mitchell Township is shown below.

Public Owned Recreation Facilities

Mitchell Township Park: Township owned 65 acre park with frontage on Crooked Lake. Facilities include: swimming, picnic, unimproved boat launch and seasonal bathrooms.

Hoist Lake Area: The recreation area is owned by the U.S. Forest Service and covers 10,000 acres. Facilities include: seven small lakes, with camping and fishing sites, and 20 miles of hiking and x-country ski trails.

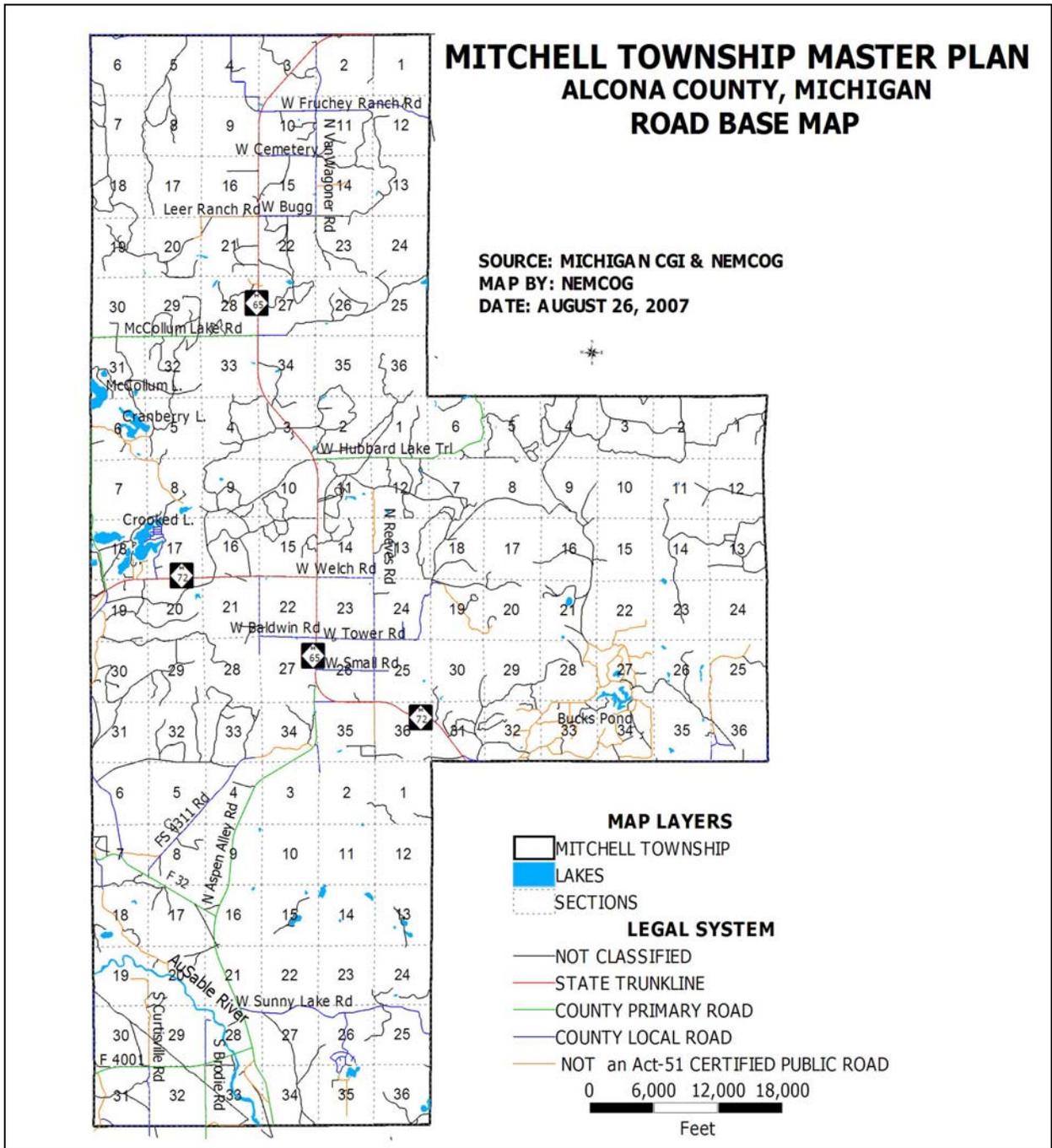
Mitchell Township Master Plan

O'Brien Lake: Designated trout lake with barrier free fishing access. Facilities include: 640 foot wooden walkway, 50 foot T-shaped fishing pier, barriers-free toilet and a parking lot.

State Forest Campground at McCollum Lake is located in Oscoda County, however a large part of the lake is located in Mitchell Township: Facilities include: 30 campsites, boat launch and fishing areas.

Au Sable River: River access at bridge on F.R. 4001. Facilities include: primitive boat launch, canoe launch, restrooms, and parking areas.

Mitchell Township Master Plan



Chapter 4 – Natural Resources

Overview

The predominate land cover in Mitchell Township is upland forest, with aspen and pine forests being most common. Farming is limited in Mitchell Township. As in other parts of the State, there is a downward trend in the number of active farms. The Au Sable River is the water resource center piece of the Township. Numerous smaller streams, creeks, and lakes provide an abundant source of high quality surface water features.

The greatest attraction for the residents and visitors of northern Michigan is the area's environment and the rural nature of this portion of the State. Recreational activities such as hunting, fishing, golfing, snowmobiling, boating and a multitude of other outdoor activities attract people from urban areas of Michigan, as well as from other states. Many long-time visitors decide to move to the area upon retirement. Because of the abundant outdoor recreation opportunities, the natural environment is a major economic base and income generator.

At the same time, the environment places constraints on human activities. Certain critical and sensitive parts of the natural landscape cannot be altered without creating problems that are not easily corrected. Increased flooding and soil erosion due to the indiscriminate filling of wetlands and clearing of land are but two examples. Therefore, it is essential that any future development respect the different characteristics of the natural environment. This is important in preserving the attractiveness of this part of the State, preventing potential hazards related to undue alteration of the land, and maximizing the economic benefits of the tourist and recreation industry.

Climate

Typical of northern Michigan, the distinct four seasons offer an ever changing landscape. Long snowy, cold winters, and moderately warm summers are separated by a cool, green spring and a cool colorful fall. Located in the northeastern part of the northern lower peninsula, the eastern boundary of the County is formed by Lake Huron. Given this geographic location, the weather is influenced by the moderating effect of Lake Huron. The climate along the immediate Lake Huron shore is semi-marine in nature and lacks many of the temperature extremes found only a few miles inland.

According to the USDA Soil Survey of Alcona County, the average annual precipitation is 29.46 inches (includes water equivalent of snowfall). Precipitation is heaviest during the summer months with 60 percent of the annual precipitation from April through September. The average annual snowfall is 49.5 inches. Records show a long term average of 93 days when there is at least one inch of snow on the ground. Of course, the number of days varies greatly from year to year. The average daily temperature ranges from 67.9 °F for the month of July to 20.0 °F during January. The average mid-afternoon relative humidity is 61 percent. Since humidity levels are highest at night, the average relative humidity at dawn is 83 percent.

Topography

Mitchell Township's topography is classified as consisting of level and undulating plans and rolling to hilly moraine areas. Elevations in the Township range from 740 feet above sea level at the outflow of the McGinn Creek in the northeastern corner of the township and 840 feet above sea level at the outflow of the Au Sable River (the southern boundary of the Township). The

highest elevation of 1,273 feet above sea level (Glennie Moraine) is located in Section 33 of T.27N.-R. 5E. The feature referred to as Pikes Peak, in Section 8 of T.28N.-R.5E. of the Township (McCollum Lakes Kame Field), has an elevation of 1,248 feet above sea level.

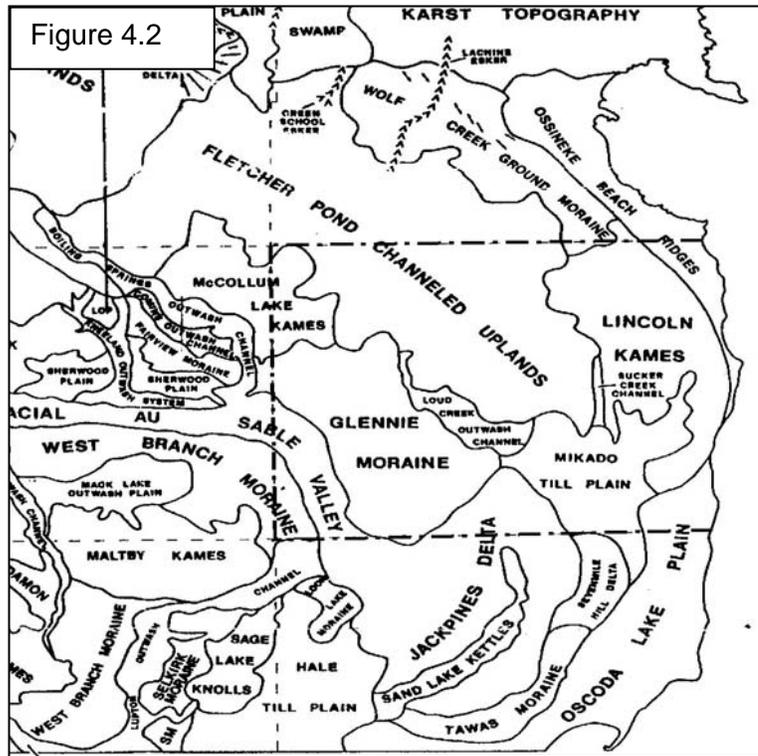
Geology

The rolling hills, river valleys, swamps and lakes were created by the retreating continental glacier some 12,000 years ago. Beneath this thick mantle of the glacial deposits lays a foundation of layered sedimentary bedrock. This section will describe the glacial landforms or quaternary geology and the underlying bedrock geology.

Surface Geology

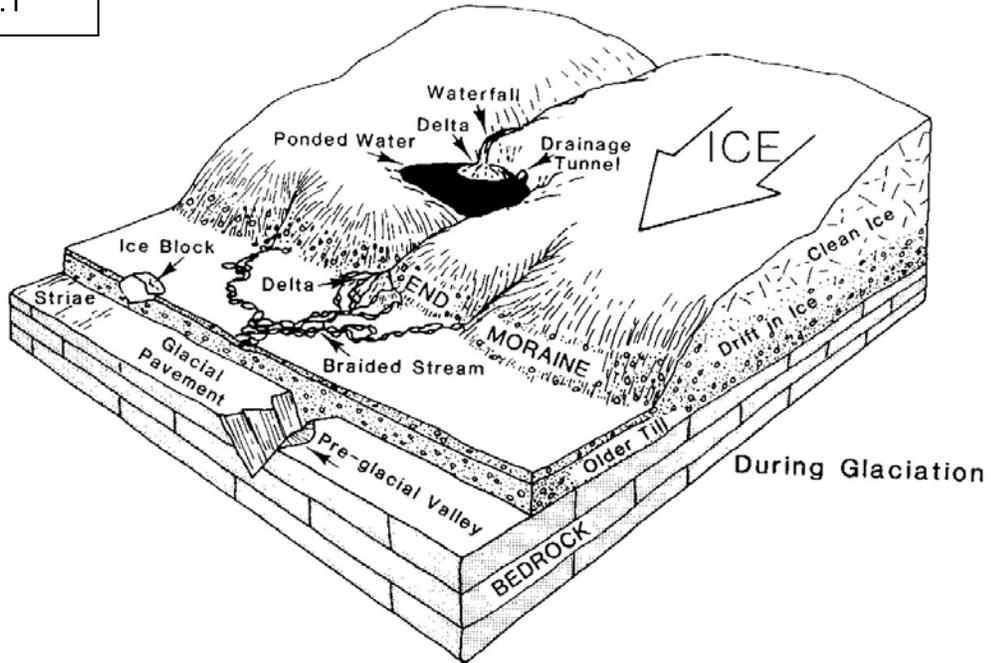
Starting some 2 million years ago, during the Pleistocene era, continental glaciers formed in the Hudson Bay area. Several times, over this two million year period, the massive sheets of ice built up and inched their way south across what is today Michigan. The massive ice sheets, more than one mile thick, advanced in a southerly direction, bulldozing their way across the landscape. The glacier pushed material in front of it, incorporated rocks and soil into the debris laden ice; and scraped, ground and broke apart the sedimentary bedrock of the Michigan Basin.

Each advance and retreat of the continental glaciers took tens of thousands of years. This reoccurring process shaped and reshaped the land; obliterating and then creating hills, valleys, rivers and lakes, swamps and marshes. The last glacial period, called the Wisconsin era, created the landscape we know today. The glacier left behind boulders, rocks, cobble, sand, gravel, silt, clay and loam. In some areas the material was deposited in unsorted masses called till plains, ground moraines and end moraines. Water flowing from the melting glaciers also sorted materials, creating outwash channels, sand deltas, kames and eskers. Fine materials, captured in the fast moving glacial meltwater, settled to the bottom of expansive glacial lakes creating lacustrine clay and silt plains. **Figure 4.1** on the following page shows how glacial landforms were created.

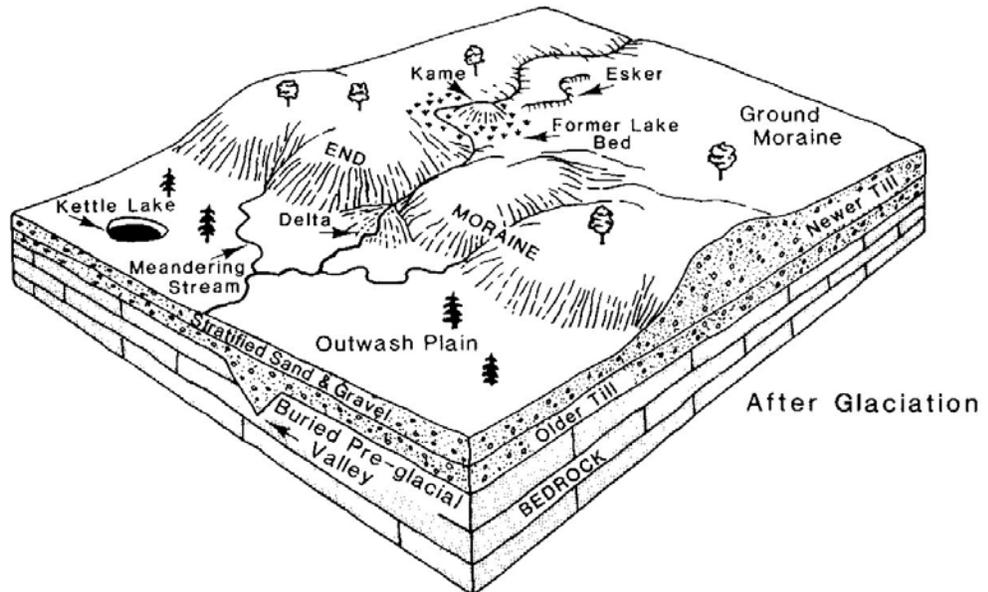


According to a map prepared by W. A. Burgess and D. F. Eschman (**Figure 4.2**), titled "Landform Units in Northeastern Lower Michigan," Mitchell Township is dominated by glacial moraines, kame fields, channeled uplands and a glacial river valley.

Figure 4.1



Features originating at a glacier front occur in a definite order.

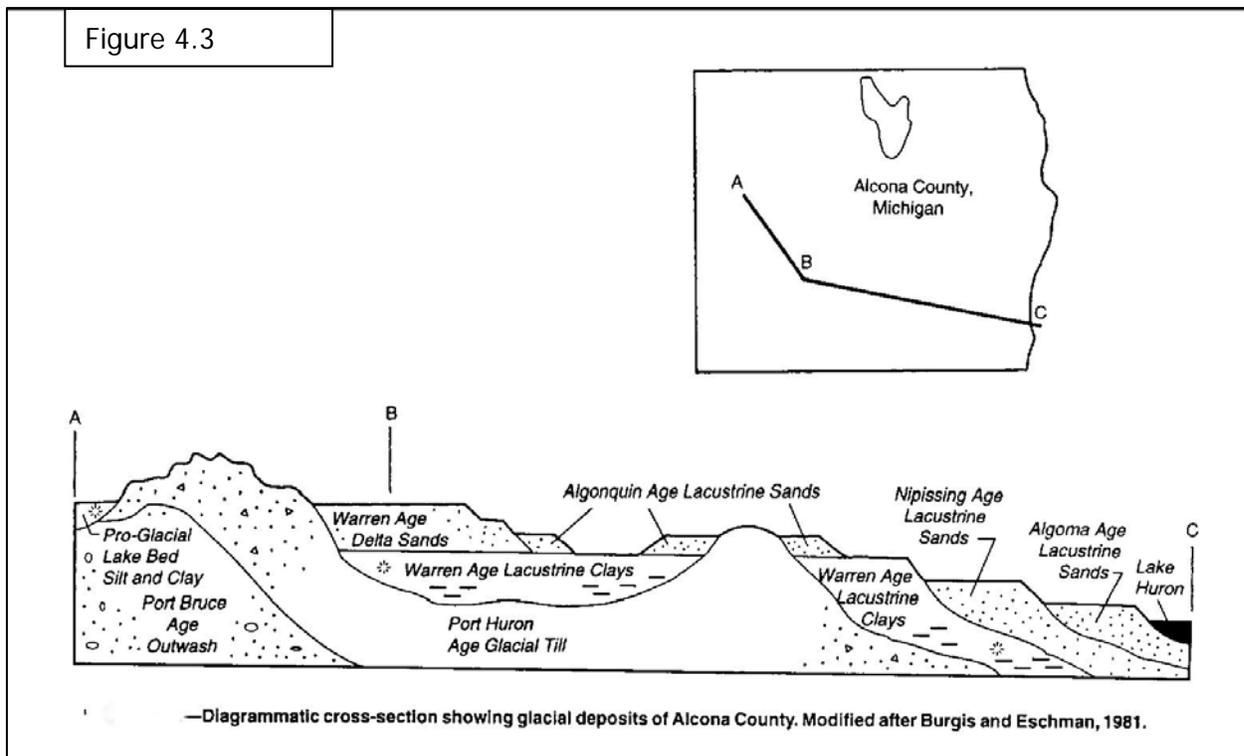


Landforms of continental glaciation are unmistakable.

At the front of the massive retreating glaciers, large streams originated from the melting ice. The debris laden water carved through moraines and outwash plains creating wide drainageways and outwash channels. The AuSable River follows one of those large glacial river valleys. The wide glacial Au Sable River valley clearly shows the ancestor of the present day pleasant Au Sable River was a large raging torrent that carved a wide valley through the deep glacial deposits. This wide valley, filled with glacial outwash sand and gravel created perfect conditions for jack pine forests that still dominate the landscape today.

As the continental glaciers melted, water flowed across the landscape creating landforms and pooling into the expansive postglacial lakes. These emerging lake basins were the beginnings of our Great Lakes. During different periods, the postglacial Great Lakes were both much higher and lower than the lake levels we have grown accustomed to in recent times. Geologists have identified and named the different post glacial great lake stages.

Figure 4.3 shows the different stages of the glacial great lakes Warren, Algonquin, Nipissing and Algoma. Landforms and soils in eastern Alcona County were heavily influenced by these different lake stages. Glacial Great Lake Warren formed at the front of the melting Huron glacial lobe around 12,000 years before present and was the most extensive, flooding much of the land area of Alcona, Haynes, Harrisville, Greenbush, and Mikado Townships.



