

ELMIRA TOWNSHIP MASTER PLAN

2024



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 www.elmiratownship.com

EAST OF EXPECTED
Northeast Michigan
COUNCIL OF GOVERNMENTS

Elmira Township Master Plan

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Elmira Township Board

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 Susan Schaedig, Clerk
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CHAPTER

1

INTRODUCTION



Elmira Township Master Plan

Purpose and Planning Process

The purpose of the Elmira Township Master Plan 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 inventory of existing community facilities. The background information is analyzed to identify important characteristics, changes, and trends occurring in Elmira Township. Community concerns were identified based on a citizen survey conducted in 2001 and 2013, previous planning efforts, and input from a Master Plan working group. Goals and policies were

developed to guide future development based on background studies, key land use trends, and community issues. 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 implementation of the identified goals and policies. The guidance provided by this Master Plan can be utilized to influence changes to the County Zoning Ordinance or implementing Township zoning if desired, as well as other measures the Township is authorized to take.

Regional Setting

Elmira Township is located in the northwest portion of Otsego County, which is situated in the north central part of northern Michigan's lower peninsula. Elmira Township is one standard geographic township in area (approximately 36 square miles).

Otsego County is located on the I-75 corridor which receives extensive tourist traffic from the lower, more populated regions of the state. Centrally located in the northern region, Otsego County is 60 miles east of Lake Michigan, 55 miles south of the Straits of Mackinac, and 70 miles from Lake Huron

to the east.

Elmira Township is bounded on the north by Hudson Township in Charlevoix County, on the west by Warner Township in Antrim County, on the east by Livingston Township, and on the south by Hayes Township, both in Otsego County. The City of Gaylord is approximately two and a half miles east of the Elmira Township border. Figure 1-1 illustrates the Township's proximity to a number of other communities in Michigan.

Historical Context

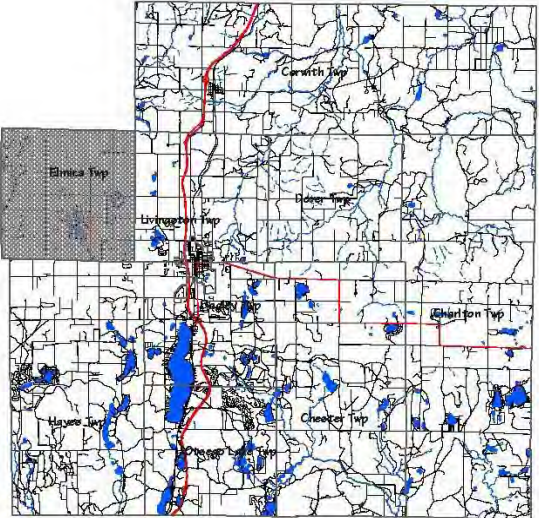
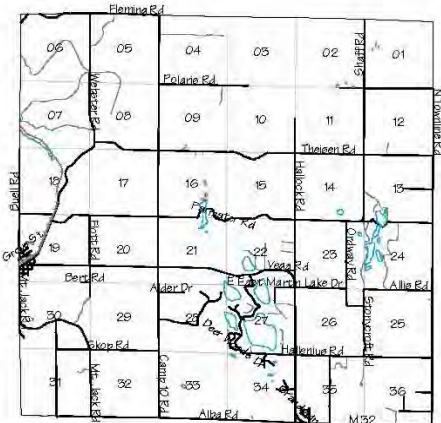
The town of Elmira, from which the Township took its name, was platted in 1883 but was already a booming lumber town. By 1892, the town had a population of approximately 400 people and supported two hotels, five stores, a church, post office, school, and town hall. The Grand Rapids &

Indiana train began stopping at the town daily in the early 1870s. By 1910, many trains passed through the town each day. Steam engines were able to refuel with coal and take on water, and there was a roundhouse for repairing train cars and locomotives.

Elmira Township

Location Map

Figure 1-1



Otsego County



State of Michigan

The Status of Planning and Zoning in Elmira Township

Elmira Township is currently covered under County-wide planning and the Otsego County Zoning Ordinance. Otsego County has engaged in formal land use planning since at least 1939 and enacted county-wide zoning in 1975 when the nine townships agreed to conduct planning and zoning together. The first master plan was written in 1939 with the purpose of establishing a land use policy which would increase the permanent values of the county. In 1966, a comprehensive plan was undertaken, with its primary purpose to guide growth. At that time, the County Planning Commission was also created. Comprehensive planning was again undertaken in 1981, with the adoption of the Otsego County Comprehensive Plan. In 2009, an updated plan, the Otsego County Master Plan was adopted

Zoning is the principal means of land use controls in the County. Land use is regulated under the Otsego County Zoning Ordinance except within the city limits of the City of Gaylord or the Village of Vanderbilt which enforce their own zoning ordinances. Planning and zoning was separated from the Building Department in 1996 and was staffed by a full-time zoning administrator for the first time. After more than 30 zoning map changes were made since it was adopted in 1975, and two substantial revisions to the ordinance, one in 1993, and the other in 1996; an updated Zoning Ordinance was adopted in 2010 and most recently amended in 2012.

Elmira Township established a Planning Commission in 2001; however, a planning committee existed prior to the formal establishment of the Planning Commission. In cooperation with Otsego County, the Planning Commission has reviewed local zoning issues and development proposals in the Township and made recommendations to the County. However, the Township's recommendations on zoning and development, while under the jurisdiction of the County Zoning Ordinance, have no legal standing. Updated zoning ordinances supported by up-to-date comprehensive land use plans are considered the main tool Michigan communities have at their command to control land use patterns and development pressures. In order to exert greater local influence over future development, Elmira Township adopted a Township Master Plan in 2005 and updated the earlier plan in 2013.

In 2023, Elmira Township partnered with Otsego County, Charlton Township, Chester Township, and Livingston Township to work with the Northeast Michigan Council of Governments (NEMCOG), a regional planning agency, to update Chapter 2 Socio-Economic Data (based on the 2020 Census and the latest American Community Survey data) and Chapter 4 Existing Land Use. In addition, NEMCOG reformatted the existing Master Plan and assisted the Township with the legal transmittals and adoption of the updated plan.

CHAPTER

2

SOCIO-ECONOMIC
DATA

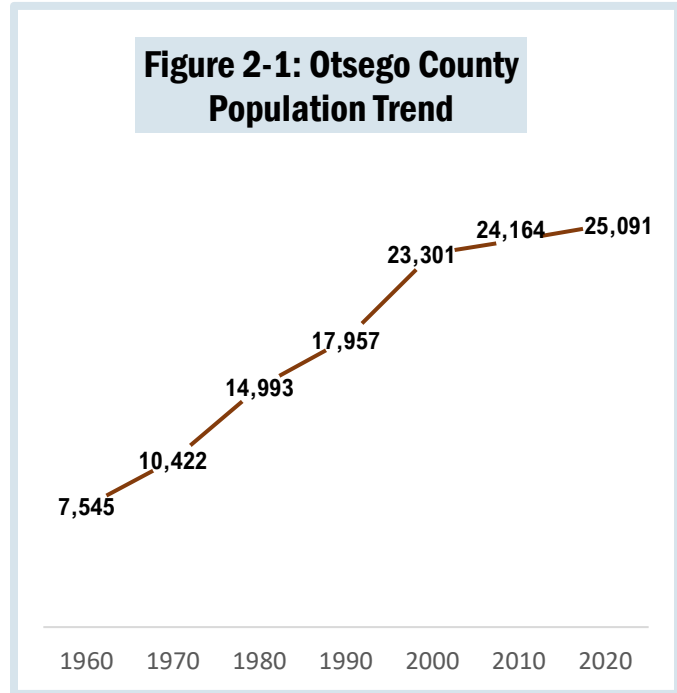


Elmira Township Master Plan

Population

County Population

The official population count of Otsego County according to the 2020 Census was 25,091 persons. Over the past 20 years, many Northern Michigan counties have seen a slight to moderate decline in growth rates. Between 2000 and 2020, eight of the eleven counties around Otsego had a decline in population (see Table 2-1). Otsego itself had a moderate increase of 3.7 percent and 3.8 percent in each decade. Antrim, Emmet, and Kalkaska Counties, which also represent all three nearby counties that are outside the Northeast region, are the only other counties to see growth rates from 2000 to 2020. **Figure 2-1** shows Otsego County's population increase since 1960.



County	2000	2010	% Change 2000 - 2010	2020	% Change 2010 - 2020
Alcona Co	11,719	10,942	-7.1%	10,167	-7.1%
Alpena Co	31,314	29,598	-5.5%	28,907	-2.4%
Antrim Co	23,110	23,580	2.0%	23,431	-0.6%
Charlevoix Co	26,090	25,949	-0.5%	26,054	0.4%
Cheboygan Co	26,448	26,152	-1.1%	25,579	-3.4%
Crawford Co	14,273	14,074	-1.4%	12,988	-7.7%
Emmet Co	31,437	32,694	4.0%	34,112	4.3%
Kalkaska Co	16,571	17,153	3.5%	17,939	4.6%
Montmorency Co	10,315	9,765	-5.3%	9,153	-2.2%
Oscoda Co	9,418	8,640	-8.3%	8,219	-4.9%
Otsego Co	23,301	24,164	3.7%	25,091	3.8%
Presque Isle Co	14,411	13,376	-7.2%	12,982	-3.0%
Michigan	9,938,444	9,883,640	-0.6%	10,077,331	1.9%

Source: U.S. Bureau of the Census, 2000-2020 (Decennial)

Population by Municipality

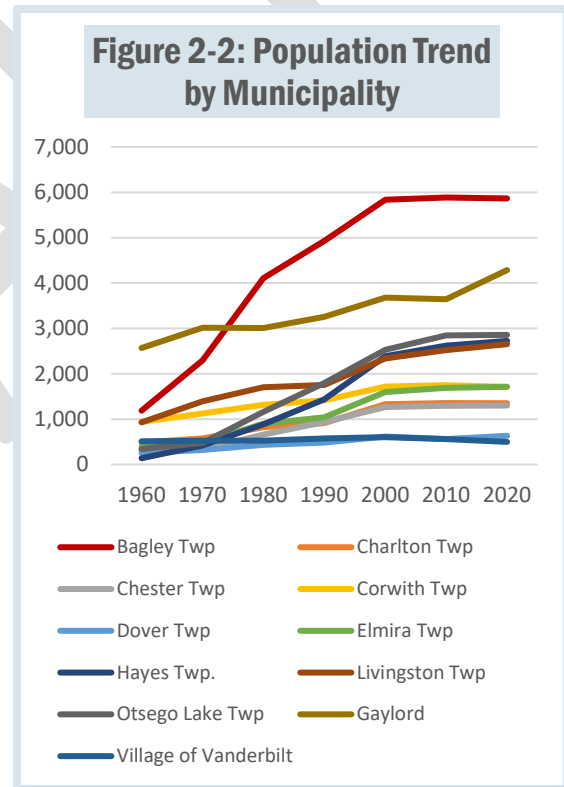
Although the amount of change in the populations of the 11 different municipalities in the County fluctuated greatly (see **Table 2-2**), a general increasing pattern can be seen. There are seven municipalities (aside from the County itself) that saw a slight to moderate growth rate, those being Chester Township with a 0.62 percent increase, Dover Township with a 12.66 percent increase, Elmira Township with a 1.60 percent increase, Hayes Township with a 4.05 percent increase, Livingston Township with a 5.03 percent increase, Otsego Lake Township with a 0.35 percent increase, and the City of Gaylord with a 17.59 percent increase. The three remaining townships

and the Village of Vanderbilt have all seen a decline in population since 2010, though Vanderbilt’s 11.39 percent is the only sizable decrease. During and after the COVID-19 pandemic, there has been a shift to telework. This shift allows for more flexibility in where one lives. Homes that were previously used as vacation homes are being converted to year-round homes as some homeowners choose to move up north. The current real estate market is a seller’s market. All of these factors may affect Otsego County’s population and development into the future. **Figure 2-2** shows the population change since 1960 per municipality.

Table 2-2: Otsego County Municipalities Population, 2010 & 2020

	2010	2020	Change	#
Bagley Twp	5,886	5,867	-0.32%	-19
Charlton Twp	1,354	1,350	-0.30%	-4
Chester Twp	1,292	1,300	0.62%	8
Corwith Twp	1,748	1,708	-2.29%	-40
Dover Twp	561	632	12.66%	71
Elmira Twp	1,687	1,714	1.60%	27
Hayes Twp.	2,619	2,725	4.05%	106
Livingston Twp	2,525	2,652	5.03%	127
Otsego Lake Twp	2,847	2,857	0.35%	10
Gaylord	3,645	4,286	17.59%	641
Vanderbilt	562	498	-11.39%	-64

Source: U.S. Bureau of the Census, 2010-2020 (Decennial)



Population by Age

When examining the 2021 age distribution of Otsego County's communities, one finds that all except Vanderbilt have less than 10 percent of their population between the ages of 20-24 (see **Table 2-3**). All but three of the municipalities indicate half or more of their residents were 45 years or older, including approximately 60 percent

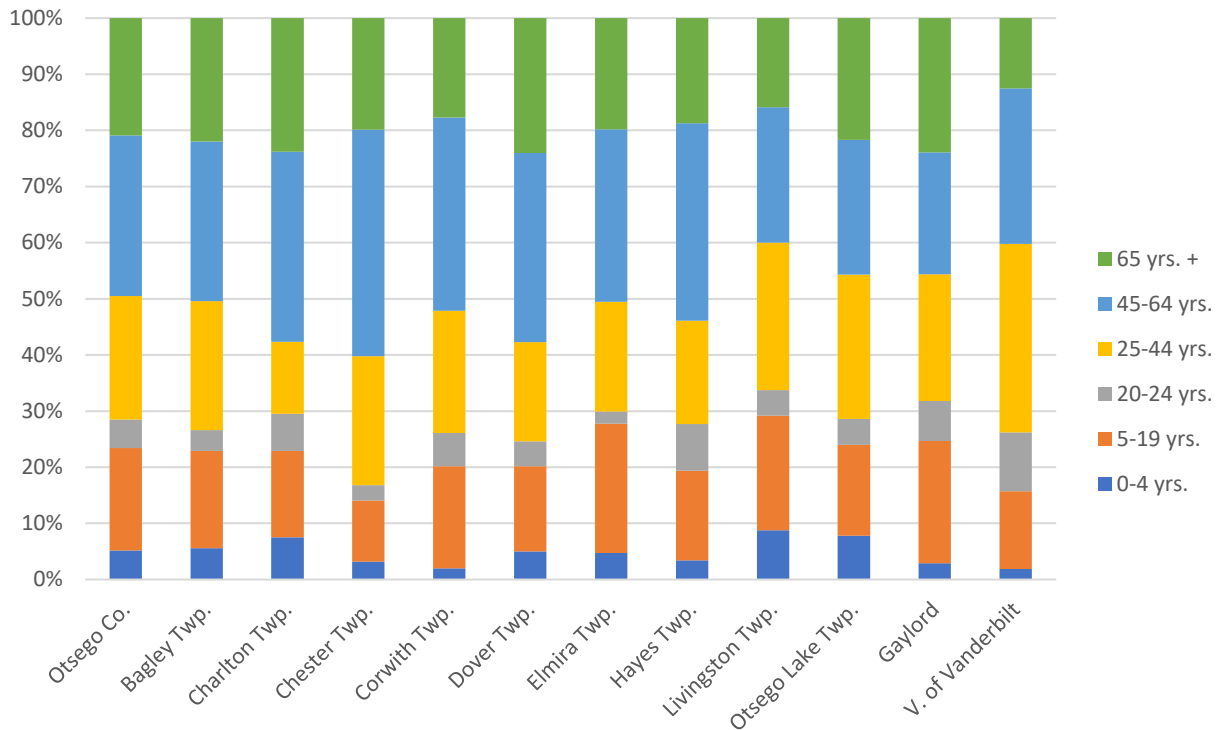
of residents in Charlton Township, Dover Township, and Chester Township. However, none of the municipalities show that even one-quarter of their population is over 65 years old, reflecting the relatively younger population of the County compared to other counties in the region. See **Figure 2-3**.

