

MASTER PLAN



LOVELLS TOWNSHIP
CRAWFORD COUNTY, MICHIGAN
2023

TABLE OF CONTENT

CHAPTER 1 – INTRODUCTION	1-5
PURPOSE AND PLANNING PROCESS	1-5
LOCATION	1-5
PLANNING AND ZONING IN LOVELLS TOWNSHIP	1-5
CHAPTER 2 – SOCIO & ECONOMIC CONDITIONS	2-9
INTRODUCTION	2-9
POPULATION	2-9
AGE DISTRIBUTION	2-11
RACE AND ETHNICITY COMPOSITION	2-12
EDUCATION	2-12
HOUSEHOLDS, HOUSING STOCK, AND PROPERTY VALUES	2-13
INCOME AND EMPLOYMENT	2-15
EMPLOYMENT AND UNEMPLOYMENT	2-16
STATE EQUALIZED VALUE	2-18
LOVELLS TOWNSHIP FINANCES	2-18
CRIME AND TRAFFIC CRASHES	2-21
CHAPTER 3 – COMMUNITY SERVICES & FACILITIES	3-23
PUBLIC WATER SUPPLY	3-23
SEWAGE DISPOSAL	3-24
SOLID WASTE	3-24
RECYCLING	3-24
UTILITY SERVICES	3-25
SCHOOLS AND LIBRARIES	3-25
PUBLIC SAFETY	3-26
<i>Law Enforcement</i>	3-26
<i>Emergency Medical Services</i>	3-26
<i>Fire Services</i>	3-26
MEDICAL FACILITIES	3-26
CHAPTER 4 – NATURAL RESOURCES	4-29
INTRODUCTION	4-29
CLIMATE	4-29
GEOLOGY	4-30
TOPOGRAPHY	4-31
SOILS	4-34
WATER RESOURCES	4-36
NATIONAL WETLANDS INVENTORY	4-38
FORESTLAND	4-40
WILDFIRE RISK AREAS	4-40
FISH AND WILDLIFE	4-43
ENDANGERED SPECIES	4-43
SITES OF CONTAMINATION	4-45
<i>Part 201 Sites</i>	4-45
<i>Surface Water & Air Discharge Permits</i>	4-45
<i>PFAS/PFOA</i>	4-46

OIL AND GAS WELLS _____	4-46
CHAPTER 5 - EXISTING LAND USE _____	5-49
EXISTING LAND USE STATISTICS _____	5-49
EXISTING LAND USE TYPES _____	5-49
<i>Residential</i> _____	5-49
<i>Commercial</i> _____	5-50
<i>Public Land</i> _____	5-50
<i>Water</i> _____	5-50
CHAPTER 6 – COMMUNITY GOALS & OBJECTIVES _____	6-53
INTRODUCTION _____	6-53
COMMUNITY-WIDE GOALS _____	6-54
CHAPTER 7 – FUTURE LAND USE _____	7-70
INTRODUCTION _____	7-70
RESIDENTIAL DEVELOPMENT _____	7-70
COMMERCIAL DEVELOPMENT _____	7-71
INDUSTRIAL DEVELOPMENT _____	7-71
FOREST/RECREATION _____	7-71
ENVIRONMENTAL CONSERVATION _____	7-72
CHAPTER 8 – ADOPTION & IMPLEMENTATION _____	8-75
ADOPTION _____	8-75
<i>Draft Plan Circulated for Comments</i> _____	8-75
<i>Public Hearing</i> _____	8-75
<i>Plan Adoption</i> _____	8-75
<i>Documentation</i> _____	8-75
PLAN IMPLEMENTATION _____	8-75
<i>Zoning</i> _____	8-75
<i>Grants and Capital Improvement Plan</i> _____	8-76
APPENDIX _____	A-77

FIGURES & TABLES

FIGURE 1-1: LOVELLS TOWNSHIP CRAWFORD COUNTY BASE MAP _____	1-7
FIGURE 2-1: POPULATION CHANGE FROM 1950-2020 _____	2-10
TABLE 2-1: POPULATION TRENDS, LOVELLS TOWNSHIP _____	2-10
FIGURE 2-2: POPULATION CHANGE NORTHEAST REGION 2000-2010 AND 2010-2020 _____	2-11
TABLE 2-2: AGE DISTRIBUTION TOWNSHIP, COUNTY, AND STATE – 2000, 2010 AND 2019 _____	2-12
TABLE 2-3: POPULATION BY RACE AND ETHNICITY FOR LOVELLS TOWNSHIP 2010 _____	2-12
TABLE 2-4: LOVELLS TOWNSHIP EDUCATION ATTAINMENT 2010 & 2019 _____	2-13
TABLE 2-5: VACANT HOUSING CHARACTERISTICS LOVELLS TOWNSHIP, CRAWFORD COUNTY AND STATE OF MICHIGAN - 2020 _____	2-13
TABLE 2-6: TYPE OF OCCUPIED HOUSING STRUCTURES LOVELLS TOWNSHIP AND CRAWFORD COUNTY – 2010 AND 2019 _____	2-14
TABLE 2-7: VALUE OF SPECIFIED OWNER-OCCUPIED HOUSING UNITS LOVELLS TOWNSHIP - 2019 _____	2-15
TABLE 2-8: MEDIAN HOUSING VALUES TOWNSHIP, COUNTY AND STATE – 2010 AND 2019 _____	2-15

TABLE 2-9: INCOME STATISTICS TOWNSHIP, COUNTY AND STATE –2000, 2010, AND 2019 _____ 2-15

TABLE 2-10: CIVILIAN LABOR FORCE COMPARISONS AND UNEMPLOYMENT CRAWFORD COUNTY AND STATE OF MICHIGAN _____ 2-16

FIGURE 2-3: CRAWFORD COUNTY UNEMPLOYMENT RATE 1994-2021 _____ 2-17

TABLE 2-11: DISTRIBUTION OF STATE EQUALIZED VALUE (SEV) LOVELLS TOWNSHIP AND CRAWFORD COUNTY – 2021 _____ 2-18

FIGURE 2-4: MUNETRIX STRESS METER _____ 2-19

TABLE 2-12: FINANCIAL HEALTH OVERVIEW – LOVELLS TOWNSHIP _____ 2-19

FIGURE 2-5: WHERE THE MONEY COMES FROM BY FUNCTION _____ 2-19

FIGURE 2-6: HOW THE MONEY IS SPENT _____ 2-20

FIGURE 2-7: HOW WE HAVE MANAGED OUR RESOURCES _____ 2-20

FIGURE 2-8: GENERAL FUND BALANCE AS A PERCENT OF TOTAL EXPENDITURES _____ 2-21

FIGURE 2-9: CRIME STATISTICS _____ 2-21

FIGURE 2-10: CRASH ANALYSIS _____ 2-21

FIGURE 3-1: WELL LOCATIONS WITHIN LOVELLS TOWNSHIP _____ 3-23

TABLE 3-1: CRAWFORD COUNTY SCHOOLS _____ 3-25

TABLE 4-1: TEMPERATURE AND PRECIPITATION SUMMARY 1981-2021 _____ 4-30

FIGURE 4-1: LOVELLS TOWNSHIP USG TOPOGRAPHIC MAP _____ 4-32

FIGURE 4-2: LOVELLS TOWNSHIP STEEP SLOPES AND HYDRIC SOILS _____ 4-33

FIGURE 4-3: LOVELLS TOWNSHIP SEPTIC LIMITATIONS _____ 4-35

FIGURE 4-4: CRAWFORD COUNTY WATER RESOURCES _____ 4-37

FIGURE 4-5: NATIONAL WETLANDS INVENTORY _____ 4-39

FIGURE 4-6: FOREST COVER TYPES ON STATE LAND _____ 4-41

FIGURE 4-7: WILDFIRE RISK AREAS _____ 4-42

TABLE 4-2: CRAWFORD COUNTY THREATENED AND ENDANGERED SPECIES _____ 4-44

TABLE 4-3: CRAWFORD COUNTY CONTAMINATION SITES (PART 201) _____ 4-45

FIGURE 4-8: OIL & GAS WELLS 2022 _____ 4-47

TABLE 5-1: LOVELLS TOWNSHIP EXISTING LAND USE _____ 5-49

FIGURE 5-1: EXISTING LAND USE _____ 5-51

FIGURE 6-1: LOVELLS TOWNSHIP ASSETS TO PRESERVE - 2022 _____ 6-53

FIGURE 6-2: LOVELLS TOWNSHIP CONCERNS– 2022 _____ 6-54

FIGURE 7-1: LOVELLS TOWNSHIP FUTURE LAND USE MAP _____ 7-73

Chapter 1



Introduction

Chapter 1 – Introduction

Purpose and Planning Process

The purpose of the Lovells Township Master Plan 2022 is to provide guidelines for future development while protecting the natural resources and rural character of the Township. This plan presents extensive background information including socio-economic data on the Township; description and mapping of natural resources and existing land use; and inventory of existing community facilities. The background information was analyzed to identify important characteristics, changes, and trends occurring in the Lovells Township. Community concerns were identified based on public input including a special public input forum conducted in February of 2022, previous planning efforts, and input from a Master Plan working group. Goals and policies were updated to guide future development based on background studies, key land use trends, community issues, and public input. These goals, along with a detailed map of existing land use, provided the basis for the Future Land Use Map which specifies where the various types of future development ideally will be located in the Township. This plan also provides suggestions for the implementation of the identified goals and policies. The guidance provided by this Master Plan will be utilized in reviewing, and updating as needed, the Zoning Ordinance for Lovells Township.

Location

Lovells Township is located in the northeast corner of Crawford County, which is situated in the north-central region of Michigan’s Lower Peninsula. Lovells Township comprises 101 square miles of the County’s 558 square miles of land area. Geographically, Lovells Township consists of three government survey townships, T27N-R1W, T28N-R1W, and T28N-R2W.

The Township is bounded on the north by Otsego County, on the east by Oscoda County, on the south by South Branch Township, and the west by Grayling Township and Maple Forest Township. For reference, a location map and base map are attached in **Figure 1-1**.

Planning and Zoning in Lovells Township

Lovells Township initially adopted a master plan in 2002, but the Township has administered a township zoning ordinance since its initial adoption in 1978 and amended the master plan most recently in 2014. Updated zoning ordinances supported by up-to-date Master Plans are considered the main tool Michigan communities have at their command to control land use patterns and development pressures. Since Lovells Township administers a Township Zoning ordinance, it is advisable that the Township maintain an up-to-date Township Master Plan to guide future development and provide an enhanced legal foundation for the Lovells Township Zoning Ordinance.

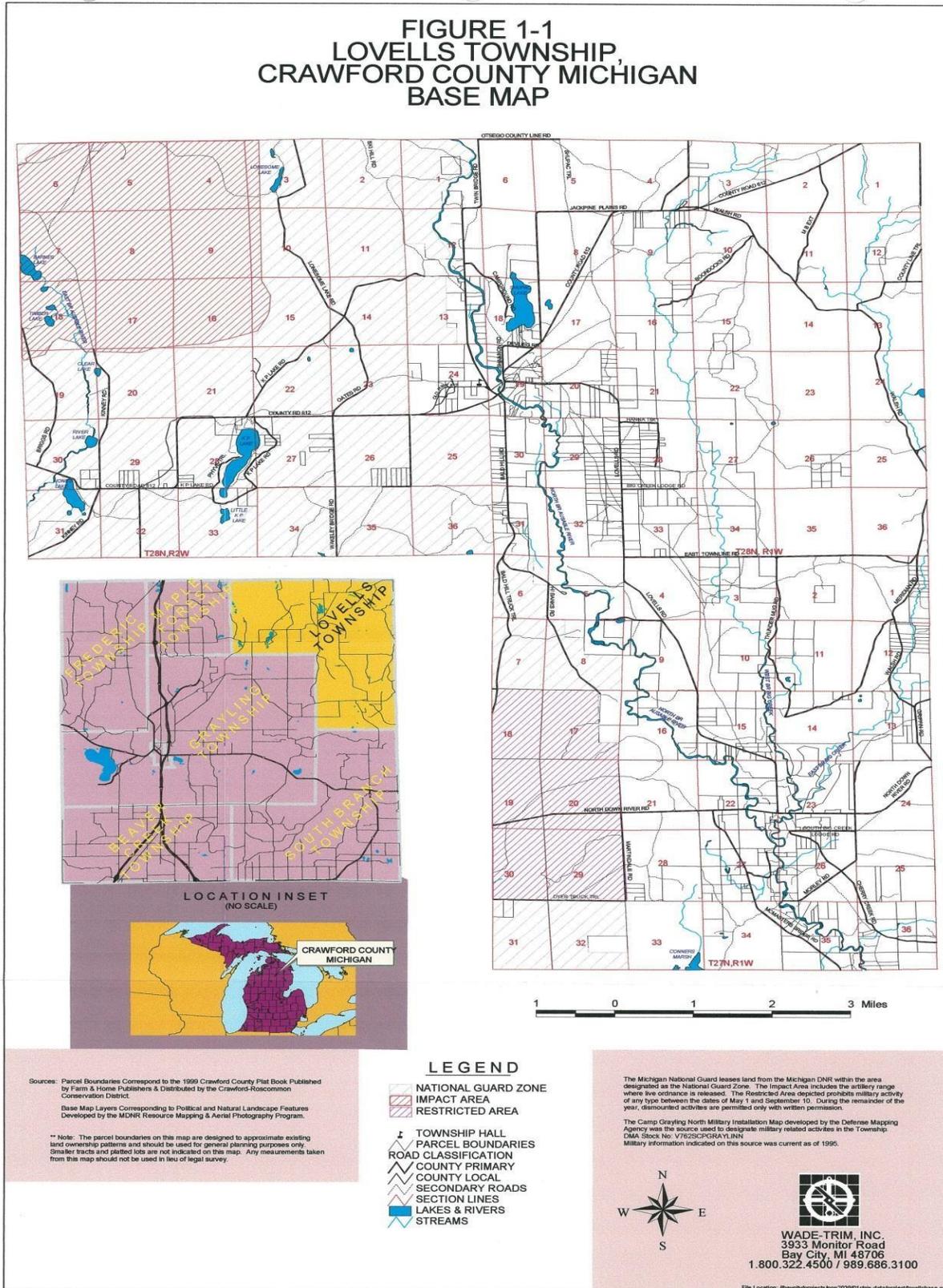
In addition to meeting legal requirements, the plan development process can help identify shared values and desired future considerations for the community. Sound land use planning can help solve and mitigate some of the conflicts, which arise between people with different lifestyles and occupations. Furthermore, modern land use controls can be tailored to help protect sites and resources of special importance to community members.

With these factors in mind, Lovells Township has decided to undertake the update of the prior Master Plan to create the Lovells Township Master Plan 2022 for the community. After the Township adopts the updated plan; the Township should review the Zoning Ordinance including the zoning map to ensure the Ordinance is consistent with the Township's vision for the future and the goals and the Future Land Use as presented in this Master Plan.

A number of special land use issues are present today in Lovells Township. The Michigan National Guard (Camp Grayling) utilizes more than 26,000 acres or 41 square miles of land in Lovells Township for military maneuvers and training exercises. This amounts to 40 percent of the Township's total area. Vacation and seasonal home construction bring visitors along with the pressure for tourist and commercial development. Recent golf course construction in the two-county area of Crawford and Otsego adds growth pressures, as well. Certainly, the water frontage available in the Township is also seen as prime for new residential development, both year-round and seasonal. In light of these growth and development possibilities, the Township needs to establish clear land use policies and development procedures through the comprehensive planning and zoning update process.

In recent years, local governments have taken a fresh look at the value of preserving a high-quality natural environment. Lovells Township is blessed with an extensive and rich natural environment, including waterfront property along a major river tributary and several inland lakes, massive amounts of public forestlands, and a pleasing rural setting. Through land use and zoning controls, the Township can preserve local property values and provide a high-quality living environment for residents, while protecting valuable natural resources.

Figure 1-1: Lovells Township Crawford County Base Map



Chapter 2



Socio & Economic Conditions

Chapter 2 – Socio & Economic Conditions

Introduction

A key component in the comprehensive planning process is understanding the community's social and economic characteristics. This section explores current and historical population changes, age distribution, households, income, employment, housing, and property values. Where significant, Township data is compared to Crawford County and the State of Michigan. The purpose of this exercise is to identify factors that could influence future land use decisions and to assist policymakers with these decisions.

The data contained within the following Chapters are gathered from the Census website. The two data sets used within this Chapter are the 2020 Decennial Census and the American Community Survey 2020 5-Year Estimates. It is important to keep in mind that there are some discrepancies within these data sets and with the COVID-19 pandemic it can make it hard to choose which data set is more accurate.

Population

At the time of the 2020 U.S. Census, the population of Lovells Township was 567 permanent residents a decline from 626 permanent residents in 2010. Population trends from 1950 to 2020 are shown graphically in **Table 2-1 & Figure 2-1** below. Except for the 1960 and 2020 Census when there was a loss of 26 persons and most recently a loss of 59 persons, the population in Lovells Township has grown steadily. The greatest increase was from 1970 to 1980, when the population nearly tripled.

In discussing the population of Lovells Township, it is important to note that the figure presented by the Census does not reflect the actual number of people residing in the Township during the summer months. The Census tally taken on April 1 does not count residents who winter elsewhere. Respondents are asked to declare a permanent residence different from their April location if more than six months are spent at the alternate address. However, many fail to do so for reasons of misunderstanding or for tax purposes. This is further shown by the American Community Survey 2020 5-Year Estimates which estimates 721 persons living in Lovells Township.