The ancient shoreline of Lake Warren was 850 feet above sea level as compared to 577 feet above sea level of Lake Huron. In other words, the lake level of Lake Warren was 273 higher than Lake Huron! As can be seen in **Figure 4.3**, Most of the Township is at elevations greater than 850 feet above sea level and were not inundated by postglacial Lake Warren.

The Glennie Moraine dominates the southern parts of the Township. During some periods, the continental glacier's retreat stagnated, that is to say, the ice at the face of the glacier melted as fast as it advanced southward from the polar ice cap. The debris laden, glacial ice then

deposited large amounts of materials in one locale. Acting like a large conveyer belt, the materials piled up at the front of the glacier forming moraines or glacial hills. There were periods when the retreating continental glaciers re-advanced southward, and like a huge bulldozer, it pushed the previously deposited materials into larger hills. These are called push moraines. The topography is rolling to steeply sloping. Aspen-birch, northern hardwoods, pine and oak forests are common in these areas. **Figure 4.4** is a quaternary/glacial geology map of Mitchell Township.

An ice contact outwash sand and gravel can be found in the northwestern part of the Township. A grouping of large knolls called kames interspersed with ice-block depressions or kettle holes are located in the vicinity of McCollum Lake. A kame is a mound or knob composed of stratified sand and gravel deposited by a subglacial stream as a fan or delta at the margin of a melting glacier; by a subglacial stream in a low place or hole on the surface of the glacier; or as a ponded deposit on the surface or at the margin of stagnant ice. A kettle is a depression in glacial drift, especially in common in outwash and kame fields, formed by the melting of a detached block of stagnant ice that was buried in the drift. Kettles often contain a lake or swamp. The lakes in Mitchell Township were formed in this manner. Outwash consists of sand and gravel deposited by meltwater streams in front of the end moraine or the margins of an active glacier.

Bedrock Geology

Beneath the glacial deposits, hundreds of feet below the surface, is sedimentary bedrock that was created during the Late Mississippian ages of the Paleozoic Era. The bedrock was formed in ancient seas which covered the area some 310- 345 million years ago. The shallow marine seas deposited layers of silt, clay, sediments, marine animals, plants, coral, and other calcareous materials. These deposits formed sandstone, shale, limestone, and dolomite bedrock. The uppermost bedrock in Mitchell Township consists of materials from the upper and lower Mississippian series of the Paleozoic era. Various strata contain minerals of varied importance. Coldwater Shale and Antrim Shale bedrock formations subcrop most of the Township, see **Figure 4.5**. Marshall Sandstone, one of the most important bedrock aquifers in the state, subcrops the southwestern corner of the Township. Antrim shale contains rich deposits of natural gas. In recent years, intensive exploration has resulted in numerous producing wells throughout the region. Other bedrock formations beneath the glacial overburden include Sunbury shale, Berea sandstone and Bedford shale.

Soils

When planning for types and intensity of land uses, soil types and slopes are two important factors that determine the carrying capacity of land. The construction of roads, buildings and septic systems on steeply sloped areas or areas with organic and hydric soils require special design considerations. In addition, costs for developing these sensitive areas are greater than in less constrained parts of the landscape. If developed improperly, the impacts to natural resources can be far reaching.

Hydric Soils and Steeply Sloped Areas

The Natural Resource Conservation Service completed a detailed soil survey of Alcona County. A digital or computerized version of the soil survey maps was acquired from the Michigan Department of Natural Resources, MIRIS program. **Figure 4.6** is a color thematic map that classifies hydric soils and soils on steep slopes. Lower density and less intensive development should be directed to these areas with severe building constraints. Hydric soils are saturated,

flooded or ponded during part of the growing season and are classified as poorly drained and very poorly drained. Hydric soils have poor potential for building site development and sanitary facilities. Wetness and frequent ponding are severe problems that are difficult and costly to overcome. Sites with high water tables may be classified as wetlands and a wetlands permit would be required to develop these areas. The hydric soils (colored green on the map) are mainly located adjacent to streams and creeks. This connectivity of riparian wetlands and surface water features can be seen throughout the landscape. Areas colored yellow are soils with small areas of hydric inclusions (areas too small to be delineated from the primary soils type).

Hills and steeply rolling terrain may provide opportunities for spectacular views of the landscape. However, steeply sloped sites have severe building constraints, are more difficult and costly to develop. Maintenance costs tend to be higher on steeply sloped terrain. Special design standards such as erosion control measures, limiting size of disturbed areas, retaining natural vegetation, re-vegetation, slope stabilization and on-site retention of water run-off from impervious surfaces would all serve to minimize resource impacts. According to information presented in the Alcona County Soil Survey, areas with slopes 18 percent and greater are concentrated in the eastern and northern portions of the Township.

Septic Systems

Using a computer mapping system, soils maps have been color coded to show areas with severe septic system limitations as defined by the USDA Natural Resource Conservation Service. Criteria include depth to water table, slopes, wetness, filtering capacity and ability to perc water. **Figure 4.7** is a septic system limitations map. A portion of the Township contains sandy soils with severe limitations due to poor filtration of septic effluents. This is a critical issue when the water table is close to the surface or when high-density development occurs. Limiting types and density of development or making public water and sewer available for high-density development are likely the best options for protecting the groundwater resources in these areas. Other severe limiting factors include slopes greater than 18 percent and wet soils. The Health Department is responsible for regulating the installation of septic systems. Properly engineered systems can overcome limitations related to soil constraints, however, systems designed to handle severe soils constraints are both costly to construct and difficult to maintain.

Forests

Nearly 84 percent of the Township is forested. The Michigan Resource Information System's (MIRIS) 1980 land use inventory compiled land cover maps. These maps were updated for the existing land use section of this plan. **Figure 4.8** is a map that depicts forest types in the Township. Note, the forest types were not field checked to verify types and stand density. Tree species vary depending upon the soils, moisture and past activities such as logging, fires and land clearing. Aspen-birch, red oak-white oak and jack-red-white pine are the most common forest types. Bigtooth aspen, quaking aspen, white birch, red maple and red oak are the primary tree species found in the aspen-birch type. The aspen-birch forest type cover the largest are of the Township accounting for over 32,000 acres or 42 percent of the forest cover. Northern hardwoods include species such as sugar maple, red maple, American beech, basswood and yellow birch. Northern hardwoods cover approximately six percent of the forested areas within the Township.

Red oak, white oak, northern pin oak, white pine and aspen are the primary species growing in the oak forests. According to the MIRIS Land Cover/Use Inventory, jack pine and red pine forest

types cover 15,713 acres or approximately 20.5 percent of the forestland. Oak and white pine forests account for another 20 percent. Draughty, low fertility sandy soils, found in outwash plains and channels, supported pre-settlement pine forests that for thousands of years were perpetuated by wildfires. Today, residential development has occurred within the same wildfire prone areas. There is a concentration of pine forest types in boarding the Au Sable River valley and in the northeastern part of the Township. Forest fires have been identified as the number one natural hazard in the Alcona County Hazard Analysis Plan. Under dry conditions forest fires can occur in any forests type. However some forest types have higher risks. Jack and red pine forests have a high risk for wildfires. Oak and white pine forests have a moderate risk for wildfires.

Poorly drained, lowland areas support northern white cedar, tamarack, balsam fir, black spruce, eastern hemlock, white pine, balsam poplar, trembling aspen, paper birch, black ash, speckled alder and shrub willows. Northern white cedar dominates the wetland areas where there is good lateral water movement and the soils are high in organic content. Lowland forests are typically located adjacent to water features and function as riparian forests and water quality buffers. The network of lowland forests, associated with rivers and creeks, also function as wildlife corridors and are the backbone of large regional ecological corridors. Lowland forests adjacent to rivers and streams are prone to flooding during the spring snowmelt, particularly when combined with heavy spring rains. Approximately 11 percent of the forest is classified as lowland forest types.

Forest Type	Acres	Percent
Northern Hardwoods	4,705	6.2
Central Hardwoods (oak)	15,208	19.9
Aspen-Birch	32,050	41.9
Lowland Hardwoods	2,271	3.0
Pine	15,713	20.5
Other Upland Conifer	84	0.1
Lowland Conifer	6,500	8.5
Source: 2007 Land Use Update of MIRIS		

Pre-settlement Vegetation

The Michigan Department of Natural Resources has compiled pre-settlement vegetation maps of counties in Michigan. The maps were generated from information contained in the first government land survey notes in the 1800's along with information such as current vegetation, land forms and soils. A review of the presettlement vegetation map of Mitchell Township shows extensive areas were covered with jack pine-red pine forest, white pine-red pine forest, pine barrens and pine/oak barrens were prevalent vegetation types prior to the logging around the turn of the century, see **Figure 4.9**. The presence of these forest types over 150 years ago clearly shows a long history of wildfires in the area. In the late 1800's extensive logging and subsequent wildfires resulted in the conversion of white pine-red pine forests to oak and aspen forests. Areas that were once covered with pine forests still have a high propensity for wildfires. In addition, northern hardwoods, beech, sugar maple and hemlock. Logging, land clearing and wildfires have resulted in a conversion of these forests to aspen or open lands.

Wetlands

Poorly drained, lowland areas support northern white cedar, tamarack, balsam fir, black spruce, eastern hemlock, white pine, balsam poplar, trembling aspen, paper birch, black ash, speckled alder and shrub willows. Northern white cedar dominates the wetland areas where there is good lateral water movement and the soils are high in organic content. These lowland forests are typically located adjacent to water features and function as riparian forests and water quality buffers. The network of lowland forests, associated with rivers and creeks, also function as wildlife corridors and are the backbone of large regional ecological corridors. Nonforested wetland types include lowland brush, marshes and bogs. Forested and nonforested wetlands are a finite resource in the Township. Land use planning activities should focus on protecting and preserving these limited and critical resources. **Figure 4.10** is a color thematic map prepared from the US Fish and Wildlife Service National Wetlands Inventory. Green areas depict emergent, scrub-shrub and forested wetlands areas. As can be seen wetlands are a finite resources, that is concentrated along streams and lakes and in confined kettle hole depressions.

Water Resources

The township is divided into the Au Sable River and Thunder Bay River watersheds. Much of the Township drains to the north into the Thunder Bay River system, with the water eventually emptying into Thunder Bay at the City of Alpena. Given the City of Alpena obtains its drinking water from the bay, communities upstream, carry a responsibility for protecting water quality and public health for its neighbors downstream. **Figure 4.11** displays the water resources in the Township. According to the Michigan Center for Geographic Information hydrographic data set, there are 18 named creeks in Mitchell Township: Bear Creek, Beaver Creek, Blockhouse Creek, Bruster Creek, Buff Creek, Cabbage Creek, Clear Creek, Cold Creek, Comstock Creek, Indian Creek, Little Wolf Creek, McGinn Creek, Mohr Creek, Penoyer Creek, Robbs Creek, Silver Creek, Wildcat Creek, and Yoder Creek. The Au Sable River is the prominent water feature of the Township. Named lakes include Bucks Pond, Byron Lake, Carp Lake, Cranberry Lake, Crooked Lake, Hoist Lakes, Horseshoe Lake, Lake in the Green, McCollum Lake, McFee Lake, Meyer Lake, O'Brien Lake, Penoyer Lake, Sand Lake, and Sunny Lake.

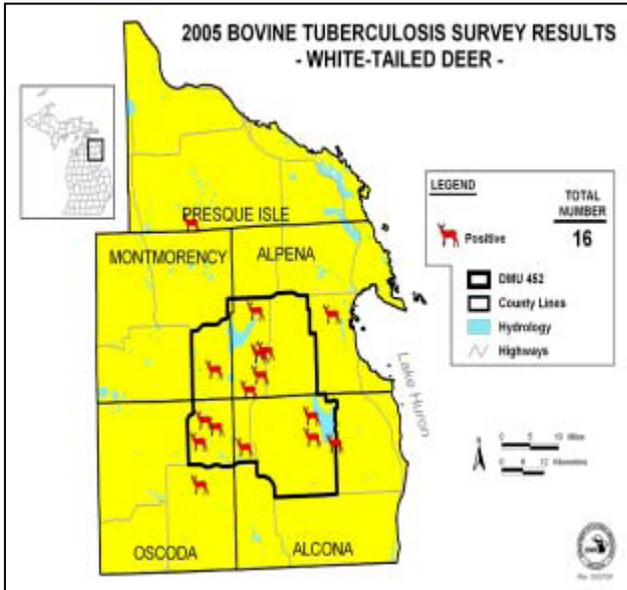
Lakes and river shorelines are continually facing increased pressure from development as more seasonal homes and retirement homes are being built in the community. The recreation industry of the region can be impacted by this development. There are other factors to consider as development occurs near shorelines, such as nutrient delivery rates into lakes & streams, accidental spills of contaminants, erosion control, and even scenic view quality.

Groundwater supplies in the Township are very productive in the predominant gravels and sands of the glacial drift. The groundwater aquifers are recharged by precipitation which is readily absorbed by the permeable soils. Individual wells near the lakes and streams are usually quite shallow due to the high water table.

Fish and Wildlife

Alcona County has been known as a good deer range for many years. The large deer herd built up following the wildfires of the 1890's to 1920's, with the herd peaking in the late 1940's to early 1950's. Large areas of public hunting ground and the tremendous deer herd combine to attract a large number of hunters to the County.

Alcona County, along with four other neighboring counties (Alpena, Montmorency, Oscoda, and Presque Isle), is within the area that has been hit by an outbreak of Bovine Tuberculosis (T.B.) in the local deer herd and in other wild animals. The Michigan Department of Natural Resources (DNR) has created a special separate deer management unit to oversee the situation, called DMU452. This allows the DNR to enforce special regulations covering deer hunting and feeding within these counties. Much of Mitchell Township falls within this special DMU. Although the incident of Bovine T.B. found in the deer herd of this area has been very low (estimated at under one percent of the population), the DNR and other agencies are trying to manage the situation, prevent it from becoming more wide spread and in the long run to totally eradicate T.B. from the wildlife community. In order to do this, the DNR has been instituting new regulations which will reduce the amount of nose to nose contact (which is how the disease is spread) within the deer herd, through regulations on deer feeding. In an effort to bring down the numbers of deer, they have increased the length of the deer hunting season and are encouraging the hunting of antlerless deer. The long term effect that the Bovine T.B. situation will have on hunting within the area is not known.



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In addition to deer hunting, small game hunting is very popular with the local

residents, as well as with tourists. Grouse, woodcock, rabbit, waterfowl and squirrel attract these hunters due to excellent hunting conditions. Riparian forests adjacent to streams and lakes provide critical habitat for many species of wildlife and reptiles. The land and water interface is a long narrow, sometimes meandering, edge habitat. In Mitchell Township as well as throughout Michigan, natural undeveloped lakeshore habitat is one of the most endangered habitats. There is a continuing trend for lake lot owners to clear brush, aquatic weeds, dead trees and live trees that interfere with a wide-open view of the water. The native vegetation is replaced with well-manicured and chemically treated lawns down to the waters edge. This practice not only degrades critical wildlife habitat but also impacts water quality by diminishing the riparian zone's capacity to filter nutrients and its ability to stabilize shoreline erosion.

Birds that use floodplain habitat for feeding and nesting include the red shouldered hawk, barred owl, kingfisher, northern oriole, red-headed woodpecker, pileated woodpecker, woodcock, wood duck and great blue heron. Deer, raccoon, northern flying squirrel, water vole, mink and river otter also frequent these areas. Numerous species of amphibians and reptiles, such as turtles, frogs, snakes, salamanders and newts can all be found in river/flood plain areas.

The rivers and lakes in particular support much of the tourist industry in the County. Canoeing is a popular sport. Fishing for trout is very popular on most streams, with several lakes also having trout populations. The warmer lakes normally have bluegill, bass, perch and pike. Tiger musky have also been stocked in several lakes.

Threatened & Endangered Species

Alcona County is home to a number of plants and animals that are threatened, endangered or are of special concern as identified in Michigan Natural Features Inventory (MNFI) database. Michigan Natural Features Inventory (MNFI) is a program of Michigan State University Extension that works in close cooperation with the Michigan Department of Natural Resources and The Nature Conservancy. The following list presents the endangered or threatened plant and animal species which can be found in Alcona County, and which are protected under the Natural Resources and Environmental Protection Act of the State of Michigan (Part 365 of Public Act 451 of 1994, as amended). This list also includes plant and animal species of special concern. While not afforded legal protection under the act, many of these species are of concern because of declining or relict populations in the State. Should these species continue to decline, they would be recommended for threatened or endangered status. Protection of special concern species before they reach dangerously low population levels would prevent the need to list them in the future by maintaining adequate numbers of self-sustaining populations.

The most widely known of the endangered species is the Kirtland's Warbler. The warblers utilize only young jack pine stands for nesting. In a natural unmanaged setting, jack pine forests are perpetuated by forest fires. During prehistoric times, wildfires would periodically sweep across the landscape, burning native pine forests and creating favorable seed beds for species like jack pine. In fact, jack pines need fire to open the cones and release seeds. According to the Natural Features Inventory, "The Kirtland's warblers' breeding range currently encompasses ten counties in Michigan's northern Lower Peninsula and four counties in the Upper Peninsula. They primarily overwinter in the 600 mile Bahama Archipelago, although, individuals also have been observed on surrounding island chains (Evers 1994).

The bulk of the breeding population, 93% of the singing males in 2001, resides in the Northern Lower Peninsula counties of Crawford, Ogemaw, Oscoda, Roscommon, and Alcona. During the breeding season, the Kirtland warbler is dependent upon large, relatively homogeneous stands of jack pine (*Pinus banksiana*) with scattered small openings. Warblers will start using a jack pine stand when the height of the tree reaches 5 to 7 feet, or at an average tree age of 5-8 years old. Nests are built on the ground, concealed in the low cover of grasses, blueberries, sweet fern, bracken fern, blackberry, trailing arbutus, and/or wintergreen. Once jack pines reach a height greater than 18 feet (approximately 20 years old), the lower branches begin to die and the ground cover changes in composition, thereby leading to unfavorable nesting conditions. (Evers 1994). Jack pines need fire to open the cones and release seeds. All managed jack pine stands are harvested and planted or seeded mechanically to create warbler nesting habitat. Occasionally, harvested sites may be burned prior to planting or seeding."