Table 2-3: Population by Age by Municipality, 2021

	0-4 yrs	5-19 yrs	20-24 yrs	25-44 yrs	45-64 yrs	65 yrs +
Otsego Co.	5.2%	18.2%	5.1%	22.0%	28.6%	20.9%
Bagley Twp.	5.6%	17.3%	3.7%	23.0%	28.4%	22.0%
Charlton Twp.	7.5%	15.4%	6.6%	12.8%	33.8%	23.8%
Chester Twp.	3.2%	10.9%	2.7%	23.0%	40.4%	19.9%
Corwith Twp.	2.0%	18.1%	5.9%	21.7%	34.3%	17.6%
Dover Twp.	5.0%	15.2%	4.4%	17.7%	33.7%	24.0%
Elmira Twp.	4.7%	23.0%	2.2%	19.5%	30.7%	19.8%
Hayes Twp.	3.4%	16.0%	8.3%	18.4%	35.2%	18.7%
Livingston Twp.	8.8%	20.4%	4.6%	26.3%	24.1%	15.9%
Otsego Lake Twp.	7.8%	16.2%	4.6%	25.7%	24.0%	21.7%
Gaylord	2.9%	21.8%	7.1%	22.6%	21.7%	23.9%
Village of Vanderbilt	1.9%	13.8%	10.5%	33.6%	27.7%	12.5%

Source: American Community Survey 5-Year Estimates 2021

Figure 2-3: Age Breakdown by Municipality



Median Age

The median age of residents within the County increased from 42.1 years of age in 2010 to 44.6 in 2021 (see **Table 2-4**). This trend is similar to that found in all of the surrounding counties, though still relatively smaller and younger. The State and National level has seen a significantly smaller median age throughout the years. The only municipalities showing a decrease in median age are Livingston Township, Otsego Lake Township, City of Gaylord, and Village of Vanderbilt. **Table 2-5** shows a fairly even split between males and females in the County.

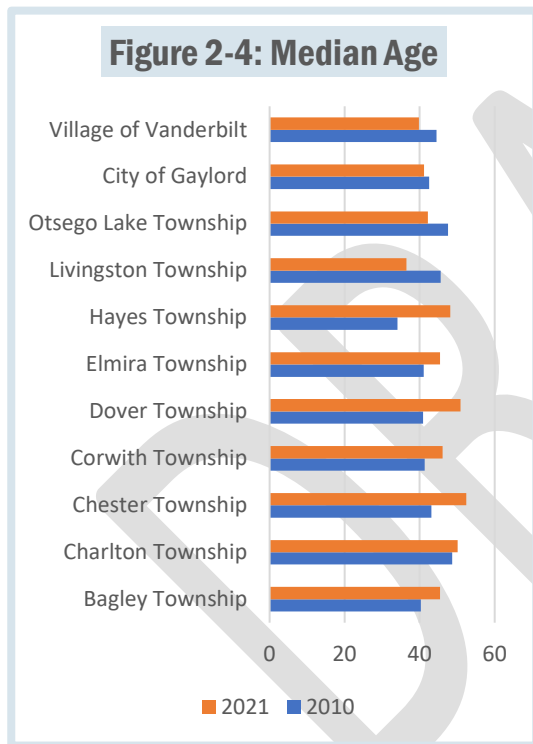


Table 2-4: Median Age 2010-2021

Governmental Unit	2010	2021
Alcona County	54.3	58.7
Alpena County	44.7	48.1
Antrim County	46.3	51.6
Charlevoix County	44.2	49.2
Cheboygan County	45.7	51.7
Crawford County	46.1	51.0
Emmet County	41.9	45.6
Kalkaska County	42.5	43.4
Montmorency County	51.7	56.4
Oscoda County	48.9	52.4
Otsego County	42.1	44.6
Presque Isle County	50.5	55.8
State of Michigan	38.1	39.8
United States	37.2	38.8

Municipalities within Otsego County

Bagley Township	40.3	45.4
Charlton Township	48.7	50.1
Chester Township	43.1	52.4
Corwith Township	41.3	46.1
Dover Township	40.9	50.9
Elmira Township	41.1	45.4
Hayes Township	34.1	48.2
Livingston Township	45.6	36.5
Otsego Lake Township	47.6	42.2
City of Gaylord	42.5	41.2
Village of Vanderbilt	44.5	39.8

Source: American Community Survey 5-Year Estimates, 2000, 2010, 2021

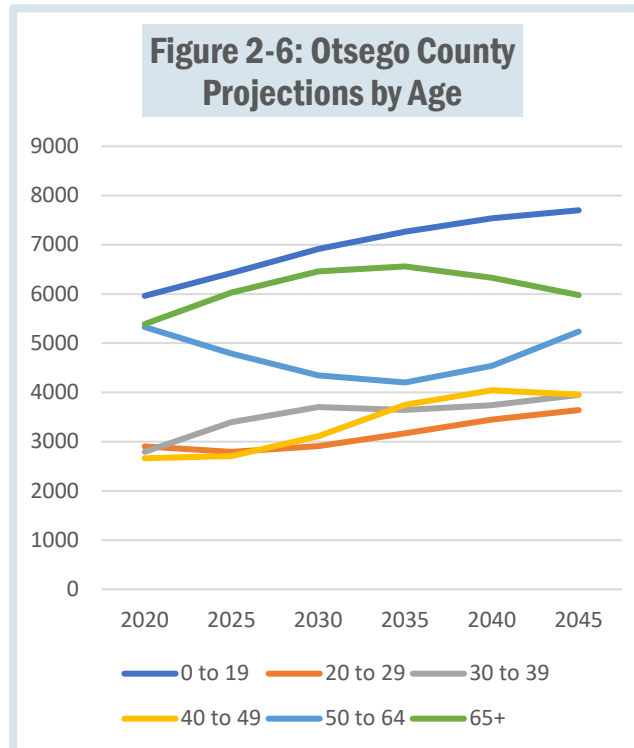
Year	Males		Females	
	#	%	#	%
2010	12,038	49.2%	12,407	50.8%
2019	12,153	49.6%	12,337	50.4%
2021	12,563	50.2%	12,453	49.8%

Source: American Community Survey 5-Year Estimates, 2010, 2019, 2021

Population Projections

County-level projections are sourced from the Michigan Department of Technology, Management and Budget shown below in **Figure 2-5**. The projections take into consideration the birth and death rate trends along with net migration trends to produce a projected population for the year 2045.

The State is projecting an increase in population in Otsego County overall, which is a trend that is not seen for the rest of Northeast Michigan. **Figure 2-6** shows the projected trends in population by age in the County. Population projects are not available at the municipal level.



Source: Michigan Department of Technology, Management, and Budget, Bureau of Labor Market Information and Strategic Initiatives (LMIS)

Race and Hispanic Origin

The population of Otsego County is relatively homogenous, with minorities composing a small percentage of the population. In 2020 Otsego County's population was made up of 92.9 percent white persons (see **Table 2-6**). The minority population has remained small but still more than doubled over the last 10 years. From 2010 to 2020, the minority population increased from 3.1 to 7.1 percent. Excluding the two or more races

category, Hispanic was the largest minority group with 1.8 percent of the population, followed by American Indian at 0.7 percent, some other race at 0.5 percent, and Black and Asian at 0.4 percent, each. There are only two Pacific Islanders within the County. Most minority classifications increased in population over the last two decades.

Table 2-6: Population by Race and Hispanic Origin, Otsego County, 2010 & 2020

	2010		2020	
	#	%	#	%
Total Population	24,164	100.0%	25,091	100.0%
White	23,413	96.9%	23,320	92.9%
Black	80	0.3%	101	0.4%
American Indian	160	0.7%	169	0.7%
Asian	93	0.4%	91	0.4%
Pacific Islander	11	0.0%	2	0.0%
Two or More Races*	363	1.5%	1,279	5.1%
Other Race	44	0.2%	129	0.5%
Hispanic Origin	299	1.2%	446	1.8%
Total Racial Minority**	751	3.1%	1,771	7.1%

Source: U.S. Bureau of the Census, 2010-2020 (Decennial)

Disability Status

Data shown in **Table 2-7** indicates how many disabled or handicapped people reside in Otsego County. Not surprisingly the data shows that the number of persons with disabilities increases with age. It should be noted that the disability data consists of self-reported disabilities. In Otsego County, 7.7 percent of those between 0 and 17 years of age have a disability, 14.1 percent between 18 and 64 years of age, and 35.0 percent of people

aged 65 years and over are disabled. A significant number of persons with disabilities are active in the workforce as 7.3 percent of employed persons 18-64 years of age are disabled. Disability indicators for the County's municipalities show that the Village of Vanderbilt has the highest percentage of disabled children of any local unit within the County. 24.6 percent of those aged 0-17 in Vanderbilt have a disability. Vanderbilt also has the

most disabled adults and the most disabled seniors with 24.0 percent of those 18-64 having a disability and 77.6 percent of those 65 and over having a disability, respectively. However, the population of the Village is very small and actually possesses the second-lowest raw number of

disabled persons after Dover Township. In every municipality except Dover and Elmira Townships, 10 percent or more of the persons 18-64 are disabled. In all but Bagley and Dover Townships, over one-quarter of the persons 65 and over are disabled.

Table 2-7: Disability Status, 2021

	Total persons 0-17 yrs.	# of persons 0-17 with disability	% of persons 0-17 with disability	Total persons 18-64 yrs.	# of persons 18-64 with disability	% of persons 18-64 with disability	% of employed and 18-64 w/ disability	Total persons 65 yrs. & over	# of persons 65 & over with disability	% persons 65 & over with disability
Bagley Twp	1,223	92	7.5%	3,372	500	14.8%	5.0%	1,296	313	24.2%
Charlton Twp	300	9	3.0%	821	95	11.6%	10.2%	351	100	28.5%
Chester Twp	151	3	2.0%	754	136	18.0%	9.1%	225	74	32.9%
Corwith Twp	327	37	11.3%	1,039	173	16.7%	10.7%	294	106	36.1%
Dover Twp	112	0	0.0%	357	30	8.4%	5.7%	148	29	19.6%
Elmira Twp	453	29	6.4%	999	87	8.7%	10.8%	361	115	31.9%
Hayes Twp	976	180	18.4%	2,165	412	19.0%	11.0%	909	481	52.9%
Livingston Twp	442	27	6.1%	1,763	261	14.8%	5.1%	501	155	30.9%
Otsego Lake Twp	654	16	2.4%	1,566	161	10.3%	7.4%	420	183	43.6%
Gaylord	646	16	2.5%	1,598	185	11.6%	7.7%	621	239	38.5%
Village of Vanderbilt	65	16	24.6%	342	82	24.0%	15.6%	58	45	77.6%
Otsego County	5,284	409	7.7%	14,434	2,040	14.1%	7.3%	5,126	1,795	35.0%

Source: American Community Survey 5-year Estimates

Educational Attainment

Data found in **Table 2-8** shows that the educational attainment of the residents of Otsego County had improved over the last decade. The percentage of persons that had at most a high school diploma or less in 2010 decreased by moderately large amounts by 2021. However, these groups form the majority of residents of the County. Conversely, the percentage of persons who had obtained advanced degrees all increased substantially from 2010. This has resulted in the County experiencing overall growth at the highest end of the educational attainment scale. The State had a greater

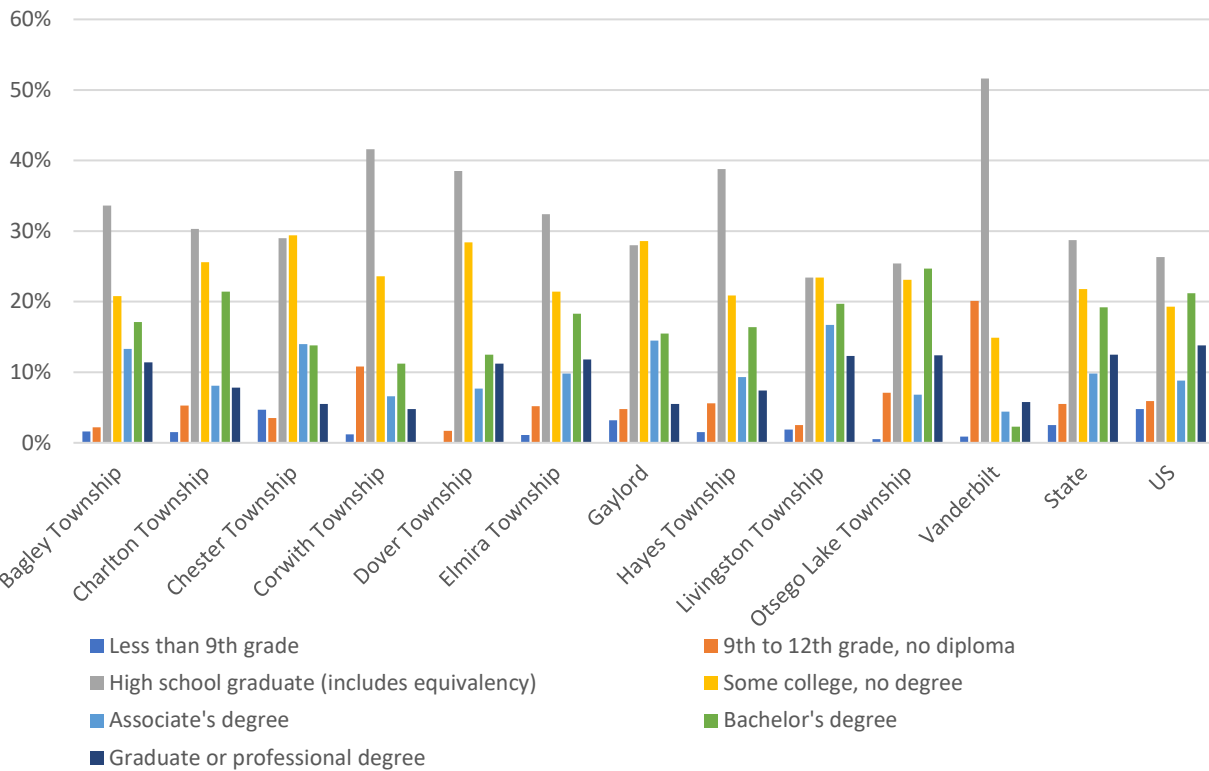
percentage of persons holding a college degree than did the County and most of the townships (**Figure 2-7**) but actually lagged behind for those possessing a high school degree. Livingston Township is the municipality with the highest percentage of persons with a college degree, with 32.0 percent of residents possessing a bachelor's degree or higher. Otsego County's percentages are approximately equal to those of the State and most of the townships. The County's lower college graduation rate is due, in part, to the limited amount of higher educational opportunities in the area.

Table 2-8: Change in Educational Attainment, Otsego County 2010-2021

Level of Education	2010	2021	% Change
Less than 9 th grade	2.8%	1.8%	-35.7%
9th to 12th grade	8.0%	4.6%	-42.5%
High school graduate	39.2%	31.5%	-19.6%
Some college	24.2%	23.8%	-1.7%
Associates degree	6.4%	11.5%	79.7%
Bachelors degree	13.0%	17.5%	34.6%
Graduate or professional degree	6.4%	9.3%	45.3%

Source: U.S. Bureau of the Census, American Community Survey 2021 5-Year Estimates

Figure 2-7: Highest Level of Educational Attainment, 2021



Source: U.S. Bureau of the Census, American Community Survey 2021 5-Year Estimates

Seasonal Population and Housing

Seasonal Population

In 2021, as illustrated in **Table 2-9**, the ACS showed that 27.1 percent of the housing units in the County were seasonal. This was a small decrease from 28.8 percent in 2010. This means that over one-quarter of the County's total housing stock is owned by seasonal residents. The percentage of Otsego County's housing units that are seasonal is roughly comparable to the surrounding counties and reflects the importance of Northern Michigan counties as a

tourism and recreation center and retirement community. A rough estimate of the number of County seasonal residents can be calculated by multiplying the number of County seasonal housing units (4,026) by the average number of persons per household (2.35) for a total of 9,461 persons (**Table 2-11**). This figure does not include those seasonal visitors or tourists staying in area motels, campgrounds, or family homes.