Figure 2-1: Population Change from 1950-2020

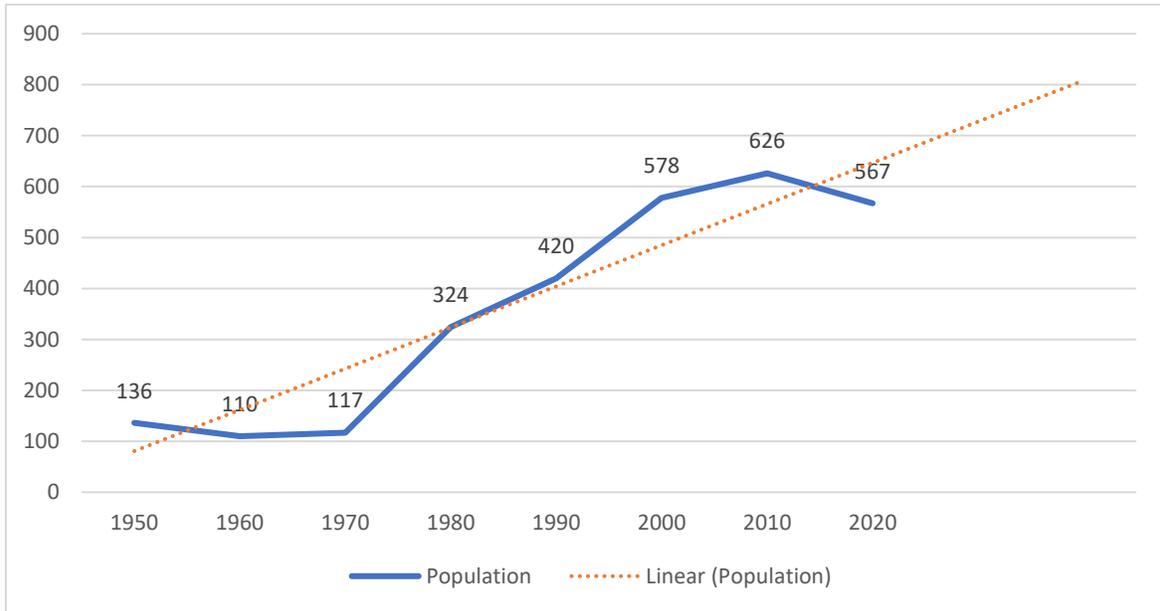
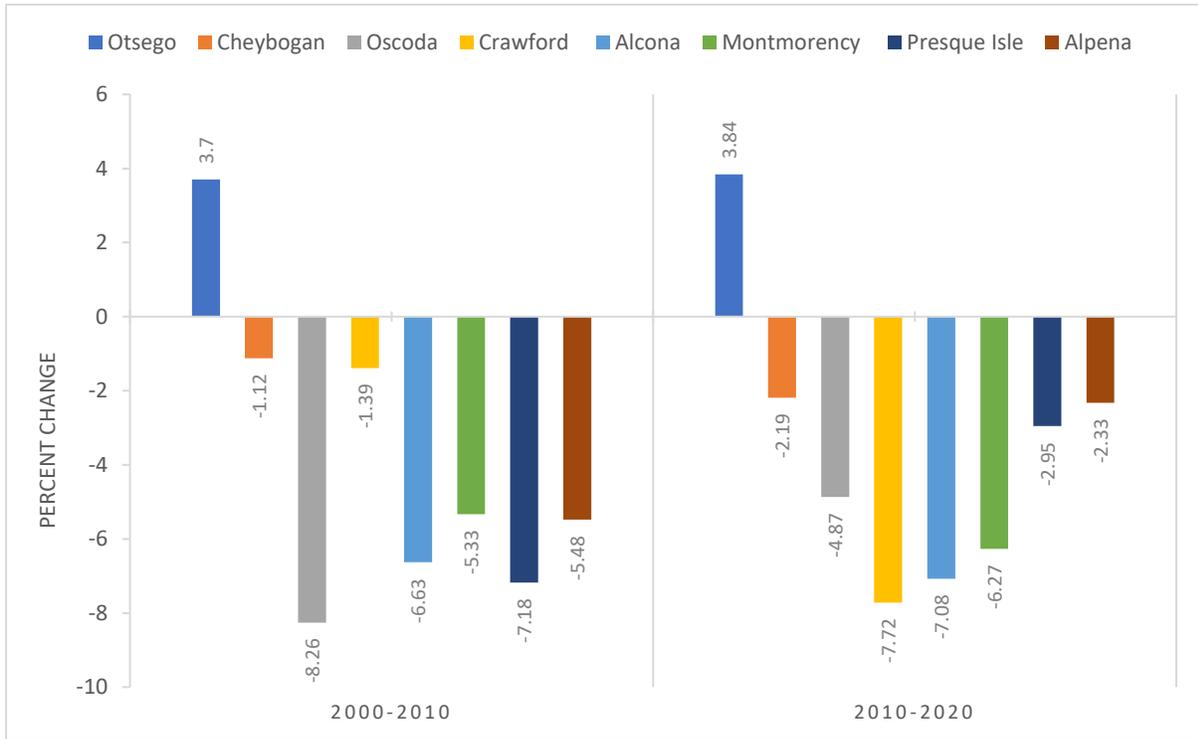


Table 2-1: Population Trends, Lovells Township			
Year	Population	Change	
		Number	Percent
1950	136	--	--
1960	110	-26	-19.1%
1970	117	7	6.4%
1980	324	207	176.9%
1990	420	96	29.6%
2000	578	158	37.6%
2010	626	48	8.3%
2020	567	-59	-10.4%

Source: U.S. Census Bureau

The majority of the eight counties that make up the Northeast Michigan Region, including Crawford County, have experienced considerable population decline over the last two decades. With the exception of Otsego County seeing slight to moderate gains in the last two decades see **Figure 2-2**. Some of Otsego County’s growth can be contributed to people moving from surrounding counties for better job opportunities and additional services that align with their lifestyle.

Figure 2-2: Population Change Northeast Region 2000-2010 and 2010-2020



Age Distribution

According to the 2020 Census, Lovells Township’s year-round population was 567 persons. This figure represents a loss of 59 persons or 10.4 percent from the 2010 Census. The following data uses the most current 2019 American Community Survey (ACS) to analyze age distribution within the Township.

Even with the population decline, the age group of 65 years and older remains at over 32 percent, as the county continually saw an increase in people over 65. The median age increased by eight years over a 19-year period. A similar trend is found within the County median age with moderate increases in median age throughout the State of Michigan.

In conclusion, shifts in the Township’s and County’s demographic makeup are changing the population structure. Long-term trends in the increase in median age continue faster than the rate for the State of Michigan and the U.S. The rate has increased with the downturn in the economy, as young families move to other areas for employment. An aging population will need access to social and medical services.

Table 2-2: Age Distribution Township, County, and State – 2000, 2010 and 2019

Age Range	Lovells Township			Crawford County			State of Michigan		
	2000	2010	2019	2000	2010	2019	2000	2010	2019
Under 5	3.5%	2.2%	1.0%	5.4%	4.7%	4.7%	6.8%	6.0%	5.7%
5-17	9.3%	8.9%	9.1%	14.2%	15.1%	13.4%	15.0%	17.7%	16.1%
18-24	5.5%	3.3%	5.6%	11.2%	6.6%	6.6%	13.7%	9.9%	9.8%
25-44	20.3%	11.4%	12.7%	26.7%	19.3%	18.4%	29.8%	24.7%	24.4%
45-54	15.6%	19.3%	11%	13.9%	17.7%	13.7%	13.8%	15.3%	13.2%
55-59	8.3%	10.4%	10.6%	6.3%	8.0%	9.7%	4.9%	6.9%	7.2%
60-64	7.8%	11.5%	17.2%	5.7%	7.8%	8.7%	3.8%	5.8%	6.8%
65+	29.8%	32.9%	32.8%	16.6%	20.8%	25%	12.3%	13.7%	16.8%
Median Age	52	57.5	60	40.6	47.7	50.8	35.5	38.9	39.7

Source: U.S. Census Bureau; 2000 Census, 2010 Census, American Community Survey (ACS) 2019

Race and Ethnicity Composition

Information found below on (Table 2-3) shows that Lovells Township has a very small minority population and that statistic has changed little over the last several decades. The respondents were given the opportunity to choose one or more race categories.

Table 2-3: Population By Race and Ethnicity for Lovells Township 2010

	Number of Persons	% of Total Population
White	548	96.6%
Black or African American	1	<0.1%
Asian	2	<0.1%
American Indian and Alaska Native	5	<0.1%
Other Race	1	<0.1%
Two or More Races	10	1.8%
Total	567	100%

Source: U.S. Census Bureau

Education

Since 2010 Lovells Township has continued to make increases in educational attainment as shown by Table 2-4. The percentage of people in Lovells Township age 25 and older that have earned a bachelor’s or graduate or professional degree has increased from 11.3 percent to 18.8 percent for a bachelor’s and from 7 percent to 10.1 percent for a graduate or professional degree. There were also significant increases in persons who had some college with no degree. While seeing a decrease in people with no high school diploma education or less.

Table 2-4: Lovells Township Education Attainment 2010 & 2019				
	2010		2019	
	Number	Percent	Number	Percent
Less than 9 th grade	16	3.2%	1	0.2%
9 th to 12 th no diploma	47	9.5%	50	8.2%
High School Diploma	199	40.0%	195	31.8%
Some College no degree	91	18.3%	144	23.5%
Associates	53	10.7%	46	7.5%
Bachelors	56	11.3%	115	18.8%
Graduate or Professional	35	7.0%	62	10.1%

*Data includes only persons at least 25 years of age or older.
Source: American Community Survey 2010, 2019 5-Year Estimates

Households, Housing Stock, and Property Values

An evaluation of housing stock and property values can be very beneficial in determining community characteristics or housing needs. For example, a sizable percentage of vacant housing units is indicative of an increased seasonal population, as is the case of Lovells Township.

When compared to the State as a whole, vacant housing in the Township and County is very significant, as shown in **Table 2-5**. The 2020 Census indicates that 654 (69.42 percent) of the total housing units in Lovells Township were listed as vacant. Vacant housing includes recreational, seasonal, or occasional-use homes. This represents a slight percentage decrease from the 2010 Census when 69.53 percent of the homes were designated as vacant.

Table 2-5: Vacant Housing Characteristics Lovells Township, Crawford County and State of Michigan - 2020			
	Total Units	Vacant Units	% Vacant
Lovells Township	942	654	69.42%
Crawford County	10,174	4,511	44.33%
State of Michigan	5,570,173	528,413	9.48%

Source: U.S. Bureau of Census, 2020 Census

2019 American Community Survey (ACS) data shows Lovells Township has a household size of 2.04 persons per household compared with, 2.23 persons per household in Crawford County and 2.47 for the State of Michigan as a whole. These figures are a notable change from prior decades. Over the past few decades, many communities across the state have experienced a shrinking average household size. This trend of smaller households is important, because it creates a

demand for additional suitable housing units, even in the absence of a numerical increase in population.

Table 2-6: Type of Occupied Housing Structures Lovells Township and Crawford County – 2010 and 2019				
Unit Type	Lovells Township		Crawford County	
	2010	2019	2010	2019
1 unit structures- detached or attached	260	337	4,809	5,107
2-4 unit structures	0	0	145	278
5-9 unit structures	0	0	35	69
10+ unit structures	0	0	150	133
Mobile home	36	19	622	527
Totals	296	356	5,761	6,141

Source: Census Bureau, American Community Survey 2010, 2019

Due to changes in how the Census Bureau collects distinct types of data, information regarding the types of housing units is based on estimates, and as such, the total number of housing units does not match. According to the 2019 ACS estimate, there are a total of 356 occupied housing units in Lovells Township: 337 single-family units (94.7%), no multi-family structures occupied, and 19 mobile homes occupied (5.3%)., while no boats or recreational vehicles are used as housing.

In Lovells Township, 90.2 percent of the permanently occupied housing units are owner-occupied, compared with 81.2 percent at the County level and 71.2 percent at the State level. The renter-occupied housing in the Township accounts for 9.8 percent of the total housing units, compared with, County level of 18.8 and the State level of 28.8 percent.

Another comparative measure for housing values is shown in **Table 2-7**. The 2019 ACS estimate shows the median value of owner-occupied year-round housing units is \$127,700 for Lovells Township, per **Table 2-8**. Crawford County’s median value is \$105,000 as compared to \$154,900 in Michigan. This information, while collected by the Census Bureau, is subjectively provided by the general population regarding what he or she thinks is the value of his or her house, therefore this information should be used with caution. Additionally, it is thought that some people may intentionally underestimate the value of their homes due to concerns that accurate reporting could raise their taxes.

Table 2-7: Value of Specified Owner-Occupied Housing Units Lovells Township - 2019	
Housing Values	Percent of Units Township
Less than \$50,000	8.7%
\$50,000 - 99,000	27.7%
\$100,000 - 149,000	22.4%
\$150,000 - 199,000	8.4%
\$200,000 - 299,000	19.9%
\$300,000 or more	12.7%

Source: Census Bureau's, American Community Survey 2019

Table 2-8: Median Housing Values Township, County and State – 2010 and 2019					
Lovells Township		Crawford County		Michigan	
2010	2019	2010	2019	2010	2019
\$106,000	\$127,700	\$105,000	\$105,000	\$128,600	\$154,900

Source: U.S. Census Bureau, American Community Survey (ACS) 2010, 2019

Income and Employment

Three measures of income (median family, median household, and per capita) are illustrated in Table 2-9 for the Township, County, and State. Income statistics show that Lovells Township residents have incomes comparable to County-wide, but less than State-wide. The table also illustrates that at the time of the 2019 ACS, the percentage of Township families living below the poverty level was slightly less than at County and State levels.

Table 2-9: Income Statistics Township, County and State –2000, 2010, and 2019									
Income Type	Lovells Township			Crawford County			Michigan		
	2000	2010	2019	2000	2010	2019	2000	2010	2019
Median Family Income	\$37,000	\$48,125	\$ 52,344	\$37,056	\$47,500	\$ 59,651	\$53,457	\$60,749	\$ 72,600
Median Household Income	\$31,023	\$35,768	\$ 53,036	\$33,364	\$39,597	\$ 47,977	\$44,667	\$48,471	\$ 57,144

Per Capita Income	\$21,041	\$22,097	\$ 27,461	\$16,903	\$21,583	\$ 26,294	\$22,168	\$25,547	\$ 31,713
% Families Below Poverty	1.7%	9.8%	9.1%	10.0%	12.1%	10.5%	7.4%	11.7%	9.9%

Source: U.S. Census Bureau, American Community Survey 2000, 2010, 2019

Employment data on the civilian labor force is compiled on a monthly and annual basis by the Office of Labor Market Information (OLMI), Michigan Department of Technology, Management and Budget. The township-level data is no longer available from the State. **Table 2-10** shows the County and State annual average data for 2017, 2018, 2019, 2020, and 2021.

Table 2-10: Civilian Labor Force Comparisons and Unemployment Crawford County and State of Michigan										
	County					State (in 1,000's)				
	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
Labor Force	5,418	5,546	5,594	5,660	5,565	4,887	4,918	4,949	4,841	4,731
Employed	5,044	5,213	5,287	5,070	5,163	4,663	4,713	4,748	4,363	4,486
Unemployed	374	333	307	590	367	224	205	201	478	244
Unemployment Rate %	6.9	6.0	5.5	10.4	6.6	4.6	4.2	4.1	9.9	5.2

Note: All numbers rounded to nearest 25.
 Source: Michigan Department of Technology, Management & Budget, Office of Labor Market Information

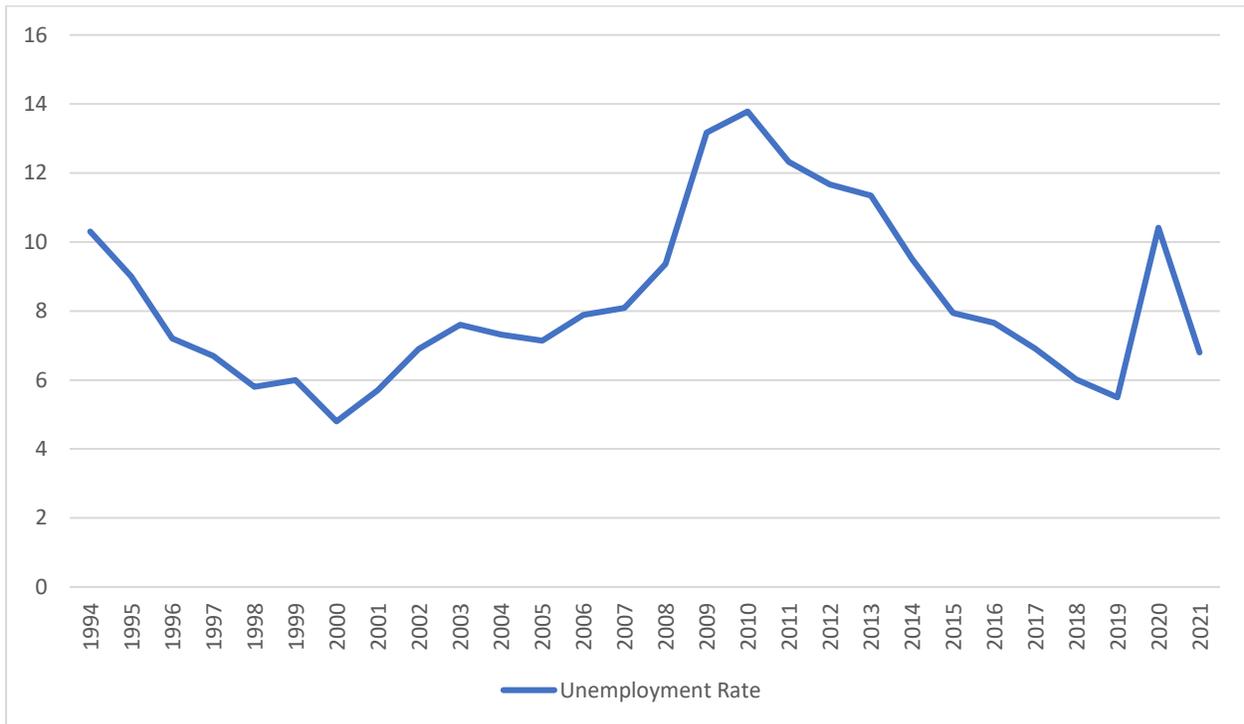
Employment in Crawford County is most likely to be found in the retail sector, government, or services. The top job producers in Crawford County are much the same as found in other Northeast Michigan counties: Management, Business, Science & Art, and Service sectors comprised (approximately 56%), followed by retail employment and manufacturing, construction, and maintenance sectors at (approximately 22%). The smallest sector of the county's economy is employment in the education, legal, and media sectors (approximately 7%).

Employment and Unemployment

Figure 2-3 shows that the county's unemployment rate is again increasing after a period of decline from 1994 to 2000. The unemployment rate peaked in 1994 at 10.3 percent and declined steadily until 1998. The rate remained more or less steady at about 6 percent until 2000. Between 2000

and 2002 the rate rose 2 percent, peaking at a 6.9 percent unemployment rate. As was the case with the State and most of the Country, a slowing national economy exacerbated by the terrorist attack of September 11 was the primary cause for Crawford County's .9 and 1.2 percent rise in the unemployment rate this time period. These increases were the largest in nine years, and unemployment rose to its highest level since 1995. Following this period, the unemployment rate gradually increased to 7.1 percent by the year 2005. Current data indicates that the jobless rate increased to a recent annual average high of 13.8 percent in 2010, but the annual average rate had improved to 7.9 percent by 2015. Crawford County's unemployment rate has historically been 3 to 4 percent higher than the State and has mirrored the State's trend. Most recent trends show the highest single-year increase in the unemployment rate since the 2008-2009 housing market crisis. Between 2019 and 2020 Crawford County had a 4.9 percent increase in unemployment in part due to the COVID-19-related economic shutdowns. **Table 2-10** tracks the labor force and employment from 2017. For many people who live and work in Lovells Township, the numbers reflect a Countywide overall job obtainability.

Figure 2-3: Crawford County Unemployment Rate 1994-2021



State Equalized Value

The characteristics of the Township’s property values and the local economy can be obtained by analysis of the State Equalized Value (SEV) figures. By law, the SEV, which constitutes a community’s tax base, is equal to approximately one-half of the true market value of the real property and certain taxable personal properties.

Table 2-11 shows the distribution of the different SEV categories for 2021, comparing Lovells Township to Crawford County as a whole. As the table demonstrates, the majority (more than 96 percent) of the Township’s taxable property is residential, whereas the County’s taxable residential property makes up more than 81 percent of the County’s total SEV. These figures show that rural residential living is a significant characteristic, especially for the Township. Commercial properties are limited, while no industrial or agricultural property is included in the Township’s tax base. It should be noted that the extensive public lands are not accounted for in these figures as such properties are not taxable.

Table 2-11: Distribution of State Equalized Value (SEV) Lovells Township and Crawford County – 2021				
Category	Lovells Township		Crawford County	
	Amount	%SEV	Amount	%SEV
Real Property				
Agricultural	0	0.00%	0	0.00%
Commercial	2,388,900	3.28%	51,388,000	6.58%
Industrial	0	0.00%	96,536,700	12.36%
Residential	70,338,700	96.72%	633,145,300	81.06%
Timber Cut-over	0	0.00%	0	0.00%
Developmental	0	0.00%	0	0.00%
Total Real	72,727,600	89.54%	781,070,000	94.07%
Personal	8,497,200	10.46%	49,267,750	5.93%
TOTAL SEV	81,224,800	100.0%	830,337,750	100.0%

Source: Michigan Department of Treasury – State Tax Commission L-4023

Lovells Township Finances

Munetrix (www.munetrix.com) is an online system which displays fiscal data for local units of government in order to provide transparency and an understanding of local unit finances to the public. The Munetrix "Stress Meter" provides an overview of Indicator Scores used to calculate the financial stress of a municipality. The Indicator Score gives an overall picture of the soundness of local governments, the trend of stability over time, and allows the identification of local units that are most in need of help. Scores are generated based on the criteria of population growth, real taxable value growth, large real taxable value growth, general fund expenditures as a percent of taxable value, general fund operating deficit, prior general fund operating deficit, size of general fund balance, fund deficits in the current or previous year, and general long-term debt as a percent

of taxable value. The lower the number the more fiscally sound a local unit is determined to be. **Figure 2-4** shows the score indicator. **Table 2-12** shows Lovells Township has maintained a low fiscal stress score. **Figures 2-4 through 2-8** give more details about the finances of the Township.