Mitchell Township Master Plan

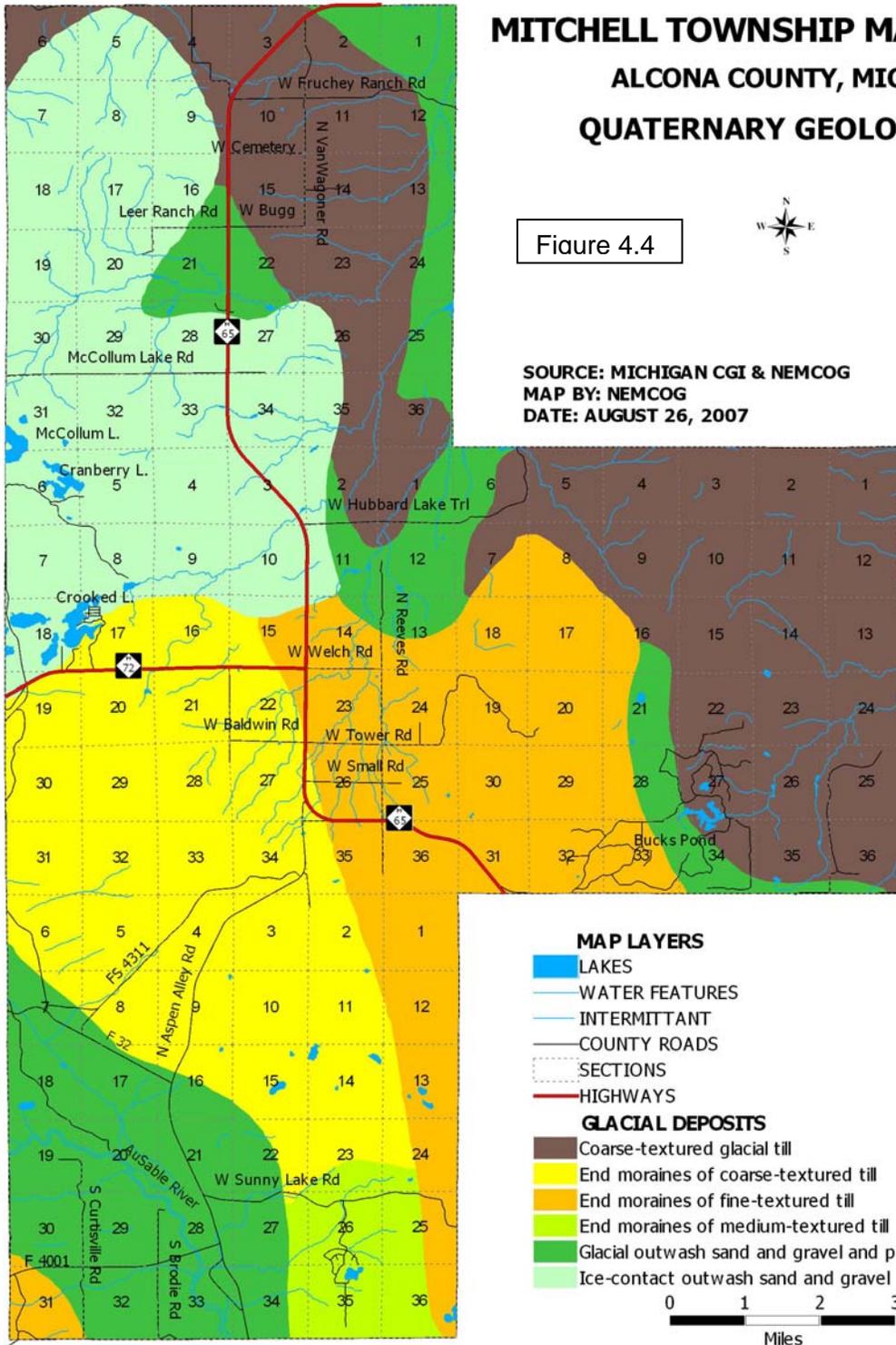
Alcona County Element List Current as of 6/4/2003			
Scientific Name	Common Name	Federal Status	State Status
Accipiter cooperii	Cooper's Hawk		SC
Accipiter gentilis	Northern Goshawk		SC
Buteo lineatus	Red-shouldered Hawk		T
Calypso bulbosa	Calypso or Fairy-slipper		T
Carex albolutescens	Greenish-white Sedge		T
Carex frankii	Frank's Sedge		SC
Carex nigra	Black Sedge		E
Cirsium hillii	Hill's Thistle		SC
Cirsium pitcheri	Pitcher's Thistle	LT	T
Cypripedium arietinum	Ram's Head Lady's-slipper		SC
Dalibarda repens	False-violet		T
Dendroica discolor	Prairie Warbler		E
Dendroica kirtlandii	Kirtland's Warbler	LE	E
Dry northern forest	Dry Woodland, Upper Midwest Type		
Dry-mesic northern forest			
Emys blandingii	Blanding's Turtle		SC
Festuca scabrella	Rough Fescue		T
Gavia immer	Common Loon		T
Glyptemys insculpta	Wood Turtle		SC
Great blue heron rookery	Great Blue Heron Rookery		
Haliaeetus leucocephalus	Bald Eagle	PS:LT,PDL	T
Hardwood-conifer swamp			
Panax quinquefolius	Ginseng		T
Percina copelandi	Channel Darter		E
Planogyra asteriscus	Eastern Flat-whorl		SC
Poor conifer swamp			
Poor fen	Poor Shrub/herb Fen, Upper Midwest Type		
Prunus alleghaniensis var. davisii	Alleghany or Sloe Plum		SC
Pterospora andromedea	Pine-drops		T
Rich conifer swamp			
Sistrurus catenatus catenatus	Eastern Massasauga	C	SC
Sterna caspia	Caspian Tern		T
Trimerotropis huroniana	Lake Huron Locust		T
Wooded dune and swale complex			
Source: Michigan Natural Feature Inventory, MSU Extension. *LE = Listed endangered, LT = Listed threatened, PDL = Proposed delist, PS = Partial status (federally listed in only part of its range), C = Species being considered for federal status. ** E = Endangered, T = Threatened, SC = Special concern.			