Table 2-9: County Trends in Percent Seasonal Housing Units, 2010 & 2021

Unit of Government	2010 Percent Seasonal Housing Units*	2021 Percent Seasonal Housing Units*
Alpena	10.4%	11.3%
Cheboygan	28.7%	33.7%
Montmorency	49.7%	47.9%
Otsego	28.8%	27.1%
Presque Isle	32.5%	33.9%
Michigan	5.9%	6.0%

* The percent of seasonal housing units as compared to each county's total housing units.
Source: U.S. Bureau of the Census, American Community Survey 5-Year Estimates

Housing

The number of residential housing units in the County has decreased slightly since 2010. **Table 2-10** shows that between 2010 and 2021, the number

of owner-occupied housing units in the County decreased by 1.6 percent over the past decade. Renter-occupied housing units increased by 46.5 percent.

Housing Units by Municipality

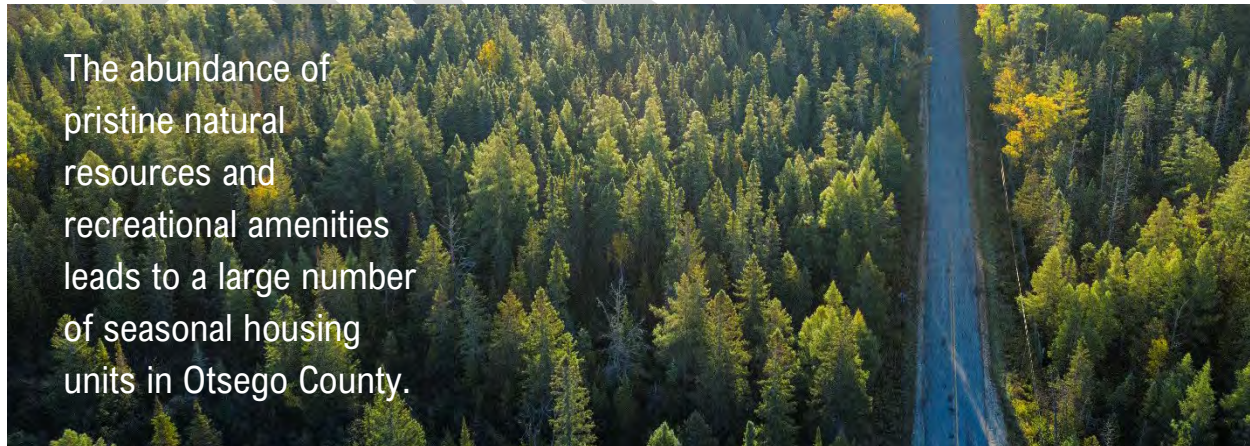
Table 2-11 shows that the greatest number of housing units are located in Bagley Township (3,166), the City of Gaylord (2,345), and Otsego Lake Township (2,178). Although Bagley Township, Otsego Lake Township, and Gaylord each have approximately 15 to 20 percent of the total housing units in the County, a larger portion of the units in Bagley Township and Gaylord are occupied year-round (76.2 percent and 93.2 percent) as opposed to Otsego Lake Township (49.5 percent). Similar to the Bagley Township and Gaylord, a large majority of the housing units in the Village of Vanderbilt are occupied year-round. Otsego Lake Township has the largest raw number of seasonal housing units (1,071) within Otsego County, and they make up 49.2 percent of all housing units within the Township. Charlton Township has a greater number of seasonal housing units than occupied (year-round) housing units. (Otsego Lake does not by a difference of seven units). Most notably in Charlton Township, 56.9 percent of the housing is seasonal.

Table 2-10: Housing Characteristics, Otsego County, 2010 & 2021

	2010	2021	% Change
Total Housing Units	14,718	14,481	-1.61%
Total Occupied Units	9,753	10,452	7.17%
Owner-Occupied (#)	7,982	7,857	-1.57%
Owner-Occupied (%)	81.8%	75.2%	-8.07%
Renter-Occupied (#)	1,771	2,595	46.53%
Renter-Occupied (%)	18.2%	24.8%	36.26%
Total Vacant Units	4,965	4,389	-11.60%
Seasonal Units	4,234	4,026	-4.91%
Persons Per Household	2.46	2.35	-4.47%

Vacant housing includes those housing units, which are vacant, for sale or rent and are not seasonal housing units.

Source: U.S. Bureau of the Census, American Community Survey 5-Year Estimates



The abundance of pristine natural resources and recreational amenities leads to a large number of seasonal housing units in Otsego County.

Table 2-11: Housing Units by Municipality Otsego County, 2021

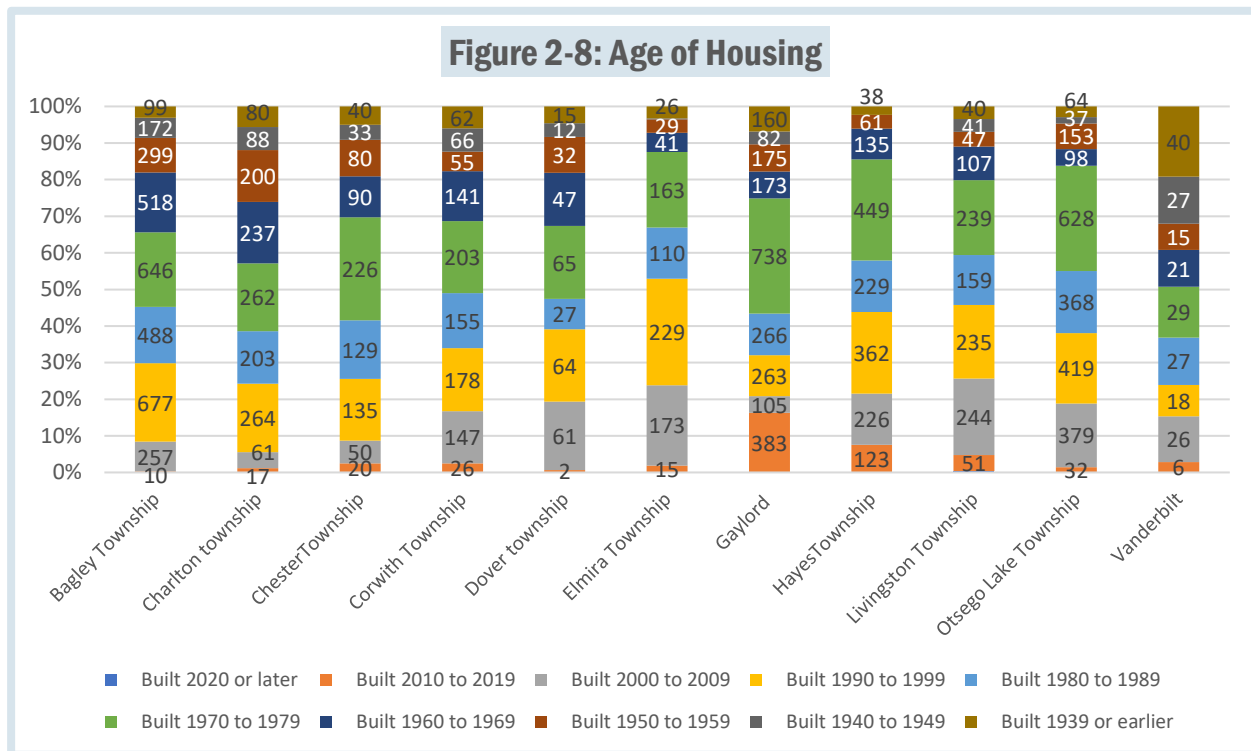
Municipality	Total Housing Units	% of County's Total Units	Occupied Housing Units	Occupied % of Total Units	Vacant Housing Units	Vacant % of Total Units	Seasonal Housing Units	Seasonal % of Total Units
Otsego Co	14,841	100.0%	10,452	70.4%	4,389	29.6%	4,026	27.1%
Bagley Twp	3,166	21.3%	2,411	76.2%	755	23.8%	677	21.4%
Charlton Twp	1,412	9.5%	598	42.4%	814	57.6%	804	56.9%
Chester Twp	803	5.4%	509	63.4%	294	36.6%	262	32.6%
Corwith Twp	1,033	7.0%	683	66.1%	350	33.9%	294	28.5%
Dover Twp	325	2.2%	233	71.7%	92	28.3%	76	23.4%
Elmira Twp	788	5.3%	686	87.1%	102	12.9%	81	10.3%
Hayes Twp	1,623	10.9%	1,070	65.9%	553	34.1%	501	30.9%
Livingston Twp	1,168	7.9%	998	85.4%	170	14.6%	143	12.2%
Otsego Lake Twp	2,178	14.7%	1,078	49.5%	1,100	50.5%	1,071	49.2%
Gaylord	2,345	15.8%	2,186	93.2%	159	6.8%	117	5.0%
V. of Vanderbilt	209	1.4%	192	91.9%	17	8.1%	3	1.4%

Source: US Bureau of the Census, American Community Survey 5-year Estimates

Age of Housing Units

When analyzing the age of the County's housing stock, it was found that 15.4 percent of all the housing units in Otsego County were built before

1959 (see **Table 2-13** and **Figure 2-8**). The largest number and percentage of housing units within the County were constructed between 1970 and 1979.



Housing Affordability

Housing availability and affordability have become significant issues in Otsego County leading to workforce development difficulties and a variety of other outcomes. **Figure 2-9** shows the breakdown of mortgages as a percent of household income for all municipalities. While the greatest percentage of homeowners have mortgages which equal 20 percent or less of their household income in all municipalities, a good percentage also have mortgages which total 35 percent or more of their income.

Figure 2-10 show the breakdown of rent as a percent of household income. This figure makes it clear that renters are paying a higher portion of their household income for rent than homeowners. Over 59 percent of Livingston Township renters use more than 35 percent of their income for housing. In fact, renters in Bagley Township, Charlton Township, Chester township, Corwith Township, Hayes Township, and the Village of Vanderbilt use over 40 percent of their household income for rent.



Figure 2-9: Mortgage as Percent of Household Income

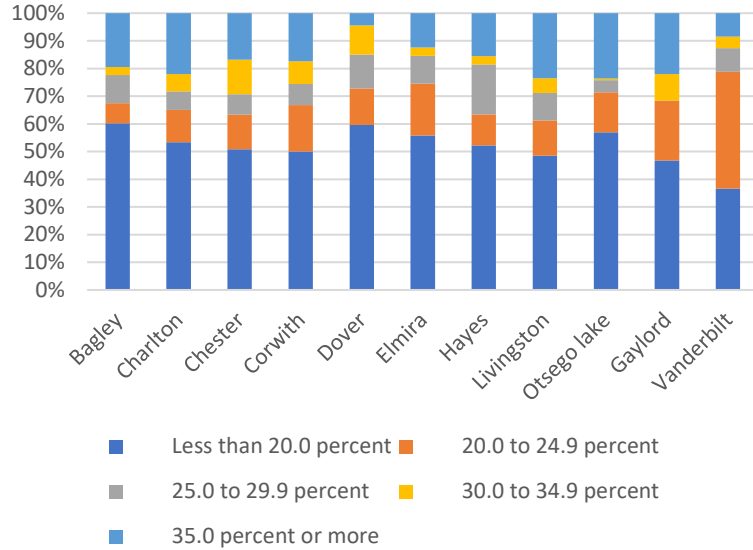
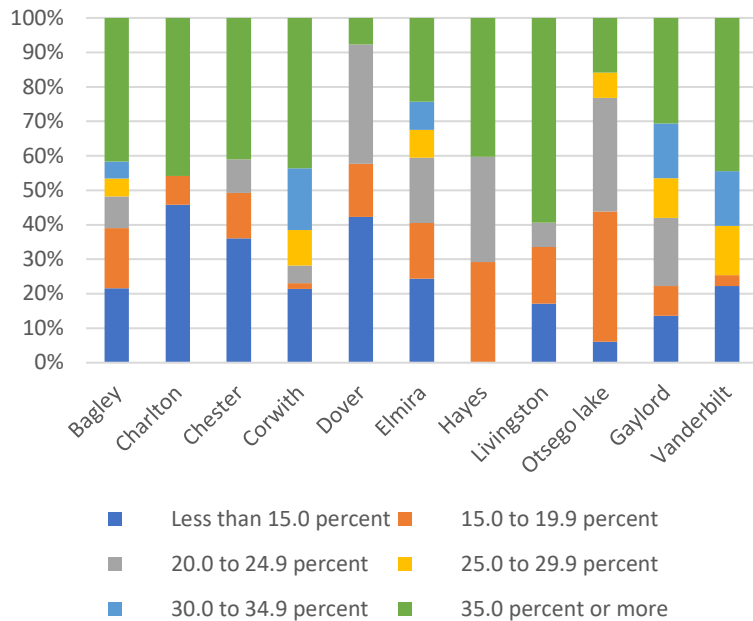


Figure 2-10: Rent as Percent of Household Income



Income

Historically, income levels in Otsego County have lagged behind those of the state as a whole. However, in recent years, the gap has begun to close, as can be seen in **Table 2-14**. Charlton and Livingston Townships, on the other hand, have income levels slightly exceeding that of the County and just behind those of the State. Elmira Township's income levels exceed those of both the County and the State.

Poverty Rates

Poverty rates have generally shown increases over the past three decades. **Table 2-13** shows rates for 2021. However, it is important to note that, in 2020, the U.S., as a whole, saw an economic downturn due to the pandemic. This left many out of work and many without any source of income. Families with a female head of household generally have a rate of poverty much higher than families and individuals (it should be noted that the 0 percent poverty rates shown for Dover and Elmira Townships is likely due to the fact that the American Community Survey is a survey sent to random households rather than the poverty rate actually being 0 percent). Several municipalities have poverty rates for individuals higher than the State including Corwith Township, Hayes Township, City of Gaylord, and Village of Vanderbilt.

Table 2-12: Median Household Income

Municipality	Median Household Income
United States	\$69,717
State of Michigan	\$63,202
Otsego Co	\$59,330
Bagley Twp	\$66,825
Charlton Twp	\$62,222
Chester Twp	\$65,729
Corwith Twp	\$52,303
Dover Twp	\$79,063
Elmira Twp	\$74,700
Hayes Twp	\$63,194
Livingston Twp	\$62,083
Otsego Lake Twp	\$66,250
City of Gaylord	\$33,952
Village of Vanderbilt	\$38,750

Source: US Bureau of the Census, American Community Survey 5-year Estimates

Table 2-13: Percent Below Poverty Level 2021

	Individuals	Families	Families with Female Head of Household
Bagley Twp	10.0%	8.7%	21.2%
Charlton Twp	9.0%	6.1%	24.3%
Chester Twp	9.0%	10.7%	55.3%
Corwith Twp	14.3%	13.2%	32.4%
Dover Twp	5.2%	2.5%	0.0%
Elmira Twp	3.0%	1.4%	0.0%
Hayes Twp	14.1%	9.0%	37.9%
Livingston Twp	11.7%	8.0%	25.0%
Otsego Lake Twp	6.6%	2.1%	20.5%
Gaylord	16.3%	9.8%	12.3%
Vanderbilt	24.3%	24.5%	15.8%
Otsego County	10.8%	7.6%	21.1%
State of Michigan	13.3%	9.0%	25.3%
U.S.	12.8%	9.1%	24.4%

Source: U.S. Bureau of the Census, American Community Survey 5-Year Estimates

Labor Force

Employment & Unemployment

The labor force is defined as all individuals over age 16 who are employed or actively seeking employment. Labor force numbers can change rather quickly, in response to economic

conditions. During prolonged periods of unemployment, unsuccessful job seekers can drop out of the market by going back to school, leaving the area in search of work elsewhere or by simply stopping the search for work.

	1990		2000		2010		2022	
	Jan	July	Jan	July	Jan	July	Jan	July
Civilian Labor Force	8,751	9,820	12,030	12,985	11,565	12,370	11,221	12,030
Percent Unemployed	6.9	4.7	4.8	3.9	15.4	13.6	6.4	5.8

Source: Michigan Dept. of Technology, Management, & Budget

Table 2-14 above shows a sample of the fluctuations in the labor force and unemployment rates at ten-year intervals over the past thirty years, including seasonal highs and lows. Although the rates of unemployment have dropped considerably, they remain well over the unemployment rates of Michigan as a whole and tend to spike sharply upwards during the winter months. It is also worth noting that in 2021, just

59.0 percent of Otsego County's population aged 16 and above was in the labor force; down from 62.4 percent in 2010. These decreasing participation rates relate to the variable number of retired persons residing in the County. Unemployment rates since 1990 are shown in **Figure 2-11** and **Table 2-15**. Otsego County has had one of the more moderate unemployment rates in Northeast Michigan.