Figure 2-4: Munetrix Stress Meter



Table 2-12: Financial Health Overview – Lovells Township

Year	Data Status	Indicator Score	Population	Revenues	Expenditures	Fund Balance	Long Term Debt	Taxable Value
2015	Historic	1	550	\$172,525	\$161,107	\$189,502	\$0	\$59,952,397
2016	Historic	1	548	\$198,072	\$155,100	\$240,752	\$0	\$60,789,102
2017	Historic	1	601	\$200,885	\$166,302	\$275,335	\$0	\$62,083,889
2018	Historic	1	664	\$213,364	\$201,906	\$284,328	\$0	\$63,856,646
2019	Historic	1	727	\$222,369	\$218,939	\$287,758	\$0	\$65,268,561
2020	Historic	0	721	\$232,300	\$211,785	\$320,199	\$0	\$62,522,085
2021	Historic		721	\$245,087	\$234,576	\$330,710	\$0	\$64,568,860

Figure 2-5: Where the Money Comes From by Function

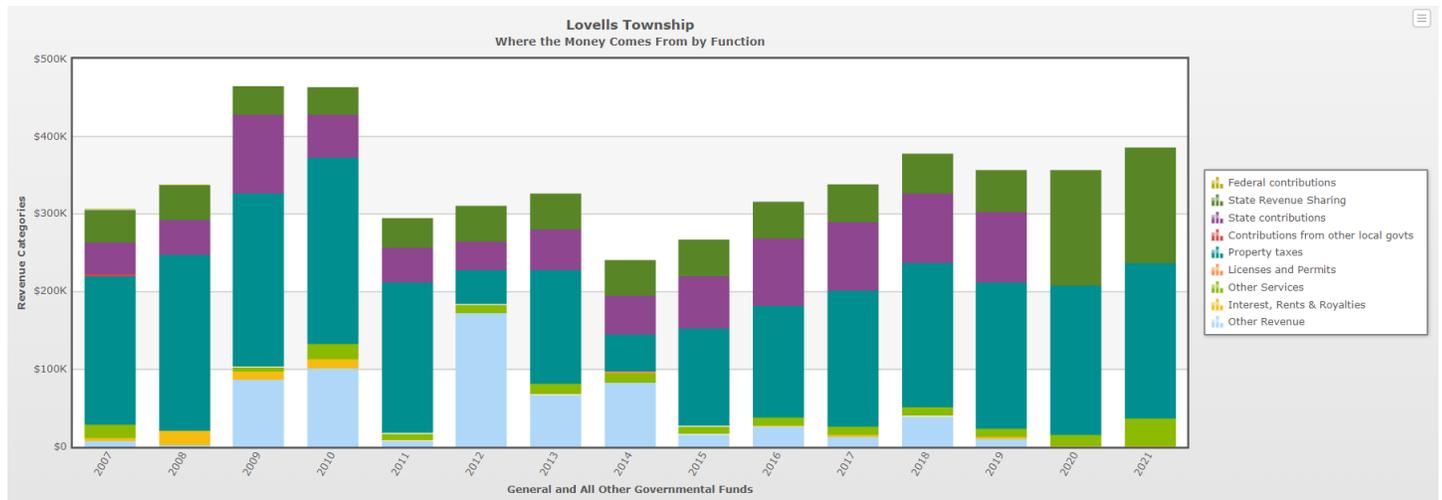


Figure 2-6: How the Money is Spent

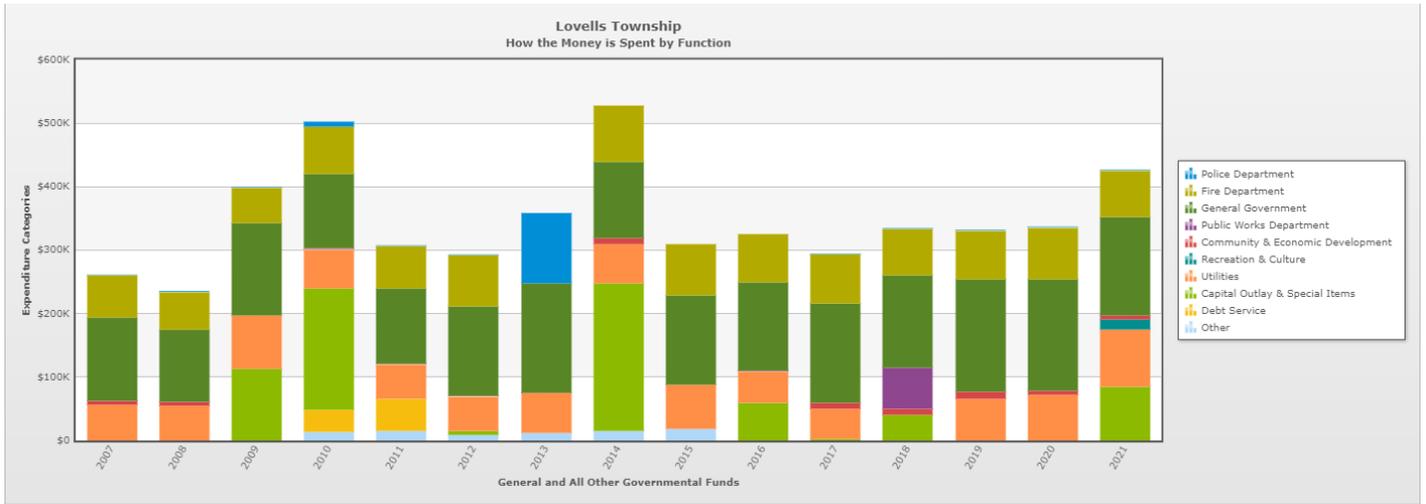


Figure 2-7: How We Have Managed Our Resources

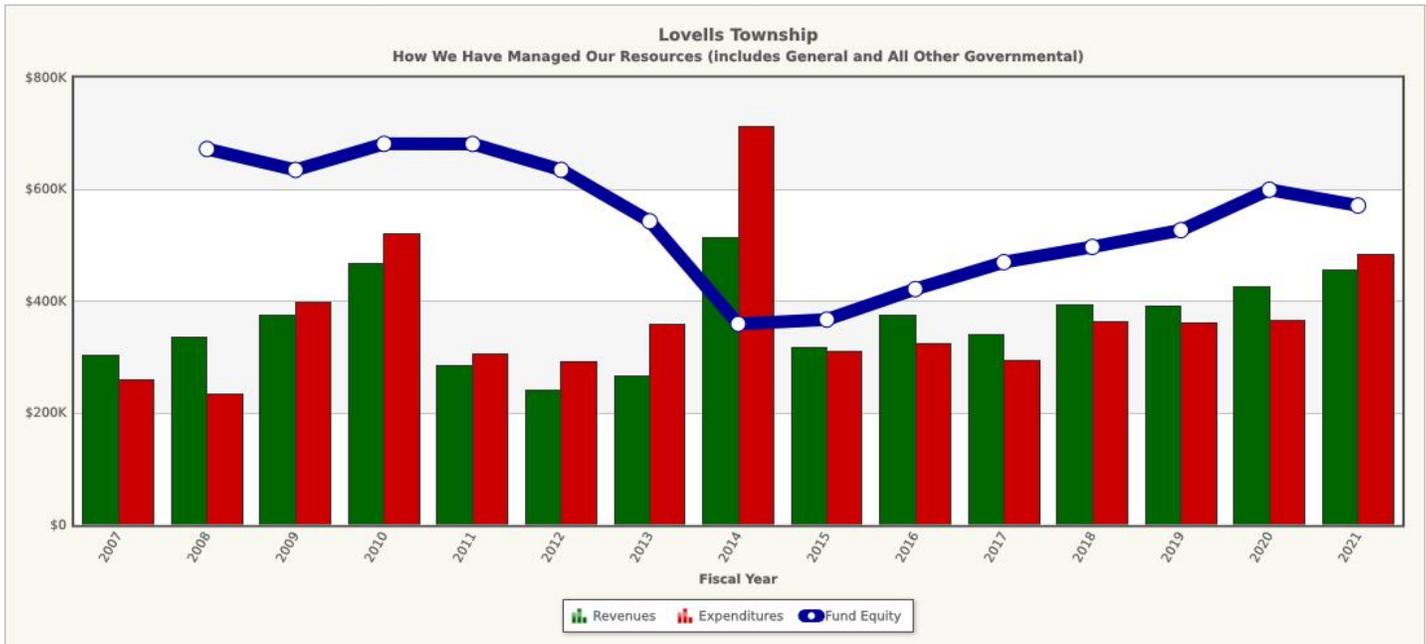


Figure 2-8: General Fund Balance as a Percent of Total Expenditures



Crime and Traffic Crashes

Figure 2-9: Crime Statistics

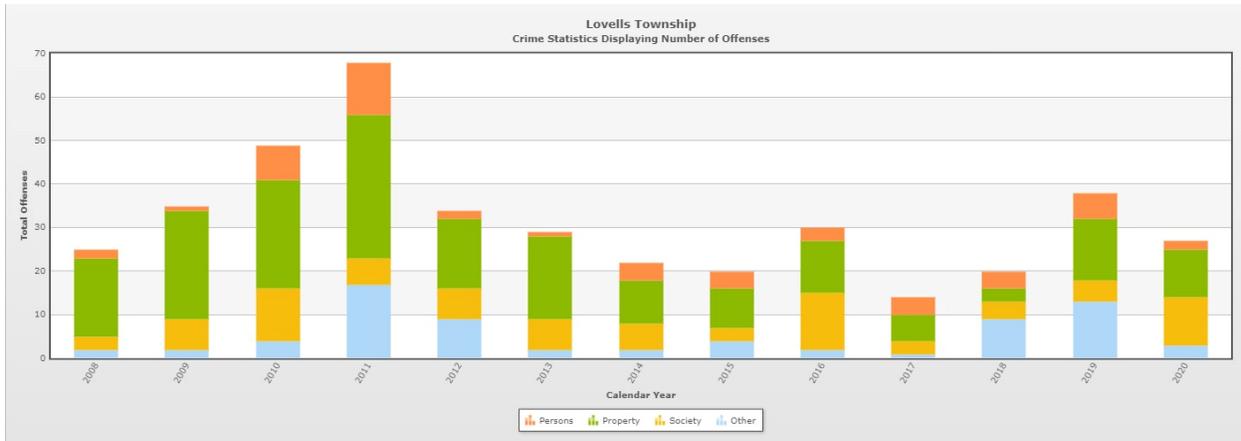
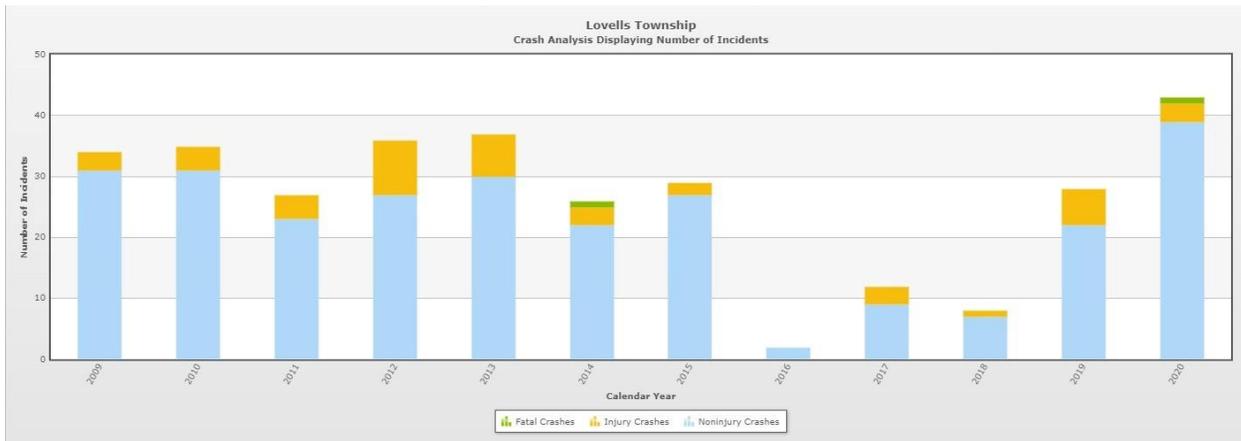


Figure 2-10: Crash Analysis



Chapter 3



Community Services & Facilities

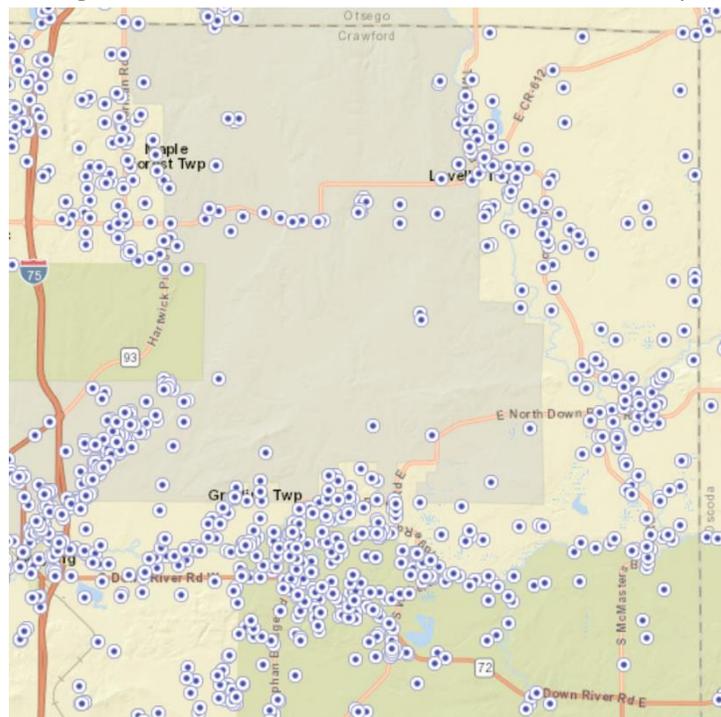
Chapter 3 – Community Services & Facilities

Public Water Supply

The Department of Environment, Great Lakes, and Energy (EGLE) have primary enforcement authority in Michigan for the Federal Safe Drinking Water Act under the Michigan Safe Drinking Water Act. The DEQ has regulatory oversight for all public water supplies including approximately 1,400 community and 10,000 non-community water supplies. The program also regulates drinking water well drilling for approximately 15,000 new domestic wells drilled each year. Michigan has over 1.12 million households served by private wells, more than any other state. Like most of northern Michigan, Crawford County's only source of drinking water is groundwater. The public water supply for the County is summarized below:

Private Wells: Most of Crawford County's land area is served by private wells and 3,121 of these wells supply water to County residents. If drinking water comes from a private well, the owner is responsible for the water's safety. EPA rules do not apply to private wells, but the agency recommends that well owners have their water tested annually. **Figure 3-1** below shows well locations and concentrations within Crawford County.

Figure 3-1: Well Locations within Lovells Township



Community Water Systems: Community water systems serve the population year-round, such as in private residences or businesses. Lovells Township currently has no community water systems. There are five active community water systems active in Crawford County, serving a total of 2,082 persons.

Non-Transient Non-Community Water Systems: Non-transient water systems serve the same population, but not year-round (for example, schools that have their own water system). There are no non-transient community water systems within the Township. However, nineteen such water systems are active in Crawford County. A Non-Community water supply is a water system that provides water for drinking or potable purposes to 25 or more persons at least 60 days per year or has 15 or more service connections.

Transient Non-Community Water Systems: Transient non-community water systems are systems that do not consistently serve the same population. Rest stops, campgrounds, gas stations, motels, and convenience-type stores not hooked into a community water supply would be included in this category. Most of the wells in the County that are not considered private wells fall into this group. Ten such wells are found in the Township with seventy-eight being found in the County, serving approximately 20,000 persons in total.

Sewage Disposal

Residents and business owners in the Township must rely on private onsite septic systems for wastewater disposal. Currently, there are approximately 7,641 households and businesses using these private systems throughout the County. There are several septage haulers located in the County. The method of disposal used by haulers is land application. The District Health Department regulates and maintains a permitting system for private wells and septic systems and is responsible for the inspection of the septage-hauling operation.

Solid Waste

Collection of residential and commercial solid waste in Lovells Township is accomplished by commercial haulers and by individuals transporting their waste to the landfill or one of the transfer stations located in the Township or County. Private hauling companies provide residential and commercial service pick-up throughout the Township, through private agreements with customers, as well as servicing the township transfer stations. GFL Environmental, Inc. operates the primary solid waste disposal facility for the County, located in Maple Forest Township. GFL Environmental handles the bulk of solid waste disposal in Lovells Township. It continues to be an ongoing challenge to provide affordable solid waste disposal and provide recycling choices for individuals and businesses.

Recycling

Crawford County currently provides county-wide recycling services via a contract with Grayling Charter Township's Compacting/Recycle Center. A recycling council moderates all aspects of recycling in the County. The council membership consists of a representative from the City, County, each of the Townships, and Camp Grayling. The council serves as an advisory board to the County, City, and each of the Townships within the County. Residents can recycle certain materials through the use of recycling stations at transfer stations located in the City of Grayling, as well as Beaver Creek, Frederic, Grayling Charter, Lovells, Maple Forest, and South Branch

Townships. Most of the recyclable materials are then transferred to Grayling Charter Township’s Compacting/Recycle Center for processing. The Compacting/Recycle Center is located west of I-75 on North Down River Road. The recycling council is currently working with Camp Grayling in a continued effort to provide enhanced services and reduce overall costs.

Utility Services

Due to a large amount of public land and internal parcels (parcels in the center of a section that does not abut a public road), utility services are lacking in some areas of the Township. The costs of providing telephone service and high-speed internet services to these 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 and alternative internet services.

Gas and Electricity Providers—DTE Energy formerly MichCon provides natural gas service for the County and Township; several sections in the northeast portion do not have natural gas service. Consumer Energy and Great Lakes Energy provide electricity to developed areas within the County. Three-phase service is not currently available within the Township. Three-phase power is needed to support some types of commercial and industrial activities, particularly in businesses that operate heavy machinery or equipment.

Telephone and Internet Service— Frontier, Verizon, and AT&T provide telephone service to the largest geographic area of the Township, although there are pockets of unserved areas in the Township. Additionally, there are a variety of internet, wireless, and cellular telephone services available in the Township.

Schools and Libraries

Lovells Township is within the Crawford AuSable School District located at 1135 N. Old US 27, Grayling, MI 49738, Phone: (989) 344-3500. **Table 3.1** provides a summary of school districts and schools servicing Crawford County.

Table 3-1: Crawford County Schools		
Crawford AuSable School District		
School Name	Address	Students and Staff
Grayling Elementary-AuSable Primary School Phone: 989-344-3655	306 Plum Street Grayling, MI 49738	Students: 506 Teachers: 41
Grayling Middle School Phone: (989)-344-3558	500 Spruce St. Grayling, MI 49738	Students: 405 Teacher: 28
Grayling High School-Adult Ed Phone: (989)-344-3508	1135 N. Old-27 Grayling, MI 49738	Students: 397 Teachers: 23
Source: National Center for Education Statistics 2020-2021(NCES)		

The area is served by Kirtland Community College, as well as the M-TEC and University Center in Gaylord for local post-secondary education.

The Devereau Memorial Crawford County Library system has three branches to serve the communities of Crawford County. The main branch of the library is located on Plum Street in the City of Grayling and offers a wide variety of services and programs including internet service, inter-library loans, children’s activities, and specialized book sections. An additional two satellite branches include the Frederic Library, located on Manistee Street in the Frederic Township Governmental Offices and Community Center, and the Beaver Creek Library located in Beaver Creek Township on South Grayling Road. Lovells Township maintains the Lovells Media and Reading Center located in Lovells Township on Twin Bridge Rd.

Public Safety

Law Enforcement

Lovells Township is covered under the County Sheriff Department, located at 200 W. Michigan Avenue in Grayling. The County 911 system is co-located in the Sheriff’s Department as well as the Crawford County Jail. The County receives Michigan State Police support assigned to the Houghton Lake Post and the Kalkaska Detachment. Some troopers are assigned to Crawford County that start and end their shifts at the Michigan State Police Crime Lab located on the I-75 business loop in Grayling. Camp Grayling will provide some law enforcement to Crawford County if needed.

Emergency Medical Services

Crawford County maintains Emergency Medical Services (EMS) throughout the county. Mobile Medical Response (MMR) units are located in Beaver Creek Township and the City of Grayling, Frederic and South Branch Townships. Lovells Township maintains local Emergency Medical Services (EMS).