MITCHELL TOWNSHIP MASTER PLAN
ALCONA COUNTY, MICHIGAN
QUATERNARY GEOLOGY MAP

Figure 4.4



SOURCE: MICHIGAN CGI & NEMCOG
MAP BY: NEMCOG
DATE: AUGUST 26, 2007

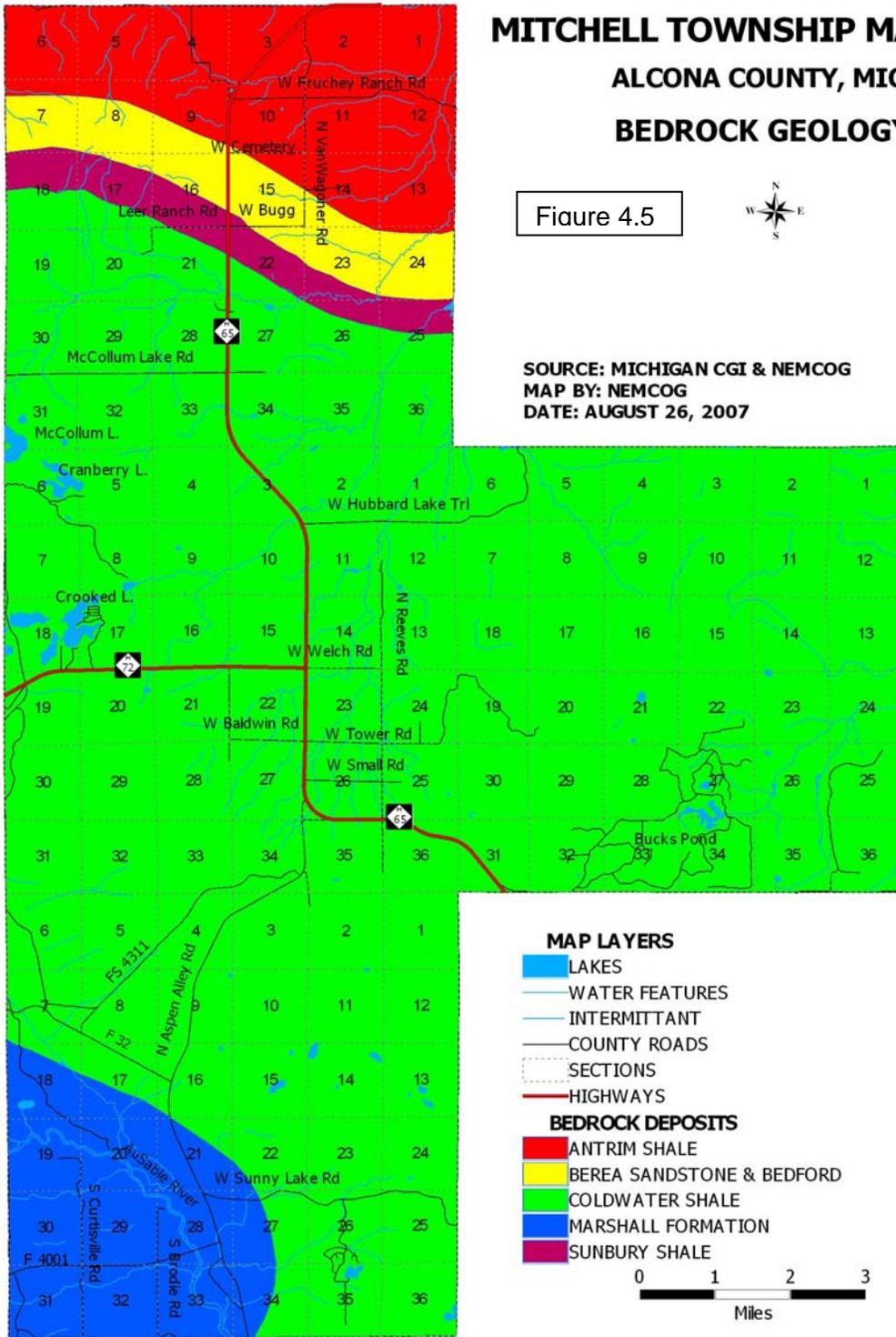


MITCHELL TOWNSHIP MASTER PLAN
ALCONA COUNTY, MICHIGAN
BEDROCK GEOLOGY MAP

Figure 4.5



SOURCE: MICHIGAN CGI & NEMCOG
MAP BY: NEMCOG
DATE: AUGUST 26, 2007

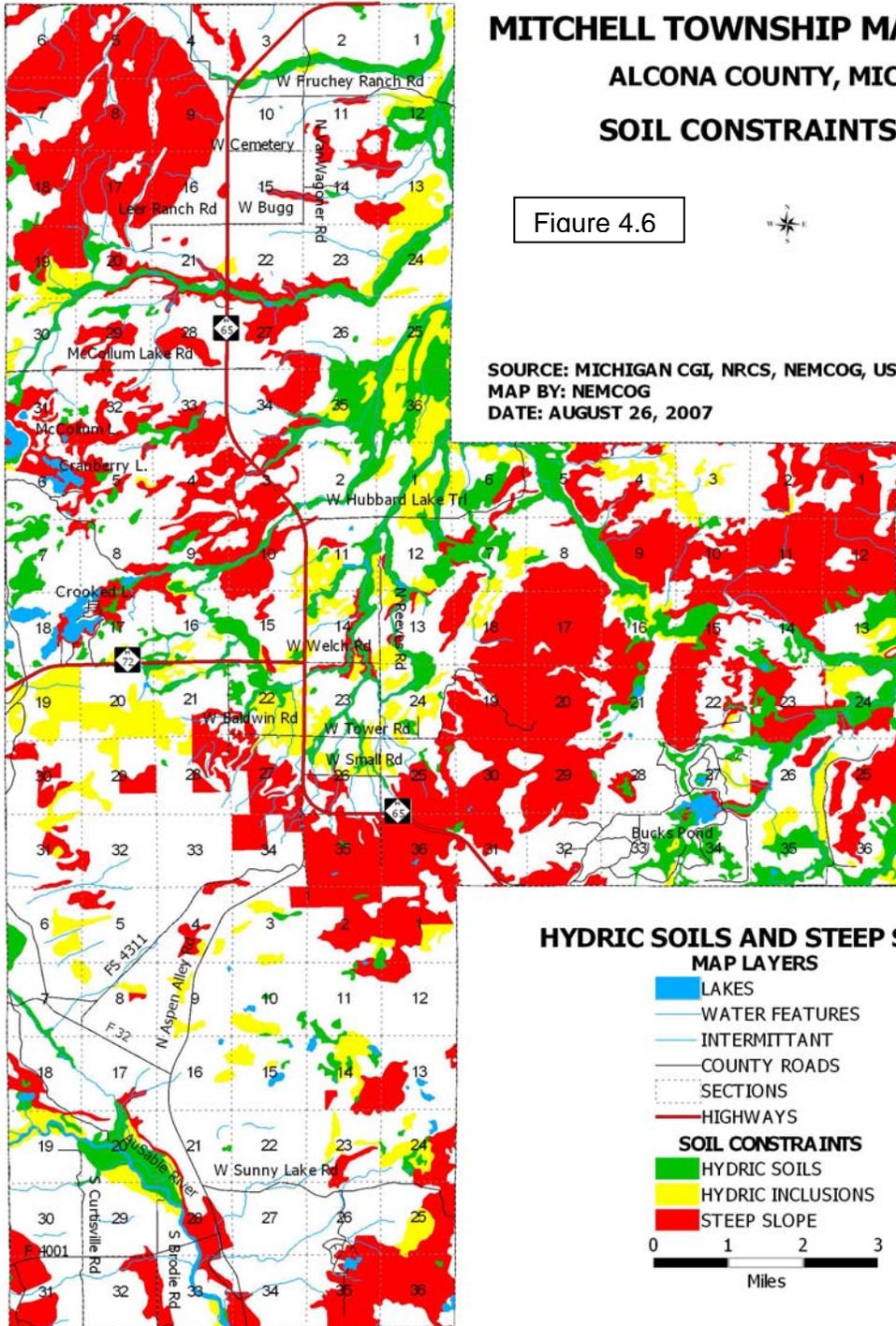


**MITCHELL TOWNSHIP MASTER PLAN
ALCONA COUNTY, MICHIGAN
SOIL CONSTRAINTS MAP**

Figure 4.6



SOURCE: MICHIGAN CGI, NRCS, NEMCOG, USFWS
MAP BY: NEMCOG
DATE: AUGUST 26, 2007

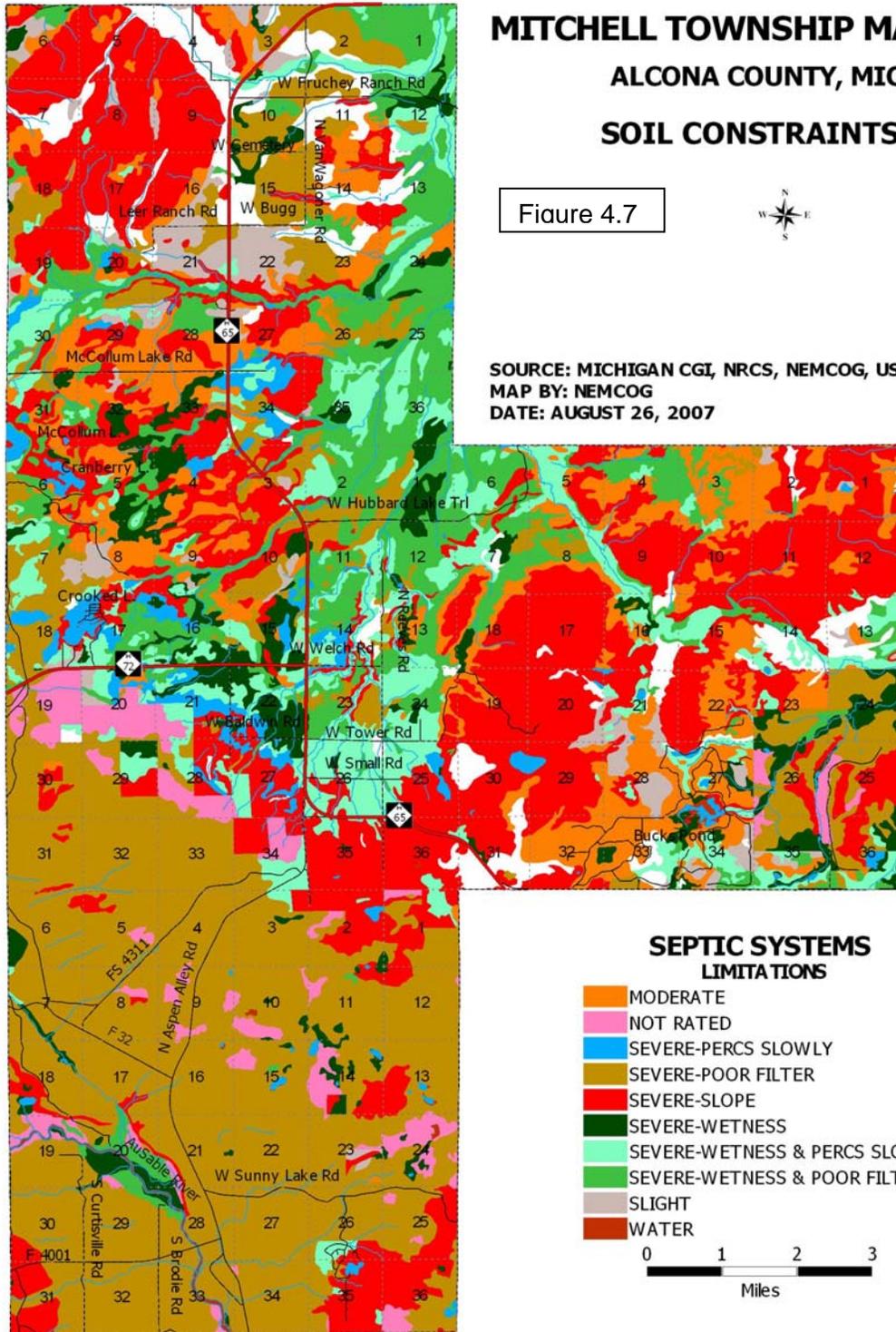


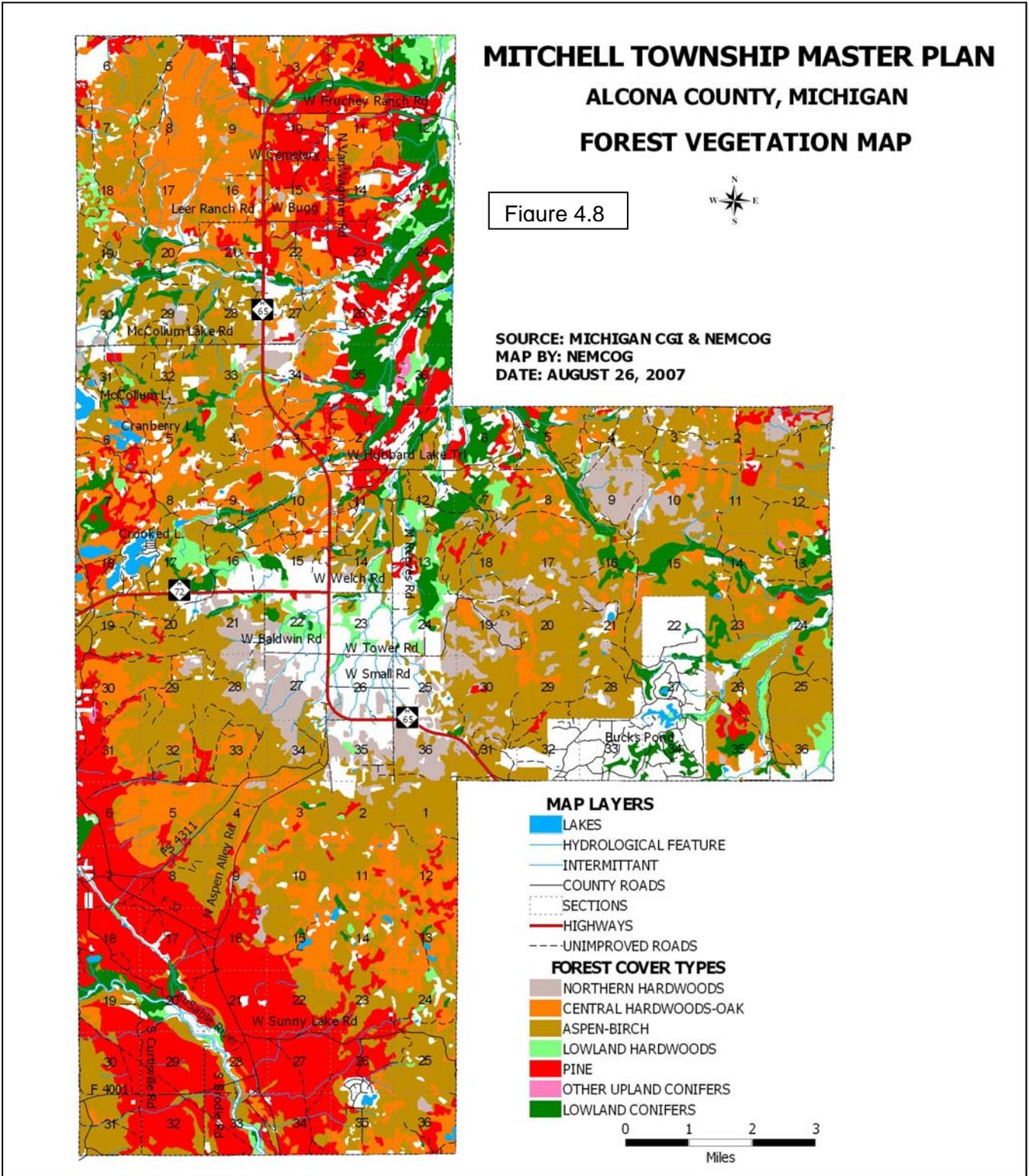
**MITCHELL TOWNSHIP MASTER PLAN
ALCONA COUNTY, MICHIGAN
SOIL CONSTRAINTS MAP**

Figure 4.7



SOURCE: MICHIGAN CGI, NRCS, NEMCOG, USFWS
MAP BY: NEMCOG
DATE: AUGUST 26, 2007



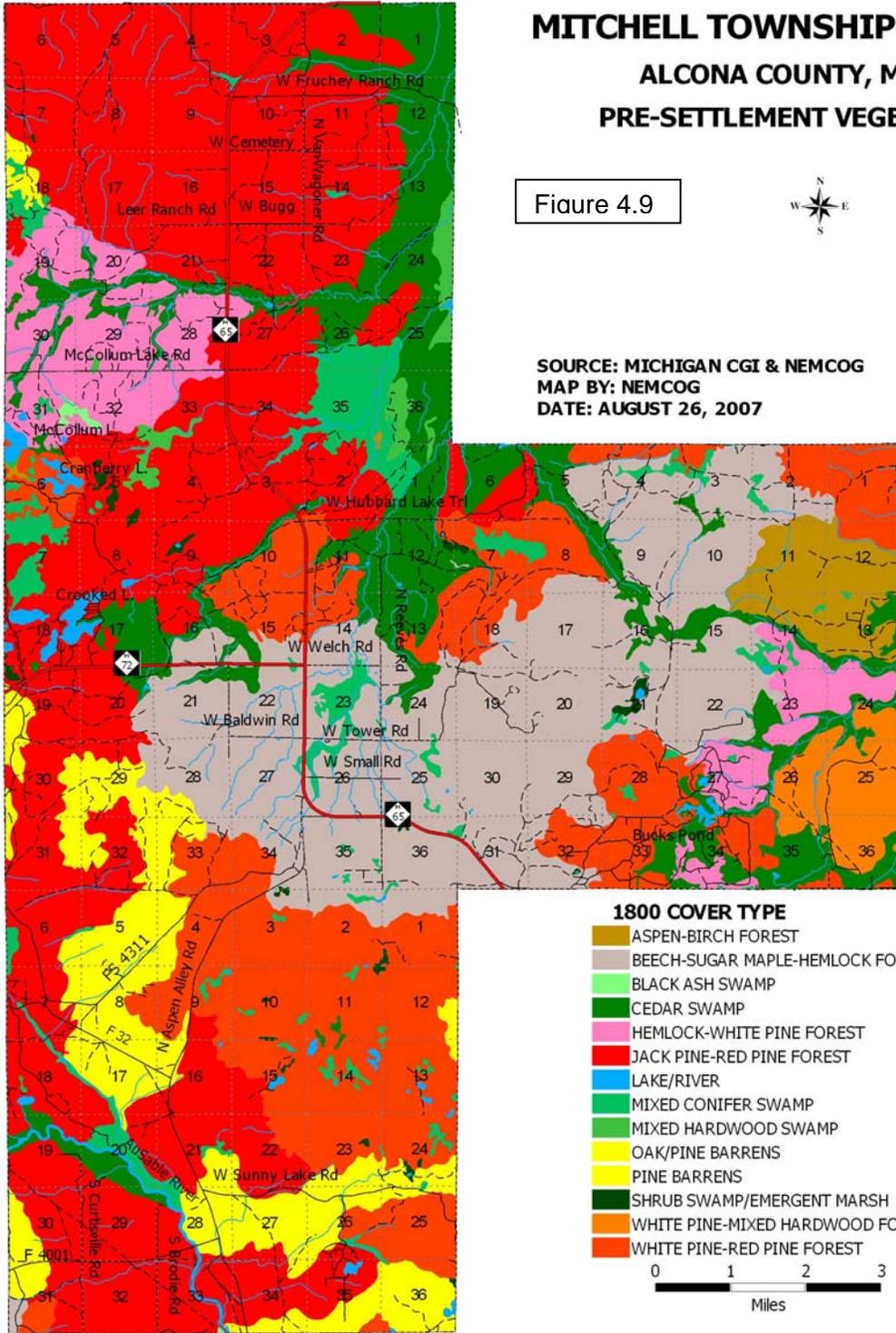


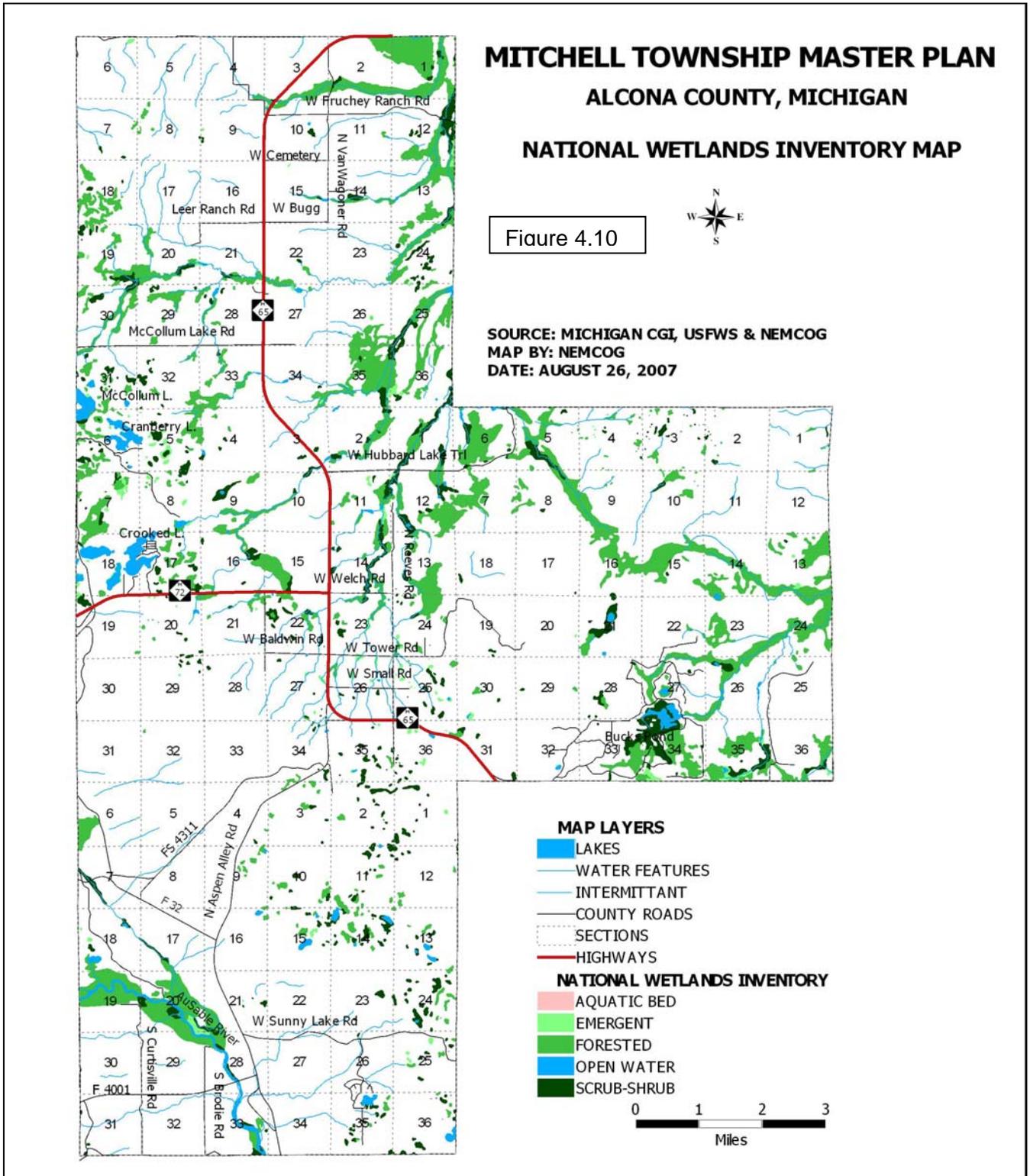
MITCHELL TOWNSHIP MASTER PLAN
ALCONA COUNTY, MICHIGAN
PRE-SETTLEMENT VEGETATION MAP

Figure 4.9



SOURCE: MICHIGAN CGI & NEMCOG
MAP BY: NEMCOG
DATE: AUGUST 26, 2007

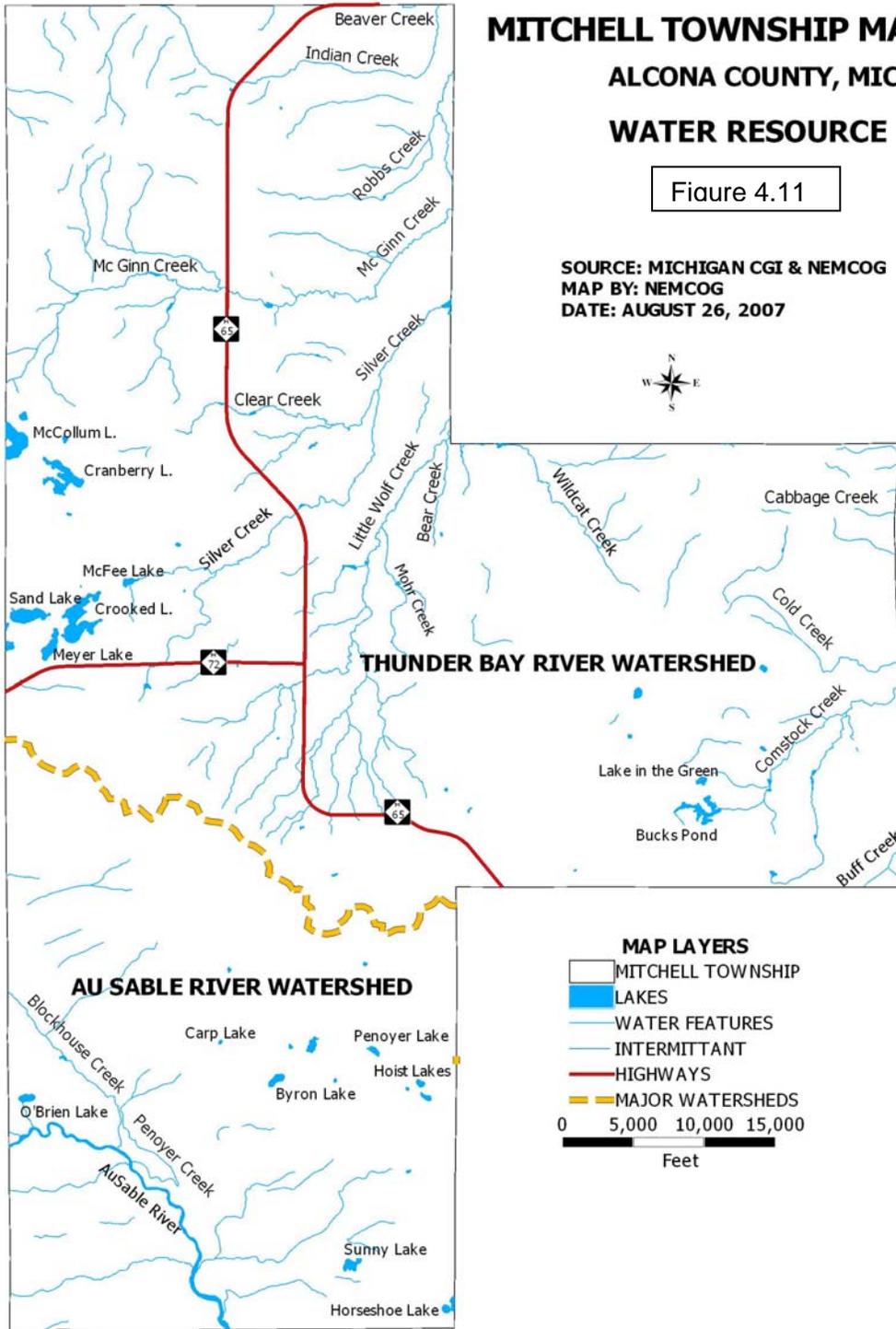




**MITCHELL TOWNSHIP MASTER PLAN
ALCONA COUNTY, MICHIGAN
WATER RESOURCE MAP**

Figure 4.11

SOURCE: MICHIGAN CGI & NEMCOG
MAP BY: NEMCOG
DATE: AUGUST 26, 2007



Chapter 5 – Existing Land Cover/Use

Prior to determining future land uses and developing a future land use map, a community must have an accurate assessment of existing land uses. This chapter presents information on both the types and location of existing land uses. The process identifies both urban built-up land uses such as residential and commercial, along with natural land cover types like forests and wetlands. As a result the final map presented in this chapter is a hybrid that combines land cover and land use.

Land Division Patterns

As development occurs, larger tracts of land are generally broken down into smaller parcels. Therefore, studying the existing pattern of land divisions is one way to analyze the status of land use and development. Land division patterns for Mitchell Township are discussed below. Approximately 29,020 acres of the land area are in public ownership. The US Forest Service is the largest landowner with lands concentrated in the southern half of the Township. Mitchell Township and the State of Michigan account for the other public ownership. Most of the private ownership is in tracts that are 40 acres and larger, see **Figure 5.1**. Large tracts of private ownership, typically hunt/fish clubs, are scattered throughout the Township. Subdivisions and small tracts are clustered around lakes. A large development called Lake in the Greens is located in sections 22, 27, 32, 33, and 34. The development consists of 10-acre metes and bounds land divisions.

Year round population in the 2000 U.S Census was 396 persons, a 36.6 percent increase from 1990. The 2000 Census found 731 housing units with 526 or 72 percent seasonal. These factors support an increasing trend in growth and associated land use issues.

Existing Land Cover/Use Characteristics

NEMCOG mapped existing land cover/use in the Township in 2007. The map of existing land use, shown as **Figure 5.2**, illustrates the distribution of land uses throughout the Township. Michigan Resource Information System (MIRIS) land cover/use classification categories were used to map the existing land cover/use. The map represents an update of the 1978 MIRIS land cover/use map. The MIRIS map was updated with 2004 digital ortho-photos. The updated information was then computerized to produce the existing land cover/use map and statistics. **Table 5.1** presents the land uses, showing the number of acres and percent of the Township in each of the land use categories. Each of the land use categories is discussed later in this chapter. One important land use trend was noted during the MIRIS land cover/use map update. There has been an increase in low-density residential development on both large and small tracts throughout the township. These are typically occurring on parcels two acres and larger.

Residential

As can be seen in **Figure 5.2** - Existing Land Cover/Use Map and **Table 5.1**, residential use ranks fourth in the amount of land under a particular land use. Residential use occupies approximately four percent (3,444 acres) of the land in the Township. Single family residential accounts for all of the residential development in the Township. Residential development is scattered throughout the Township but tends to be concentrated around lakes and along main roads. Approximately 68 percent of the land area mapped as residential is located within Lake in the Greens. While the residences and associated structures occupy only small portions of these ten-acre lots, given these lots will not be further divided, the entire area, minus wetlands, were mapped as residential.

Mitchell Township Master Plan

Commercial

Commercial development is located in the community of Curran and along M-65 and M-72. Lands used for commercial purposes comprise less than 0.1 percent of the Township's area or 38 acres.

Extractive

Land in this use category covers 242 acres of the Township. This category includes barrow pits and gas wells.

Institutional/Recreational

This category includes institutional uses such as parks and community facilities. As noted earlier, some 29,020 acres in Mitchell Township are in public ownership. While these areas were not classified as recreational, the considerable amount of public land does offer residents and visitors ample area for a wide range of outdoor recreational activities.

Table 5.1 Existing Land Use Statistics Mitchell Township		
Land Use Category	Number of Acres	Percent of Township
Residential	3,444	3.8
Commercial	38	Less 0.1
Extractive/Utilities/Transportation	242	0.3
Institutional/Recreational	45	0.1
Agricultural	1,865	2.0
Non-forested Uplands	5,965	6.5
Upland Forests	67,755	74.0
Lowland Forests	8,830	9.7
Non-Forest Wetlands	2,668	2.9
Water	677	0.7
TOTAL	91,529	100
Source: Michigan Resource Inventory System and NEMCOG photo interpretation and map updating.		

Agricultural

The limited agricultural base has diminished in the past several decades. However, generally the land is converting to a less intensive use of open lands and not being converted to

subdivisions and commercial uses. Agricultural land use accounts for two percent or 1,865 areas of land area.

Non-forested Uplands

The non-forested land category is the fourth most prominent land cover type in the Township. This category consists of herbaceous open, shrub land and idle farmland. As shown in **Table 5.1**, 2,668 acres of the Township is in the non-forested category.

Upland Forests

The upland forested lands are the most predominant land cover in the Township and accounts for 74 percent or 67,755 acres of the Township. Of the forested lands, the most prevalent forest type is aspen-birch.

Lowland Forests and Wetlands

Wetlands are defined as land that has sufficient water at, or near, the surface to support wetland or aquatic vegetation. These areas are commonly referred to as swamps, marshes and bogs. The wetland category comprises non-forested types such as lowland brush (tag alder and willow), sphagnum bogs, emergent vegetation in lakes and beaver floodings and wet meadows. Non-forested wetlands account for 2,668 acres of the Township.

Lowland forests grow on soils with a seasonally high water table and are often classified as wetlands. Lowland forests include areas that support lowland hardwoods and conifers, such as northern white cedar, black spruce, balsam fir, elm, black ash, red maple, ash and aspen species. Lowland forests occupy 8,830 acres of the Township area. Two of the most important functions of wetlands are water quality protection and ecological corridors. As can be noted on the Existing Land Use Map, the major wetland areas are adjacent to rivers and creeks. The network of wetlands receives surface water and subsurface water discharge, creating the many streams and creeks that in turn flow into the area lakes. The interconnected resources exemplify how activities distant from major water bodies can still have an impact on the water quality.