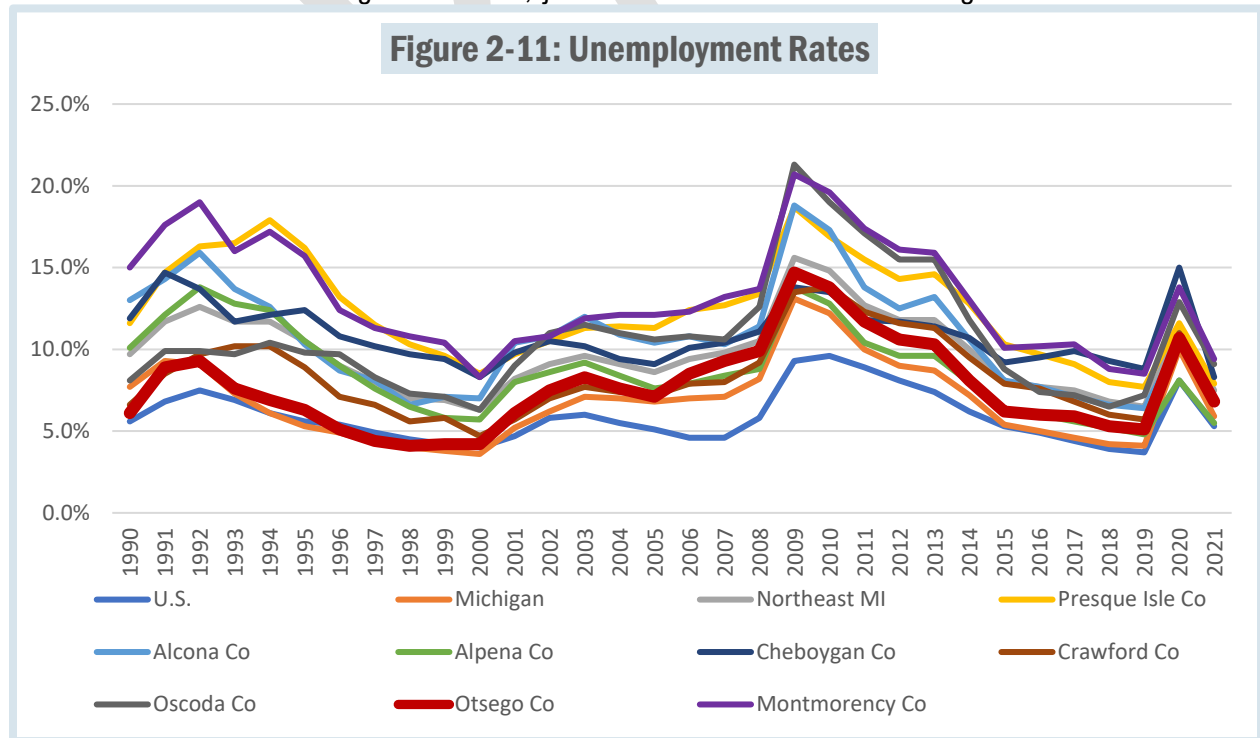


Table 2-15: Unemployment – County, Region State, and US

	United States	Michigan	Northeast MI	Presque Isle Co	Alcona Co	Alpena Co	Cheboygan Co	Crawford Co	Oscoda Co	Otsego Co	Montmorency Co
2021	5.3%	5.9%	7.5%	7.9%	7.1%	5.5%	8.3%	7.1%	9.1%	6.8%	9.4%
2020	8.1%	10.0%	11.4%	11.6%	10.4%	8.1%	15.0%	11.0%	12.9%	10.7%	13.8%
2019	3.7%	4.1%	6.5%	7.7%	6.4%	4.8%	8.8%	5.7%	7.2%	5.1%	8.5%
2018	3.9%	4.2%	6.8%	8.0%	6.6%	5.2%	9.3%	6.0%	6.5%	5.3%	8.8%
2017	4.4%	4.6%	7.5%	9.1%	7.1%	5.6%	9.9%	6.8%	7.2%	5.9%	10.3%
2016	4.9%	5.0%	7.7%	9.7%	7.7%	6.0%	9.5%	7.6%	7.4%	6.0%	10.2%
2015	5.3%	5.4%	8.0%	10.3%	8.1%	6.3%	9.2%	7.9%	8.8%	6.2%	10.1%
2014	6.2%	7.2%	10.0%	12.8%	10.6%	8.0%	10.7%	9.5%	11.8%	8.1%	13.0%
2013	7.4%	8.7%	11.8%	14.6%	13.2%	9.6%	11.4%	11.3%	15.5%	10.3%	15.9%
2012	8.1%	9.0%	11.8%	14.3%	12.5%	9.6%	11.7%	11.6%	15.5%	10.6%	16.1%
2011	8.9%	10.0%	12.7%	15.5%	13.8%	10.4%	11.8%	12.3%	17.1%	11.7%	17.4%
2010	9.6%	12.2%	14.8%	16.9%	17.3%	12.8%	13.5%	13.8%	19.0%	13.8%	19.6%
2009	9.3%	13.1%	15.6%	18.7%	18.8%	13.8%	13.8%	13.5%	21.3%	14.7%	20.7%
2008	5.8%	8.2%	10.5%	13.4%	11.4%	8.8%	11.1%	9.2%	12.6%	9.9%	13.7%
2007	4.6%	7.1%	9.8%	12.7%	10.3%	8.4%	10.4%	8.0%	10.6%	9.3%	13.2%
2006	4.6%	7.0%	9.4%	12.4%	10.8%	7.9%	10.1%	7.9%	10.8%	8.5%	12.3%
2005	5.1%	6.8%	8.6%	11.3%	10.4%	7.6%	9.1%	7.2%	10.6%	7.1%	12.1%
2004	5.5%	7.0%	9.1%	11.4%	10.9%	8.4%	9.4%	7.4%	11.0%	7.6%	12.1%
2003	6.0%	7.1%	9.6%	11.3%	12.0%	9.2%	10.2%	7.7%	11.5%	8.3%	11.9%
2002	5.8%	6.2%	9.1%	10.5%	10.8%	8.6%	10.5%	7.0%	11.0%	7.5%	10.8%
2001	4.7%	5.2%	8.2%	9.7%	10.4%	8.0%	9.8%	5.7%	9.0%	6.1%	10.5%
2000	4.0%	3.6%	6.3%	8.5%	7.0%	5.7%	8.3%	4.7%	6.3%	4.2%	8.3%
1999	4.2%	3.8%	6.9%	9.6%	7.1%	5.8%	9.4%	5.8%	7.1%	4.2%	10.4%
1998	4.5%	4.0%	7.0%	10.3%	6.6%	6.5%	9.7%	5.6%	7.3%	4.1%	10.8%
1997	4.9%	4.3%	8.0%	11.5%	8.1%	7.6%	10.2%	6.6%	8.3%	4.4%	11.3%
1996	5.4%	4.9%	9.0%	13.2%	8.7%	9.0%	10.8%	7.1%	9.7%	5.1%	12.4%
1995	5.6%	5.3%	10.5%	16.2%	10.3%	10.5%	12.4%	8.9%	9.8%	6.3%	15.7%
1994	6.1%	6.1%	11.7%	17.9%	12.6%	12.4%	12.1%	10.2%	10.4%	6.9%	17.2%
1993	6.9%	7.3%	11.7%	16.5%	13.7%	12.8%	11.7%	10.2%	9.7%	7.6%	16.0%
1992	7.5%	9.1%	12.6%	16.3%	15.9%	13.8%	13.7%	9.7%	9.9%	9.3%	19.0%
1991	6.8%	9.3%	11.7%	14.7%	14.3%	12.1%	14.7%	8.5%	9.9%	8.9%	17.6%
1990	5.6%	7.7%	9.7%	11.6%	13.0%	10.1%	11.9%	6.6%	8.1%	6.1%	15.0%

Source: Michigan Bureau of Labor Market and Strategic Initiatives

Employment by Sectors

Following a long-term trend, retail trade occupations are presently the largest employment sector for the County, followed by health care and social assistance and then by accommodation and food services. Administrative and waste jobs account for 1.17 percent of the County's current employment base, contrasted to 7.21 percent at

the State level while both retail and accommodation employment are more important locally (24.90 percent and 14.07 percent in the County, versus 12.48 percent and 8.71 percent Statewide). **Table 2-16** breaks down employment sectors. **Table 2-17** shows a breakdown of the number of industry types and wages in the County.

Table 2-16: Employment Sectors, 2021		
Sector	Percent of Total Jobs	
	Otsego County	State of Michigan
Agriculture, Forestry, Fishing & Hunting	1.02%	0.88%
Mining	2.08%	0.14%
Utilities	0.64%	0.58%
Construction	7.35%	4.90%
Manufacturing	12.03%	16.30%
Wholesale Trade	3.02%	4.58%
Retail Trade	24.90%	12.48%
Transportation & Warehousing	4.42%	3.98%
Information	0.45%	1.44%
Finance and Insurance	2.67%	4.52%
Real Estate and Rental and Leasing	0.60%	1.48%
Professional and Technical Services	2.52%	8.36%
Management of Companies and Enterprises	0.0%	1.98%
Administrative and Waste Services	1.17%	7.21%
Educational Services	0.0%	1.67%
Health Care and Social Assistance	15.34%	15.92%
Arts, Entertainment, and Recreation	2.07%	1.19%
Accommodation and Food Services	14.07%	8.71%
Other Services (except Public Administration)	4.30%	3.39%
Unclassified	0.30%	0.31%

Source: Michigan Dept. of Technology, Management, & Budget
The percentage of total jobs is based on average employment.

TOP EMPLOYMENT SECTORS

- 1 Retail Trade
- 2 Health Care & Social Assistance
- 3 Accommodation & Food Services
- 4 Manufacturing



Table 2-17 Establishment and Wages, Otsego County 2021

Industry Code & Title	Number of Establishments	Avg Employment	Avg Weekly Wages	Total Wages
Federal Government	9	132	\$1,530	\$10,500,394
State Government	18	280	\$1,574	\$22,977,633
Local Government	16	674	\$969	\$33,956,539
00 -Total, All Industries	737	9,053	\$906	\$427,208,121
11 -Agriculture, Forestry, Fishing & Hunting	16	92	\$765	\$3,666,837
21 -Mining	25	188	\$1,223	\$11,966,509
22 -Utilities	6	58	\$2,000	\$6,043,085
23 -Construction	86	665	\$1,336	\$46,809,588
31 -Manufacturing	32	1,089	\$1,169	\$66,322,872
42 -Wholesale Trade	20	273	\$1,199	\$16,981,113
44 -Retail Trade	106	2,254	\$694	\$81,402,926
48 -Transportation and Warehousing	32	400	\$968	\$20,217,549
51 -Information	9	41	\$1,195	\$2,528,879
52 -Finance and Insurance	33	242	\$1,657	\$20,788,497
53 -Real Estate and Rental and Leasing	26	54	\$948	\$2,671,038
54 -Professional and Technical Services	61	228	\$1,199	\$14,232,820
55 -Management of Companies and Enterprises	3	0	\$0	\$0
56 -Administrative and Waste Services	26	106	\$835	\$4,574,123
61 -Educational Services	4	0	\$0	\$0
62 -Health Care and Social Assistance	84	1,389	\$1,058	\$76,378,220
71 -Arts, Entertainment, and Recreation	18	187	\$383	\$3,679,928
72 -Accommodation and Food Services	75	1,274	\$439	\$29,236,320
81 -Other Services (except Public Administration)	66	389	\$772	\$15,635,497
99 -Unclassified	9	27	\$973	\$1,392,933

Source: Michigan Bureau of Labor Market and Strategic Initiatives, Industry Employment and Wages - QCEW

Land Values

Distribution of Real and Personal Property Values

Another measure of community wealth is land value. Real and personal property is an important part of a community's tax base. The tax base, in turn, can provide income to support local government, including law enforcement, emergency services, education, health and social services, land use controls, environmental

protection, and public administration. **Table 2-18**, below, shows the distribution of real and personal property within Otsego County. The County's total State Equalized Value (SEV) for 2022, including taxable real and personal property, was just over \$1.8 billion. This figure is an increase of 7.5 percent over the total SEV in 2021.

Table 2-18 State Equalized Value of Real & Personal Property, 2022

Municipality	Agriculture	Commercial	Industrial	Residential	Total Real	Total Personal	Total Real & Personal
Bagley Twp.	0	24,981,700	4,418,500	290,305,000	319,705,200	19,458,600	339,163,800
Charlton Twp.	13,625,500	2,129,500	2,273,600	124,591,500	142,620,100	24,226,700	166,846,800
Chester Twp.	6,649,500	1,200,700	1,461,800	86,306,100	95,618,100	25,696,800	121,314,900
Corwith Twp.	2,350,300	4,605,800	1,741,900	88,139,200	96,837,200	6,182,000	103,019,200
Dover Twp.	6,818,300	5,587,200	159,200	37,963,600	50,528,300	4,501,400	55,029,700
Elmira Twp.	5,916,200	2,727,100	6,459,400	86,543,600	101,646,300	90,397,800	192,044,100
Hayes Twp.	5,059,600	1,203,900	744,800	147,827,000	154,835,300	22,922,200	177,757,500
Livingston Twp.	11,247,600	32,945,600	388,600	104,236,000	148,817,800	23,255,000	172,072,800
Otsego Lake Twp.	0	6,674,100	0	221,967,600	228,641,700	8,617,700	237,259,400
Gaylord	0	149,616,205	13,037,300	58,238,900	220,892,405	30,153,900	251,046,305
County Total	51,667,000	231,671,805	30,685,100	1,246,118,500	1,560,142,405	255,412,100	1,815,554,505

Michigan Department of Treasure: State Tax Commission

Over 68 percent of the County's SEV is comprised of residential property. Commercial land comes as a distant second, at 12.8 percent. The total value of the agricultural and industrial categories is negligible, at 2.8 percent and 1.7 percent of the total SEV. Taxable personal property is the non-depreciated value of machinery and equipment owned by businesses and industries. It is interesting to note that in Otsego County, the total value of personal property (14 percent of the County's SEV) is over three times greater than the value of all agricultural and industrial real property combined (2.8 percent plus 1.7 percent, or a total of 4.5 percent). This is an indication of the relatively low market value of agricultural and industrial property in the County. The value of personal property also slightly exceeds the value of commercial property within the County. The City of Gaylord has the largest amount of industrial value, containing over 40 percent of the County's value. Gaylord also has the largest commercial sectors and the highest agricultural values are found in Charlton and Livingston Townships. The leader in residential value is Bagley Township. Bagley Township also has the highest total SEV of any local jurisdiction within Otsego County. That single township comprises 18.7 percent of the County's SEV.

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 2-11 shows the indicator scores for all municipalities in Northeast Michigan (the region covered by the Northeast Michigan Council of Governments – the sponsor of the Munetrix data). The graph shows a trend of more moderate regional fiscal stress from 2008 through 2015 with financial stress lessening through 2020. However, most municipalities remain in the low-risk category throughout. **Figure 2-12** shows the indicator scores for municipalities within Otsego County. As can be seen, municipalities in Otsego County are in extremely low fiscal stress since 2016. The long-term effect of Covid-19 has yet to be determined at the time of the drafting of this plan. **Table 2-19** shows Elmira Township has maintained a low fiscal stress score.