Fire Services

Lovells Township Fire Department is a volunteer fire department covering 108 square miles. It is located at 8405 Twin Bridge Rd., Grayling, MI. In case of an emergency dial 911. The mailing address is 8405 Twin Bridge Rd., Grayling, MI 49738. Phone (989)-348-9215. The Lovells Township FD provides fire and first responder services township-wide. The water sources are the lakes in the Township. In addition, Camp Grayling may aid with wildland firefighting.

Medical Facilities

Lovells Township does not currently have any health service establishments. Most of the facilities are located in or near the City of Grayling. The largest medical facility in Crawford County is Munson Hospital Grayling, located at 1100 East Michigan Avenue in Grayling. Troop Medical Clinic located within Camp Grayling addresses troop-related medical issues. The Clinic has minimal staff much of the year and is only fully staffed during troop training. Northern Lakes Community Mental Health of Traverse City provides support services to developmentally disabled persons as well as persons needing mental health services. District Health Department

#10 is often able to fill the health care needs of the community and the County. The Crawford County Main Branch is located at 501 Norway Street Suite #1 in Grayling. Programs offered by the Health Department fall into three categories: home health care services, environmental health services, and personal health services.

Chapter 4



Natural Resources

Chapter 4 – Natural Resources

Introduction

One of the significant attractions for the residents and visitors of Lovells Township is the area’s natural environment, fresh air, and small-town setting. The natural environment attracts people to the area, also imposing constraints on the use of the land. Often the alteration of sensitive environments creates problems, which cannot be easily corrected. An analysis of the Township’s physical environment can assist government officials in planning for future use. This chapter includes resource discussions of climate, geology, topography, soils, water, wetlands, and wildlife.

Climate

The climate summary describes the general nature of living conditions that affect life’s daily activities. Historically, Northern Michigan has offered a climate desired by many visitors and recreational enthusiasts. The moderate summers allow residents to escape the warmer conditions experienced at locations in Southern Michigan. Winters are generally longer, and the unique location of Crawford and Otsego Counties within Northern Michigan allows the area to fall within a major snowbelt region. The location in proximity to the Great Lakes of Michigan provides enhanced snowfall events referred to as lake-effect snowfall. Lake-effect snowfall is caused by cold, arctic air masses traveling across the Canadian Provinces and then passing over the relatively warm Great Lakes. The lower portion of these air masses is quickly warmed and is saturated with moisture creating instability. Soon, these air masses form bands of heavy, localized snowfall, which come ashore. The snowbelt extends further inland in Northern Michigan because of the higher elevations in and around the region forcing air to rise. The further air is forced to rise, the more it must cool. Since cooler air is unable to hold as much moisture, more precipitation is forced to fall over inland areas. Generally speaking, the Great Lakes in Michigan cause the seasons to arrive later than in other areas in the U.S. The Great Lakes tend to cool the air in the spring and early summer, while the fall and early winter tend to be warmer.

At the same time, it is helpful to know the climate to understand building code requirements, utility depths, planning for growing seasons, and energy usage needs.

The Midwest Climate Data Center has collected weather data for locations across the central United States. The annual climate summary for the Grayling area is summarized in **Table 4-1**. The average temperature and precipitation by month are calculated over a 40-year period. Moderately warm temperatures dominate summers. The warmest days occur in July and between the years 1981-2021, there was an average of six days per year that exceeded the 90-degree mark. There were no temperatures over 100 degrees in the 40-year period and temperatures in the high 80s have occurred as early as April and as late as October. Normal temperatures for the area range from the high 70s to the low in the high 40s in the summer and from the high 20s to single digits in the winter. The following temperature extremes for the station in Crawford County are; maximum, 104 F, recorded July 12, 1936; minimum, -42 F,

recorded February 3, 1898; warmest monthly mean, 75.5 F recorded in July of 1921; and coldest monthly mean, 2.5 F was recorded February 2015.

In the summer, precipitation comes mainly in the form of afternoon showers and thundershowers. Most precipitation occurs in April-October, which received an average of 24.48 inches or 72 percent of the average annual total for the 1981-2021 period. During this same period, the average wettest month was October which averaged 3.95 inches, while the average driest month was February which averaged 1.30 inches. The average seasonal snowfall was 81-inches.

During the 1981-2021 period, 100 days per season averaged one inch or more of snow on the ground but varied greatly from season to season. The greatest one-day precipitation total was 5.02 inches, recorded August 8-9, 1965; the greatest monthly total, 12.51 inches, was recorded September 1986. The least monthly total, 0.00 inches, was recorded in April 1889. Soil moisture replenishment during the fall and winter months plays a significant role in the success of agriculture in this area. While drought occurs periodically, the Palmer Drought Index indicated drought conditions reached extreme severity only two percent of the time.

Table 4-1: Temperature and Precipitation Summary 1981-2021

Table 4-1: Temperature and Precipitation Summary 1981-2021					
Temperature Averages (Degrees Fahrenheit)				Precipitation Averages (Inches)	
Period	Maximum	Min	Mean	Precipitation	Snow
January	26	8.4	17.1	1.71	18
February	28.6	8.1	18.3	1.30	20
March	38.8	15.7	27.4	1.75	15
April	52.4	28.6	40.8	3.09	3
May	66.6	39.8	53.2	3.29	<1
June	76.1	49.7	62.9	3.58	0.0
July	80.3	54.4	67.3	3.34	0.0
August	78	52.6	65.3	3.61	0.0
September	70	44.4	57.2	3.62	0.0
October	56.3	34.5	45.4	3.95	15
November	42.7	25.7	34.3	2.58	28
December	30.9	16.6	23.6	1.99	38
Annually	53.9	31.5	42.7	33.8	81

Source: Midwestern Regional Climate Center, Champaign IL, Station 203391 Grayling MI

Geology

The geology of Lovells Township, as well as the surrounding region, will be described in terms of bedrock geology (sedimentary rocks underlying the glacial deposits) and surface geology or quaternary geology (materials deposited by continental glaciers).

According to geologists, the bedrock underlying Lovells Township was laid down during the Lower Mississippian Period of the Paleozoic Era and consists of Marshall Sandstone and Coldwater Shale.

As is true all across northern Michigan, Lovells Township’s surface geology was formed of glacial debris left behind when the last glaciers receded approximately 10,000 to 12,000 years ago.

Lovells Township is located on an outwash plain, which represents a former glacial channel or watercourse. The glacial till material deposited is made up of fine to coarse sand alternating with layers of small gravel to heavy cobbles.

Topography

Slope is an important topographic feature affecting development. Steep roadway grades, septic field failures, soil erosion, and excavation costs are some of the difficulties associated with severe slopes. Development in steeply sloped areas should be limited. Where development does occur, sensitive site planning should be required along steep slopes to prevent soil erosion.

Figure 4-1 shows the topographic features of Lovells Township, as presented by the United States Geologic Survey. Steep slopes and bluffs are noted where contour lines are close together. The most varied and hilly terrain can be seen in the northwest part of the township.

Figure 4-2 depicts the areas with steep slopes and those areas with hydric (wetland) soils, based on the general soil data. These maps are helpful for identifying slope and wetland development constraints. It is intended these maps be used for general planning purposes only and should not be used for site-specific development.

Figure 4-1: Lovells Township USG Topographic Map

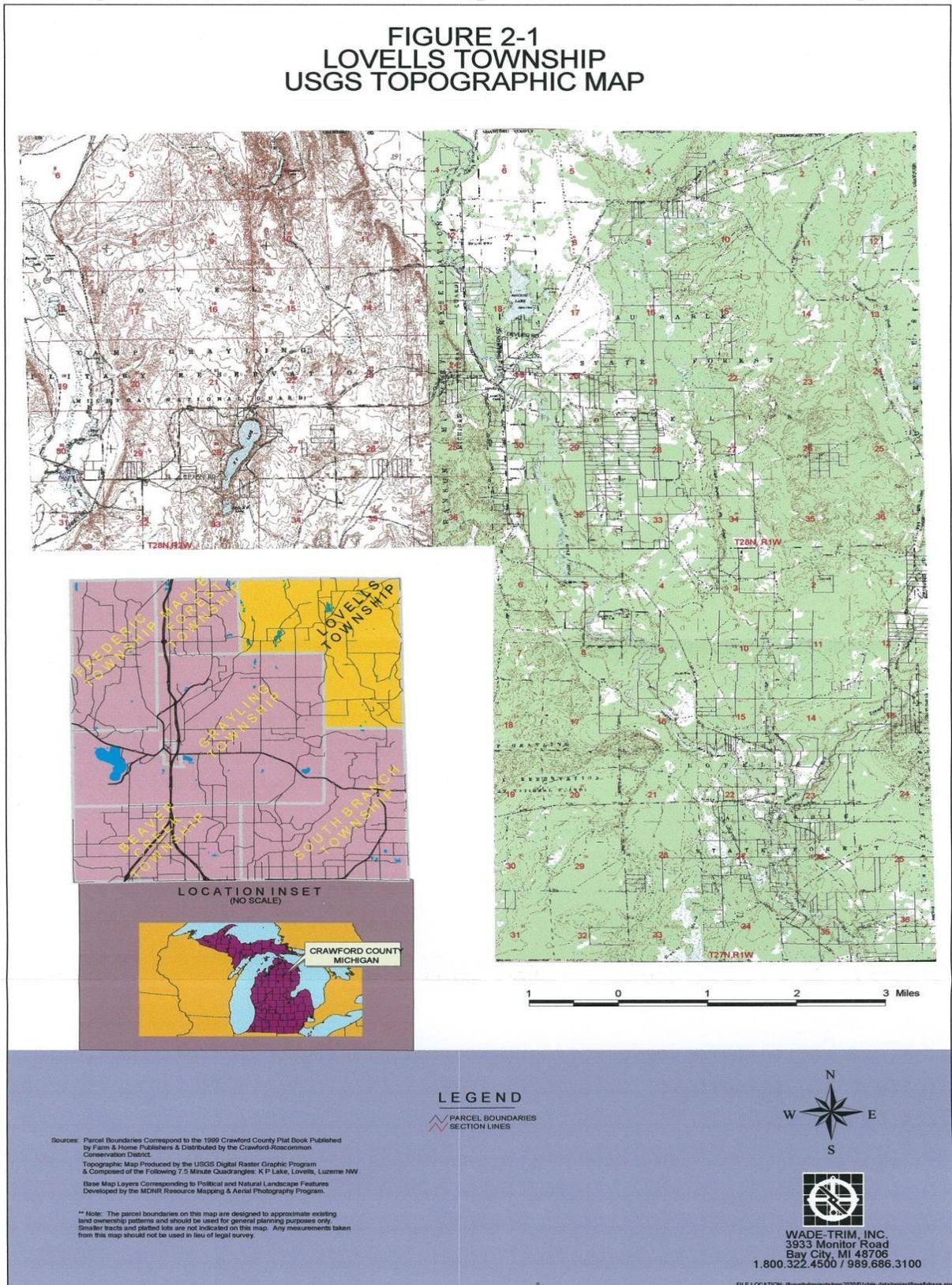
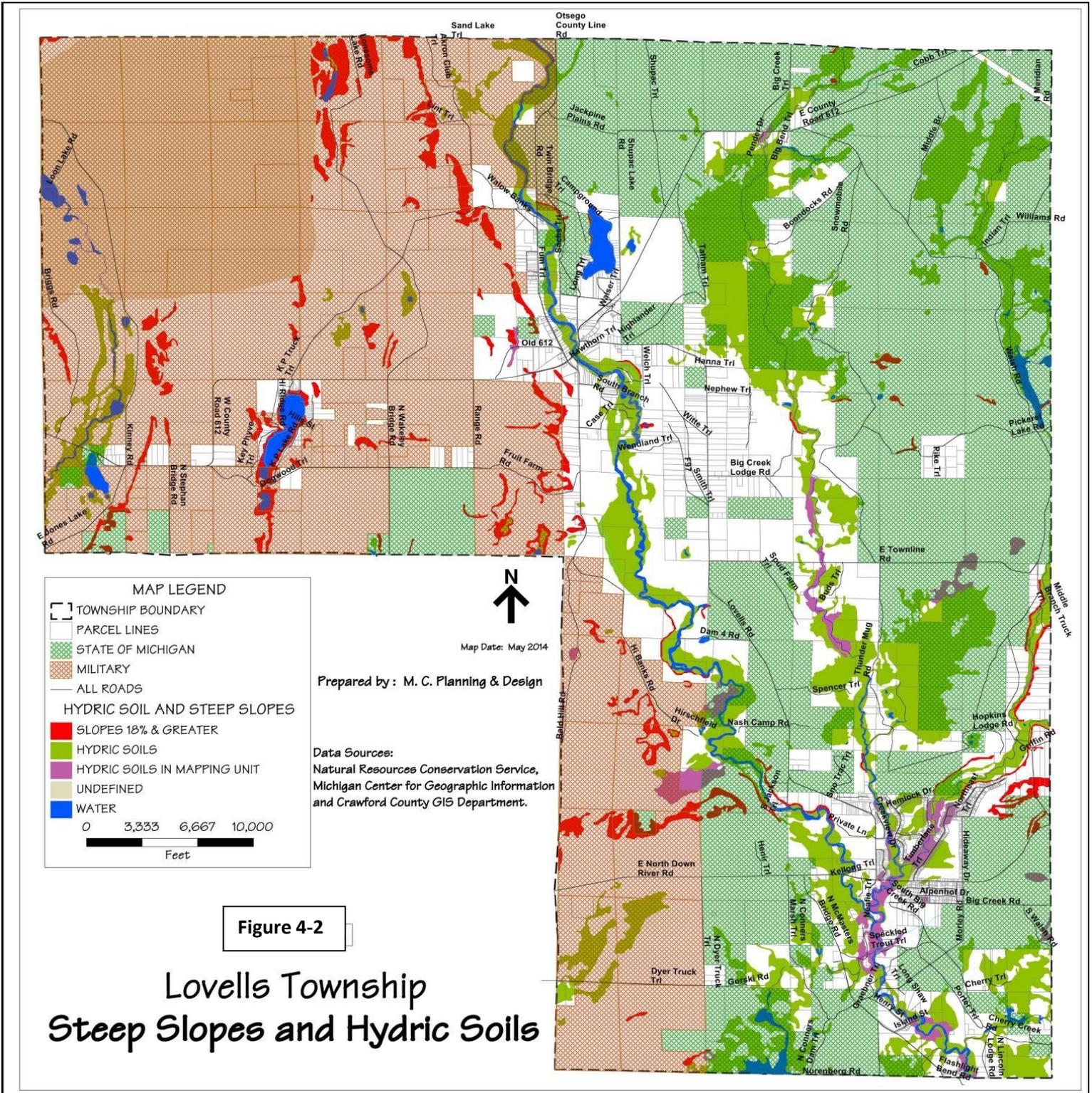


Figure 4-2: Lovells Township Steep Slopes and Hydric Soils



Soils

Another important determinant of land use is the soil's suitability for development. Land uses must correspond to the capacity of the soils on which they occur, and soil suitability for each use should be determined before development occurs.

Residential land use is the most intensive activity in Lovells Township. Since a public sanitary system is not available, each development site must be provided with an on-site septic system. The ability of the soil to accommodate a septic system and the suitable location of building foundations are key factors in determining the practicality and cost of development. Soils in the Crawford County region are generally sandy in nature, where water percolates through it rapidly, making septic system siting difficult. The more quickly wastewater passes through the soil, the less likely it is to filter out polluting material and bacteria, and the more likely groundwater could be impacted. District Health Department #10 is the permitting agency for septic system placement, and they should be consulted prior to development.

The United States Natural Resource Conservation Service publishes a detailed soil survey for Crawford County, a digital version of the soil data is utilized in some of the natural resource maps in this master plan. The soil data was used in the creation of the Septic Limitations map for Lovells Township, shown in **Figure 4-3**, which shows which general areas may have constraints regarding the location of septic systems due to soils and slopes. The information presented on the Septic Limitations map is for general planning purposes only. To determine site-specific soil conditions, it is recommended that the Crawford County Soil Survey be reviewed, and an on-site soil evaluation be conducted.

Constraints to development on soils with steep slopes were discussed in detail in the section on topography. Hydric soil is soil that is saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions (lacking in oxygen) in the upper 12 inches of the soil. There are two main classes of hydric soils, organic soils, and mineral soils. The organic soils develop under nearly continuous saturation or inundation and are commonly called peat or muck. Mineral soils are composed of clay, silt, and/or sand with varying amounts of organic matter. 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 wetland permit would be required to develop these areas. The Michigan Department of Environment, Great Lakes and Energy (EGLE) is the permitting agency for wetland disturbance.

Water Resources

One of the most valuable natural resources in Lovells Township is water. Both groundwater and surface water are vital resources within the Township. Residents of the Township must rely upon individual wells for drinking water. As shown by existing development patterns, surface water resources are clearly a focal point. The Township's streams and lakes are important scenic and recreational resources. It is therefore important that all water resources be protected and managed in a manner that ensures their quality. Proper land use management can help control water quality conditions in Lovells Township. Some methods to maintain and improve water quality include fertilizer/pesticide application education and controls, septic tank inspection, soil erosion, and sedimentation prevention, and the creation or protection of lake/stream greenbelt regulations.

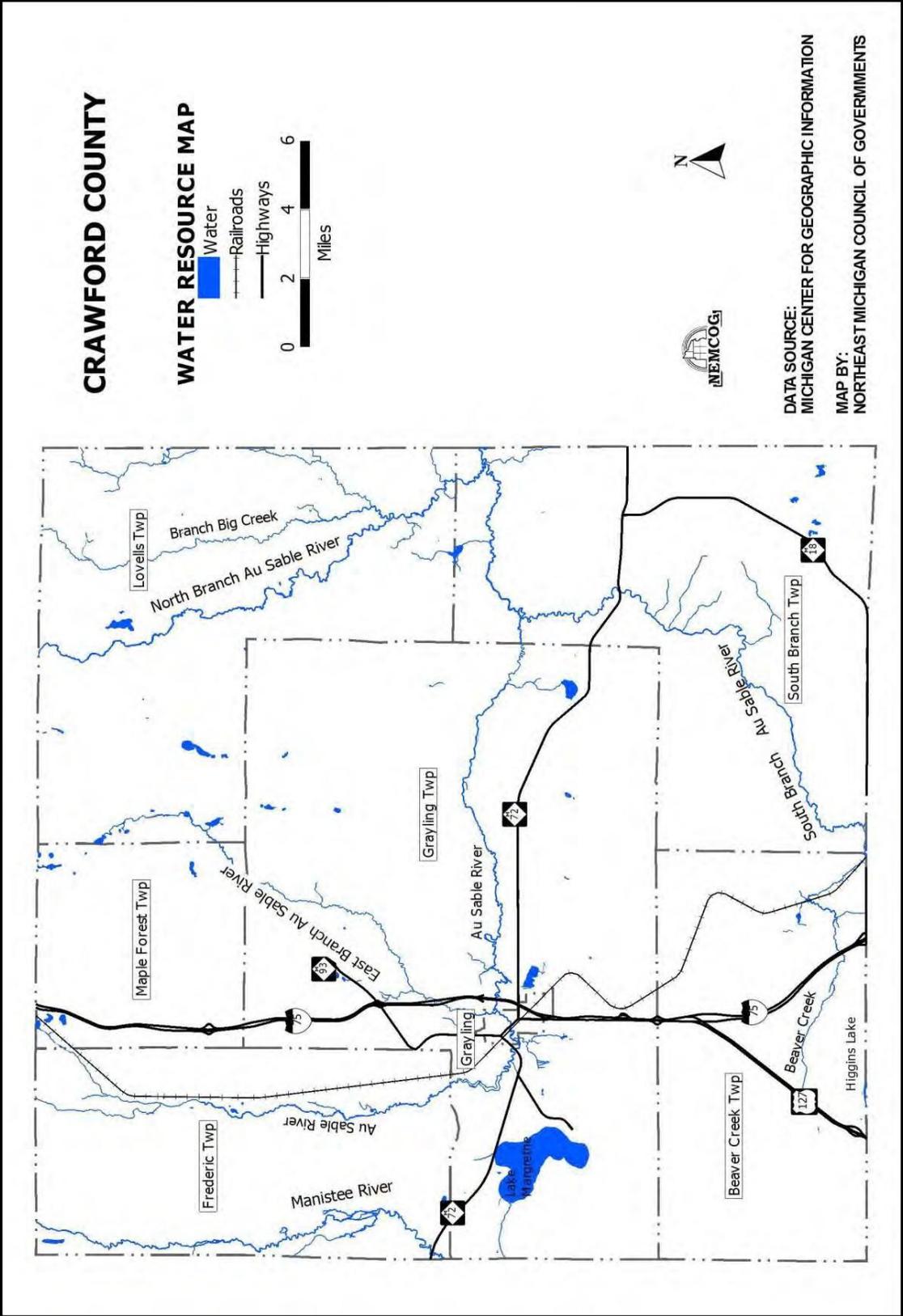
Lovells Township is located within the Au Sable River watershed. The watershed encompasses portions of Otsego, Crawford, Roscommon, Montmorency, Oscoda, Ogemaw, Alcona, and Iosco Counties.