Surface Water

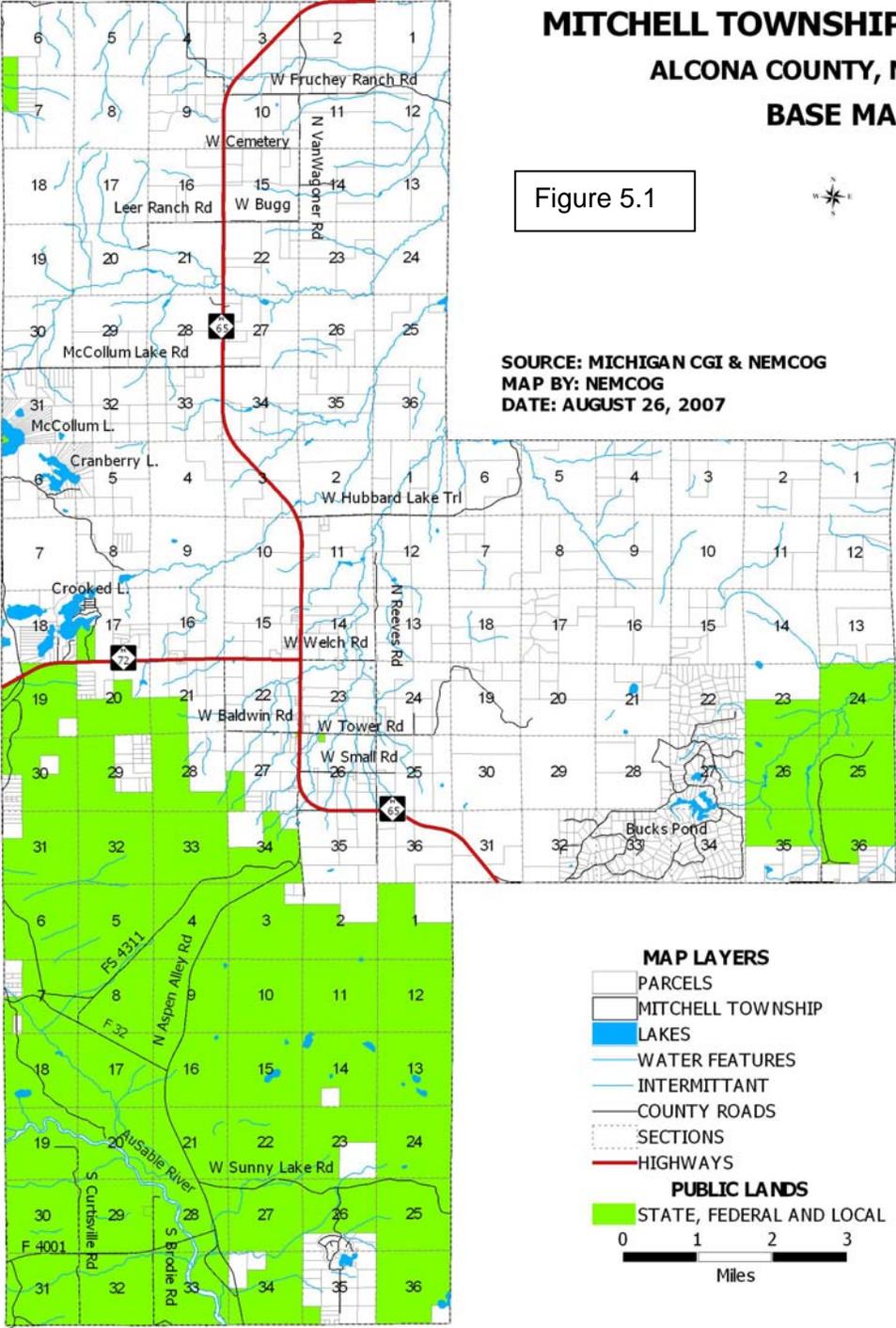
Open water comprises less than 677 acres of Mitchell Township.

**MITCHELL TOWNSHIP MASTER PLAN
ALCONA COUNTY, MICHIGAN
BASE MAP**

Figure 5.1



**SOURCE: MICHIGAN CGI & NEMCOG
MAP BY: NEMCOG
DATE: AUGUST 26, 2007**

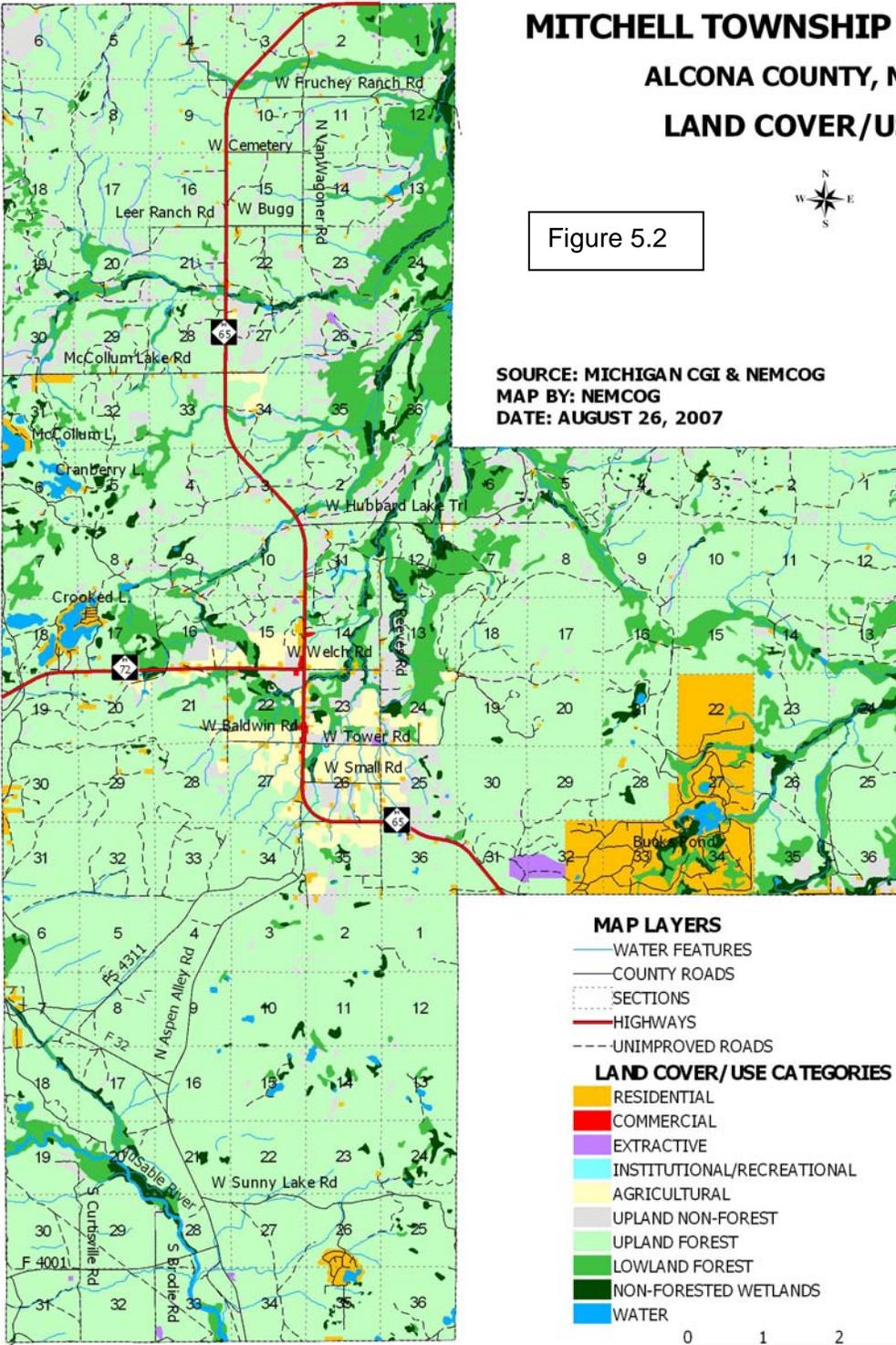


MITCHELL TOWNSHIP MASTER PLAN
ALCONA COUNTY, MICHIGAN
LAND COVER/USE MAP

Figure 5.2



SOURCE: MICHIGAN CGI & NEMCOG
MAP BY: NEMCOG
DATE: AUGUST 26, 2007



Chapter 6 – Goals and Objectives

The purpose of this chapter is to establish the goals and objectives that will guide future growth and development in a manner that reflects the natural characteristics of the land and planned provisions of public utilities and services; strives to preserve the community's rural, scenic character; supports local businesses; protects existing residential areas; encourages the stewardship of natural resources; protects environmentally sensitive areas; conserves productive forest lands and enhances the Township. In developing community goals and objectives, it is important to analyze existing community characteristics such as social and economic conditions, services and facilities, environmental conditions, and existing land use. Preceding chapters of this master plan have documented the above characteristics.

Public Forum

After background studies were completed, the next critical step was to create a vision of where the community wants to be in the future. To accomplish this important step, the Planning Commission, with the assistance of the Northeast Michigan Council of Governments held a public forum to gather input from the community. The public forum was open to all residents and business owners. Flyers were developed and distributed by planning commission members. Articles were published in local newspapers. A copy of the Public Forum Flyer can be found in **Appendix A**.

People were invited to take part in an evening planning session at the Mitchell Township Hall on October 29, 2007 at 7:00 p.m. Twenty-five people attended the session. All attendees had an opportunity to participate in the process and provide input to the Township. Participants were first asked to identify *Community Assets to Protect* (What do you value about your community?). Next, they were asked to identify *Community Issues to Address* (What would you like to change about your community?). The final activity for the evening public meeting was to create a desired future vision of what Mitchell Township will be in the year 2027. A full listing of workshop comments is included in **Appendix A**.

Mitchell Township Assets to Protect

Participants in the workshop noted the community is blessed with an abundance of high quality natural resources. Resources include inland lakes and streams; groundwater, forests and wetlands; open space; farmland, wildlife and fish. The Au Sable River is a focal point in the Township. Federal and state lands along with large tracts of private land add greatly to the wildness of the community and provide limitless opportunities for outdoor recreational activities. There are still places where one can find peaceful solitude in the midst of unsoiled nature. Fresh air, clean surface and groundwater and extensive forests equate into a healthy, safe environment. Reasonable public access to the water and other resources is an important community feature.

The rural character of forest lands, farmlands and low density residential development create a landscape with considerable open space. Whether along the stream banks and lakeshores, within neighborhoods or nestled in forests, it is a safe, quiet, and clean place to live. Low traffic volumes, no street lights or stop lights, no billboard clutter and a small population add to the quite rural character. It is a close knit, caring community, where people are friendly and take pride in the area. A mix of long time residents and newer transplants offers historical foundation

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blended with new ideas. Medical 1st responders and fire services, Crooked Lake Township Park, Hoist Lake Area, O'Brien Lake, post office, churches, Township Fire Hall, Township Hall, and businesses such as BP Station, Nick and Ivy's Restaurant and the Buck Stop Bar are all important community assets. A list of assets to protect is presented in **Appendix A**.

Mitchell Township Issues to Address

Based on comments from participants, it is clear there are issues to be addressed in Mitchell Township. These issues include limited employment opportunities; limited tax base; lack of infrastructure such as natural gas and broadband internet, abandoned buildings and blight. Limited employment opportunities make it difficult to attract and keep young families in the area. Bovine TB is having a negative impact on beef cattle operations. Loss of family farms will hurt the local economy as well as the rural character of the community. Lakeshore development such as removal of natural greenbelts and keyhole development is an issue. Small lots and on site septic system raise some concern for long-term protection of surface and groundwater quality. There is a concern with timber harvesting on private and public lands. Roads need to be better maintained and safety issues addressed. Street name signs are not adequate for emergency services in some areas of the Township. Lack of commercial services such as banks, barber, motel, drugstores and grocery stores is a concern. Given the lack of infrastructure and the "off the beaten path" location is difficult to attract business and industries to the community. There is a need for more camping opportunities. Some thought the Township park on Crooked Lake should be improved for picnics, swimming and hiking. Township government is faced with declining resources in conjunction with increasing needs of the community. A complete listing of comments can be found in **Appendix A**.

Mitchell Township in the Year 2027

Visioning is a process to help community members imagine, describe and attain a preferred future for their community. Participants were asked to respond to the following visioning exercise. To encourage a free flow of ideas, answers were not constrained by present situations. All participants had opportunities to present their ideas in an open, informal setting. *Think about the changes that have occurred over the last 20 years or even the last 10 years. Now think what could happen over the next 20 years. "Imagine you have friends or relatives visiting in the year 2027. You decide to take them for a tour to show off the wonderful community in which you live. You take a drive through countryside; admire the beauty of the landscape and marvel at the development; you stop at a park for a picnic. Much of what you see and hear pleases you, and some activities surprise you. Describe the 2027 future that you envision. Consider the physical environment (residential, commercial and industrial development); the natural resources (forests, water, open space and farmlands); and community facilities and services.*

Mitchell Township will be known for its abundance of natural resources. Public lands, hunting camps, farms, lakes, streams and the Au Sable River remain focal points of the Township. Forests and farms are important parts of the landscape. Wind turbine generators will help supply the energy needs of residents. There are large tracts of undeveloped lands, both public and private. Surface and groundwater have not been compromised by development and growth. Residents and vacationers are able to enjoy quality hunting, fishing, bird watching and numerous other outdoor activities.

Curran is a growing and alive town center that draws people from afar. Businesses serve residents and visitors. Shops, restaurants, markets, service businesses, and medical facilities are located in a commercial node within the town center along M-65. Newer residential development, including single family and multi-family residential are clustered around the business core. Community facilities such as parks, library, school, new township hall, and tech center are located in Curran. Because of more concentrated development around Curran, utilities such as natural gas and high-speed internet are available though not to all parts of the Township as portions have remained wild and undeveloped. There is even a small mall at the BP station. The community has been able to accommodate home based businesses, which are a benefit to the local economy. Recreation based businesses have become a part of the community, even elder hostels catering to the older, active crowds. There is a fairgrounds, airport and fire substation located in the Township. Small clean industries are located near but not adjacent to the community center. The rest of the township is still characterized as low density development. Hunting camps on large tracts of forestlands are a long standing component of the community identity.

Neighbors helping neighbors is still an everyday occurrence. There are homes with children; young families are attracted to the area because of the safe, friendly atmosphere and expanded job opportunities. Kids can still ride their bikes down Baldwin Hill. The community has welcomed current trends and by partnering with adjacent communities, agencies and businesses they have developed facilities, such as civic/senior center, affordable housing, senior housing, public transportation, community health center and safe pedestrian facilities for retired residents. Single family residential is still the norm, although a variety of housing options will become available. Neighborhoods are neat and safe. An active "Fire Wise" program has reduced the potential for losses from wildfires. New residential developments have parks, open space and

commons areas.

Through land use planning and zoning regulations, businesses and light industries are located in non-sensitive areas and while benefiting the Township, they have not negatively impacted the resource base. Through grants and development impact fees, infrastructure was in place before commercial and industrial development occurred. Non-motorized trails connect residential areas to community centers and parks. ORV and snowmobile trails connect the community to regional trails. Roads are being maintained in a cooperative effort with the Township, Michigan Department of Transportation and Alcona County Road Commission.

Community Goals and Objectives

After reviewing the community input and considering the existing conditions background information, the planning commission established goals and objectives. These goals and objectives will provide guidance to the Mitchell Township planning commission and board.

Planning and Community Development

Goal: Guide future development in a manner that will protect existing development; preserve rural community character; and conserve natural resources and environment, yet meets the long-term needs of the community.

Objectives:

- Implement the Mitchell Township master plan by updating the Township zoning ordinance.
- Control the location of new development by designating appropriate areas for new residential, commercial, industrial, and resort/recreational land uses.
- Concentrate new commercial, service and industrial uses around the community of Curran.
- Concentrate more dense residential development such as single family subdivisions, multi-family residential and elder housing complexes around the community of Curran. These areas with higher density developments should be served by parks and non-motorized facilities to promote a walkable community atmosphere.
- Establish landscape requirements for new development, such as appropriate setbacks, retention of green space, buffer zones between differing land uses, screened parking areas, and roadside natural landscaping.
- Develop open space residential, commercial and industrial development design standards to preserve scenic views, rural character, farmland, meadows, woodlands, steep slopes and wetlands with a target of preserving 50 percent of the land within a development.
- Improve regulations and standards to protect the community against high noise levels and exterior lighting glare.

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- Implement access management standards for development along M-65 and M-72.
- Evaluate the establishment of a waterfront overlay district that will set forth consistent special requirements and standards for development along designated waterfronts.
- Establish standards that regulate the placement and size of cellular towers, communication towers, transmission towers and wind turbine generators.
- Develop and consistently enforce blight ordinance to work towards improving the quality of housing and protecting property values.
- Enforce all ordinances in a consistent and fair manner.
- Promote walkable communities by developing trails, sidewalks and safe pedestrian crosswalks in developed areas of the Township.
- Increase safety and reduce the visual impact of on-site and off site signs and billboards, by controlling their size, number, illumination, and configuration.
- Establish a Community “Fire Wise” education program to protect existing and new development from wildfires.
- Require use of “Fire Wise” strategies for new subdivisions, condominium developments, and multi-family residential complexes, and any development requiring site plan review.

Residential Land Uses

Goal: Allow for suitable housing opportunities for all income levels and age groups, including year-round residents and seasonal residents.

Objectives:

- Designate areas appropriate for all types of residential development including single family, multi-family, elderly housing, condominium, low to moderate income housing, and extended care facilities.
- To preserve open space and vital natural resources, provide the development option of clustered housing in buildable portions of the Township.
- Site new residential development in a manner that protects the rural character and scenic views by maintaining proper setbacks and providing landscaping screening as appropriate.
- Encourage existing housing stock and neighborhoods to be kept in good repair, appearance, usefulness and safety.
- Require adequate buffers and transition areas between residential and non residential uses to maintain property values and visual attractiveness.

- Preserve the integrity of existing residential neighborhoods by protecting them from intrusion of incompatible uses.

Commercial Areas and Activities

Goal: Promote a varied business environment, and encourage the development and expansion of businesses to meet the needs of residents and tourists, while preserving the natural environment and rural character of the community.

Objectives:

- Guide commercial development into commercial nodes, in particular the community of Curran, through the master plan and zoning ordinances; while discouraging linear strip development along primary county roads and highways.
- Develop and utilize planning and zoning techniques, such as clustering, shared parking, access management, and landscaping to regulate commercial development along primary county roads and state highways.
- Make parking (public and private) needs a consideration for all expansions and new development.
- Require landscape buffers where commercial uses are adjacent to other land uses.
- Regulate home occupations and home based businesses to assure compatibility with existing surrounding residential areas.
- Work with county and regional organizations to develop strategies for marketing the area as a tourism destination with recreational, cultural and historic components.

Industrial Land Uses

Goal: Encourage the establishment of new light industries to diversify the local economy and to create more stability and self-sufficiency for the community.

Objectives:

- Ensure that industrial uses are developed in an environmentally sensitive manner, are harmonious with the existing community and are located near access to state trunklines.
- Locate light industries and high tech industries that do not pollute the air, soil, or water nor offend because of noise, odor, or visual impact, in industrial zoned areas within the Township. Due to the lack of public water and sewer, these industries should not require high water usage or generate large amounts of septage.
- Until adequate infrastructure is in place, direct industrial development to neighboring communities with industrial parks or sites.
- Require landscape buffers where industrial uses are adjacent to other land uses.