Munetrix Stress Meter:

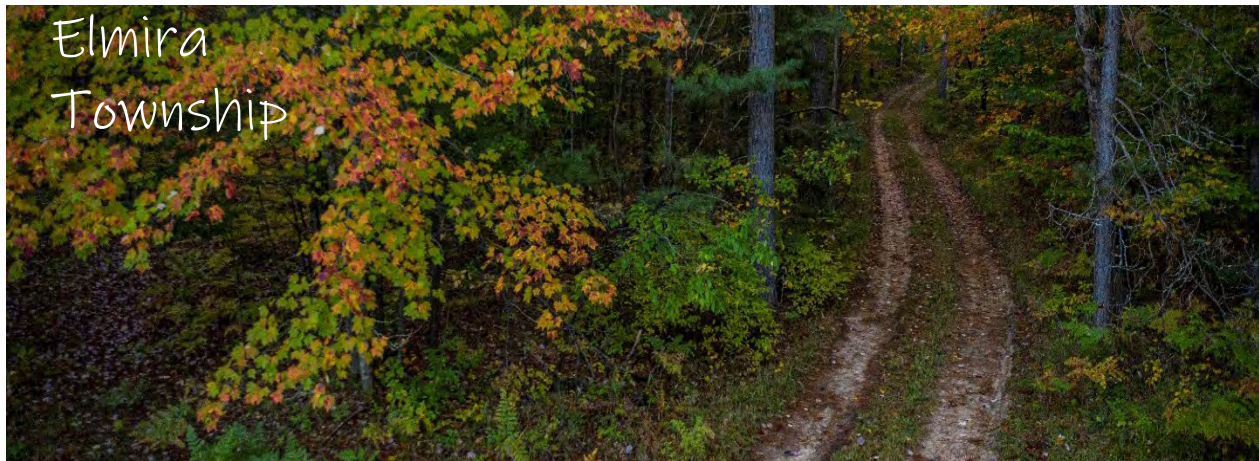


Figure 2-12

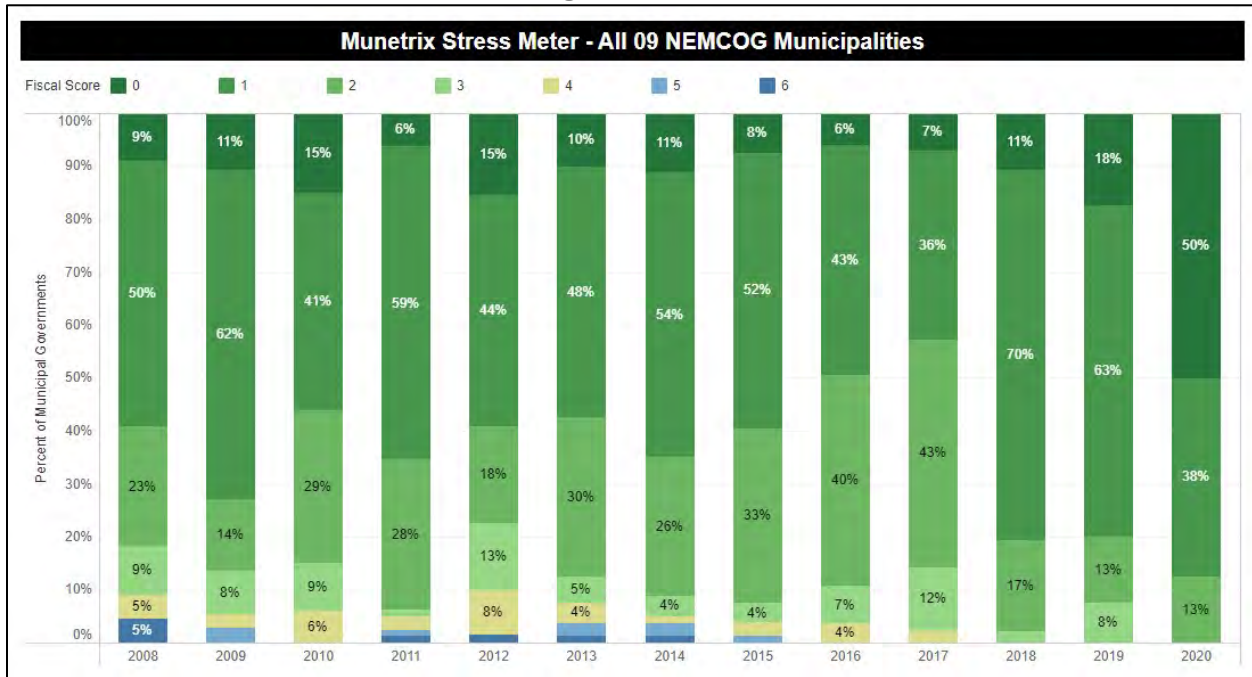


Figure 2-13

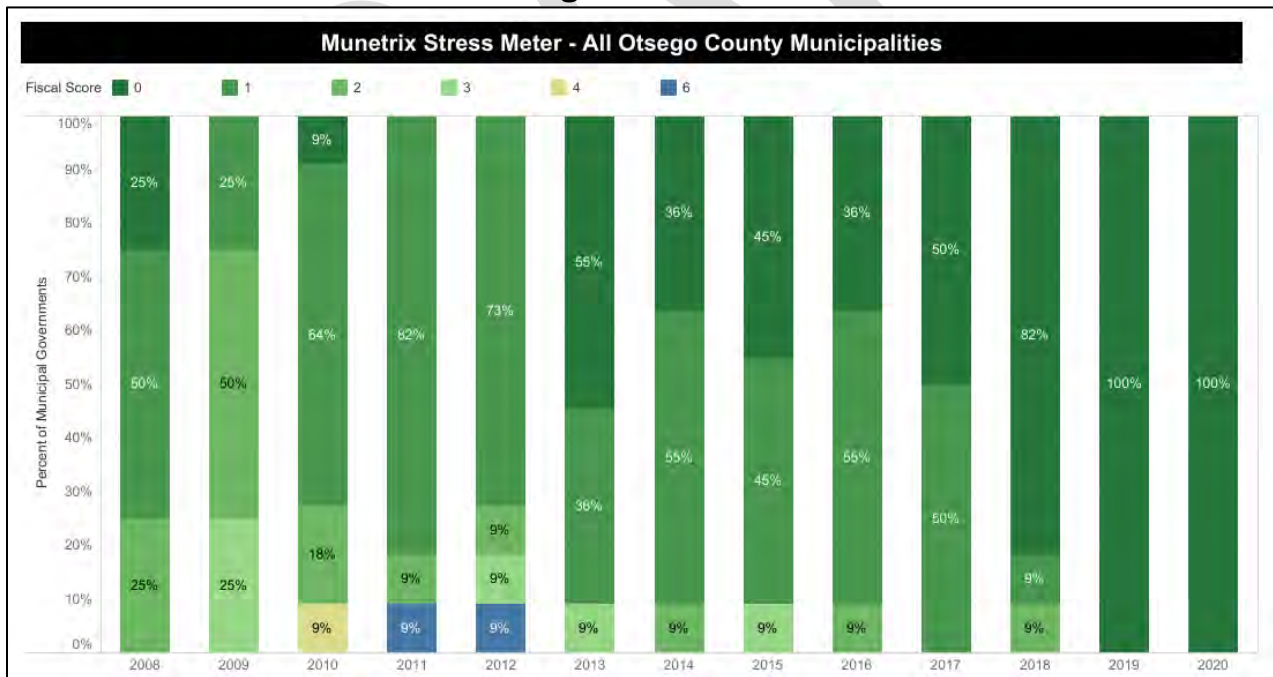


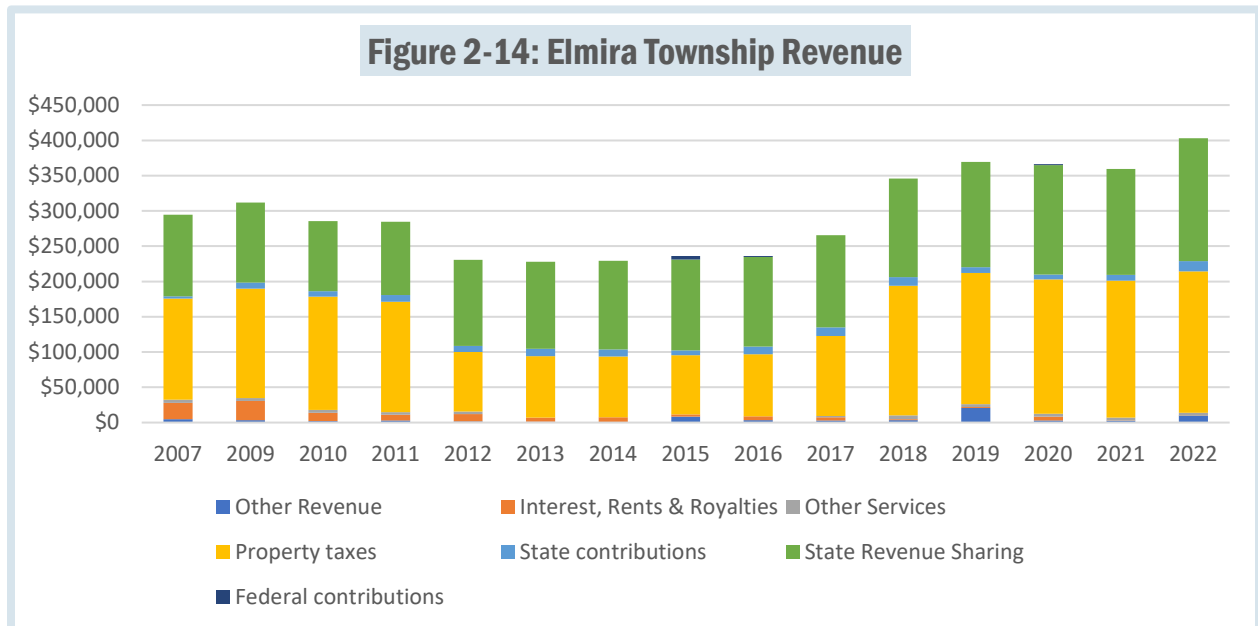
Table 2-19 Elmira Township Finances						
Year	Indicator Score	Revenues	Expenditures	Fund Balance	Long Term Debt	Taxable Value
2022	0	\$402,937	\$210,518	\$892,602	\$0	\$163,167,814
2021	0	\$359,302	\$190,757	\$700,183	\$0	\$152,031,062
2020	0	\$366,286	\$289,006	\$531,638	\$0	\$150,701,385
2019	0	\$369,436	\$247,337	\$454,358	\$0	\$150,729,982
2018	0	\$345,856	\$586,290	\$332,259	\$0	\$147,752,796
2017	0	\$265,452	\$380,050	\$572,693	\$0	\$147,054,933
2016	0	\$236,119	\$197,386	\$687,291	\$0	\$90,474,043
2015	0	\$235,880	\$186,460	\$648,560	\$0	\$70,434,245

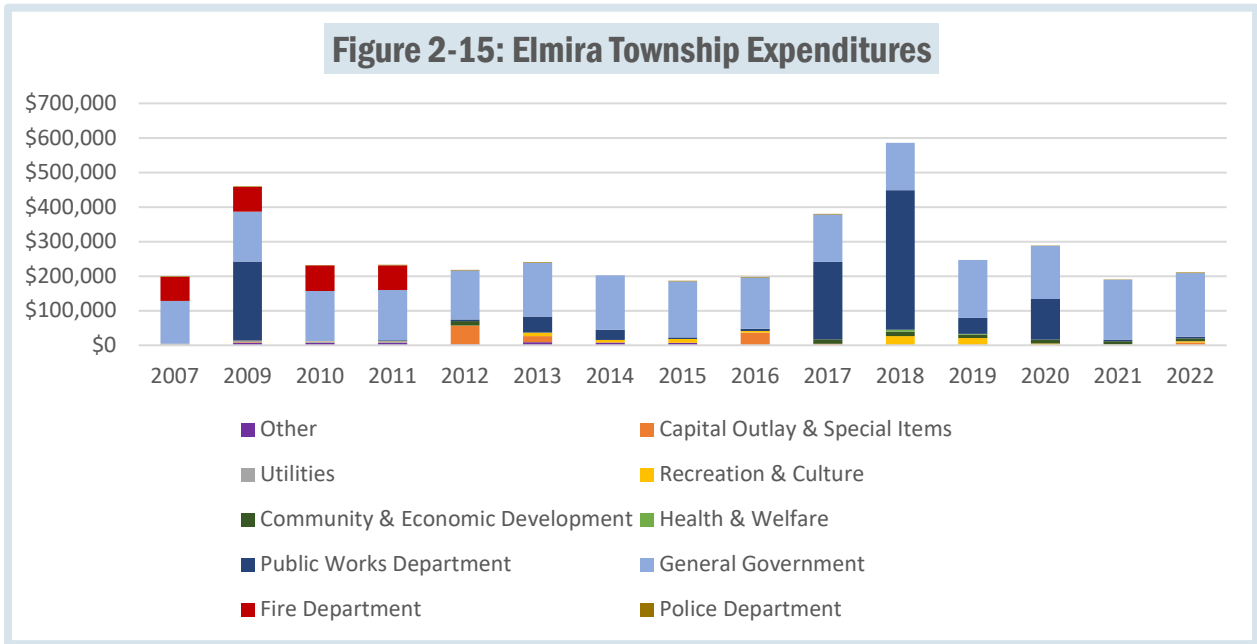
Source: Michigan Department of Treasury (through Munetrix)

Revenues & Expenditures

Revenue is generated from tax dollars received from residents and businesses which are generated from the millage rate multiplied by property valuations. Revenue is also generated from other sources such as State and Federal grants, permits, and fees. **Figure 2-14** shows the sources of revenue for Elmira

Township. The largest sources of revenue are property taxes and state revenue sharing. **Figure 2-15** shows where expenses are incurred. The category where the most funds are generally expended general government and public works.





Most units maintain a positive fund balance, and it is a sign of fiscal distress if the fund balance is negative. Units typically find it beneficial to keep the fund balance from declining too greatly as this inhibits their ability to cope with unexpected circumstances in either the revenue or expenditure stream. The

actual variable constructed for this indicator is the general fund balance as a proportion of general fund revenue. **Figure 2-16** shows the Township fund balance has remained above the indicator trigger. There was a sharp decrease from 2015 to 2017, but a steady increase has been occurring since 2017.