In July 1987, the Michigan Natural Resources Commission (under the authority of the Natural River Act, P.A. 231 of 1970, now Part 305 P.A. 451 of 1994) designated the Au Sable River and selected tributaries as a Natural River. Three broad classes of rivers are recognized relating to the general setting of each Natural River designated by the State. Each class is aimed at guiding use and development to support the environmental setting. Under Michigan's Natural River Act, the Au Sable is classed as "wild-scenic -- a river with wild, forested borders; near development; and moderately accessible." The Au Sable is a major tributary to Lake Huron, with approximately 476 miles of streams in the system, and drains an area of 1,932 square miles of land. The Au Sable is an excellent trout habitat and is nationally known as an important canoeing river.

In Lovells Township streams included within the Natural River designation include North Branch Au Sable, East Branch Au Sable, Big Creek, West Branch Big Creek, and Middle Branch Big Creek. Lovells Township has adopted a Natural River Zoning District into the Township's Zoning Ordinance, following the guidelines of the Natural Rivers Act, which includes land 400 feet on each side of the waterway. Regulations for the district include standards, which are designed to protect the quality of the waterways.

Other important surface water features in Lovells Township include Shupac Lake (107 acres), Little Shupac Lake, Barnes Lake (31 acres), Timber Lake (8.4 acres), River Lake (12.6 acres), Jones Lake (42.5 acres), Lonesome Lake (15.6 acres), KP Lake (98 acres), and Little KP Lake (12 acres). **Figure 4-4** illustrates water resources throughout the County.

Figure 4-4: Crawford County Water Resources



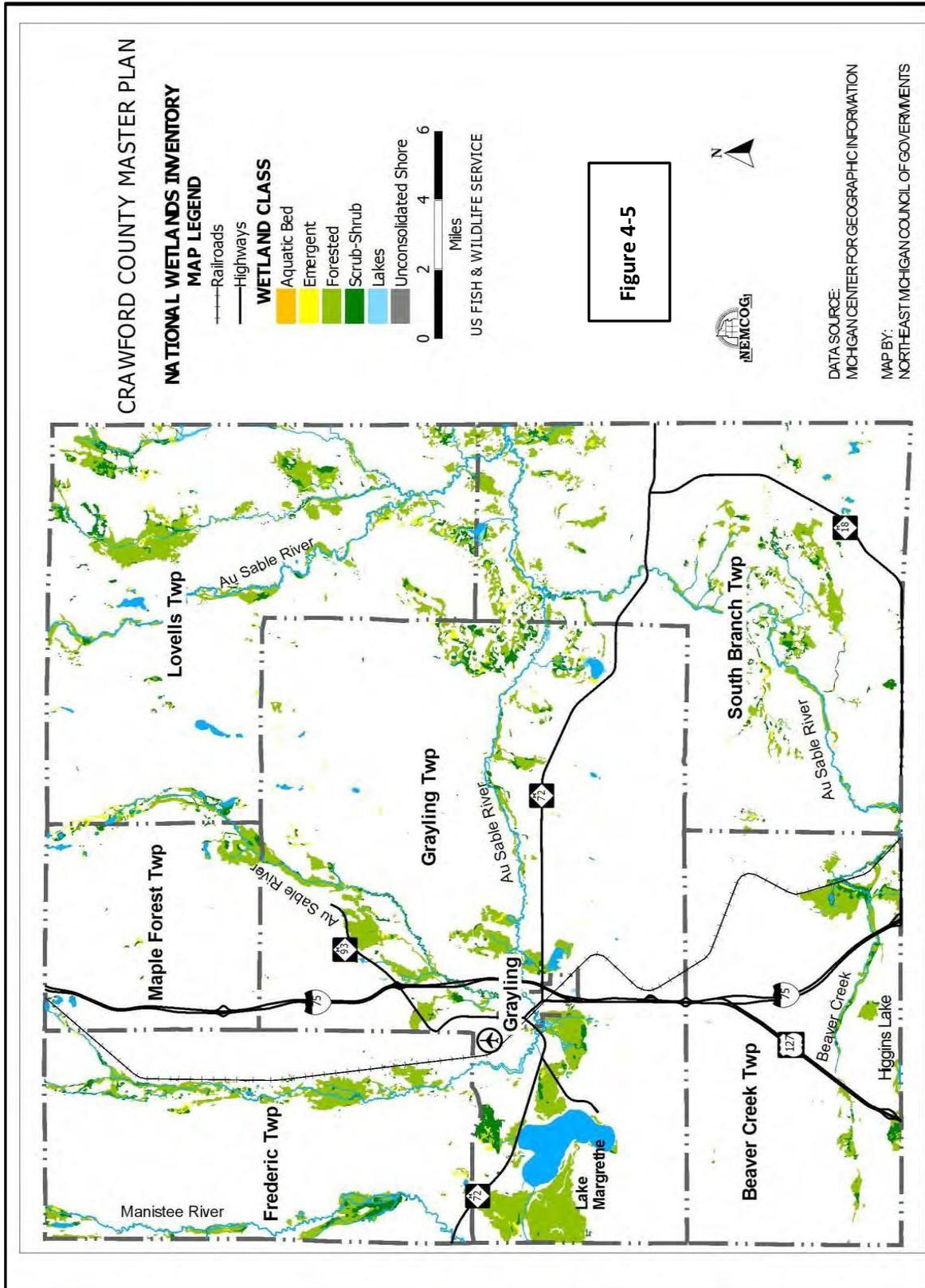
National Wetlands Inventory

A wetland is found where water is found, either on the surface or near the surface, at any time during the year. Poorly drained soils and water-loving vegetation also may be present. Wetlands are often referred to as marshes, swamps, or bogs. Residents of Michigan are becoming increasingly more aware of the value of wetlands. Beyond the aesthetic value, wetlands improve the water quality of lakes and streams by filtering polluting nutrients, organic chemicals, and toxic heavy metals. Wetlands are closely related to high groundwater tables and serve to discharge or recharge aquifers. Additionally, wetlands support wildlife, and wetland vegetation protects shorelines from erosion.

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 may be prone to flooding during the spring snowmelt, particularly when combined with heavy spring rains. Forested and non-forested wetlands are a finite resource in the County. Land use planning activities should focus on protecting and preserving these limited and critical resources.

The U.S. Fish and Wildlife Service developed national wetlands inventory program in the 1980s. Through this effort, a national wetlands inventory map was compiled for Crawford County. The digital data was acquired from the Center for Geographic Information, State of Michigan, and used to compile **Figure 4-5**. The map depicts forested and non-forested wetlands.

Figure 4-5: National Wetlands Inventory



Forestland

In addition to the scenic characteristics and recreational value of woodlands, forested areas provide habitat for wildlife, protect the soil from erosion, provide scenic vistas, and act as a buffer from noise on heavily traveled roadways.

Upland forest species located in Lovells Township include northern hardwoods (sugar maple, beech, white ash, and basswood), aspen, white birch, red and white oak, and pine (jack, white, and red). Because of the sandy soils of the region, jack pine is a predominant forest type. Lowland forest species include lowland conifers (northern white cedar, black spruce, and eastern tamarack) and lowland hardwoods (black ash, slippery elm, and red maple).

The majority of forestland in the Township is in public ownership. Most of these lands are managed under a multi-use concept, which is directed toward recreation. The use of military forestland is not geared toward commercial forest production. Some areas have been determined as refuge areas for the endangered Kirtland's Warbler.

A large amount of land in Lovells Township and throughout the County is in public ownership in the form of the Huron National Forest and the Au Sable State Forest. According to the DNR, forestland and wetlands cover approximately 164,714 acres of state land within the County. **Figure 4-6** shows the forest types on state land within the County. The abundance of Jack Pine and Oak forests dramatically increases wildfire hazard within the County

Wildfire Risk Areas

Figure 4-7 shows data provided by the US Forest Service on wildfire risk throughout the county. High wildfire risk areas can be found in the western portion of Lovells Township with moderate risk in the remainder of the Township.

Forest fires have been identified as the number one natural hazard in Crawford County Hazard Mitigation Plan. During dry spring conditions, forest fires can occur in any forest type. However, some forest types have higher risks. Jack pine and red pine forests have a higher risk for wildfires. Oak and white pine forests have a moderate risk for wildfires. Draughty, low fertile sandy soils, found in outwash plains and channels, support pre-settlement pine forests that for thousands of years were perpetuated by wildfires. A community-wide FireWise Program will lessen the risk of loss of property and life.

Figure 4-6: Forest Cover Types on State Land

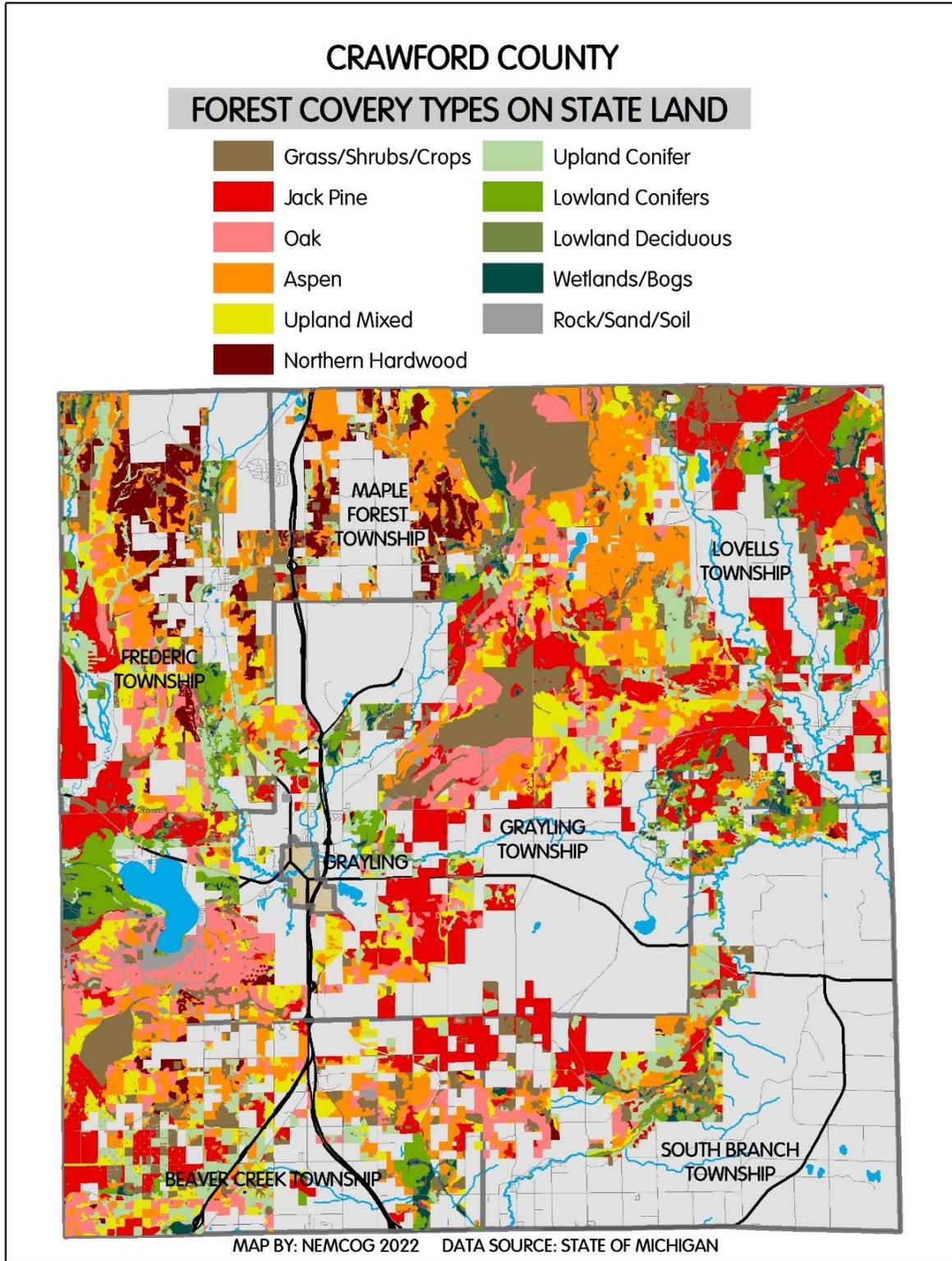
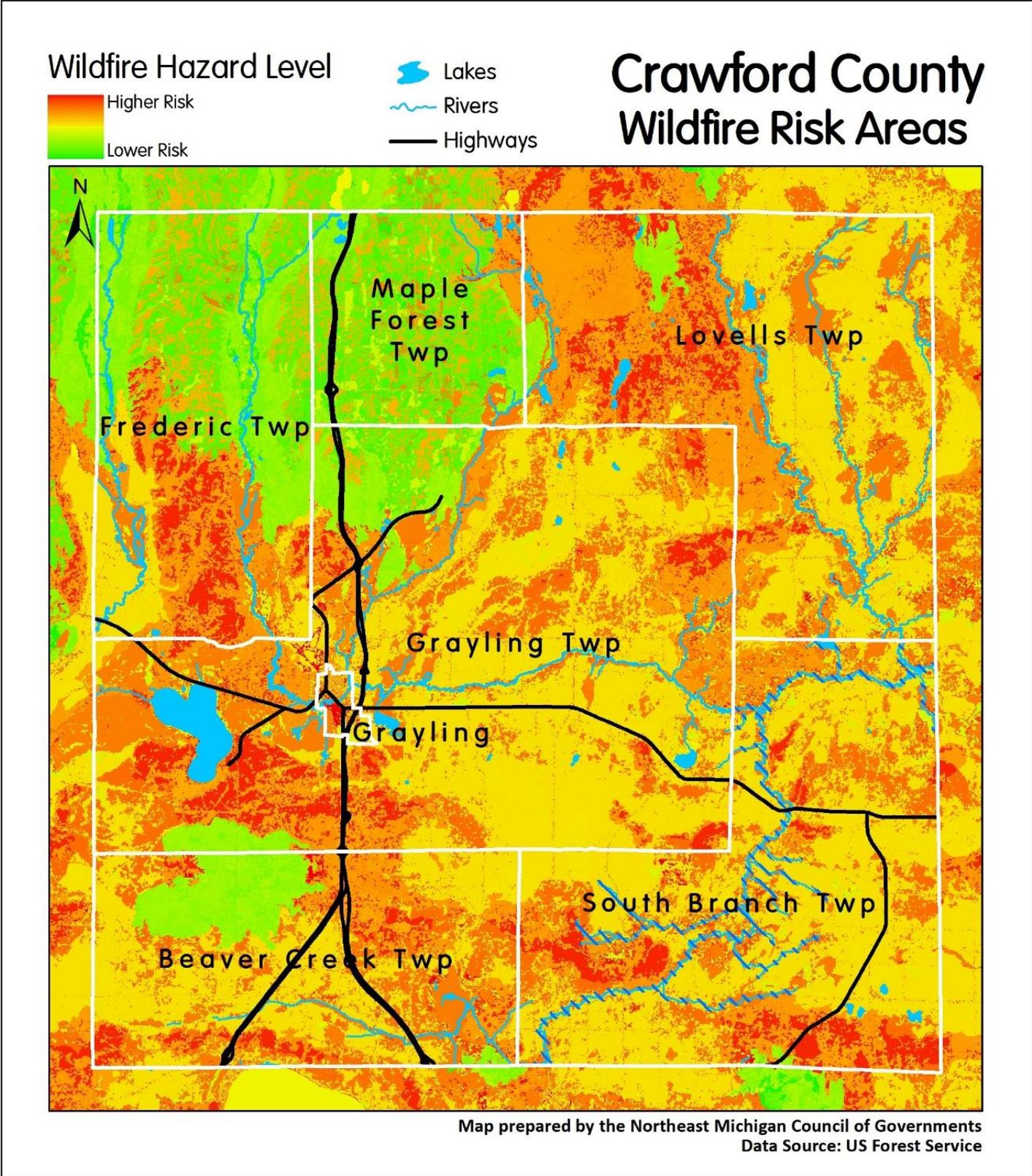


Figure 4-7: Wildfire Risk Areas



Fish and Wildlife

The *Au Sable River Natural River Plan* states “The Au Sable River probably is the best brown trout water in the Great Lakes region, and it may be the best east of the Rockies.” The river also supports a substantial population of brook trout, and an occasional rainbow trout are caught. The North Branch Au Sable, a high-quality stream for brook and brown trout, is not so heavily fished, and canoe traffic is minimal.

The Michigan Department of Natural Resources periodically plants walleye in the Big Creek impoundment and rainbow trout in Shupac Lake, as part of the Fisheries Division’s stocking program. Jones Lake is generally good for panfishing. In addition to panfish, largemouth, smallmouth bass, and yellow perch are caught in KP Lake.

The forest and wetland regions of the Township provide habitat for many game and non-game species of wildlife common to northern Michigan. Game species found in the Township include white-tailed deer, ruffed grouse, woodcock, wild turkey, squirrel, black bear, bobcat, raccoon, snowshoe hare, and cottontail rabbit. Other game species important to trappers are beaver, muskrat, mink, and weasel. Fox, woodchuck, badger, porcupine, opossum, skunk, coyote, common loon, numerous small rodents, and waterfowl are common non-game species. There are many species of nongame birds and songbirds that inhabit the Township both seasonally and year-round. Of particular importance are the “threatened” bald eagle and the “endangered” Kirtland’s Warbler. The jack pine forests of the Au Sable watershed are the prime nesting range for the tiny warbler.

Endangered Species

Lovells Township is also home to a number of different plants and animals that are threatened, endangered, or is of special concern. Table 4-2 presents the Endangered (E) or Threatened (T) plant and animal species of Crawford County, which are protected under the Endangered Species Act of the State of Michigan (Public Act 203 of 1974 as amended). This list also includes plant and animal species of Special Concern (SC). 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 primary summer nesting area of the very rare songbird, Kirtland's Warbler, is found in the immediate vicinity of Crawford and Roscommon counties. This Warbler winters in the Bahamas and migrates to northern Michigan nesting areas in young jack pine forests. Bird watchers from all over the world come to the area to view and study this scarce bird. Kirtland's Warbler habitat is young jack pine forests that are 5 to 20 years old. The habitat is managed by cutting older jack pine stands and replanting with millions of new seedlings each year. Protection of this habitat is critical to insure the future preservation of the Kirtland's Warbler.