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- Develop guidelines to ensure that extractive development takes place in an environmentally sensitive manner.
- Require landscape buffers around extractive uses to screen adjacent properties and public roadways.
- Establish criteria and require reclamation of extractive uses.

Infrastructure and Community Facilities

Goal: Improve the Township's transportation systems, community facilities, and public utilities to accommodate the needs of residents and visitors.

Objectives:

- Work with the Alcona County Road Commission to plan for upgrading of roads, maintenance of existing roads, and vehicular and pedestrian safety at intersections and on roadways.
- Develop a capital improvements plan to address the long term needs for road improvements, township hall maintenance, fire protection, emergency services, and community recreation.
- Direct development to areas with existing infrastructure and where infrastructure is not adequate require developers to fund the upgrading of infrastructure to support proposed new development.
- Seek grants through federal, state and other funding sources for infrastructure improvements, community facility improvements, and economic development projects.
- Develop standards for private roads and shared road access.
- Continue to maintain and, when necessary, expand Mitchell Township Cemeteries.
- Encourage the continuation and expansion of public transit to better serve the needs of senior citizens and other transit dependent Township residents.

Recreation and Public Lands

Goal: Preserve and improve access to public lands and water, and establish recreational trails and improve public parks for the enjoyment of residents, visitors and future generations.

Objectives:

- Develop a Township Recreation Plan that identifies and prioritizes needed community recreation facilities.
- Pursue grants and funding sources to improve community parks.

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- Retain and where appropriate acquire public water access sites for residents, seasonal residents and visitors.
- Work with the DNR to expand ORV and snowmobile trails in the area.
- Encourage the expansion and creation of non-motorized recreation trails such as x-country ski trails, bike trails and horse riding trails on both public and private lands.
- Connect parks, community centers and residential areas with non-motorized trails.
- Through zoning and review procedures, proposed subdivisions, site condominiums, planned unit developments; commercial and industrial developments should provide or participate in the development of neighborhood parks and open space.

Government

Goal: Provide services in an efficient, cost effective, environmentally responsible and caring manner to meet the needs of the residents, property owners, business people and visitors.

Objectives:

- Ensure a responsible fiscal policy and budget process to finance the Township government.
- Promote intergovernmental and regional cooperation on issues of mutual concern.
- Continue to work with Alcona County to provide emergency services to Township residents.
- Maintain communication with the US Forest Service and Department of Natural Resources to provide input into the usage and management of the public lands within the Township.
- Promote the involvement of volunteers in the government process.

Natural Environment

Goal: Protect and preserve the natural environment by protecting groundwater, surface water, environmentally sensitive areas, highly erosive areas, woodlands, wetlands, open space, fish and wildlife.

Objectives:

- Establish keyhole development regulations for waterfront areas.
- Encourage a land use pattern that is oriented to the natural features and water resources of the area by evaluating: type and density of proposed developments based on soil suitability; slope of land; potential for ground water and surface water degradation and contamination; compatibility with adjacent land uses; and impacts to sensitive natural areas like wetlands, greenways and wildlife corridors.

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- Limit and control the density and type of residential and commercial development adjacent to lakes, ponds, streams, and wetlands.
- Promote greenbelt areas adjacent to lakes, ponds, streams, and wetlands through development of a greenbelt section in the community's zoning ordinance.
- Implement groundwater protection and stormwater management regulations in the community's zoning ordinance, while encouraging the continued natural use of wetlands as groundwater recharge, stormwater filtering and stormwater holding areas.
- Limit development on steeply sloped areas. Require erosion control measures where construction is permitted. Require slope stabilization and revegetation on disturbed slopes or in extraction areas.
- Preserve topography such as slopes, valleys and hills by limiting the amount of cut and fill during site development.
- Integrate wetlands, woodlands and meadows into site development as aesthetic and functional features.
- Encourage the use of native plant species and naturalized landscape designs, where appropriate, to enhance the community's existing character.
- In recognizing the importance of trees in the suburban environment, encourage the retention of existing native trees and the establishment of street and shade trees in residential neighborhoods and commercial developments.
- Due to negative impact to groundwater and surface water resources, discourage the establishment of industrial feedlots.

Farm and Forest Lands

Goal: Support the retention of the forestry and agricultural land base as a viable resource and to insure they are a component of the economic diversity of the Township.

Objectives:

- Support and provide for the preservation of woodlands and farmland where feasible.
- Support science based forest and wildlife management activities on public and private lands in the township.
- Participate in the Michigan Department of Natural Resources Forestry and US Forest Service Planning activities for lands within the Township.
- Discourage the conversion of forestland and farmland into other more intensive uses. Consider larger lot zoning and open space/cluster development standards to maintain the resource base.

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- Encourage the retention of agricultural lands, forest lands and ecological corridors through available mechanisms such as open space/cluster development and farmland agreements, forest stewardship programs, and conservation easements, as well as zoning incentives.

Chapter 7 – Future Land Use

Mitchell Township had a population increase of 36.2% between 1990 and 2000. Growing by 106 persons, the township experienced the highest growth rate in the county. However, in persons added to its population, Mitchell Township was number eight in the county. In 2000, the year round population had grown to 396 persons. Much of the population growth can be attributed to people retiring and moving north to their seasonal residence.

The 2000 Census found 731 housing units with 526 or 72 percent classified as seasonal use. Based on participation at public input sessions, seasonal home owners continue to retire and move north, thereby driving up the year round population numbers with a corresponding decrease in the percentage of seasonal use dwellings. High-growth townships in the northeast region have at least one common attribute, the presence of private property development on or near waterfront. Subdivisions and small tracts are clustered around lakes. This older small lot waterfront and water access development is still dominated by seasonal recreational development, however it is converting to year round homes as owners retire and move north. With this conversion, it is anticipated that land use issues, such as building setbacks, building height, on-site septic and water, and surface water quality will arise. In addition, an associated increased demand for services and facilities, including phone and cell phone service, broadband internet, fire and ambulance, public transportation, medical and assisted living will result.

While residential growth is occurring in Mitchell Township, according to the current land use inventory, over 96 percent of the land area was classified as forest, farmland, non-forest open space, and wetlands. Approximately four percent of the Township's land was used for urban related purposes, including extractive, utilities, institutional/recreational and residential development. Most of the land area in private ownership is in 40 acres and larger tracts. There are large forested tracts of private ownership primarily used for hunting and wildlands recreation. Hunt clubs are common. Areas accessible only by seasonally maintained roads and not serviced by utilities can be found throughout the Township. These holdings of private forest and farm lands, combined with extensive U.S. Forest Service ownership, gives the community it's "Up-North" feel and clearly factors into the limited year round population.

The next step in developing a Master Plan is to determine the types, location and intensities of development that will occur over the next twenty years. With the establishment of a Future Land Use Plan, Mitchell Township intends to ensure that existing land uses such as residential can continue; that irreplaceable resources such as water, wetlands and forestlands will be protected; and that reasonable growth, including residential, commercial and light industrial, can be accommodated with minimal land use conflicts or negative environmental impacts. Additionally, this plan will serve as the legal foundation of the township zoning ordinance.

The Township Planning Commission with public input and assistance from NEMCOG developed future land use recommendations for Mitchell Township. Recommendations are based on an analysis of several factors including: social and economic characteristics, environmental conditions, existing land uses, available community services and facilities, existing patterns of land divisions, future zoning and community goals and objectives.

Future Land Use Planning Areas

The community has identified eight categories of future land use to serve future development needs. **Figure 7.1** is the future land use map of Mitchell Township that depicts the locations of planning areas. This section will provide explanations of each land use planning area, including purpose, recommended development density and compatible uses. This future land use plan recognizes that existing parcels within future land use planning areas may be less than the recommended minimum lot size. The plan does not intend to restrict the construction of new residences or continued residential use of these existing parcels.

Future Land Use Planning Areas

- Resort Residential
- Rural Residential
- Mobile Home Park
- Village Center - Mixed Use
- Commercial
- Light Industrial
- Forest Recreation
- Resource Conservation

Resort Residential

Location and Setting: The Resort 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. These areas are concentrated around lakes and include the primary waterfront residential development in the Township. See **Figure 7.1** for locations of residential future land use planning areas.



Uses: Principal uses include single-family dwellings. Where compatible with residential uses, other uses to be considered include home occupations contained within the dwelling, group homes per state law, utilities, bed and breakfast facilities, parks and playgrounds, community buildings and publicly owned buildings, public utility buildings, and publicly owned and operated parks. Size of accessory buildings should be limited in square footage and in proportion to residential buildings. The review process for development projects will be set forth in the Zoning Ordinance and will provide for a more streamlined review process for less intensive uses that completely fit the given zoning district, and a more thorough review for projects that are more intensive and will be compatible with the given district only if specified standards are met.

Development Density: The Resort Residential category is primarily designed to accommodate single-family dwellings at a density of one unit per 15,000 sq. feet to two acres. Older platted subdivision areas contain lots created prior to implementation of the zoning ordinance. These lots-of-record are much smaller (4,500 to 7,500 sq. ft.) than minimal lot sizes projected for

residential zoning requirements. Future development regulations should recognize these conditions and provide for the reasonable continuance of their use and character.

Other Development Considerations: Additional provisions are recommended to be incorporated into the Zoning Ordinance to allow for a cluster development pattern to avoid or minimize development impacts on environmentally sensitive areas, forests or farmland. It is not anticipated that municipal water or sewer service will be available over the next planning horizon. Establishment and/or maintenance of waterfront greenbelts, keyhole restrictions and waterfront setbacks should be addressed in the zoning ordinance.

Rural Residential

Location and Setting: The Rural Residential future land use areas are located along major roadways and near water features, see Figure 7.1. Current land cover is forest, along with low-density residential development. The large residential lots provide privacy from neighbors and/or other development.



Uses: Principal uses include single-family dwellings and two-family dwellings. Where compatible with residential uses, other uses to be considered include home occupations contained within the dwelling; bed and breakfast facility; churches and associated structures; parks and playgrounds; schools, child care facilities, libraries; community buildings and publicly owned buildings; public utility buildings; publicly owned and operated parks. The township will identify appropriate locations and establish criteria in the zoning ordinance for mobile home parks. The review process for development projects will be set forth in the Zoning Ordinance and will provide for a more streamlined review process for less intensive uses that completely fit the given zoning district, and a more thorough review for projects that are more intensive and will be compatible with the given district only if specified standards are met.

Development Density: This category is designed to accommodate single family and two-family dwellings at an average density of one unit per two acres. Conforming non-residential uses would require larger minimum lot areas and should be established according to the type and intensity of use.

Other Development Considerations: Additional provisions should be incorporated into the Zoning Ordinance to allow for a cluster development pattern to avoid or minimize development impacts on environmentally sensitive areas and forests. No municipal water or sewer service is currently planned for this area. Due to the lack of community water and sewer, intensive development will be dependent on adequately addressing the water and waste disposal issues.

Mobile Home Park

Location and Setting

The land is located on West Tower Road and N. Reeves Road see **Figure 7.1**. This property is currently zoned for Mobile Home Park in the Township’s zoning ordinance.

Uses

The area is designated for manufactured housing/mobile home parks. The review process for development projects will be set forth in the Zoning Ordinance and will provide for a more streamlined review process for less intensive uses that completely fit the given zoning district, and a more thorough review for projects that are more intensive and will be compatible with the given district only if specified standards are met.

Development Density: The category is primarily designed to accommodate manufactured housing. Lot sizes will vary and will be dependent upon availability of common water and sewer facility to serve the units.

Other Considerations

Additional provisions should be incorporated into the Zoning Ordinance to allow for a cluster development pattern to avoid or minimize development impacts on environmentally sensitive areas and forests. No municipal water or sewer service is currently planned for this area. Due to the lack of community water and sewer, intensive development will be dependent on adequately addressing the water and waste disposal issues.

Village Center - Mixed Use

Location and Setting: The Mitchell Township master plan recognizes the importance of Curran as a community center. Participants in community visioning session associated with this planning effort identified the significance of this older community center and the need to sustain and expand upon historic development patterns.

Figure 7.1 shows location of Village Center future land use planning area.



Uses: A variety of residential housing types such as single family detached, duplexes, multi-family and retail with second story residential would be appropriate in the Village Center development. Compatible uses such as retail and service stores without outside storage areas, professional offices, banks, public buildings, schools, restaurants, taverns, fraternal organizations and neighborhood parks were envisioned for the community. Compact growth with an emphasis on walkable-pedestrian friendly development should be supported. As well, the concept of a community theme should be

considered to foster community identity and attract visitors.

Development Density: A mix of lot sizes would be accommodated in the Village Center.

Other Considerations: This area will serve vehicular traffic and therefore, access management and parking should be considered during the site plan review process. Frontage roads, back alleys, shared parking facilities, connection of adjacent parking lots and parallel local roads would allow for safe movement of vehicles between locations while limiting in-out traffic movement onto the highway. Buffers should be used to separate commercial from existing or new residential uses. Stormwater management, groundwater protection, pedestrian access, landscaping, buffering, signage, traffic and pedestrian safety, and outdoor lighting should be considered in development plans. Roadside landscaping to maintain traffic safety and minimize any negative visual impacts of development should be considered. State law grants the authority to regulate billboards along state and federal highways to townships, cities and villages, but not to counties. Therefore, it is recommended the Township consider regulation of billboards along M-72, M-65 and primary county roads.

Commercial

Location and Setting: At the present time commercial development is limited in the Township. Business areas are located within Curran and near the intersection of M-72 and M-65. The area identified as commercial in the future land use is designed to accommodate larger commercial development that is highway oriented and serves both local and pass through traffic. The community has chosen to direct future commercial development into areas adjacent to existing commercial development. **Figure 7.1** shows location of commercial future land use planning areas.

Uses and Development Considerations: Commercial developments in rural, tourism based townships tend to serve local residents and visitors. Primary uses include retail sales, grocery stores, gas stations/convenience stores, restaurants, personal services, and office uses. Commercial developments require site plans and in some cases a special use permit. Businesses should have adequate buffers separating operations from residential and resource uses. Access management, shared driveways and parking lots, stormwater management, groundwater protection, pedestrian access, landscaping, buffering, signage, billboards, traffic and pedestrian safety, and outdoor lighting should be considered in development plans. Roadside landscaping to maintain traffic safety and minimize any negative visual impacts of development should be required along the main roads. Larger scale commercial development often needs municipal water and sewer or may need a satellite water or sewer system.

Development Density: Commercial lots along major roads with higher traffic volumes and higher speed limits should have widths that can accommodate recommended driveway spacing in MDOT's access management guidebook for local communities. For example, at speed limits of 55 mph, driveways should be spaced at least 455 feet apart. As an alternative, narrower lots would be acceptable if frontage roads or shared driveways are incorporated in development plans. Access management will preserve the safety and efficiency of travel; preserve community character; advance economic development goals; and protect the substantial public investment in roads and highways.

Other Considerations: State law grants the authority to regulate billboards along state and federal highways to townships, cities and villages, but not to counties. Therefore, it is recommended the Township consider regulation of billboards along M-72, M-65 and primary

county roads.

Light Industrial

Location and Setting: The community has identified the need to improve employment opportunities and expand the local tax base. Industrial future land use area is located adjacent to the commercial future land use and has access to M-65 and M-72.

Uses: The light industrial future land use category is designed to provide sites for wholesale activities, warehouses, major repair operations, retail operations that require large outside storage areas, sawmills, wood processing facilities, and light manufacturing. The review process for development projects will be set forth in the Zoning Ordinance and will provide for a more streamlined review process for less intensive uses that completely fit the given zoning district, and a more thorough review for projects that are more intensive and will be compatible with the given district only if specified standards are met. Developments are subject to performance standards relative to impacts on the community. This district is compatible with a business district, but not compatible with residential districts without a required buffer.

Development Density: Density would range from two to five acres.

Other Development Considerations: Development standards should address access management, buffering, signs, stormwater management, groundwater protection and landscaping to maintain traffic safety and minimize any negative visual impacts of development along the main roads. Larger scale development often needs municipal water and sewer or may need a satellite water or sewer system. Manufacturing and warehousing development should be located on all-season roads. Due to the lack of community water and sewer, intensive development will be dependent on adequately addressing the water and waste disposal issues. State law grants the authority to regulate billboards along state and federal highways to townships, cities and villages, but not to counties.

Agricultural

Location and Setting: Mitchell Township recognizes the presence of farmland as well as wood lots and old farm fields contribute to the community's scenic and rural character. The agricultural future land use designation is intended to encourage the continued existence of farms in the Township, particularly on prime agricultural soils and active farms on large parcels. Designated areas are primarily located around the community of Curran in the north central part of the Township, as shown on the future land use map, **Figure 7.1**.



Uses: Farm dwellings and agricultural accessory buildings are primary uses, as well as crop production, roadside stands, small scale forestry, raising of livestock normally associated with farming activities, and single family residential. Special uses allowed if they are designed to be compatible with primary surrounding uses would



include: plant nurseries, greenhouses, parks, bed and breakfast inns, churches, home occupations, golf courses, telecommunication towers, kennels, private clubs, veterinary services, human care facilities, essential service buildings, publicly owned buildings and publicly owned parks would be allowed.

Development Density: The plan recommends this category accommodate single-family dwellings at an average density of one unit per five acres.

Other Development Considerations: There are no current plans for providing municipal

water or sewer service. Buffers or physical separation from incompatible uses (commercial and industrial) are necessary when agricultural areas are located next to more intensive development. The plan further recommends incorporating open space development options, into the zoning ordinance.

Forest Recreation

Location and Purpose: The Forest Recreation category is the most extensive future land use category, and covers 46 percent of the Township, see **Figure 7.1**. The land cover is a mix of upland forests, lowland forests, hunt clubs, and low-density single family residential. Both seasonal and year round homes are located in this area. This category encourages the continuation of resource management and outdoor recreational activities. Mitchell Township recognizes the presence of forestlands and open spaces contribute to the scenic and rural character valued by the Township residents. This land use designation is intended to encourage the continued existence of private forestlands.



Uses:

Along with low-density residential uses, farming, and forestry activities associated with timber management and wildlife management would be considered compatible in this area. Other primary uses include seasonal cabins, tree farms, landscaping/plant nurseries, public and private conservation areas, hunting camps, parks, and playgrounds. If designed to be compatible with surrounding neighborhoods, uses such as recreational camps and clubs, campgrounds, bed and breakfast operations, home occupations, home based businesses, recreational vehicle parks and golf courses and resorts (recommended on twenty acres or more) would be allowed. Any business that generates higher traffic volumes should be located on public paved roads.

Development Density:

The plan recommends this category accommodates single family dwellings at an average density of one unit per 20 acres. The development density for areas serviced by seasonal roads is expected to be much lower. Larger residential lots provide privacy and tend to maintain



ecological integrity of the natural resources. To protect sensitive areas and maintain larger tracts available for other uses, clustering based on density equivalents (one house per two acres) should be encouraged.

Other Development Considerations: Gravel pits with site reclamation plans would be allowed as uses by special approval, provided the activity is compatible with surrounding neighborhoods. No municipal water or sewer service is planned for these areas. Additionally, an upgrade of seasonal roads to year round maintained county roads is not accounted for in this plan. Buffers or

physical separation from incompatible uses (commercial and industrial) are necessary when Forest Recreation areas are located next to these more intensive developments. The plan further recommends incorporating open space development options, native vegetation greenbelts, and landscaping requirements into the zoning ordinance.