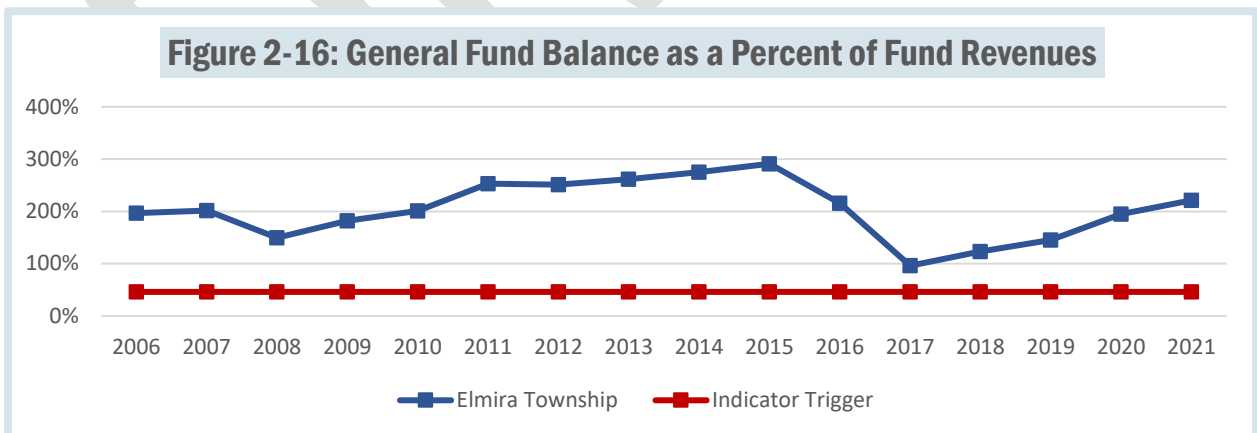
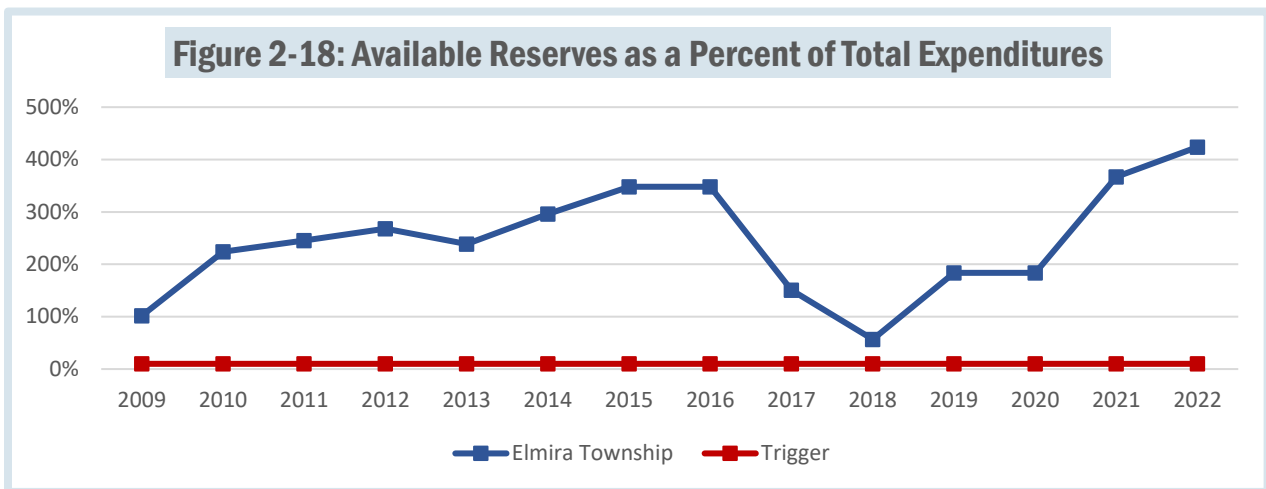
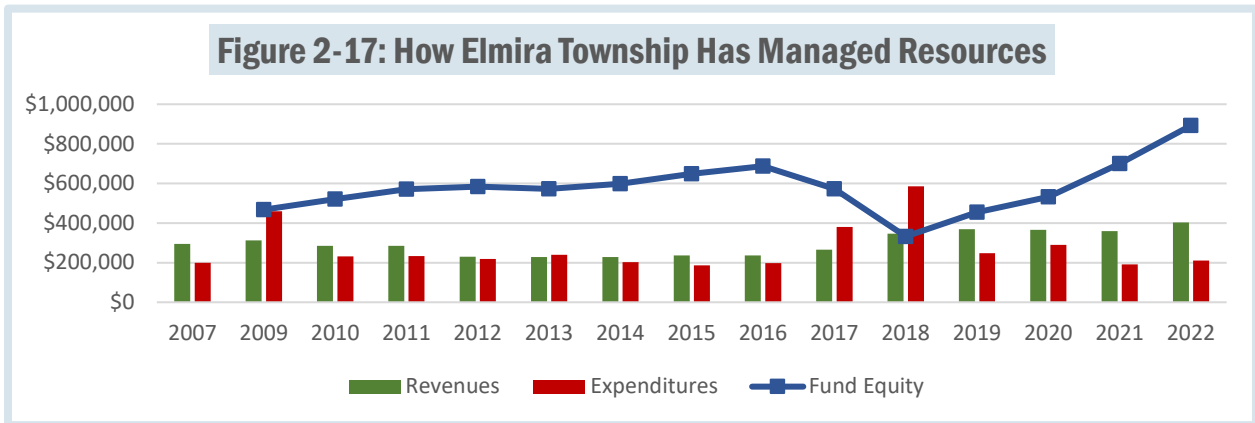


Figure 2-17 shows how the Township has managed resources. Revenue and expenditures have closely matched each other throughout

most years. Expenditures in 2018 showed a sharp increase. Fund equity has generally increased with the exception of the period from

2016 to 2018. **Figure 2-18** shows the Township's available reserves as a percent of total expenditures (total equity minus any designated and reserved funds divided by total annual expenditures). The Township has generally stayed above the indicator trigger. A decrease occurred from 2016 to 2018. Reserves have been increasing since that point.



CHAPTER

3

NATURAL RESOURCES



Elmira Township Master Plan

Climate

The climate is one factor which contributes to Elmira Township's appeal as a rural residential community. The Township's climatic conditions are similar to those across northern Lower Michigan: long cold winters, and moderate warm summers. However, Otsego County's climate is not strongly influenced by the climate moderation typical of areas nearer the Great Lakes. The most noticeable lake influence is the increased cloudiness and snowfall during the fall and winter months.

Temperature data show the County to have had the following extremes: the highest recorded temperature of 101 degrees Fahrenheit and the lowest recorded of 36.9 degrees Fahrenheit below zero on 2/17/1979. Summers are dominated by moderately warm temperatures with an average of five days exceeding 90 degrees Fahrenheit. On

average, 92 percent of the days between November to March are 32 degrees Fahrenheit or below, with 20 days a year experiencing below zero temperatures.

Precipitation is well-distributed throughout the year with the growing season, May to October, receiving an average of 18.8 inches, equaling 55 percent of the total annual average. The average annual snowfall recorded in nearby Gaylord is 145 inches, a water equivalent of approximately 34 inches.

The average date of the last freezing temperature in the spring is May 26th, while the average date of the first freezing temperature in the fall is September 19th. This provides for an average growing season of 116 days.

Geology

Bedrock underlying the County was formed from an ancient sea, which covered the area some 250-600 million years ago. Significant oil and gas deposits are found in a band running from southwest to northeast across Otsego County. The bedrock underlying Elmira Township was formed during the Middle and Upper Devonian ages of the Paleozoic Era. This bedrock is Antrim shale and Ellsworth shale. (Figure 3-1)

The primary surface geologic features in Elmira Township are moraines, outwash plains, and kettle lakes. Moraines, linear hilly ridges, were formed by the deposition of unsorted sand, gravel, rock, and clay at the margins of the glacier. A moraine represents the former position of a glacier's edge. Moraines occur in the northwest corner of the

Township and traverse the Township from southwest to northeast. Outwash plains are stratified deposits of sand and gravel. Extensive outwash plains occur in the southeast portion of the Township. Numerous small water-filled depressions (kettle lakes) and dry depressions (kettles) occur on the outwash plains. Kettles were caused by sediment collapse around melting blocks of ice buried in outwash. Kettle lakes occur in low-relief, poorly drained areas within outwash plains and moraines.

The glacial geology of Elmira Township is shown in Figure 3-2. Elmira Township is dominated by coarse-textured glacial till. Till is composed of unsorted sands and gravels left by the glacier.

Topography

Slope is an important development consideration associated with topographic features. Steep roadway grades, septic field failures, soil erosion,

and excavation costs are some of the difficulties associated with severe grades. Figure 3-3 shows slope categories based on soils. The areas of

moderate and extreme slope may be a constraint for potential development. Development in areas with severe slopes and ravines should be restricted.

Soils

One 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.

Approximately 50 percent of the soils in Elmira Township are in the Kalkaska - East Lake - Mancelona general soil association, which are typically level to gently sloping, well-drained sandy and gravelly soils of the hardwood plains. The balance of the Township soils are in the Leelanau - Emmet - Kalkaska soils association, which are typically sloping to steep, well-drained sandy, and loamy on the complex rolling areas and hills.

Figure 3-4 identifies areas with soil limitations for septic systems. The limitations identified are either related to slope, hydric soils, or both. These limitations do not preclude the development of specific sites. The developer should realize, however, that construction on some soils may be

If development is permitted, sensitive site planning should be required along these steep slopes to prevent soil erosion.

more costly in time and money. A more detailed analysis of the soils by the District Health Department will determine suitability for siting a septic system. Health Department approval is required by State law.

Soils and topography also determine which areas are classified as prime, unique, and locally important farmland. The prime farmland classification indicates soils which are ideally suited for agricultural or timber production. Unique farmland is land other than prime that is used for the production of specific high-value food and fiber crops. Locally important farmland includes soils which are nearly prime, but are located on slightly steeper grades. These soils can produce high yields when treated and managed according to modern farming methods. With good management, these soils may produce yields equal to that of prime soils.

Water Resources

Elmira Township is located within five watersheds: the Cheboygan River watershed, the AuSable River watershed, the Manistee watershed, the Elk River watershed, and the Boyne River watershed (see **Figure 3-5**).

Both groundwater and surface water are vital resources within Elmira Township. Because there is no central water distribution system, residents must rely upon individual wells for drinking water.

The vulnerability of drinking water aquifers to surface contamination is high in much of the Township due to the highly permeable soils. Surface waters in lakes of the Township are an important resource for scenic and groundwater

recharge amenities. It is therefore important that water resources be protected and managed in a manner which would ensure their quality.

Elmira Township's drinking water is provided from an underground aquifer sometimes referred to as The Great Sand Dome. This is a large deposit of sand and gravel left behind by the glaciers. It extends from the surface of the ground to bedrock, as deep as 1500 feet. Because there are no impervious soils within the aquifer to restrict the movement of water through the deposit, there are no barriers to contamination from surface spills or subsurface leakage. Contamination plumes can travel great distances within the aquifer if not

detected and addressed. This may not be detected unless well water is sampled and tested, as some contaminants will be well in excess of safe drinking

water standards before they can be detected by taste or color changes.

Groundwater

Important factors in the evaluation of groundwater are the quantity and quality of the water. The geologic and hydrologic features of the Township provide residents with sufficient water quantities.

Water availability will not likely be a factor in limiting growth. In Elmira Township, the vulnerability of water quality is more of a limiting factor than water supply.

Surface Water

The surface water resources in Elmira Township are lakes primarily located in south central and eastern portions of the Township. These lakes include: Flott Lake, Pettifor Lake, West Lake, Martin Lake, Deer Lake, Twenty Seven Lake, Green Lake, Porcupine Lake, and Little Porcupine Lake. Figure 3-5 shows the lakes. These lakes offer scenic and recreational

amenities to Township residents and visitors. It is extremely important that the quality of these surface waters be protected. Elmira Township is located within five watersheds, with the headwaters of the south branch of the Boyne River located in the western portion of the Township.

Woodlands

In addition to the scenic characteristics of woodlands, forested areas provide habitat for wildlife, protect the soil from erosion, and act as a buffer from noise on heavily traveled highways. The dominant forest associations in Elmira Township

are beech, maple, aspen, and pine in the upland areas. In the lowland or wetland areas, common hardwood species include ash, elm, and red maple. The common coniferous associations are cedar and tamarack in the wetlands.

Sites of Environmental Contamination

Part 201 of the Natural Resources and Environmental Protection Act (NREPA) 1994, PA451, as amended, provides for the identification, evaluation, and risk assessment of sites of environmental contamination in the State. The Remediation and Redevelopment Division (RRD) of the Michigan Department of Environment, Great Lakes, and Energy (EGLE) is charged with administering this law. A site of environmental contamination, as defined by RRD, 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 provides an updated list (via the EGLE website) of environmentally contaminated sites by county, showing the sites by name, Site Assessment Model score, pollutant(s) and site status. The Michigan Sites of Environmental Contamination identifies 19 sites within Otsego County, none of which are in Elmira Township. The Michigan Sites of Environmental Contamination - Leaking Underground Storage Tank lists 13 open sites in Otsego County with one located in Elmira Township and 29 closed sites in Otsego County, none located in Elmira Township.

Surface Water Discharge Permits

All point source discharges into surface waters are required to obtain a National Pollutant Discharge Elimination System (NPDES) permit which is issued by EGLE Water Division. Permit requirements generally address discharge limitations, effluent

characteristics, monitoring and reporting requirements, along with facility management requirements. There are no known point source permit holders in Elmira Township.

Air Quality

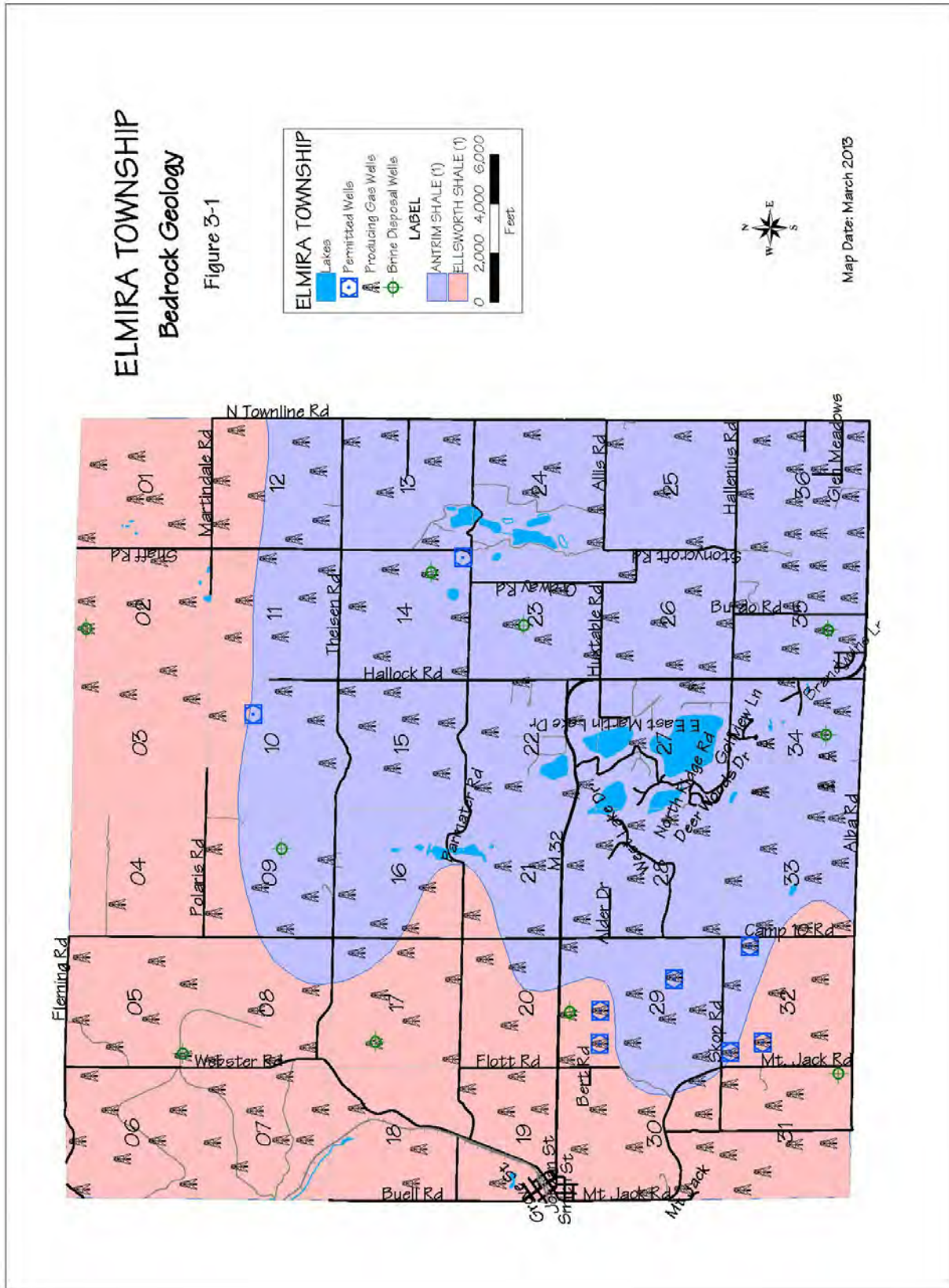
Air Quality is regulated by the Air Quality Division of EGLE. Standards have been established as acceptable levels of discharge for any of the following air pollutants: particulate matter, sulfur dioxide, nitrogen dioxide, carbon monoxide, ozone, lead, and trace metals. These pollutants are monitored on a continuing basis at selected