Table 4-2: Crawford County Threatened and Endangered Species

SCIENTIFIC NAME	COMMON NAME	FEDERAL STATUS*	STATE STATUS**
<i>Accipiter gentilis</i>	Northern goshawk		SC
<i>Agoseris glauca</i>	Prairie or pale agoseris		T
<i>Alasmidonta viridis</i>	Slippershell		T
<i>Appalachia arcana</i>	Secretive Locust		SC
<i>Atrytonopsis hianna</i>	Dusted skipper		SC
<i>Botrychium mormo</i>	Goblin moonwort		T
<i>Brachionycha borealis</i>	Boreal brachionyncha		SC
<i>Brychius hungerfordi</i>	Hungerford’s crawling water beetle	LE	E
<i>Buteo lineatus</i>	Red-shouldered hawk		T
<i>Calypso bulbosa</i>	Calypso or fairy slipper		T
<i>Cambarus robustus</i>	Big water crayfish		SC
<i>Cirsium hillii</i>	Hill’s thistle		SC
<i>Coregonus artedi</i>	Lake herring or cisco		T
<i>Corispermum pallasii</i>	Pallas’ Bugseed		SC
<i>Dalibarda repens</i>	False violet		T
<i>Emydoidea blandingii</i>	Blanding’s turtle		SC
<i>Erynnis martialis</i>	Mottled duskywing		SC
<i>Falcapennis canadensis</i>	Spruce grouse		SC
<i>Festuca Scabrella</i>	Rough fescue		T
<i>Gavia immer</i>	Common loon		T
<i>Glyptemys insculpta</i>	Wood turtle		SC
<i>Haliaeetus leucocephalus</i>	Bald eagle		SC
<i>Hesperia metea</i>	Cobweb skipper		SC
<i>Incisalia henrici</i>	Henry’s elfin		T
<i>Juncua vaseyi</i>	Vasey’s rush		T
<i>Lasmigona compressa</i>	Creek heelsplitter		SC
<i>Lasmigona costata</i>	Flutedshell		SC
<i>Lithobates palustris</i>	Pickerel Frog		SC
<i>Lycopodiella subappressa</i>	Northern appressed clubmoss		SC
<i>Microtus pinetorum</i>	Woodland vole		SC
<i>Myotis lucifugus</i>	Little brown rat		SC
<i>Opheodrys vernalis</i>	Smooth green snake		SC
<i>Panax quinquefolius</i>	Ginseng		T
<i>Pandion haliaetus</i>	Osprey		SC
<i>Physella magnalacustris</i>	Great Lakes physa		SC
<i>Physella parkeri</i>	Broadshoulder physa		T
<i>Potentilla canadensis</i>	Canada cinquefoil		SC
<i>Prunus alleghaniensis var davisii</i>	Alleghany or sloe plum		SC
<i>Pyygus wyandot</i>	Grizzed skipper		SC
<i>Setophaga kirtlandii</i>	Kirtland’s warbler	LE	SC
<i>Sistrurus catenatus</i>	Eastern massasauga	LT	SC
<i>Solidago houghtoni</i>	Houghton’s goldenrod	LT	T
<i>Sphaerium fabale</i>	River fingernail clam		SC
<i>Sporobolus heterolepis</i>	Prairie dropseed		SC
<i>Stagnicola contracta</i>	Deepwater pondsnailed		E
<i>Stellaria crassifolia</i>	Fleshy stitchwort		E
<i>Trichophorum clintonii</i>	Clinto’s belrush		SC
<i>Viola novae-angliae</i>	New England violet		T

*LE= Listed endangered, C = Candidate, LT = Listed threatened

** E = Endangered, T = Threatened, SC = Special concern

Source: Michigan Natural Feature Inventory, Michigan State University, MSU Extension

Sites of Contamination

Part 201 Sites

Part 201 (Environmental Response) of the Natural Resources and Environmental Protection Act (P.A. 451 of 1994), as amended, provides for the identification, evaluation, and risk assessment of sites of environmental contamination in the State. The Department of Environment, Great Lakes and Energy (EGLE) is charged with administering this law. A site of environmental contamination, as identified by EGLE, is “a location at which contamination of soil, groundwater, surface water, air or other environmental resource is confirmed, or where there is potential for contamination of resources due to site conditions, site use or management practices”. The agency publishes a list of environmentally contaminated sites by county showing the sites by name, pollutant(s), and site status (**Table 4-3**). There are currently 3 Part 201 sites in Lovells Township.

Surface Water & Air Discharge Permits

NPDES Permits: Anyone discharging or proposing to discharge waste or wastewater into the surface waters of the State is required to obtain a National Pollutant Discharge Elimination System (NPDES) permit. The NPDES program is intended to control direct discharge into the surface waters of the State by imposing effluent limits and other conditions necessary to meet State and federal requirements. The NPDES program regulates pollutants discharged directly into waterways from wastewater sources.

Air Discharge Permits: There are four categories of review or permits in the state of Michigan for air discharges: Maximum Achievable Control Technology (MACT) determinations; New Source Review (NSR); Renewable Operating Permit (ROP); and Acid Rain Permits. MACT determinations are required under the Clean Air Act. The U.S. EPA is required to develop standards for industrial categories of "major" sources of hazardous air pollutants that require the application of MACT. This is done on a case-by-case basis by the Air Quality Division. NSR requires a person to obtain a permit prior to the installation of any potential source of air pollution unless the source is exempt from the permitting process. The ROP program is a national permitting system, administered by each state. Each major source of pollution is subject to the program. A "major source" is a facility that is capable of emitting more than certain amounts of air contaminants. Acid Rain Permits may be required for electric generating units which sell electricity to the grid and burn fossil fuel. There currently are no Air Discharge (renewable operating permits) permits issued to businesses in Lovells Township as of October 2021.

Table 4-3: Crawford County Contamination Sites (Part 201)

Site ID	Site Name	Address	Description
20000076	1. Lovells Hardware	6039 E. Co. Rd. 612	Interim Response conducted - No further activities anticipated
20000096	2. 6530 E County Road 612	6530 East County Road 612	Inactive - no actions taken to address contamination

20000705	3. Enbridge Energy - Lewiston Station	11584 County Road 612	Risks Controlled
<i>Source: EGLE, 2022</i>			

PFAS/PFOA

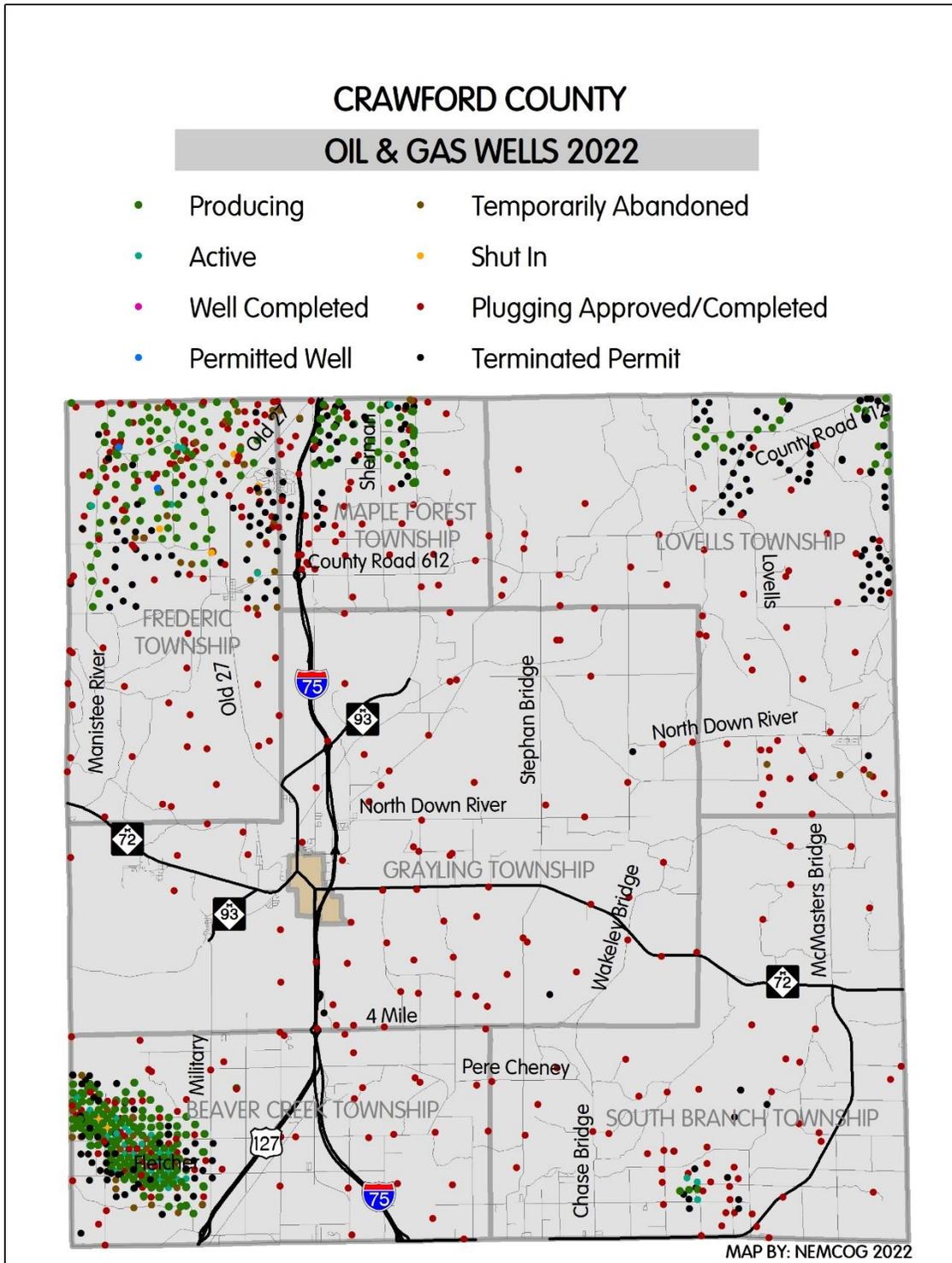
The following is an excerpt from the Grayling Charter Township Master Plan: Contamination of groundwater and drinking water from wells from perfluoroalkyl and polyfluoroalkyl substances (PFAs, also known as PFCs), is an environmental concern for Camp Grayling and the surrounding community. The principal contamination source in the Camp Grayling area is considered to be perflourooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS) contamination from the use of now discontinued aqueous film-forming foam (AFFF) fire suppressants. On the national level, PFA/PFC compounds are emerging unregulated contaminants of concern with suspected but unknown negative human health effects.

Information about the contaminants, forms to request well testing, and options for homeowners whose wells have been found to contain the substances may be found on the state website: <https://www.michigan.gov/pfasresponse>. PFAS reports are routinely given to the Camp Grayling Restoration Advisory Board - a stakeholder group that meets regularly to discuss environmental restoration.

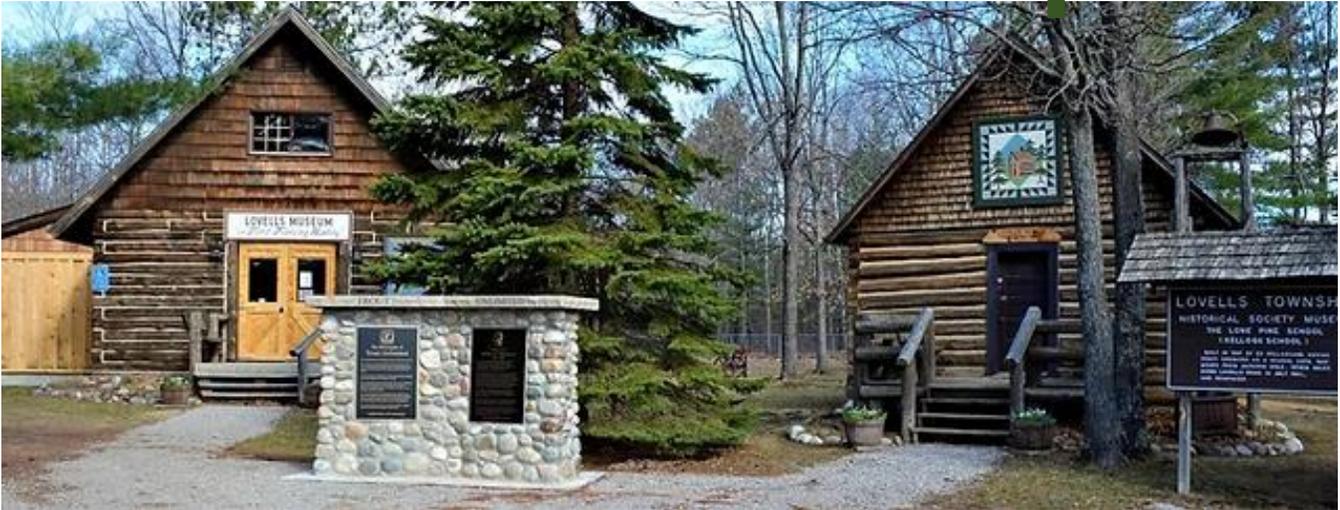
Oil and Gas Wells

Figure 4-8 shows the current wells in Crawford County (source: Michigan Department of Environment, Great Lakes and Energy). Of 1,851 total wells in the county, there are 902 producing/active wells and 506 wells that are classified as plugging approved or plugging completed.

Figure 4-8: Oil & Gas Wells 2022



Chapter 5



Existing Land Use

Chapter 5 - Existing Land Use

Existing Land Use Statistics

Lovells Township contains approximately 102 square miles of land. The map of existing land use, shown in **Figure 5-1**, illustrates the distribution of land uses within the Township. **Table 5-1** breaks down the percentage of the Township in each land use category. The existing land use map was derived from an analysis of parcel data from the Crawford County Equalization Department, tax classifications, and aerial photo interpretation by the Northeast Michigan Council of Governments.

Table 5-1: Lovells Township Existing Land Use

Land Use	Acres	Percent
State of Michigan	21,599	33.06%
Camp Grayling	25,352	38.80%
Residential	10,396	15.91%
Vacant	6,071	9.29%
Federal Land/National Forest/Grayling Army Airfield	432	.66%
Commercial	396	.61%
Water	705	1.08%
Land Owned by the County and Townships	384	.59%
Total	65,335	100.00%

*Total acreage is slightly larger than the actual acreage because some water features are included in the water category in addition to being included in the State and residential land categories in the Crawford County parcel layer.

Existing Land Use Types

Residential

As can be seen from **Table 5-1**, the amount of land being used for residential purposes is 15.91 percent of the Township. The location and pattern of residential development within the Township are shown in **Figure 5-1**. While residential uses are located throughout the Township, clusters can be found in specific areas in the Township including in the central portions of the Township with portions in the south along North Down River Road. Additionally, small tract land divisions continue to occur along many of the roads. While small lot development is prevalent throughout the Township, there are also a large number of large parcels that are being used for residential. It should be noted that large parcels were counted as residential if a residence is present even if the majority of the parcel is made up of forested or open land.

Commercial

Table 5-1 shows that the amount of land developed as commercial in Lovells Township is 0.61 percent and, as shown in **Figure 5-1**, the commercial uses are primarily clustered along the intersections of Lovells Rd, County Road 612, and Twin Bridge Rd along arterial and collectors roads designed to move vehicles throughout the Township and County. In addition, pockets of commercial uses are scattered in the more rural areas of the Township.

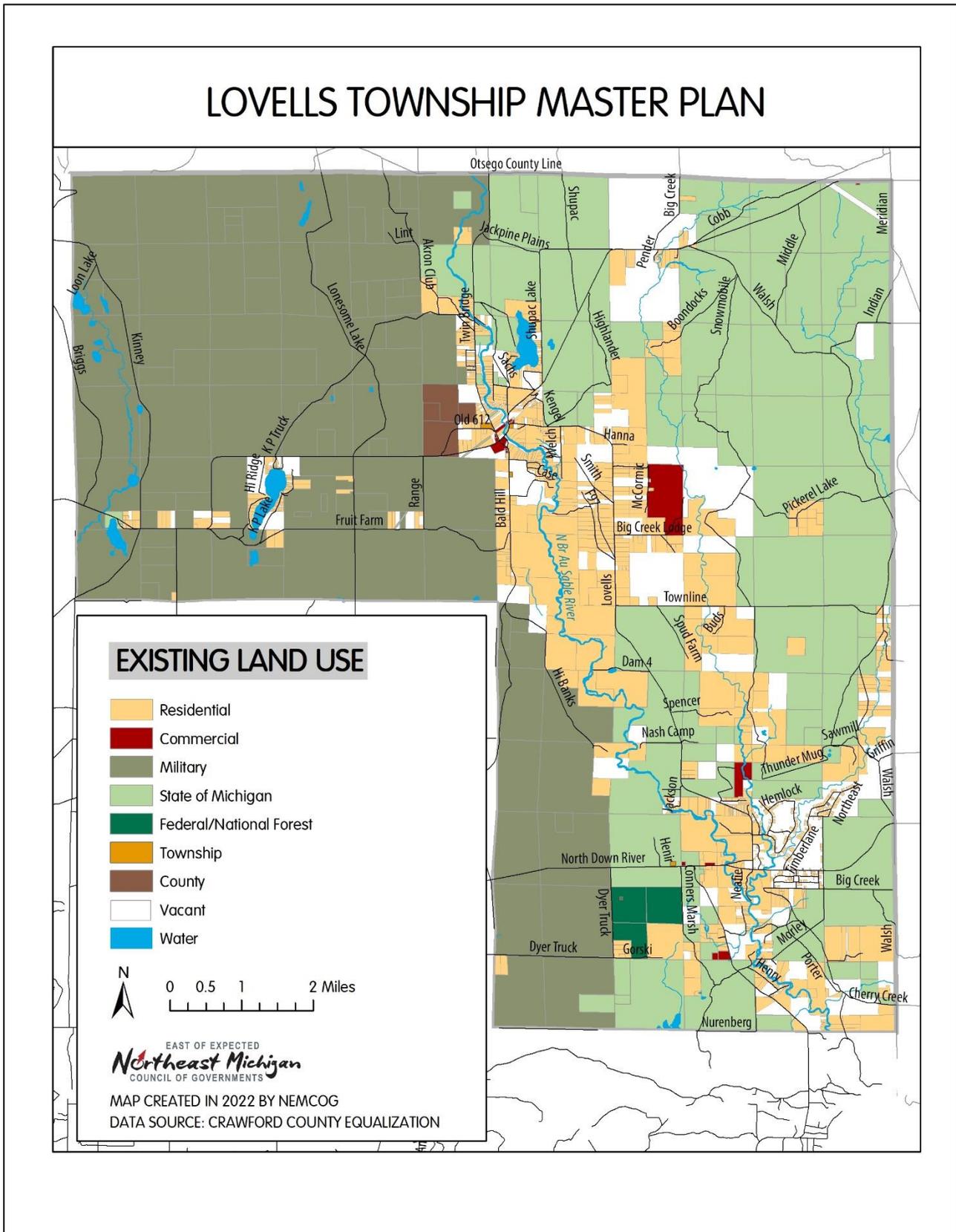
Public Land

The two largest land uses in the Township are the State of Michigan (this includes land, not within the Camp Grayling boundary) at 33.06 percent followed by Camp Grayling at 38.80 percent. Land owned by the US Government makes up 0.66 percent of the Township. These three entities have large areas of contiguous undeveloped land, and, in the case of the State-owned and Forest Service-owned land, much of the acreage is currently being maintained for recreation, conservation, and educational purposes. Camp Grayling is the largest military training center in the country. It supports a wide cross-section of military personnel, including active-duty and National Guard forces. It provides a large ground training area, an air-to-ground range, and large airspace all in the same complex. Nonmilitary organizations as well as international partners also use the ranges and other facilities there. The area mapped as a Military land use category in **Figure 5-1** is the area that is developed and/or actively used for military operations or owned by the Military. Some of this area is available for public recreational use when maneuvers are not being conducted. Within the Township, land owned by local units of government totals 0.59 percent.

Water

The water land category consisting of the lakes and rivers within the Township comprises 1.08 percent and includes water bodies over 100 acres in size like KP Lake, and Shupac Lake, many smaller lakes, and river systems such as the Au Sable River and Big Creek River.

Figure 5-1: Existing Land Use



Chapter 6



Community Goals & Objectives

Chapter 6 – Community Goals & Objectives

Introduction

The purpose of this chapter is to set forth Lovells Township’s goals and objectives to guide future development. In developing community goals and objectives, it is important to analyze existing community characteristics such as social and economic features, environmental resources, available services and facilities, and existing land use/cover. The data compiled in previous chapters clearly indicates that Lovells Township is rural in character and is blessed with abundant environmental resources. In addition to examining existing characteristics, another important tool in the development of community goals and objectives is to identify community assets and problem areas.

At a public input session held in February 2022, members of the Lovells Township Planning Commission, Zoning Board of Appeals, and interested citizens reviewed and updated previously identified community assets worth preserving presented in **Table 6-1** and community problems in **Table 6-2**. Items listed on the tables are presented in no particular order. Remarkably, the assets outweighed the problems by far.