Resource Conservation

Location and Purpose: Mitchell Township recognizes extensive areas of forests and wetlands contribute significantly to the quality of life and the rural character, which are valued by Township residents and visitors. The Resource Conservation future land use category includes U.S. Forest Service lands and more isolated privately owned forestlands lands with extensive wetlands and limited access. This category is comparable in size to the Forest Recreation future land use category and covers 42 percent of the township. Large areas of the Resource Conservation planning areas are only accessible by seasonally maintained county roads or private roads. Locations recommended for this category are shown on the future land use map, **Figure 7.1**.



Uses: This plan encourages the retention of large tracts of lands, contiguous resource areas, river greenbelts, wetlands, scenic areas and wildlife habitat. The Resource Conservation category is designed to provide protection to environmentally sensitive areas, while allowing for very limited and low intensity residential development to occur. Primary uses to be encouraged in this category include hunting, fishing, skiing, hiking, camping, wildlife management and forestry management.

Development Density: The Conservation category is designed to provide protection to forestlands and environmentally sensitive areas, while allowing for very limited and low intensity development to occur. This development would be consistent with recreational and conservation uses. A development density of one dwelling per 40 acres is recommended for the category. Residential uses are considered compatible with stream corridors in the planning area. On waterfront properties, smaller lots are anticipated with an average lot width of 200 feet.

Other Development Considerations: To protect sensitive areas and maintain larger tracts available for other uses, clustering based on density equivalents (one house per twenty acres) should be encouraged. For waterfront properties in this category, greenbelts and 75 feet waterfront setbacks should be considered. Additionally, gravel pits with site reclamation plans would be allowed, provided the activity is compatible with surrounding neighborhood and show no significant impacts to natural resources.



Special Issue Areas

Parks and Community Recreation

The public input session found residents are interested in maintaining and expanding recreational opportunities within the Township. The community recognizes the importance of outdoor recreation to the local economy. The Township Park, located on Crooked Lake, is the only community owned waterfront park and offers swimming, picnic, boat launch and seasonal bathrooms facilities. Comments at the public input session show support for continued maintenance and upgrading the facility. The community supports outdoor recreational facilities owned and operated by state and federal agencies. These facilities include Hoist Lake Area; O'Brien Lake; State Forest Campground at McCollum Lake (located in Oscoda County), and Au Sable River access at bridge on F.R. 4001. Public access to lakes and rivers should be maintained and where necessary improved. The community also supports the development of non-motorized trails, snowmobile and ORV trails.



Roads

Money for maintaining county roads comes from state and local sources. The Township pays part of the cost of upgrading roads. The Township intends to work cooperatively with the County Road Commission to implement a coordinated asset management program to maintain and improve the road network. However, there are no intentions on upgrading the entire gravel road network to a paved road network. To address safety, maintenance and possible conversion to public ownership, it is recommended the Township adopt private road standards.

Open Space Development

Concentrations of subdivisions tend to destroy rural character by converting natural and agricultural open spaces to suburban characteristics of homes with manicured lawns. Through the use of clustering homes and limiting the size of improved lawns to smaller *development pads*, developers can preserve substantial areas of space in each subdivision. Where possible, these preserved open space areas should be made visible from adjacent roads and properties.

Methods communities have employed to help protect and preserve privately held forest and farm lands, while protecting a landowner's economic investment, include the Purchase of Development Rights (PDR), conservation open space development standards, clustering requirements for residential uses, and tax breaks or incentives for continuing forestry and farming use. The conservation open space residential and commercial development design standards are effective means to preserve scenic views, rural character, farmland, meadows, woodlands, steep slopes and wetlands. It is recommended that these alternatives be considered in Mitchell Township as a way to balance economic rights with wildlands preservation goals. Incorporating open space requirements into Planned Unit Development zoning is a means of achieving this goal.

Community Facilities

Surface and groundwater protection is a primary goal of Mitchell Township's long range planning effort. This plan recognizes compact development such as existing development along waterways and older small lot subdivision development may someday require public or common water and sewer facilities. While specific sites have not been identified, the Township wishes to recognize potential future needs and the necessity to pursue grant funding to implement common or community water and sewer facilities.

Resource Protection and Management

The rural forested landscape is valued in the township. This plan supports the retention of managed public and private forestlands in the township. Timber management and regeneration of mature stands are key to reducing fuel build-up and threats to wildfires. A technique for maintaining a forested atmosphere is to hide development from adjacent roads and properties. Arranging lots and internal subdivision roads to use hills and ridges on the site is an effective way to hide homes, outbuildings, and lawns. Use of woodlands and existing native vegetation may also make very effective screens for all types of development.



Wetlands are an important resource in the Township. The protection and preservation of these plant communities is encouraged. Wetlands can be preserved through use of conservation cluster residential development, conservation easements or fee simple purchase by local and state government. An adequate natural vegetation buffer should be maintained around all wetlands. Foot trails used for recreation would be acceptable in this buffer area. Other types of development such as roads, parking lots, buildings, septic systems, stormwater detention facilities and lawns are not considered acceptable uses within the wetlands or associated buffer areas.

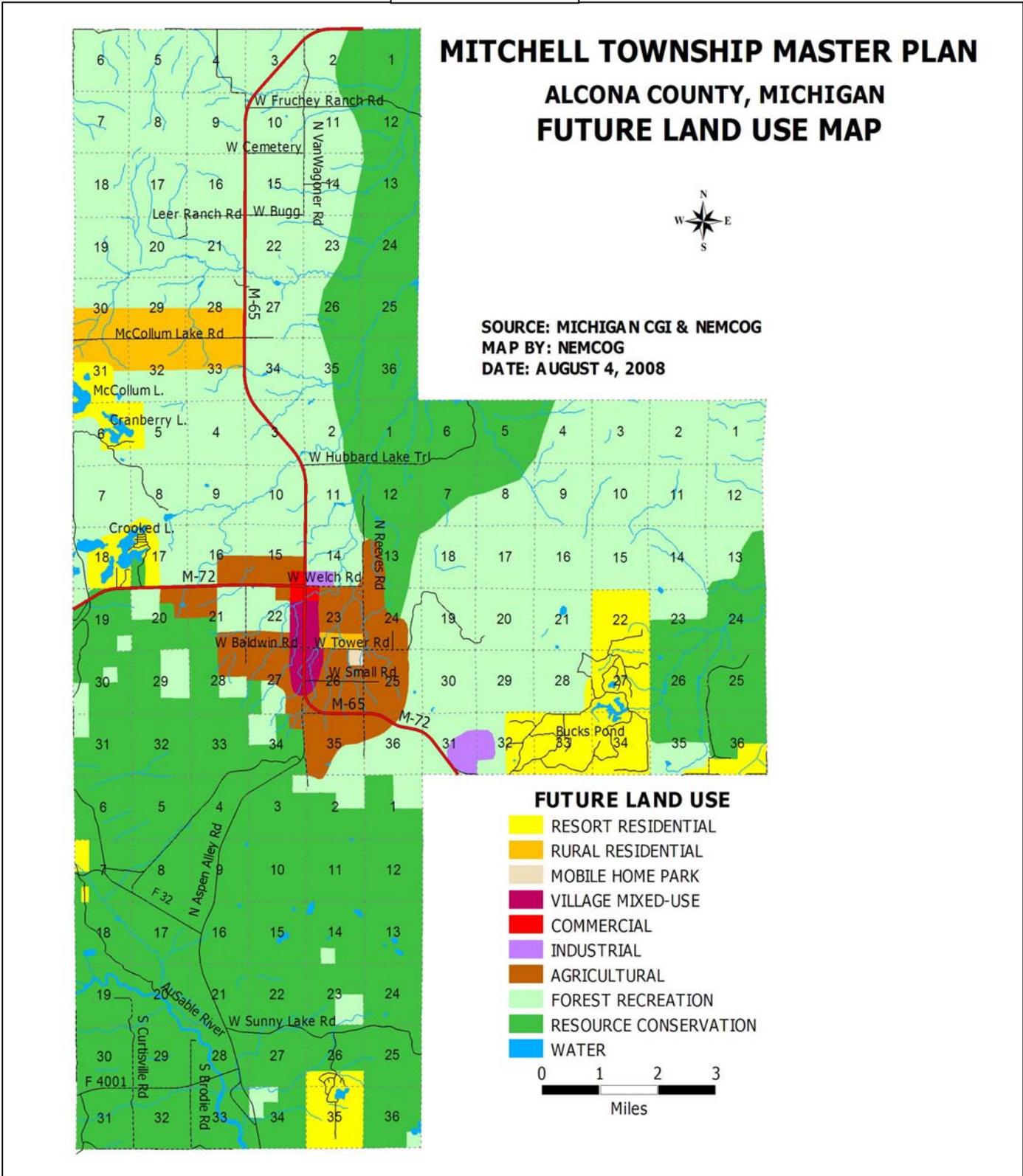
Hazard Mitigation

The Alcona County Hazard Mitigation Plan identified wildfires as the number one natural hazard. Given the presence of jack pine and oak forests, Mitchell Township is a community at risk. This is a particular concern when residential development encroaches into wildfire prone areas. Where possible the community should work towards minimizing the threats of the identified hazards. Timber management to reduce fuel buildup at the urban-wildlands interface should be encouraged. The plan supports implementation of a community wide Firewise program. This includes use of supplemental development standards and site plan review through zoning regulations and a landowner education program.

Mitchell Township Master Plan

<u>Table 7.1: Future Land Use Categories</u>		
Future Land Use Category (Development Density)	Compatible Uses	General Locations
<i>Resort Residential</i> (one unit per 15,000 sq. ft.)	Single-family homes	Along lakes and major roads
<i>Rural Residential</i> (one unit per 2 acres)	Single and multi-family, apartments and condos	Along McCollum Lake Road and West Tower Road.
<i>Mobile Home Park</i> (one unit per 5000 sq. ft.)	Manufactured Housing	W. Tower Road
<i>Village Center</i> (mixed lot sizes)	Mixed uses including: single family, multi-family and retail with second story residential, retail and service stores, professional offices, banks, public buildings, schools, restaurants, taverns, fraternal organizations and neighborhood parks.	Along M-72 and M-65
<i>Commercial</i> (various sizes; width minimums on major roads)	Retail sales, services, office use	Along M-72 and M-65
<i>Light Industrial</i> (2 to 5 acres)	General commercial, warehousing, storage, and light manufacturing.	Along M-72 and M-65
<i>Agricultural</i> (5 acre parcels)	Farming, small-scale forestry, farm homesteads, single family residential	Prime agricultural soils, active farm areas on large parcels
<i>Forest Recreation</i> (20 acre parcels)	Recreation, rural residential, hunting, forestry, controlled extraction	Larger tract private lands primarily in the southern half of the township.
<i>Resource Conservation</i> (40 acre and larger parcels)	Forestry, recreation, hunting camps, large lot homes, and cabins	Wetlands, lowland forests, flood plains, upland forests on large tract public and private lands

Figure 7.1



Chapter 8 – Implementation and Adoption

Plan Coordination and Review

As required by 2001 amendments to the Township Planning Act 168 of 1959, which was in place when this master plan was initiated, notification of intent to develop the Mitchell Township Master Plan was sent to all communities and other entities to request cooperation and comment. A copy of the notice letter and entities notified can be found at the end of this chapter.

After the draft plan was completed by the Mitchell Township Planning Commission, a draft was transmitted to the Township Board for approval to distribute the plan for review and comment. The draft plan was transmitted to entities notified at the initiation of the plan update. After the required comment period, public hearing and plan adoption the final plan was transmitted to all required entities. A copy of all relevant information can be found at the end of this chapter.

Public Hearing

A public hearing on the proposed Master Plan for Mitchell was held on August 4, 2008. Section Nine of the Act requires that thirty days notice of public hearing be given in two publications at least two weeks apart and not less than seven days before the hearing. Notices of the public hearings were published in a local newspaper. Copies of the public hearing notices are reproduced at the end of this chapter.

The purpose of the public hearing was to present the proposed master plan and to accept comments from the public. The public hearing began with a brief explanation of the planning process and plan development by NEMCOG planning staff. During the hearing, maps of existing land use, resource maps and proposed future land use recommendations were presented.

Plan Adoption

The Mitchell Township Planning Commission formally adopted the master plan on August 4, 2008. The Mitchell Township Board passed a resolution of concurrence for the master plan on August 11, 2008.

Plan Implementation

The Master Plan was developed to provide a vision of the community's' future. It will serve as a tool for decision making on future development proposals. The plan will also act as a guide for future public investment and service decisions, such as the local budget, grant applications, road maintenance and development, community group activities, tax incentive decisions, and administration of utilities and services.

According to the Township Rural Zoning Act, master planning is the legal foundation of a zoning ordinance. Section 203 of the Act states: " The zoning ordinance shall be based upon a plan designed to promote the public health, safety, and general welfare, to encourage the use of

lands in accordance with their character and adaptability, to limit the improper use of land, to conserve natural resources and energy, to meet the needs of the state's residents for food, fiber, and other natural resources, places of residence, recreation, industry, trade, service, and other uses of land, to insure that uses of the land shall be situated in appropriate locations and relationships, to avoid the overcrowding of population, to provide adequate light and air, to lessen congestion on the public roads and streets, to reduce hazards to life and property, to facilitate adequate provision for a system of transportation, sewage disposal, safe and adequate water supply, education, recreation, and other public requirements, and to conserve the expenditure of funds for public improvements and services to conform with the most advantageous uses of land, resources, and properties. The zoning ordinance shall be made with reasonable consideration to the character of each district, its peculiar suitability for particular uses, the conservation of property values and natural resources, and the general and appropriate trend and character of land, building, and population development."

Grants and Capital Improvement Plan

The Master Plan can also be used as a guide for future public investment and service decisions, such as the local budget, grant applications and administration of utilities and services. Many communities prioritize and budget for capital improvement projects, (such as infrastructure improvements, park improvements, and roads). A Capital Improvements Program (CIP) typically looks five years into the future to establish a schedule for all anticipated capital improvement projects in the community. A CIP includes cost estimates and sources for financing for each project. It can therefore serve as both a budgetary and policy document to aid in the implementation of a community's master plan.

Recreation Plan

The Townships or County must have a current DNR approved Community Recreation Plan to be eligible for recreation grant funding. Background information presented in this Master Plan update would serve as part of a township recreation plan. Additional work would include developing information on existing recreational facilities within the Township and the region, recreation goals and an action program for existing and proposed facilities. The DNR approved Recreation Plan would cover a five year planning period. Grant funds would be pursued for recreation projects identified in the Master Plan and Community Recreation Plan. Project may include improvements to the ball fields, expansion of indoor and outdoor recreation facilities, bike and hiking trails, and public access onto the lakes and streams.

Zoning Plan

The Michigan Planning Enabling Act (P.A. 33 of 2008, as amended) requires that a master plan serve as the basis for the zoning plan. The zoning plan identifies the current zoning districts and their purposes as well as recommendations for changes or consolidation of districts and some general provision changes to these districts. These matters are regulated by the specific terms in a zoning ordinance.

The zoning ordinance is the primary tool for implementing the Mitchell Township Master Plan. This plan recommends the Township zoning ordinance be reviewed to ensure the ordinances are consistent with the goals and the future land use plan. At that same time the zoning

ordinance should be reviewed to assure it conforms to current State regulations. Amendments will include redefining zoning districts and district boundaries, changing minimum lot sizes and considering permitted uses and special uses in zoning districts. Amendments to zoning ordinances' general provisions section should consider, but not be limited to: waterfront greenbelts, waterfront setbacks, private roads and driveways, landscaping and screening, parking and loading standards, stormwater management, access management, home-based businesses, groundwater protection, outdoor lighting, and signs and billboards. The Township should consider adding Articles for site plan review, uses subject to special approval (conditional uses), supplemental site development standards, administration and enforcement and zoning board of appeals. Amendments to supplemental site development standards provisions should consider, but not be limited to: bed and breakfast facilities, gasoline-service stations, motel, hotels, Planned Unit Development, open space developments, sexually orientated businesses, telecommunications towers, wind turbine generators, car wash facilities, nursing homes-assisted care facilities, and storage facilities.

Zoning Districts

Following information explains the relationship of the master plan to the zoning ordinance. The general purposes and provisions of the current Mitchell Township Zoning Ordinance are summarized as well as the relationship to master plan's goals and objectives, and future land use plan.

Residential Districts:

Existing:

The following district is considered a residential district: Resort - Residential (R-R). The areas are located around numerous lakes and in subdivided recreational areas of the Township. Minimum lot size is 15,000 square feet. Multiple family dwellings, and motels are allowed as primary uses. Uses subject to special approval include commercial enterprises relating primarily to recreational activities, and personal service shops.

Recommended:

This plan recommends expanding the Resort – Residential zoning district coverage in the McCollum Lake/Cranberry Lake area and Bucks Pond area. The plan recommends limiting commercial operations to bed and breakfast establishments. In addition, the plan recommends establishment of a Rural Residential zoning district along West Tower Road and McCollum Lake Road. This would allow for higher density residential development while maintaining the rural character of the Township. Residential uses are recommended in Agricultural, Forest Recreation, Resource Conservation and Village Mixed Use future land use categories. The master plan recommends limiting commercial enterprises to bed and breakfast facilities.

Agriculture - and Natural Resource-Oriented Districts:

Existing:

Districts in the current Mitchell Township Zoning Ordinance that are considered “resource-oriented” include Agricultural – Residential (A-R) and Forest – Recreation (F-R). The Agricultural District is intended to provide for primarily agricultural, limited residential uses and commercial uses relating chiefly to agriculture. Under uses by special approval motels, mobile home parks, commercial recreational development, hospitals, golf courses, bowling alleys and veterinary clinics are allowed. The Forest Recreation District is intended to promote the proper

Mitchell Township Master Plan

use, enjoyment and conservation of the water, land topographic and forest land resources of the township particularly adapted in general to recreational and forestry uses. Forestry and residential uses are allowed as primary uses. Commercial retail enterprises primarily related to recreation and clubs and camps are allowed as uses by special approval. Minimum lot size for both districts 15,000 sq. ft.

Recommended:

First the plan recommends renaming the Agricultural – Residential district to Agricultural. This plan recommends that allowable uses in the Agricultural District include residences, farms, and a variety of uses relating to agriculture such as plant nurseries, greenhouses, and parks. Bed and breakfast inns, churches, home occupations, golf courses, telecommunication towers, kennels, private clubs, veterinary services, human care facilities, essential service buildings, publicly owned buildings and publicly owned parks would be allowed if compatible with principal uses. The plan recommends reducing the coverage area of the district to better represent active farm land and increasing the minimum lot size to five acres. Forest recreation, village mixed-use, commercial and industrial uses are planned for areas currently zoned Agricultural – Residential.

The plan recommends changing allowed principal uses in the Forest Recreation zoning district to be low-density residential, farming, forestry management, wildlife management and outdoor recreation. Commercial development should be limited. The current minimum lot size of approximately 15,000 square feet is small for the Forest Recreation District. This lot size could result in the district being subdivided to a great extent which could compromise the integrity of the large tracts of forestland in the Township. Therefore, a larger minimum lot size of 20 acres is recommended while still allowing residents a reasonable economic return on their land. In addition, Forest Recreation (F-R) zoning district includes the Resource Conservation future land use category. This includes U.S. Forest Service lands and more isolated privately owned forestlands lands with extensive wetlands and limited access publicly. It is anticipated a lower development density will occur in these more sensitive areas.