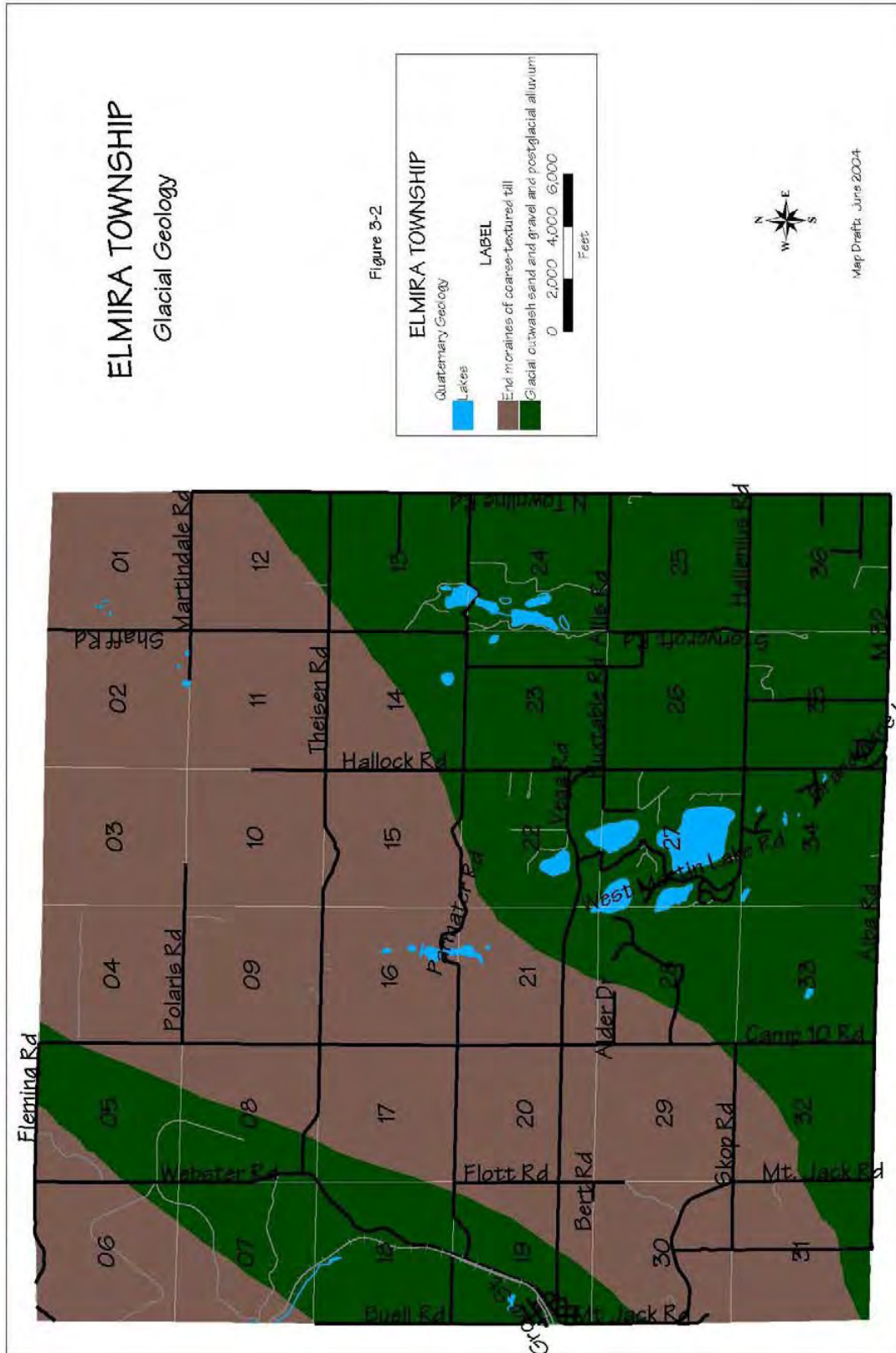
locations around the state. Monitoring in recent years has shown the level of pollutants in the region to be within the established acceptable standards. Air discharge permits are required for businesses unless otherwise exempted by law, Elmira Township does not have any at this time.

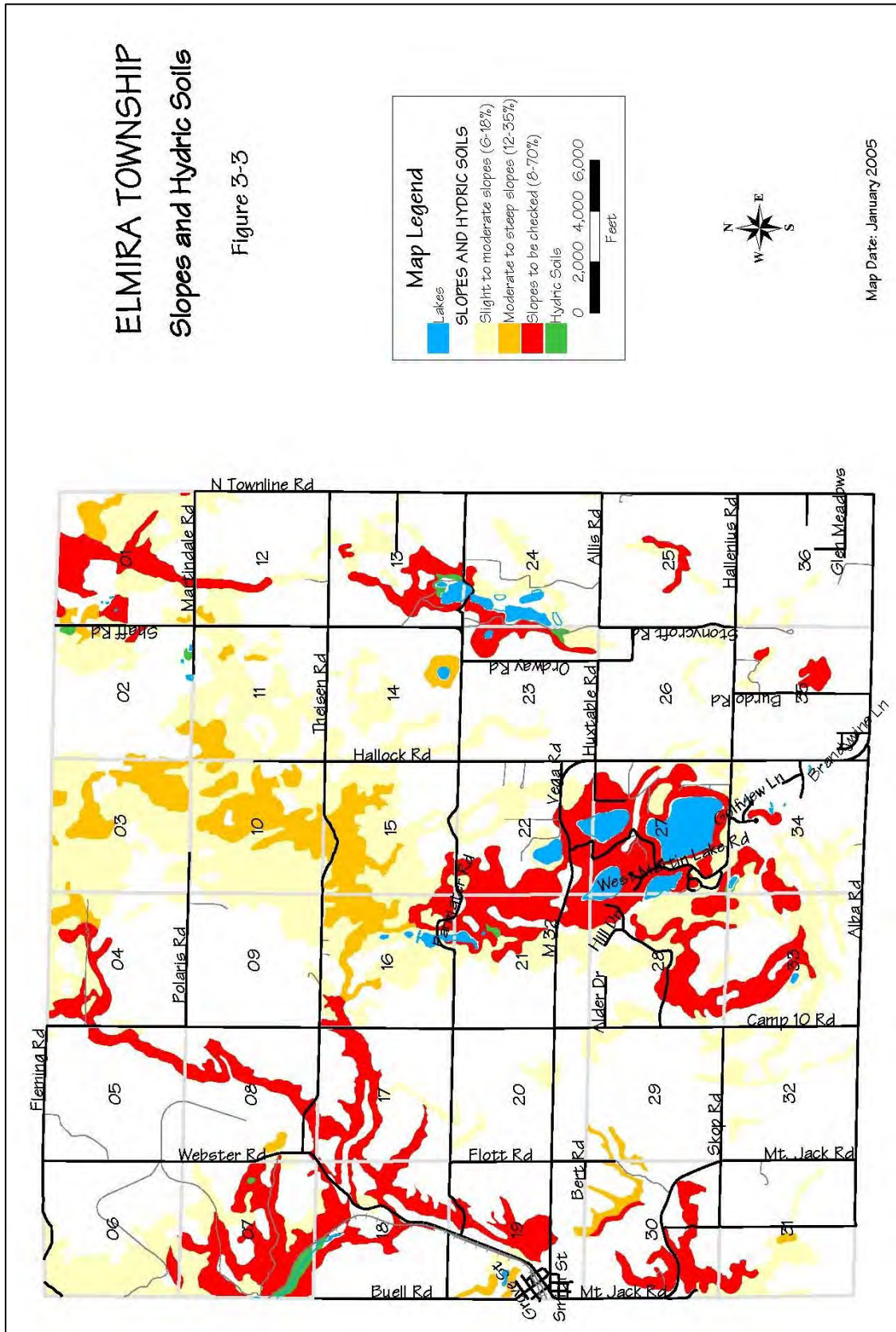
Summary

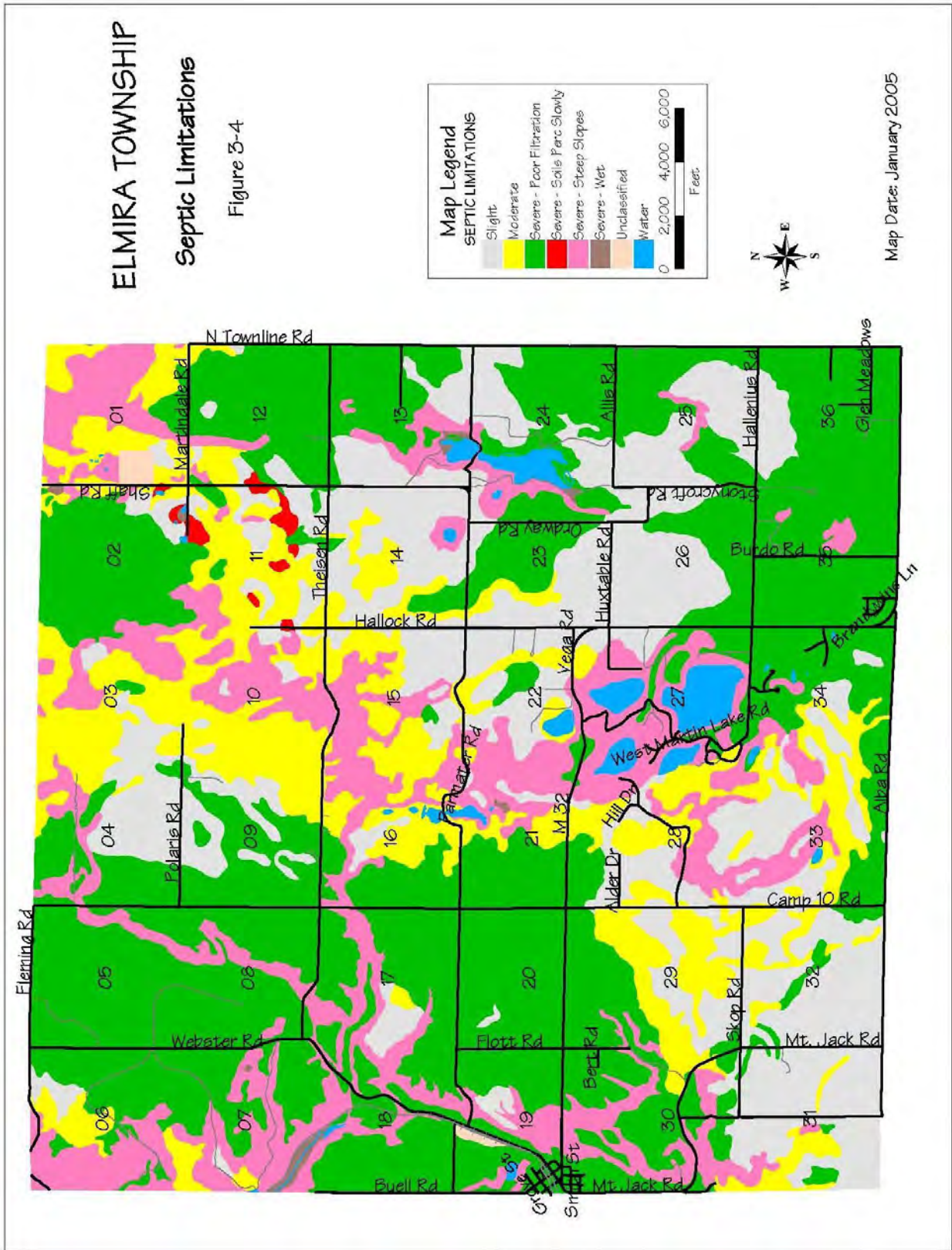
The review of the natural resources in Elmira Township indicates the natural features, forestlands, and agricultural resources are currently relatively unimpaired; however these resources are

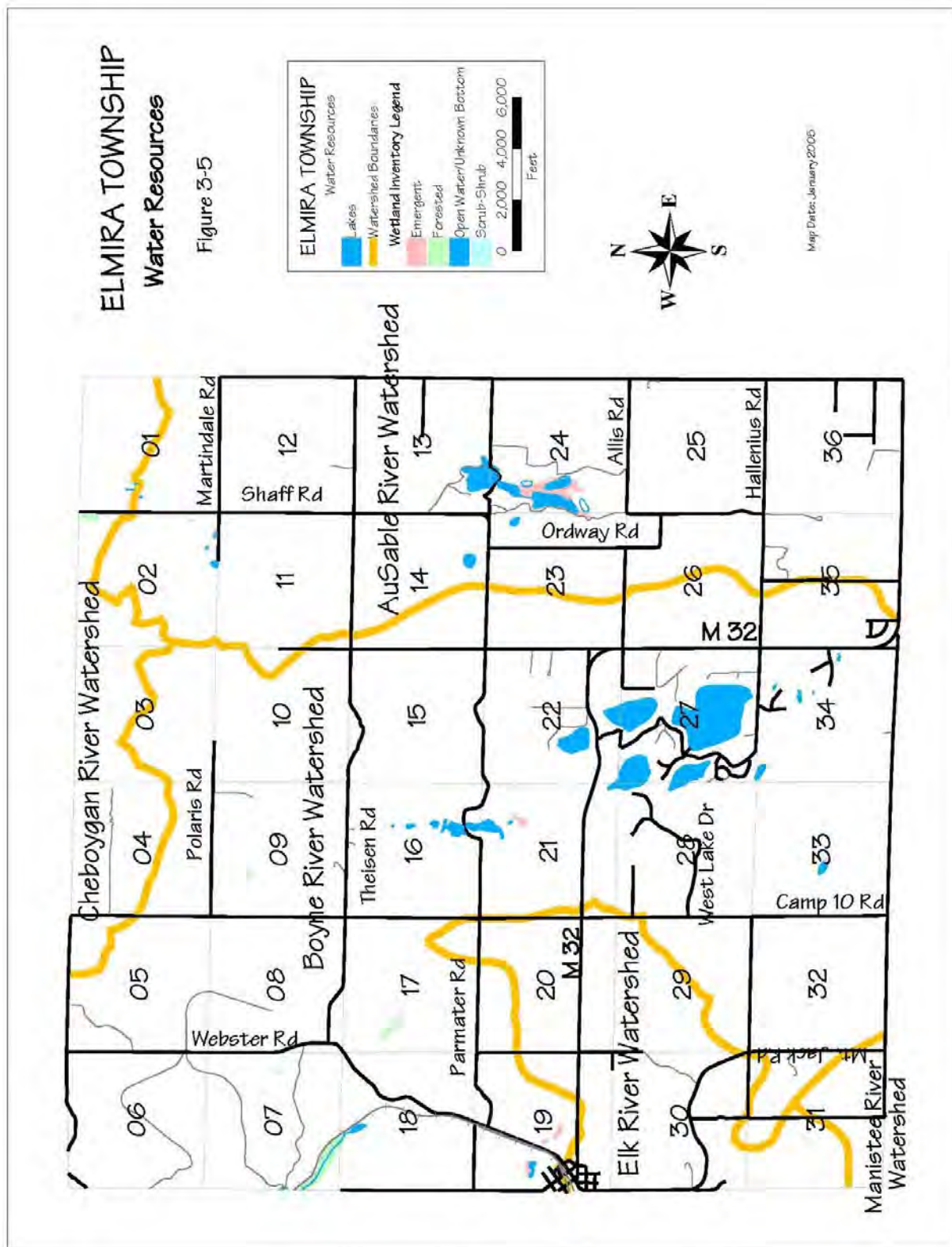
extremely vulnerable to change. The environmental features of Elmira Township are an important asset to the community and need continued protection.











CHAPTER

4

EXISTING LAND USE



Elmira Township Master Plan

Existing Land Use Statistics

Prior to determining future land use recommendations and developing a future land use map, a community must have an accurate assessment of existing land uses. This chapter presents information on both types and locations of existing land uses. The map of existing land use, shown in **Figure 4-1**, illustrates the distribution of land uses within the township. **Table 4-1** breaks down the percent of the township in each land use category. The existing land use map was derived from an analysis of parcel data from the Otsego County Equalization Department, tax classifications, and aerial photo interpretation by the Northeast Michigan Council of Governments.

Category	Acres	% of Township
Residential – Improved	7,114	30.7%
Residential – Vacant	6,603	28.5%
Agricultural – Improved	2,021	8.7%
Agricultural – Vacant	2,559	11.0%
Commercial - Improved	542	2.3%
Commercial – Vacant	26	0.1%
Industrial & Utility - Improved	95	0.4%
Industrial & Utility - Vacant	45	0.2%
Township-Owned or County-Owned	54	0.2%
State of Michigan	3,139	13.5%
Water	329	1.4%
Transportation Corridors	131	0.6%
TOTAL	23,196	100%

Source: Otsego County Equalization Department 2023

Residential Uses

As can be seen from **Table 4-1**, the amount of land being used for residential purposes is 60 percent of the township. Over 30 percent of the township is improved residential while a large portion of the township, 29 percent of the land, is classified as vacant residential. This means that nearly half of all of the residentially-classified land

is available for development but no residential structure currently exists on the land. The location and pattern of residential development within the township are shown in **Figure 4-1**. Residential uses are found throughout the township on both large and small lots.