Figure 6-1: Lovells Township Assets to Preserve - 2022

- Wooded areas
- Rivers/lakes
- Fishing opportunities – trout and other species
- Wildlife
- Snowmobile trails
- ORV trails & routes
- Horse trails
- Recreation opportunities
- Campgrounds
- Historical Landmarks
- Low population
- Country life/rural living
- Local government
- Local Media and Reading Center
- Local refuse disposal & recycling
- Fire and emergency services
- Low crime rate
- Lovells Bridge Walk
- Lovells clubs & associations
- Lovells Township Historical Society
- Night sheriff patrols

Figure 6-2: Lovells Township Concerns– 2022

- Road maintenance
- Snowmobile trespass
- Abundant State land, thus limited tax base
- Lack of employment opportunities/young people leave the community
- No organized activities for teens and/or families
- Noise concerns
- Fracking - potential impacts on ground and surface waters

The outcomes of the February 2022 public input session in combination with the background plan research provided the basis for developing the following community goals and objectives for Lovells Township. The terms “preserve”, “conserve” and “protect” are used throughout. Webster defines those words as (1) preserve – to keep safe, to guard, to keep from decaying or to prevent spoilage, (2) conserve – to keep from losing or wasting, and (3) protect – to shield from injury.

Community-Wide Goals

1. Conserve, yet utilize, the natural environment and scenic beauty of Lovells Township by protecting the water resources (both ground and surface), wetlands, woodlands, fish, and wildlife. The protection of the Au Sable River system is an area of particular concern.
2. Preserve community character – rural setting, friendly and safe atmosphere.
3. Maintain and improve, as needed, community-owned or community-operated services and facilities such as Township Hall, Douglas Park, Crossroads Park, Neumann’s Landing, Township Cemetery, Museum and School House, Township Fire and EMS Services, Lovells Media and Reading Center, solid waste disposal, and recycling service.
4. Consider and evaluate, through zoning, the consequences of land use decisions across broader landscapes, such as watersheds, to avoid adverse impacts on adjacent communities and larger ecosystems.
5. Maintain ongoing dialog regarding intergovernmental cooperation and share resources across all levels, federal, state, military, county, and adjacent communities.
6. Maintain an updated Township Master Plan to support the Township Zoning Ordinance, including a future land use plan, which protects environmental features, while accommodating the existing land use patterns, infrastructure, and services.

Land Use Goal

GOAL:

Maintain an ecologically sound balance between human activities and the environment to retain the Township's scenic and rural character.

OBJECTIVES & RECOMMENDATIONS:

1. Encourage and guide developments that respect natural and environmental features.
2. Actively engage in strategic planning to implement the Master Plan's goals and objectives and to balance the Township's rural character with its future growth and development.
3. Review the Zoning Ordinance to assure it aligns with current goals and community standards and provides adequate public safety.
4. Ensure regulations and enforcement procedures are in place to eliminate issues of accumulating junk, abandoned vehicles, and blight, thereby improving housing and protecting property values.
5. Manage land use patterns that will direct new growth away from environmentally sensitive areas such as woodlands, wetlands, steep slopes, and areas subject to flooding.
6. Review and update Zoning ordinance provisions to:
 - a. Limit development on steeply sloped areas.
 - b. Require erosion control measures where construction is permitted.
 - c. Require slope stabilization and re-vegetation on disturbed slopes or in extraction areas.
 - d. Include regulations for solar energy production and other emerging energy production methods.
 - e. Encourage Farms & Hobby Farming.
7. Encourage innovative development techniques as a means of ensuring stable residential areas while protecting open space.
8. Preserve the integrity of existing residential neighborhoods by protecting them from the intrusion of incompatible uses and require adequate buffer or transition areas between residential and non-residential developments to maintain property values and attractiveness.
9. Educate on Firewise planning and zoning strategies.

10. Work with the State of Michigan to assure Land transfers meet the township planning goals.

Residential Goal

GOAL:

To provide for residential areas designed to offer a variety of housing choices at affordable prices.

OBJECTIVES & RECOMMENDATIONS:

1. Designate areas appropriate for all types of residential options including single-family, multi-family, elderly housing, condominiums, low to moderate-income housing, and extended care facilities.
2. Support and promote the Crawford County Housing Commission and Michigan State Housing Development Authority (MSHDA) programs to rehabilitate substandard housing and to provide needed moderately priced housing in the Township
3. Review the County-wide Target Market Analysis to determine desired and mission housing types in the Township

Commercial and Industrial Goal**GOAL:**

To provide opportunities for limited commercial and industrial activity to serve the local area, consistent with the available infrastructure.

OBJECTIVES & RECOMMENDATIONS:

1. Support existing commercial areas around the unincorporated community of Lovells. Guide commercial development into this community hub, while discouraging strip commercial development along highways.
2. Encourage light industrial development designated locations, to be developed in an environmentally sensitive manner.
3. Maintain a compatible relationship between commercial and industrial areas and adjacent residential uses such as by requiring landscaping buffers where commercial or industrial uses are adjacent to residential uses.
4. Pursue expansion of commercial and industrial opportunities in the township. Support development that expands sustainable job opportunities.
5. Continue to use sound planning and zoning techniques to support commercial and industrial businesses, such as shared parking, access management, and landscaping standards.

Infrastructure and Community Facilities Goal

GOAL:

Maintain and improve the transportation system, community facilities, and programs consistent with the community needs and the ability to finance the improvements

OBJECTIVES & RECOMMENDATIONS:

1. Investigate outside funding sources such as grants, donations, low-interest loans, and foundations when making capital improvements to community facilities.
2. Work cooperatively with the Crawford County Road Commission to implement road maintenance and improvement projects in Lovells Township consistent with the priority list and funding availability.
3. Coordinate with Crawford County Road Commission & Michigan Department of Transportation (MDOT) to assure the Township staff, officials, and public are kept informed about upcoming projects and timelines within the Township
4. Direct new 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.
5. Support the continuation, expansion, and interconnectedness of public transit to better serve the needs of senior citizens and other transit-dependent Township residents.
6. Evaluate the expansion and improvement of solid waste and recycle disposal services based on community needs. Communicate these findings to the County to assist in a County-wide Waste Management and Materials Management Plan.
7. Assure local Fire & EMS services have adequate equipment and gear to respond to the community's emergency needs.
8. Evaluate the future need for expansion of local Fire & EMS services and facilities to respond to changes in community needs.
9. Evaluate the expansion of Lovells Media and Reading Center services improvements and educational partnerships.
10. Pursue expansion of high-speed communications throughout the Township. With prioritization of cellular communications and broadband where permitted.
11. Assure that emerging technologies in infrastructure and high-speed communication are accounted for in the Zoning Ordinance.

12. Communicate with the Crawford County Sheriff's Department and MDOT regarding vehicle speed and weight limits throughout the Township with CR 612 being of higher priority.
13. Monitor any oil and gas exploration and/or extraction, as well as power generation activities, proposed or active in the area. Promote ongoing groundwater testing in such areas to assess impacts on the water quality to protect natural resources.
14. Establish and maintain ongoing communication with adjacent Townships regarding planned projects to facilitate joint projects, such as road improvements where a wider shoulder could facilitate a cooperative and coordinated bicycle connector route.

Recreation and Public Land Goal

GOAL:

To preserve, protect, and maintain environmentally sensitive areas, open spaces, public access, and public parks for the enjoyment of residents, visitors, and future generations.

OBJECTIVES & RECOMMENDATIONS:

1. Investigate outside funding sources such as Michigan Department of Natural Resources recreation grants, donations, and foundations to assist with improvements at Douglas Park, Crossroad Park, or for the acquisition of other recreation properties.
2. Maintain an updated Township Recreation Plan that identifies and prioritizes needed community recreation facilities.
3. Coordinate with multiple State of Michigan agencies and local agencies to maintain public camping, fishing, and water access sites for residents, seasonal residents, and visitors.
4. Pursue the development of a comprehensive network of both non-motorized and motorized trails, including initially mapping & reviewing existing trails to promote opportunities to establish connections.
5. Work to expand recreational opportunities within Lovells Township.
6. Work with the Historical Society on future facility improvements and promote the history of the area.

Government Goal

GOAL:

Provide services in an efficient, environmentally responsible, and socially caring manner to meet the needs of residents, property owners, the business community, and visitors.

OBJECTIVES & RECOMMENDATIONS:

1. Promote intergovernmental and regional cooperation on issues of mutual concern.
2. Ensure a responsible fiscal policy and budget process to finance the Township government.
3. Promote the involvement of volunteers in the government process.
4. Maintain an ongoing and open dialog with the Michigan Department of Natural Resources (DNR), US Forest Service, and Camp Grayling representatives to monitor future potential public land transfers.
5. Use multi-faceted media types such as (Signs, Websites, Newsletters, etc.) to promote Lovells Township events, businesses, attractions, etc.
6. Work with economic development organizations and local communities to promote the area for natural resource-based recreational tourism and as a prime location to live, work and play!
7. Work with Crawford County to assure Township goals align with the most recent Crawford County Hazard Mitigation Plan, Crawford County Wildlife Protection Plan, and Crawford County Solid Waste Management Plan.
8. Keep the public informed on current trends and best practices based on Townships Goals and community input.
9. Develop and implement an annual Capital Improvements Plan to include planned improvements to community facilities and public infrastructure.
10. Hold an annual meeting of the boards between the Planning Commission, Fire Board, Township Board, and any additional boards to coordinate the maintenance and improvement needs of the community facilities and infrastructure, and to identify services in need of attention. Additional joint meetings may be held as needed.
11. Work with surrounding municipalities to create and support an Au Sable River “Blueways Trail” Promoting the natural beauty of the area.

Natural Environment Goal

GOAL:

To recognize the affects of changing climate and environmental conditions and to mitigate the future planning actions that may be affected by or adversely contribute to our changing local climate or local environment.

OBJECTIVES & RECOMMENDATIONS:

1. Work cooperatively with the Michigan Department of Natural Resources, Natural Rivers Administrator, to maintain updated regulations in the Lovells Township Zoning Ordinance pertaining to designated Natural Rivers within Lovells Township.
2. Manage greenbelt areas adjacent to lakes, streams, and wetlands through greenbelt regulations provisions in the Township's zoning ordinance.
3. Coordinate with County departments to effectively administer and enforce county ordinances such as soil erosion and sediment control.
4. Implement groundwater protection and stormwater management measures, while encouraging the continued natural use of wetlands as groundwater recharge, stormwater filtering, and stormwater holding areas.
5. Promote or facilitate community educational forums on topics that could impact the locally important natural resources such as hydrologic fracturing (fracking), large volume water withdrawal, threats from invasive species, purchase of development rights, and conservation easements.
6. Encourage planting and retention of native tree and shrub species when properties are developed.
7. Encourage and support community organizations to identify resources, wildlife habitats, ecological corridors, scenic areas, vistas, and existing protected areas to more effectively work with the township to implement strategies to protect such resources.
8. Expand and improve upon recreational opportunities within Lovells Township.

Wildfire Protection Goal**GOAL:**

To protect human life and reduce property loss due to catastrophic wildland fires in Lovells Township.

OBJECTIVES & RECOMMENDATIONS:

1. Encourage adequate fire prevention, fire-safe construction, and pre-suppression activities on private lands in Wildland Urban Interface areas (WUI) using Firewise Landscaping and Construction standards. The foundation of this objective will be building partnerships with the county, other local units of government, MDNR, USFS, MSUE, and other interested organizations.
2. Work to increase public awareness regarding wildfire protection measures and review public notification strategies.
3. Continue to assist and encourage local participation in the Crawford County Community Wildfire Protection Plan.
4. Encourage Fuel Management; manage forests to maintain fuel loads within the range of natural specific ecosystem variability to minimize the adverse effect on ecological and socioeconomic values.
5. Work to implement the local recommendations of the current Crawford County Wildfire Protection Plan.

Camp Grayling (Joint Land Use Study)

GOAL:

Promote civilian and military communication and collaboration to promote public health, safety, quality of life, and the economic viability of the region.

BACKGROUND:

A Joint Land Use Study (JLUS) for Camp Grayling and the surrounding communities was completed in 2017-2019. The study was funded by the United States Department of Defense with matching funds from the State of Michigan and administration was provided by the Northeast Michigan Council of Governments. Joint Land Use studies have been funded across the country to address compatible land use issues between the military and local communities. The study was completed through a cooperative effort between Camp Grayling, the Alpena CRTC, local units of government, local housing and environmental groups, and local, regional, and state agencies.

The purpose of the study was to promote civilian and military communication and collaboration and promote public health safety, quality of life, and the economic viability of the region. The study analyzed in detail information on the communities, military operations, land use, and zoning. The following strategies were identified as recommendations to address the issue areas identified during the JLUS process.

STRATEGIES:

1. Work with Camp Grayling officials to effect changes to military operations to mitigate negative impacts on the surrounding area.
2. Participate in the Camp Grayling Community Council to work collaboratively with the camp, surrounding communities, and state, federal, and local agencies toward the strategies identified in the JLUS, if appropriate (summarized below):

Noise	Issue	Recommendations
	Impact of aircraft noise on communities	<ol style="list-style-type: none"> 1. Conduct a noise study. 2. Educate the public on residential sound attenuation. 3. Establish no-fly zones over sensitive areas. 4. Conduct an analysis of property ownership under restricted airspace and near the airfield. 5. Noise reduction for buildings within 65 ADNL noise areas.
	Tree cutting reduces noise buffer	<ol style="list-style-type: none"> 1. Plant trees in areas where it is appropriate and allowed. 2. Assess and publicize timber harvest effects on noise attenuation. 3. Enhance public awareness of forestry management plans, operations, and impacts.
Military Operations	Issue	Recommendations
	Flight paths over homes	<ol style="list-style-type: none"> 1. Create sensible military overlay zones around Camp Grayling JMTC. 2. Educate the public on existing established flight paths.
	Noise/vehicular disruption - MATES	<ol style="list-style-type: none"> 1. Educate the public on traffic routes and needs.
	Noise and vibration from night training	<ol style="list-style-type: none"> 1. Educate and inform the public about night training. 2. Identify specific locations where night training is particularly disruptive and identify alternatives. 3. Confine military arms testing and range use to areas adjacent to state-owned lands.

	Population growth may encroach on the mission	<ol style="list-style-type: none"> 1. Establish zoning regulations that prevent encroachment, particularly near potentially dangerous and noise-generating activities. 2. Purchase land around installations to control growth.
Environmental	Issue	Recommendations
	PFOS and PFOA contamination of groundwater	<ol style="list-style-type: none"> 1. Improve public outreach and access to information.
	Impacts on groundwater/drinking water	<ol style="list-style-type: none"> 1. Provide information to the public on groundwater contamination.
	Impacts and effects on surface water systems: lakes, rivers and streams, and wetlands	<ol style="list-style-type: none"> 1. Control runoff and support bioassessment surveys to monitor ecological and aquatic community health. 2. Support water quality and aquatic ecology communications.
	Effects on the health of wildlife populations	<ol style="list-style-type: none"> 1. Ongoing ecological assessment and community outreach and engagement.
	Wildfire management	<ol style="list-style-type: none"> 1. Increase public awareness of ongoing wildfire management efforts and gather public input.
	Resource use and sustainability	<ol style="list-style-type: none"> 1. Public outreach to increase awareness of sustainability measures at Camp Grayling JMTC. 2. Consider the creation of a recycling/sorting station.
Transportation and Infrastructure	Issue	Recommendations
	Effects of growth on utilities	<ol style="list-style-type: none"> 1. Continue to monitor capacity and community growth.
	Improve internet access	<ol style="list-style-type: none"> 1. Encourage the growth and use of high-speed internet services.
	Poor cellular reception	<ol style="list-style-type: none"> 1. Grow cellular services.
	Traffic and road network	<ol style="list-style-type: none"> 1. Streamline Camp Grayling traffic. 2. Improve traffic flow and safety throughout the Grayling area.

		<ol style="list-style-type: none"> 3. Improve the I-75/North Down River Road interchange. 4. Create a landmark and a symbolic entrance to Camp Grayling JMTC.
	Recreational access	<ol style="list-style-type: none"> 1. Ensure appropriate recreational access and increase public outreach.
	Poor road condition	<ol style="list-style-type: none"> 1. Improve road network. 2. Increase funding for road projects and maintenance.
Community Partnerships	Communications/Education	<ol style="list-style-type: none"> 1. Document a comprehensive standard operating procedure (SOP) for communications/community relations at Camp Grayling JMTC. 2. Use Blarney Broadcasting as a model for expanding media reach. 3. Develop a public education program on UXO. 4. Ensure web resources include access to Camp Grayling’s contact information and resources.
	Public relations/community involvement	<ol style="list-style-type: none"> 1. Inform community partners on the process to request Camp Grayling JMTC tours and participation in community events. 2. Expand Camp Grayling JMTC community relations staff. 3. Develop an interpretative visitors’ center/history center at Camp Grayling JMTC. 4. Revise zoning ordinances for governmental entities within the APZ. 5. Collaborate on joint use conference/community center.
Economic Development	Issue	Recommendations
	Effect on property value mostly perceived as neutral or positive	<ol style="list-style-type: none"> 1. Develop communication materials that highlight the potential impacts of Camp Grayling JMTC for future home buyers.
	Significant contributor to the local economy	<ol style="list-style-type: none"> 1. Conduct a fire protection services needs study. 2. Set a local purchasing goal for Camp Grayling JMTC. 3. Expand public transportation from Camp Grayling JMTC to surrounding communities to support military tourism. 4. Expand commercial and/or general aviation uses of the Grayling AAF.

	Economic incentivizing and monitoring	<ol style="list-style-type: none">1. Implement economic tracking and reporting mechanisms to quantify annual military tourism impact.2. Create economic incentives to generate military tourism.
--	--	---

Chapter 7



Future Land Use

Chapter 7 – Future Land Use

Introduction

The Planning Commission reviewed the future land use classifications from the prior 2014 *Lovells Township Comprehensive Plan* in consideration and analysis of several factors including existing land use patterns, social and economic characteristics, environmental conditions, available community services and facilities, existing land division patterns, property ownership, existing zoning, and community goals and objectives. In addition to the Planning Commission, the planning process included the Township Board, Township Zoning Board of Appeals, the Zoning Administrator, and the public. Following the Planning Commission’s review and consideration of the public input, it was determined the future land use categories and most of the areas designated for each are applicable to the 2022 Master Plan.

The recommended future land use plan identifies locations for five different land use classifications: residential, commercial, industrial, forest/recreation, and environmental conservation. **Figure 7-1**, Future Land Use Map, illustrates the distribution of future land uses by category. Activities anticipated within each of these land use categories are discussed below. Additionally, it should be noted that the State’s Land Division Act of 1996 requires a lot size width-to-length ratio not to exceed one to four (1:4) for any new land divisions, to avoid the problem of “bowling alley” lots.

Residential Development

Residential development is primarily designed to accommodate single-family dwellings on a range of lot sizes. The community uses such as parks, churches, schools, libraries, and cemeteries, in addition to multiple-family dwellings, campgrounds, mobile home parks, convalescent or nursing homes, golf courses, and resorts may also be allowed in this area which are designed to be compatible with the residential setting. Home-operated businesses are also recommended in these areas provided the residential character of the neighborhood is preserved.

The residential designation 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. In addition to areas identified for residential development on the future land use map, this document recognizes that rural residential development has occurred and will continue to occur in certain locations within the forest/recreation areas of the Township. Many residential areas have been designated, and the locations are shown on the Future Land Use Map, **Figure 7-1**.

Commercial Development

While much of the commercial services for Lovells Township residents are met by facilities located in Grayling or Gaylord, the Township wishes to set aside certain areas for local commercial uses. Residents also obtain commercial services from larger urban areas such as Traverse City and Alpena.

This future land use plan recognizes that a few existing commercial businesses in outlying areas are operating in areas surrounded by non-commercial uses. This plan further recognizes that these businesses provide important products and services to nearby residents. The plan recommendations in no way intend to infringe upon their continuance or expansion of services or facilities.

Recommended uses for commercial areas designated on the future land use map include retail stores, business, and personal services, professional offices, food service, lodging facilities, and similar uses.

Industrial Development

Uses such as the following are recommended for the proposed industrial area: light industrial manufacturing or assembling establishments, wholesale commercial businesses, machine shops, sawmills, and wood products industries. Commercial activities compatible with an industrial setting are also recommended for the industrial development area. Uses established in this area should be environmentally friendly, and a landscape buffer or fencing should be provided between the industrial use and any non-industrial adjacent property. This area is designated on the future land use map as a portion of Section 2 lying south and east of County Road 612 in the 'NE' Lovells Township (T28N-R1W). As in the commercial development recommendations, this plan does not advocate interference with existing industrial activities operating in outlying areas surrounded by other predominant land uses. However, all new industrial development should be confined to this area.