Commercial and Industrial Districts:

Existing:

Currently, Mitchell Township has a Commercial – Residential District (C-R). In addition, there is one Industrial District (I). The purpose of the Residential—Commercial district is to provide areas for residential use along with accommodations for retail business activities, local commercial and service establishments including personal, professional and other services commonly associated with local commercial and business centers. The C-R District provides for mixed uses including commercial, retail, single family and multi-family dwellings. Under Special uses, more intensive commercial develop such as gas stations, drive-through restaurants, hospitals, and prisons are allowed.

Recommended:

The current zoning allows for commercial development in residential, forest recreation and agricultural districts. The master plan recommends directing commercial development into commercially zoned areas, while allowing very limited commercial activities in other parts of the Township. This plan recommends renaming the Commercial-Residential District to Village Mixed-Use (VMU) and creating a General Commercial District (GB). The Village Mixed-Use more accurately reflects the intention of the district and supports the community's desire to

maintain the identity and expand upon past development patterns of Curran. Land that is currently zoned Commercial–Residential, Agricultural-Residential and Industrial.

The designation of the General Commercial District means that more general, intensive business uses will be located in the vicinity of the major highways in the township. These types of businesses generate higher traffic volumes, and M-72 and M-65 are more able to handle this type of traffic than the other county roads in the township.

The Master Plan recommends moving the industrial zoned area to the intersection of M-72 and Welch Road. Given the absence of public infrastructure such as a public sewer system, this plan recommends that industrial uses be limited to those which are considered “light” industrial uses. Land which is currently being used for gravel pits should be rezoned to the Industrial District. Additional land can be rezoned in the future at the landowner’s request.

Planned Unit Developments

This plan recommends incorporating Planned Unit Development (PUD) standards into the Township’s zoning ordinance. Because of its nature, a PUD can encompass residential, commercial, agricultural, or industrial uses by themselves or in combination. The purpose of such a planning tool allows design and use flexibility on a given site while at the same time protecting present and future residents and public facilities from the adverse effects of unplanned or unregulated development. This approach allows the applicant to utilize innovative designs and methods to control the effects of development rather than having rigid numerical zoning standards dictate design parameters.

Other General Zoning Recommendations

Because this plan recommends numerous land use changes and other measures related to preserving and improving quality of life in Mitchell Township, there are changes to the Zoning Ordinance that should be made to make it fully consistent with the Future Land Use Plan. Some of these changes have been discussed in the preceding paragraph. Other recommendations can be found in Chapter 6 Goals and Objectives: Planning and Community Development. Following are objectives found in Chapter 6 that relate specifically to zoning changes:

- Establish landscape requirements for new development, such as appropriate setbacks, retention of green space, buffer zones between differing land uses, screened parking areas, and roadside natural landscaping.
- Develop open space residential, commercial and industrial development design standards to preserve scenic views, rural character, farmland, meadows, woodlands, steep slopes and wetlands with a target of preserving 50 percent of the land within a development.
- Incorporate standards in the site plan review process to encourage development with minimal negative environmental impact to protect land, air, and water resources.
- Improve regulations and standards to protect the community against high noise levels and exterior lighting glare.

Mitchell Township Master Plan

- Establish standards that regulate the placement and size of cellular towers, communication towers, transmission towers and wind turbine generators.
- Implement access management standards for development along M-65 and M-72.
- Increase safety and reduce the visual impact of on-site and off site signs and billboards, by controlling their size, number, illumination, and configuration.
- Require use of “Fire Wise” strategies for new subdivisions, condominium developments, and multi-family residential complexes, and any development requiring site plan review.
- Regulate home occupations and home based businesses to assure compatibility with existing surrounding residential areas.
- Guide commercial development into commercial nodes, in particular the community of Curran, through the master plan and zoning ordinances; while discouraging linear strip development along primary county roads and highways.
- Develop and utilize planning and zoning techniques, such as clustering, shared parking, access management, and landscaping to regulate commercial development along primary county roads and state highways.
- Make parking (public and private) needs a consideration for all expansions and new development.
- Require landscape buffers where commercial uses are adjacent to other land uses.
- Develop standards for private roads and shared road access.
- Establish keyhole development regulations for waterfront areas.
- Implement groundwater protection and stormwater management regulations in the community’s zoning ordinance, while encouraging the continued natural use of wetlands as groundwater recharge, stormwater filtering and stormwater holding areas.
- Promote greenbelt areas adjacent to lakes, ponds, streams, and wetlands through development of a greenbelt section in the community’s zoning ordinance.
- Encourage the retention of agricultural lands, forest lands and ecological corridors through available mechanisms such as open space/cluster development and farmland agreements, forest stewardship programs, and conservation easements, as well as zoning incentives.

Lastly, the Mitchell Township Zoning Ordinance should be reviewed and updated with the current regulations contained in the Michigan Zoning Enabling Act (P.A. 110 of 2006). The Zoning Ordinance should be also reviewed for any inconsistencies throughout and the standards for any review done by either the Township Planning Commission or the Township Board (such as site plan review standards, rezoning standards, and variance standards) should be updated to reflect the goals and objectives of this Master Plan.

PLANNING
PROCESS &
ADOPTION
DOCUMENTS

MITCHELL TOWNSHIP MASTER PLAN

September 12, 2007

«TO»
«OF»
«Address»
«City», «State» «Zip»

Dear Madam/Sir:

The Mitchell Township Planning Commission is working on updating their Township Master Plan. A Master Plan is the key planning tool for guiding and promoting responsible development while protecting and conserving natural resources.

As required by 2001 amendments to the Township Planning Act 168 of 1959, notification is being sent to all adjacent counties, townships, villages, area utilities, and other entities to request cooperation and comment.

Prior to, and after adoption of the master plan, draft and final copies of the plan will be sent all governmental units, as defined in the County Planning Act, for review and comment. Utilities and railroads must request copies and in accordance with the planning act, only utilities, agencies and railroads will be charged for photo copies and postage. On the form attached to this letter, please indicate if you wish to have copies of the master plan sent electronically or by first class mail. **In order to minimize the expense of preparing large numbers of the draft and final plan, we are hopeful that adjacent governmental units will request the plan in electronic format, either on CD or via email.**

Please sign, and return the attached form to the Mitchell Township Planning Commission, C/O NEMCOG, P.O. Box 457, Gaylord, MI 49734. A self-addressed envelope has been enclosed for your convenience.

Thank you for your cooperation and we look forward to your participation in this important project.

Sincerely,



Richard Deuell, AICP

Mitchell Township

Affidavit of Mailing

Notice of Intent to Prepare a Master Plan

I, Richard Deuell, certify communities and agencies on the attached list were notified of Mitchell Township's intent to prepare a Master Plan. The notification was sent on September 12, 2007

by first class mail and in accordance with P.A. 168 of 1959.

Richard Deuell
Name

9/12/07
Date

Mailing List for Mitchell Township

**Rust Township Planning Commission
Rust Township Hall
PO Box 456
Hillman, MI 49746**

**Mentor Township Planning Commission
Mentor Township Hall
PO Box 730
Mio, MI 48647**

**Comins Township Planning Commission
Sally Phillips, Secretary
2600 Oaks Rd.
Fairview, 48621**

**Clinton Township Planning Commission
Dawn Larrison
1501 Bailey Rd.
Comins, 48619**

**Ossineke Township Planning Commission
Denise Schultz, Secretary
7614 W. Hurbert Rd.
Hubbard Lake, 49747**

**Alcona County Board of Commissioners
PO Box 308
Harrisville, MI, 48740**

**Millen Township Planning Commission
3021 Fowler Rd.
Glennie, 48737**

**Hawes Township Planning Commission
3200 W. Hilltop Parkway
Spruce, 48762**

**Curtis Township Planning Commission
Curtis Township
PO Box 90
Glennie, MI 48737**

**Caledonia Township Planning Commission
Caledonia Township
PO Box 81
Spruce, MI 48762**

**Alcona Township Planning Commission
Alcona Township Hall
5576 U.S. 23 S.
Black River, MI 48721**

Huron-Manistee National Forest
Supervisor's Office
1755 S. Mitchell Street
Cadillac, MI 49601

Michigan Department of Natural Resources
Roscommon Operations Service Center
8717 North Roscommon Rd.
L75 & M-18 South

Tim



Northeast Michigan Council of Governments
121 E. Mitchell St.
PO Box 457
Gaylord, MI 49734
(989) 732-3551
Fax (989) 732-5578
www.nemcog.org

TRANSMITTAL LETTER

Date: 9-12-07

To: Alcona County Board of Commissioners
PO Box 308

Harrisville, MI, 48740

Attn:

Project: Mitchell Township Master Plan

Project Number:

We are sending the following material:

- Reports/Plans/Doc's
- Maps
- CDs
- GIS Data

Other:

Date	Copies	Description

These are forwarded:

- For your use
- For approval
- For correction
- For your files
- Reviewed as noted
- For review and comment

Remarks:

Please find attached copy of affidavit of mailing and the list of entities that received the notice of intent to develop a master plan

By:

cc:



121 E. Mitchell, P.O. Box 457
Gaylord, Michigan 49734
989-732-3551
www.nemcog.org

TO: Communities and Agencies
FROM: Richard Deuell, AICP
DATE: April 16, 2008
SUBJECT: Mitchell Township Draft Master Plan

Mitchell Township has completed a draft Township Master Plan. As required by 2001 amendments to the Township Planning Act 168 of 1959, a draft of the master plan has been transmitted for your community's review and comment.

According to the act, townships, cities, villages, counties, utilities, railroads and agencies have 63 days to comment on the draft master plan. Those comments must be received within 63 days of date of the transmittal of the draft master plan (June 18, 2008). Comments should be drafted to the Mitchell Township Planning Commission and the Planning Commission Secretary, Tim London.

Comments should be transmitted to: Mitchell Township Planning Commission, C/O Tim London, Secretary, 8506 W. Deer Rd., Curran, MI 48728

For the communities that choose to receive the draft plan on a CD, the document is provided in Adobe Acrobat (PDF) format that can be viewed in Acrobat Reader. We have also provided the plan in MS Word. Please note, Mitchell Township appreciates those communities who chose to receive digital copies of the plan as this minimizes the expense of preparing large numbers of the draft and final plan. We are hopeful that additional adjacent governmental units will request the final plan in electronic format on CD. **If you would like to receive the final adopted plan in digital format instead of printed format, please notify the Mitchell Township Planning Commission at the above address or send an email to Tim London, tlondon@ausablevalleyem.org.**

Copies of the draft plan can be viewed and downloaded from NEMCOG's Web Site: www.nemcog.org. Look under the project button to view the draft master plan.

Thank you for your cooperation and we look forward to your participation in this important process. If you have any questions please contact: Richard Deuell, AICP, 989-732-3551 ext. 14

Affidavit of Mailing

Notice of Intent to Prepare a Master Plan

I, Patricia Papendick, certify communities on the attached list received a draft copy of the Mitchell Township Master Plan. The plans were sent on 4/16/08 by first class mail and in accordance with P.A. 168 of 1959.

Patricia Papendick
Name

4/16/08
Date

**Public Hearing Notice
Mitchell Township Master Plan**

7:00 p.m.

August 4, 2008

**Mitchell Township Hall
6849 W. Tower Road, Curran, MI**

The Mitchell Township Planning Commission will hold a public hearing on the draft Master Plan at 7:00 p.m. on August 4, 2008, at the Mitchell Township Hall, located at 6849 W. Tower Road, Curran, MI. All interested persons are invited to attend the hearing and comment on the draft plan. For further information call Tim London, Secretary, Mitchell Township Planning Commission 989-848-2195. A copy of the draft Master Plan can be reviewed at the Mitchell Township Hall on July 28, 2008, from 6:00 to 8:00 pm. Also, the Master Plan can be viewed on the NEMCOG's web site at: <http://www.nemcog.org>. Look under projects section.

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Mitchell Township sets hearing for master plan

Mitchell Township, with the assistance of the North-east Michigan Council of Governments, is updating its township masterplan. The purpose of a master plan is to provide guidelines for future development, while protecting the natural resources, preserving the community character and maintaining the sense of community.

The Mitchell Township Planning Commission held a series of planning workshops during quarterly meetings to update the plan.

The final step in the year-long effort is to hold a public hearing. Residents, busi-

nesses and community leaders are invited to attend and comment on the master plan at the public hearings. The draft master plan can be viewed at the Mitchell Township Hall on July 28, from 6 to 8 p.m. It can also be viewed on NEMCOG's Web page under the projects section: www.nemcog.org/Mitchell-Township_MP.htm

Schedule for the public hearing will be as follows: Public hearing on the draft master plan at 7 p.m. on August 4 at the Mitchell Township Hall located at 6849 W. Tower Road in Curran.

Mitchell Township Planning Commission

Vito "Bill" Soranno, Chair (989) 848-5941 vito4401@yahoo.com
Tim London, Secretary (989) 848-7593 tlondon@ausablevalleyem.org
8506 West Deer Road, Curran, Michigan 48728
(630) 929-3780 (FAX)



MINUTES OF AUGUST 4, 2008 MASTER PLAN PUBLIC HEARING

MEMBERS PRESENT

Bill Soranno

Tim London

Warren Cross

PUBLIC PRESENT

W.H. Wildfong

1. Chair Soranno opened the meeting at 7:00 pm, August 4, 2008; noting that one person from the public was in attendance.
2. Noting there were no comments from the Public, the following Resolution was read by Secretary London:

RESOLUTION OF ADOPTION BY THE TOWNSHIP PLANNING COMMISSION Mitchell Township Master Plan

WHEREAS: Mitchell Township, Alcona County, Michigan established a Township Planning Commission under State of Michigan Public Act 168 of 1959, as amended;

WHEREAS: The Township Planning Commission is required by Section 6 of the Act to make and adopt a basic plan as a guide for the development of unincorporated portions of the Township;

WHEREAS: The Township retained the services of Northeast Michigan Council of Governments (NEMCOG) as its consultant to assist the Planning Commission in preparing this plan, and;

WHEREAS: The plan was presented to the public at a hearing held on August 4, 2008 before the Planning Commission, with notice of the hearing being published in the Alcona County Review Newspaper on July 9, 2008 and July 30, 2008, in accordance with Section 8 of the Act;

NOW THEREFORE BE IT RESOLVED THAT,

The content of this document, together with all maps attached to and contained herein are hereby adopted by the Mitchell Township Planning Commission as the Mitchell Township Master Plan on this 4th day of August, 2008.

Motion: Cross

Second: London

Roll Call Vote:

Ayes: London, Soranno, Cross

Nays: None

Absent: Trader, Chartier

Certification

I hereby certify that the above is a true and correct copy of the resolution adopted at the August 4, 2008 meeting of the Mitchell Township Planning Commission.

Vito "Bill" Soranno, Chair
Mitchell Twp. Planning Commission

Tim London, Secretary
Mitchell Twp. Planning Commission

NOTE: Original Document Signed & Presented to Township Clerk

3. Motion by Cross/London to adjourn at 7:30 pm. Carried.

TIM LONDON, Secretary
Mitchell Township Planning Commission

Appendix A

Mitchell Township Public Input to Master Plan

Public Input Session Flyers

Summary of public comments

Mitchell Township Public Forum

"Planning for Our Future"

November 5th, 2007 at 7:00 P.M.

Mitchell Township Hall
6849 W. Tower Road, Curran, MI



Mitchell Township is in the process of updating its community master plan. The Mitchell Township Planning Commission and Township Board are seeking input from residents, businesses and community leaders to help guide development of the master plan. Come to a meeting and share your thoughts: what makes your community a great place to live, what are some problems that should be addressed, and what you'd like the community to be 20 years from today.

For additional information contact:

Greg Murnock, Supervisor, Mitchell Township: 989-848-5610

Tim London, Secretary, Planning Commission 989-848-2195

Richard Deuell, NEMCOG: 989-732-3551 ext. 14

Appendix A - Mitchell Township Public Forum Summaries

Assets to Protect	
<p>Natural Resources</p> <ul style="list-style-type: none"> Forestlands Recreational lands both public and private Hunting Diverse wildlife Large areas of undeveloped lands Farmland Natural beauty Mixed forests (natural regenerated forest types) Crooked Lake Diverse soil types Lakes, streams, and the Au Sable River Artesian wells Good quality groundwater Beautiful trees 	<p>Community Services/Infrastructure</p> <ul style="list-style-type: none"> No street lights Relatively close to medical facilities Good Telephone connection in some areas Good relationship with the Alcona County Road Commission County Sheriff Department good service to rural area Medical 1st responders Very good emergency services Good schools East-west and north-south highway corridors Citizen's Watch Hiking trails Opportunity for input into local government
<p>Community Character</p> <ul style="list-style-type: none"> Great place to raise a family Possibility of solitude Renewal of old memories It feels like home Close knit community Not crowded Solid Foundation of people that have lived and grew up here People that have moved here bring assets and expertise to the community Friendly people/caring community Low crime rate/ safe place to live Charitable community Black Bear Festival 	<p>Development</p> <ul style="list-style-type: none"> Potential for economic growth BP gas station at intersection of M-65 and M-72 Restaurant and bar in Curran Small private businesses Property taxes are relatively low, it's an affordable place to live Good churches

Issues to Address	
<p>Natural Resources Protection of water quality Clearcutting Gas from outboard motor on inland lakes Hazardous materials potentially around old homes Need to protect farming with the “Right-to-Farm” Low water level in some lakes Lack of camping opportunities Lack of forest management education to private landowners Bovine TB</p>	<p>Community Services/Infrastructure/Planning/Zoning Access to medical facilities/ none located in community Need to develop park on Crooked Lake Blight Roads, maintenance not adequate, signs are lacking Lacking in emergency warning system Safety on State and local roads Zoning enforcement not adequate When people move here they have an expectation of high levels of services, like downstate</p> <p>Township government – declining resources in conjunction with increasing needs of the community</p>
<p>Community Young people are not involved in the community Lack of young people in the community Communication lacking such as internet, TV, newspaper, radio, phone and news Abandoned buildings Aging population with increasing needs</p>	<p>Development Lakeshore development Keyhole development onto lakes and streams Lack of commercial services such as banks, barber, motel, drugstore No grocery store Too out of the way for industries to locate here Lack of resort, hotels, motels, places to stay and eat</p>

<p>Vision of the township in the year 2027</p>	
<p>Development More jobs for young families Community Park near Curran Clean small industries Fairgrounds BP Mall Local Veterinary clinic Development is still low density Senior Center Mecca for in-home businesses Curran is a growing, alive town center Commercial development has been concentrated around Curran Car wash Senior housing options, transitional housing</p>	<p>Community Services/Infrastructure/Planning/Zoning/ Welsh Road smoother out! New library, and tech center Fire substation School in Curran Medical facility/urgent care Fiber optic cable/high speed internet New Township Hall/Township Government still working More services but not much population change Underground utilities in developed areas No blight or run down homes Bike paths Enforcement official Access to ORV, snowmobile and horse trails Passenger train service from downstate into the area Airport</p>
<p>Natural Resources Still abundant forests and more recreational opportunities Abundant wildlife Farms Wind turbine generators</p>	<p>Community Character No changes for the atmosphere of today, limited development Bike riding down Baldwin Hill Homes with children</p>