Forest/Recreation

Forested land is the most predominant land use currently existing in the Township, and the future land use plan recommends the preservation of these areas as much as possible. The State of Michigan owns much of the forested land. The State leases more than 26,000 acres of land to the National Guard at Camp Grayling for military activities. Lovells Township recognizes that military maneuvers will continue on these lands but does request that the National Guard be good stewards and protect land, water, vegetation, and wildlife resources from degradation.

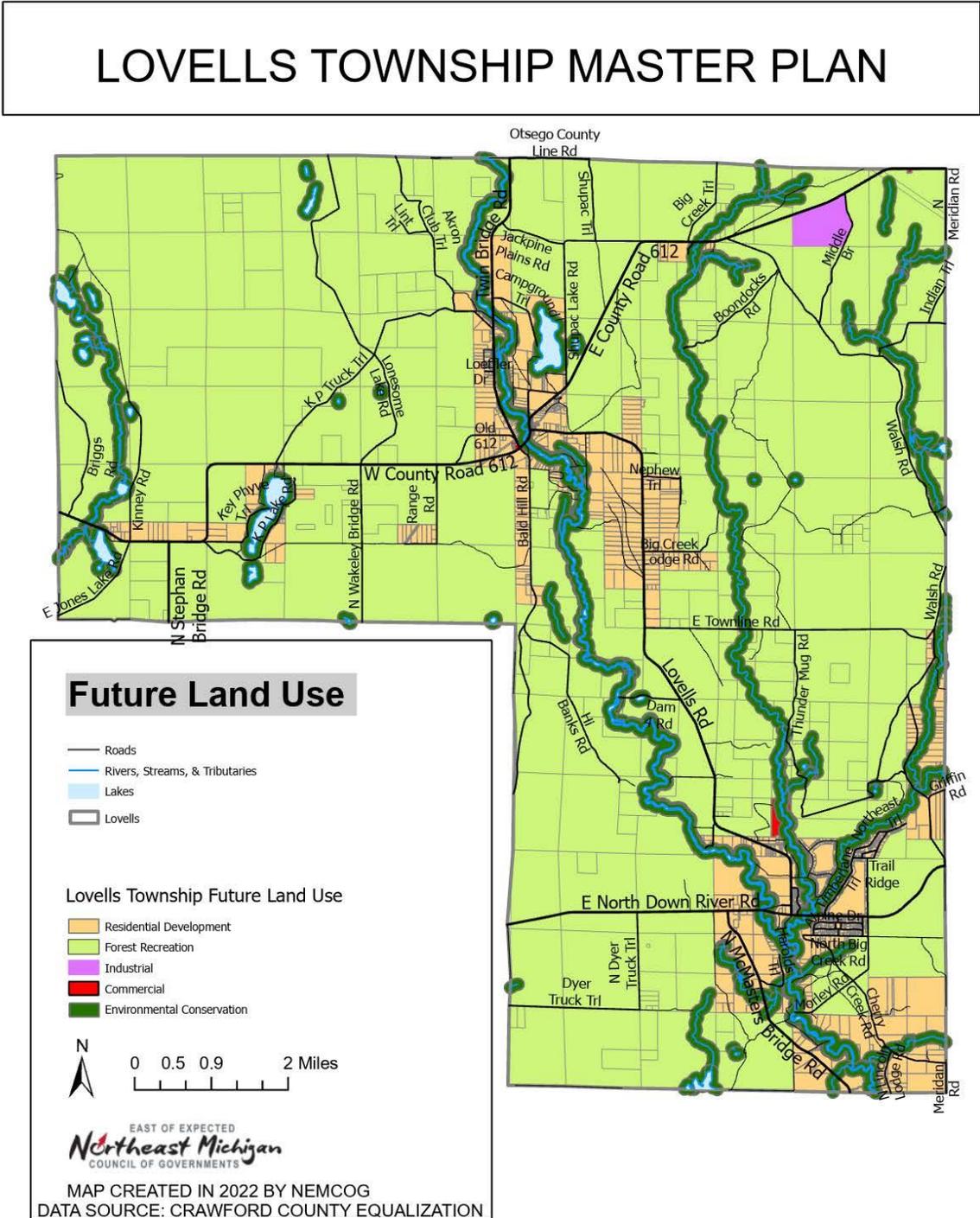
In areas within the forest/recreation development category, privately owned lands may be used for single-family residences (both year-round or seasonal), hunting camps, forest products harvesting, recreational uses, and farming where soil conditions are suitable. The protection of forested land, wetlands, and non-forested open space is critical to preserving the rural character of Lovells Township.

Environmental Conservation

Because of environmental concerns regarding the protection of water resources and adjacent waterfront land, an environmental conservation category is recommended. Special environmental protection requirements in the Township's zoning ordinance should be reviewed and updated, as necessary. Recommended protection requirements may include but are not limited to erosion protection measures on shorelines, protection of water views, water quality protection measures, waterfront density, or access controls. Areas included in this category are adjacent to all lakes, streams, and rivers in the Township.

The State of Michigan has designated several waterways within the Au Sable River system as "Natural River" under the Natural River Act. The Department of Natural Resources administers the Act, and they recommend special Natural River District zoning regulations. Streams in Lovells Township included in this designation are East Branch Au Sable River, North Branch Au Sable River, Big Creek, West Branch Big Creek, Middle Branch Big Creek, and East Branch Big Creek.

Figure 7-1: Lovells Township Future Land Use Map



Chapter 8



Adoption & Implementation

Chapter 8 – Adoption & Implementation

Adoption

Draft Plan Circulated for Comments

The draft Lovells Township Master Plan Update was transmitted to the Township Board for review and comment. The Board authorized the distribution of the plan to the adjacent communities and required agencies, as required by Statute. Following the Board's authorization, the draft Master Plan Update was distributed to these entities on January 20, 2023, and a notice appeared in the newspaper on December 1, 2022.

Public Hearing

A public hearing on the proposed Master Plan Update for Lovells Township, as required by the Michigan Planning Enabling Act, was held on February 6, 2023. The Act requires that a notice of a public hearing be published in a publication of general circulation not less than fifteen days prior to the date of the hearing. Notice of the public hearing was published in the Crawford County Avalanche.

Plan Adoption

At a Planning Commission meeting following the public hearing on February 6, 2023, the planning commission discussed the comments received. The Planning Commission acted to formally adopt the Lovells Township Master Plan, including all the associated maps by resolution.

Per the Michigan Planning Enabling Act, the Township Board formally adopted the plan by resolution on February 14, 2023.

Documentation

Michigan Planning law requires that the adopted Master Plan be transmitted to communities and agencies that received the review draft. Copies of these transmittal letters appear in the Appendix.

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.

Zoning

According to the Michigan Zoning Enabling Act, master planning is the legal foundation of a zoning ordinance. The Act states: "The zoning ordinance shall be based on 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, and 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 to reside, recreation, industry, trade, service, and other uses of land; to ensure

that use 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 of 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 use of land resources, and properties."

The Township zoning ordinance is the primary tool for implementing the Township's Master Plan. The Township is solely responsible for its land use planning and zoning decisions. This plan requires that the Township zoning ordinance be reviewed to ensure the ordinance is consistent with the goals and the future land use plan. At the same time, the zoning ordinance should be reviewed to assure it conforms to current State regulations.

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, etc. 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.

Appendix

Notice of Intent to Update the Master Plan



Northeast Michigan Council of Governments

80 Livingston Blvd Suite U-108 | PO Box 457 | Gaylord, MI 49734 | Voice: 989.705.3730 | Fax: 989.705.3729 | nemcog.org

Notice of Intent to Update Master Plan: Lovells Township (Michigan)

January 1, 2022

Lovells Township has begun working with the Northeast Michigan Council of Governments (NEMCOG) to update their Master Plans & Recreation Plan. The project will result in a Master Plan & Recreation Plan for Lovells Township including elements such as the public input.

As required by Public Act 33 of 2008, as amended, the Michigan Planning Enabling Act, notification is being sent to all geographically adjacent governmental entities, utilities, and transportation agencies to request cooperation and comment.

ADJACENT GOVERNMENTAL UNITS: Prior to and after adoption of the Master Plan, draft and final copies of the plan will be sent to all adjacent governmental units, as defined in the Michigan Planning Enabling Act, for review and comment. The plan will be transmitted via email unless the governmental unit requests a printed copy (please fill out and return the enclosed sheet to notify us of the preferred email address or to request a printed copy).

UTILITIES PUBLIC TRANSPORTATION AGENCIES: Utilities and public transportation agencies must request copies and may be charged for copies, and postage (please fill out and return the enclosed sheet to request a copy of the Master Plan update). Note: there will be no charge to utilities and public transportation agencies that choose to receive the plan via email.

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

Sincerely,

Regional
Cooperation
Since
1968

Eric Szymanski, Regional Planner
Northeast Michigan Council of Governments (NEMCOG)

Alcona * Alpena * Cheboygan * Crawford * Emmet * Montmorency * Oscoda * Otsego * Presque Isle

An
Equal Opportunity
Employer

Please complete and return to NEMCOG:

FOR GOVERNMENTAL UNITS ONLY:

_____ Please send a copy of the Lovells Township Master Plan and correspondence pertaining to the preparation of the plan **electronically via email:**

Please provide preferred e-mail address: _____.

_____ We do not have the ability to review digital documents, so please send a **printed copy** of the Lovells Township Master Plan and all correspondence pertaining to the preparation of the plan by first class mail.

FOR PUBLIC UTILITIES AND TRANSPORTATION AGENCIES:

_____ Please send a copy of Lovells Township Master Plan and correspondence pertaining to the preparation of the plan **electronically via email:**

Please provide preferred e-mail address: _____.

_____ Please send a **printed copy** of the Lovells Township Master Plan; therefore, **according to the law, we agree to pay for postage and copies of the Master Plan.**

Please provide the following contact information:

Contact Name _____

Agency/Organization _____ Phone _____

Address _____

E-mail _____

Return to:
Eric Szymanski
80 Livingston Blvd (PO Box 457)
Suite U-108
Gaylord, MI 49735

or
eszymanski@nemcog.org

Regional
Cooperation
Since
1968

Alcona * Alpena * Cheboygan * Crawford * Emmet * Montmorency * Oscoda * Otsego * Presque Isle

An
Equal Opportunity
Employer

Affidavit of Mailing - Notice of Intent

AFFIDAVIT OF MAILING NOTICE OF INTENT TO UPDATE MASTER PLAN – LOVELLS TOWNSHIP

I, Eric Szymanski, certify that the communities and agencies on the attached list were notified of Lovells Township intent to update the Master Plan. The notification was sent on January 5, 2022 by first class mail and in accordance with Public Act 33 of 2008, as amended.

1. **Otsego County Planning Commission**
1322 Hayes Rd, Gaylord, MI 49735
2. **Otsego Lake Township**
10584 Old 27 South, Otsego Lake Township, MI 49797
3. **Chester Township Planning Commission**
1737 Big Lake Rd, Gaylord, MI 49735
4. **Charlton Township Planning Commission**
P.O. Box 367, Johannesburg, MI 49751
5. **Oscoda County Planning Commission**
P.O. Box 399, Mio, MI 48647
6. **Big Creek Township**
1175 W. Ryno Road, Luzerne, MI 48636
7. **Greenwood Township Planning Commission**
4030 Williams Rd, Lewiston, MI 49756
8. **Crawford County Planning Commission**
200 West Michigan Avenue, Grayling, Michigan 49738
9. **Maple Forest Township Planning Commission**
8996 N. Sherman Rd, Grayling, MI 49738
10. **Lovells Township Planning Commission**
8405 Twin Bridge Road Grayling, MI 49738
11. **Grayling Township Planning Commission**
PO Box 521 Grayling, Michigan 49738
12. **South Branch Township Planning Commission**
PO Box 606 Roscommon, MI 48653
13. **Montmorency County Planning Commission**
P.O. Box 789 Atlanta, MI 49709
14. **Albert Township Planning Commission**
4360 Hanson Ave. P.O. Box 153, Lewiston, MI 49756
15. **Michigan Department of Transportation – North Region Office**

1088 M-32 East, Gaylord, MI 49735

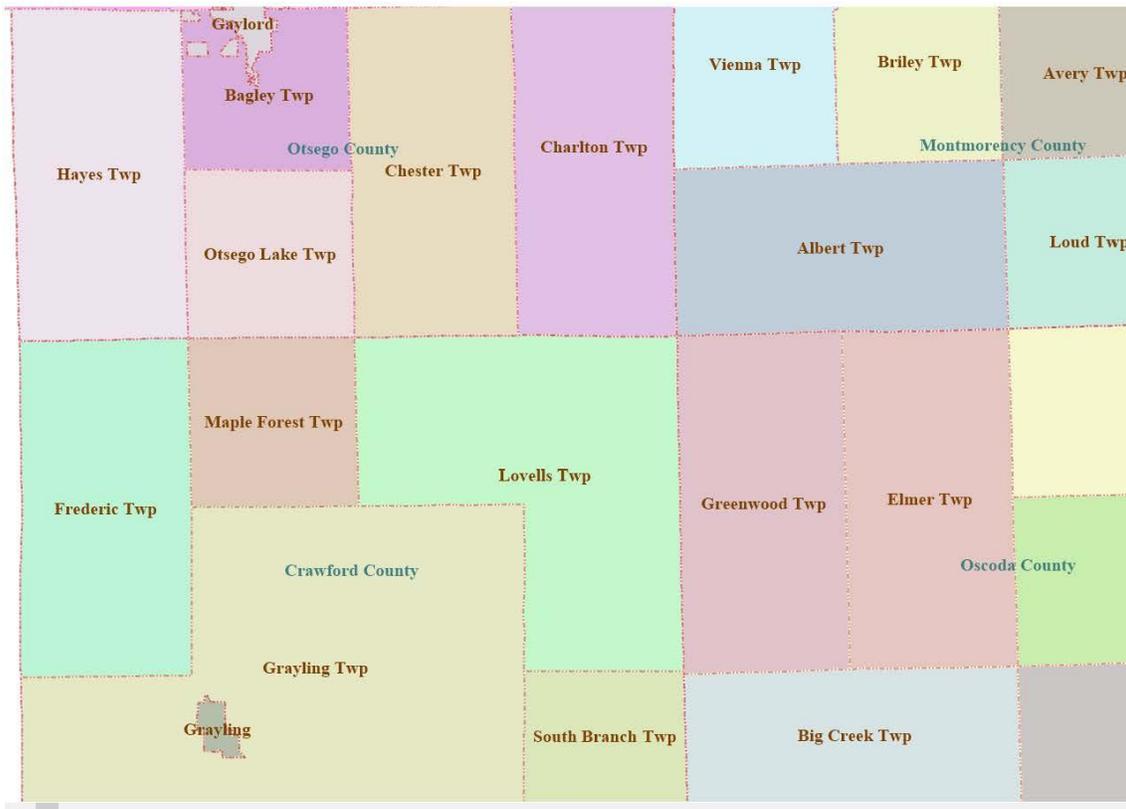
16. **Crawford County Road Commission**
500 Huron Street Grayling, MI 49738

17. **Crawford County Transportation Authority**
P.O. Box 307 Grayling, Michigan 49738

18. **DTE**
One Energy Plaza Detroit, MI 48226

19. **Great Lakes Energy**
P.O. Box 70 Boyne City, MI 49712-0070

20. **Consumers Energy**
One Energy Plaza Jackson, MI 49201-2276



Affidavit of Mailing - Transmittal Letter Draft Plan



Northeast Michigan Council of Governments

80 Livingston Blvd Suite U-108 | PO Box 457 | Gaylord, MI 49734 | Voice: 989.705.3730 | Fax: 989.705.3729 | nemcog.org

January 20, 2023

Re: Lovells Township Master Plan

Lovells Township is submitting copies of its draft master plan for your review and comment. The township participated in a coordinated public input process to complete its plan. The draft is being submitted to you pursuant to Section 41 of Public Act 33 of 2008, as amended. Your municipality/agency has a maximum of 63 days from the receipt of these draft plans to submit comments. Please forward this to your Planning Commission (for municipalities) or the person responsible for reviewing it, if applicable. The plan can be downloaded at the following address:

http://www.discovernortheastmichigan.org/downloads/lovells_township_master_plan_final_draft.pdf

Please submit comments to:

Eric Szymanski, Northeast Michigan Council of Governments
PO Box 457, Gaylord Mi, 49734
Or via e-mail eszymanski@nemcog.org

The draft master plan was submitted to the following:

- | | |
|--|---|
| 1. Otsego County Planning Commission | 11. Grayling Township Planning Commission |
| 2. Otsego Lake Township | 12. South Branch Township Planning Commission |
| 3. Chester Township Planning Commission | 13. Montmorency County Planning Commission |
| 4. Charlton Township Planning Commission | 14. Albert Township Planning Commission |
| 5. Oscoda County Planning Commission | 15. Michigan Department of Transportation – North Region Office |
| 6. Big Creek Township | 16. Crawford County Road Commission |
| 7. Greenwood Township Planning Commission | 17. Crawford County Transportation Authority |
| 8. Crawford County Planning Commission | 18. Lake State Railway |
| 9. Maple Forest Township Planning Commission | |
| 10. Lovells Township Planning Commission | |

Thank you for your cooperation, and we look forward to your comments. If you have any questions, please don't hesitate to contact me at the e-mail address above.

Sincerely,

Regional
Cooperation
Since
1968

Eric Szymanski
Regional Planner
Northeast Michigan Council of Governments (NEMCOG)

Alcona * Alpena * Cheboygan * Crawford * Emmet * Montmorency * Oscoda * Otsego * Presque Isle

An
Equal Opportunity
Employer

Resolution of Adoption – Planning Commission

Lovells Township Planning Commission 2022 Master Plan Resolution

WHEREAS, Lovells Township Planning Commission, established a Planning Commission under State of Michigan Public Act 33 of 2008, as amended, and;

WHEREAS, Lovells Township is required by Section 31 of P.A. 33 of 2008, as amended, to make and approve a master plan as a guide for development within the County;

WHEREAS, Lovells Township Planning Commission in accordance with Section 39(2) of Act 33, distributed the final draft to adjacent communities and transit agencies for review and comments and

WHEREAS, the master plan was presented to the public at a public hearing held on February 6, 2023, before the Planning Commission with notice of the hearing being published in the Crawford County Avalanche on December 1, 2022, in accordance with Section 43 (1) of Public Act 33;

NOW THEREFORE IT BE RESOLVED THAT;

The content of this document, together with all maps attached to and contained herein, with changes is adopted by the Lovells Township Planning Commission as the Lovells Township Master Plan 2023 on this day of the 6th of February, 2023.

Motion: Inman

Second: Brand

Ayes: 5

Nays: 0

Absent: 0

Certification

I hereby certify that the above is a true and correct copy of the resolution adopted at the February 6, 2023, meeting of the Lovells Township Planning Commission.

Lovells Township Planning Commission Clerk

Signature: [Signature]

Lovells Township Planning Commission Chair

Signature: [Signature]

Resolution of Adoption – Township Board

Lovells Township Board 2023 Master Plan Resolution

WHEREAS, the Lovells Township Planning Commission adopted the Lovells Township Master Plan at its meeting on February 6, 2023, and recommended the plan to the Lovells Township Board for adoption as well; and

WHEREAS, the Lovells Township Planning Commission has noticed and conducted a public hearing in accordance with the requirements of the Michigan Planning Enabling Act (PA 33 2008, as amended);

NOW THEREFORE BE IT RESOLVED, that the Lovells Township Board hereby approves the Lovells Township Master Plan and all associated charts and maps on February 14, 2023.

ADOPTED, by roll-call vote as follows

AYES: *Neumann, Infante-Loman, Duby, Lovell, Hoff*

NAYS: *None*

ABSENT: *None*

Certification

I hereby certify that the above is a true and correct copy of the resolution of adoption at the February 14, 2023, meeting of the Lovells Township Board.

Township Clerk

Signature: *Synthia Infante-Loman*

Township Supervisor

Signature: *Gary A. Neumann*