Agricultural Uses

Agricultural uses are distributed throughout the township and account for nearly 20 percent of the land in the township. Improved agricultural

include those parcels which have structures on them while vacant agricultural parcels do not include structures.

Commercial Uses

Commercial uses comprise only 2.4 percent of the land in the township. 542 acres is improved leaving only 26 acres of vacant commercial. Large commercial lots are found in the south-central portion of the township in addition to lots in the extreme southeast and in the southwest portion. In addition, commercial lots are found in the

community of Elmira on the north side of M-32. The Gaylord Golf Club owns the largest commercial lot in the township. It should be noted that churches have been classified into the commercial category. Camp Sancta Maria is located on a large lot along M-32 while another large lot is owned by the Assemblies of God.

Industrial & Utility Uses

Industrial uses make up only 0.6 percent of the township and are distributed in the northeast, west-central, and southeast portions. Wolverine

Power owns the two largest industrial lots in the township.

State of Michigan Land

State forest land is the third largest land use category in the township making up nearly 14 percent. Most of the state land is located in the

northern part of the township while a small amount is in the southeastern portion.

Township, County, or School Land

Elmira Township and the Otsego County Road Commission own 0.2 percent of the land in the township. Elmira Township owns nearly six acres

of land in the community of Elmira. The Otsego County Road Commission owns 48 acres dispersed around the township

Water

Lakes comprise 1.4 percent of the township, and

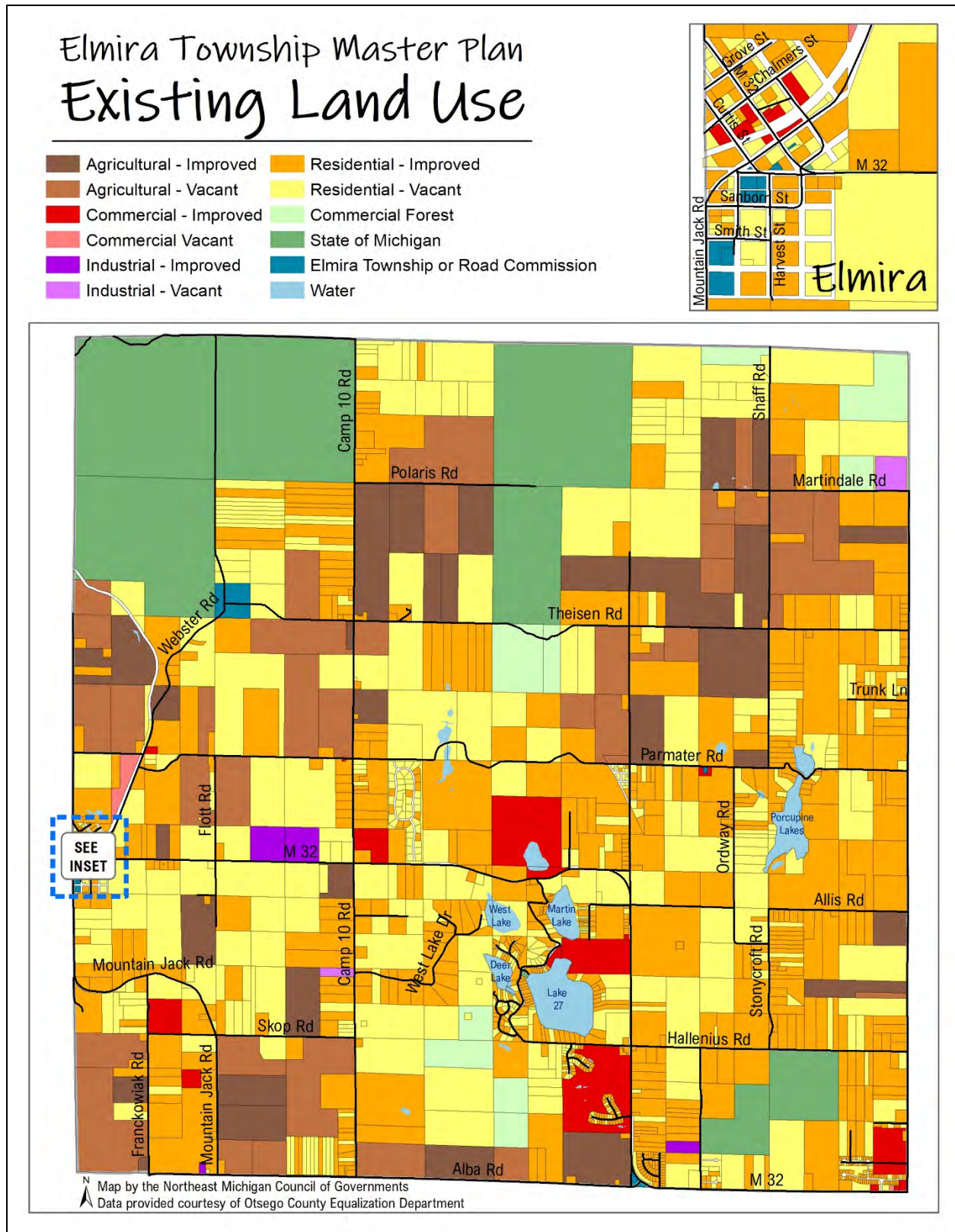
most are located in the southern half.

Transportation Corridors

The remainder of the township (0.6 percent) consists of various transportation corridors. The only transportation corridors which are counted in

this category are those for which separate parcels have been described and included in the Equalization data.

Figure 4-1



CHAPTER

5

COMMUNITY SERVICES



Elmira Township Master Plan

Water and Sewage Disposal Systems

Elmira Township does not have a public drinking water system. Instead, most of the Township residents rely on on-site private wells for domestic drinking water. All private drinking water wells are regulated by the Otsego County Health Department.

The Glen Meadows development in the southeastern region of the Township is served by a community well, but the residences have individual septic systems. This approach allowed for the development on small lot sizes where achieving the required isolation distance between individual wells and individual septic fields would have been difficult. The 2021 development of Burdo Pines

allowed sixteen one-acre lots near M-32 and Burdo Road.

Likewise, there are no public sewage disposal systems operated by the Township. Local residents primarily rely on private, on-site septic systems, which are also regulated by the Health Department of Northwest Michigan.

Two important determinants for siting a septic system are soil suitability and depth to bedrock. Chapter Three – Natural Resources discusses the geology and soils of the Township and areas with septic limitations.

Solid Waste

Residents of Elmira Township have several options for the disposal of solid waste. Private haulers offer residential weekly curbside trash pick-up. Elmira Township, like all of Otsego County, is served by a landfill in northern Crawford County owned and operated by Waste Management of Northern

Michigan. There are several drop-off sites throughout the County where specified items can be taken for recycling. Based on the passage of a recycling millage in 2012, the Otsego County recycling program is being enhanced.

Other Public Utilities

Elmira Township residents receive electric service either from Great Lakes Energy or Consumers Energy. Natural gas, where available, is provided by DTE Energy. The individual chooses providers of local and long-distance phone service. Cable service, where available, is provided by Spectrum.

Wolverine Power Supply Cooperative operates the Alpine Power Plant off M-32 just east of downtown Elmira. Wolverine supplies electricity to several power companies including Great Lakes Energy, which serves Elmira.

Police, Fire, and Ambulance

The Otsego County Sheriff and Michigan State Police provide law enforcement services to Elmira Township. The Michigan State Police Gaylord Regional Communications Center provides emergency call receipt and dispatch service. The Otsego County 911 Authority communications agency provides emergency call receipt and dispatch service. Enhanced 911-telephone service, computer-aided dispatch, and a multi-channel radio

system (800 MHz) are in place.

Fire protection is provided by the Elmira-Warner Fire Authority, which operates a paid on-call service. The Elmira Township fire station, attached to the Elmira Township Hall, is adequate for the current needs.

Advanced life support (ALS) ambulance service is

provided by Otsego Ambulance Corps, which operates a full-time paid service from a location on Old 27 North, in Gaylord. The hospital needs of the Elmira Township residents are primarily served by

Munson Healthcare Otsego Memorial Hospital in Gaylord, with additional facilities offered at McLaren Northern Michigan in Petoskey.

Schools and Libraries

Elmira Township residents are served by the Gaylord Community Schools which provide K-12 education to Gaylord and the surrounding area. The former Elmira Montessori School located nearby in Warner Township was closed in 2005 but is still owned by the Gaylord Community Schools. Two parochial schools are available in Gaylord. St. Mary Cathedral has a pre-school to 12th grade program and Otsego Christian School has a pre-school to 4th grade offering.

Associate's degree programs as well as some Bachelor's and Master's degree programs are offered by the participating colleges and universities, at both locations. Elmira Township residents contribute to the operating budget for the M-TEC and University Center located in Gaylord, through a millage.

Post high school education is available locally at the M-TEC and University Center in Gaylord and at North Central Michigan College in Petoskey. A number of certificate programs, two-year

Elmira Township participates in the Otsego County Library system, which allows Township residents to use the system. The main branch of the library is located in Gaylord, with a collection of over 50,000 items, and provides a computer lab for public use. The library system is supported with an operating millage, initially passed in 1994.

Municipal Facilities

Elmira Township Hall

The existing Elmira Township Hall, located on Mt. Jack Road, was built in 1980. This facility accommodates the fire hall, public meetings, and Township office space. The facility is located on two

blocks, which combined are approximately 5 acres in size. This facility currently meets the Township's needs and is expected to do so for the foreseeable future.

Elmira Post Office

The U.S. Postal Service operates a local branch located on M-32 in downtown Elmira. A new post

office is slated to be built in the near future

Private, Civic and Fraternal Organizations

Typically there are many private, civic, and fraternal organizations active in Elmira Township or in which Elmira Township residents are involved that are not specifically affiliated with the Township. Such organizations are typically regional organizations that have a larger membership and service area other than the Township. A listing of such organizations is available from the Gaylord/Otsego

County Chamber of Commerce. Many township residents participate in the organizations available in Gaylord and throughout the region.

A few organizations active within the Township include Camp Sancta Maria, Lost Valley Bible Camp, and the Gaylord Golf Club.

Churches and Cemeteries

There are two churches that are active and own property within the Township. One is St. Thomas Catholic Church, located just outside Elmira Township in downtown Elmira. The other is Passion

Church located on North Townline Road. There are two cemeteries serving Elmira Township: Hallock Cemetery on Parmater Road and St. Thomas Cemetery.

Transportation and Road Maintenance

The public roads within the Township are categorized as follows:

Type of road:	Approximate length in miles:
State Route	8 miles
Public Roads- Asphalt/Sealcoat	25.3
Public Roads – Gravel or earth-surfaced	28.5

The only state route through the Township is M-32, which is the dominant east/west route through the Township. It is a state highway under the jurisdiction of the Michigan Department of Transportation. Approximately 8 miles of M-32 pass through Elmira Township.

The County primary roads within Elmira Township are C-42, North Townline Road, Theisen Road, Hallock Road, and Mount Jack Road. Additionally, C-42 and two miles of Townline Road are classified as Class A roads.

The remainder of the public roads in the Township are classified as local gravel and seasonal roads. As

of 2012, there were 6.38 miles of seasonal roads in the Township. Additionally, there may be private roads located within the Township.

The Otsego County Road Commission provides road maintenance and snow removal services on all public non-seasonal roads within the Township.

Public transportation is provided by the Otsego County Bus System, which provides a dial-a-ride demand-response bus system throughout the County. Also, the Straits Area Regional Ride provides dial-a-ride bus service to Otsego, Emmet, Cheboygan, and Presque Isle Counties.

CHAPTER

6

GOALS & OBJECTIVES



Elmira Township Master Plan

Significant Land Use Issues

This chapter presents and discusses significant land use issues identified by the Elmira Township Planning Commission. The issues include current

and potential projects which may significantly influence future development, and which have considerable impact on the Township.

Aquifer Vulnerability

Background:

Otsego County is provided water from a single groundwater aquifer, sometimes referred to as The Great Sand Dome. The Great Sand Dome is a large deposit of sand and gravel that was left behind when the glaciers melted. This sand deposit starts at the surface and extends all the way down to bedrock, typically 700' to 1500' below the surface. Surface water sources for drinking water are very limited and have not been developed due to the availability of good-quality groundwater. There are no significant deposits of clay or other less pervious material to restrict the movement of water either vertically or horizontally. Without an impervious layer of soil, between the aquifer and the ground surface, the aquifer is vulnerable to contamination

from virtually any liquid or soluble material that is released on the ground. Potential sources include industrial spills, tanker spills, fertilizers, pesticides, or just about anything someone pours down a drain that leads to a septic tank. For the most part, typical septic tank effluent is not the primary concern. While these systems do discharge nitrates and chloroform into the aquifer, the volume of discharge and their dispersed locations tend to minimize their net effect on the quality of the groundwater. Additionally, without impervious formations to restrict horizontal movement, contamination plumes can spread and travel great distances if not detected and addressed.¹

Policy Considerations/Recommendations:

Past experiences in and around Otsego County have shown that contamination plumes can spread over long distances while remaining undetected for years. During this time it is possible for drinking water wells to be seriously impacted. Unless well water is sampled and tested, it is only the most gross contamination that will be detected. For many contaminants, concentrations must be far in excess

of the safe drinking water standards before they can be detected by taste or color. Public water supplies are regularly tested, but individual wells are not.

Due to the highly porous soils, it is recommended that wells be tested for nitrates prior to property transfer. Such testing is available through the local health department (for a fee).

Wind Turbine Generators

Background:

Wind Turbine Generators are a type of development which has been gaining interest in Northern Michigan. The premier locations for capturing the most wind are typically exposed areas, on higher elevations, and generally visible for long distances.

In considering where Wind Turbine Generators should be allowed, there are a multitude of factors to consider. The white papers prepared by Otsego County identify the following topics for consideration.

¹ A White Paper: The Drinking Water Aquifer in Otsego County

² A White Paper: The Drinking Water Aquifer in Otsego County

- ▶ Audible Noise
- ▶ Low Frequency & infra Noise
- ▶ Avian Impacts (Bird Kill)
- ▶ Visual Esthetics
- ▶ Ice Throw
- ▶ Structural Integrity (Blade Throw & Tower Collapse)
- ▶ Safety (Attractive Nuisance and Emergency Coordination)
- ▶ Wind Rights
- ▶ Re-Powering (Equipment Replacement and Upgrades)
- ▶ Ultimate Disposal
- ▶ Shadow Flicker
- ▶ Lighting
- ▶ Radio/TV Interference & Antenna Co-location
- ▶ Signage & Painting
- ▶ Power Grid Consideration and Stray Voltage
- ▶ Independent Verification of Data Presented By Applicants

Policy Considerations/Recommendations:

Since Elmira Township is covered under the Otsego County Zoning Ordinance, the Township should work closely with the County to ensure local

concerns such as safety, abandonment, noise levels, and shadow flicker are adequately addressed as the County prepares regulations.

Oil and Gas Developments

Background:

Due to the underlying bedrock shale (see Chapter 3, Natural Resources), the Township has extensive gas reserves. A number of existing wells are located

in Elmira Township as shown on Figure 3-1 Bedrock Geology map.

Policy Considerations/Recommendations:

There is some concern about properties with gas wells where ownership is transferred and being sure the Township knows who is the responsible party to contact in case of an emergency or when the well is removed. While bonds were posted with

the State of Michigan to cover removal and clean-up costs, it is uncertain whether the bonds posted on the older wells will be adequate to cover the costs at the time of removal.

Sand and Gravel Extraction

Background:

Due to the glacial geology found in Elmira Township, see Figure 3-2, deposits of sand and gravel are common within the Township. State law generally

allows for the excavation of such resources where found (with the provision to allow for some local regulations). Consequently, the Township cannot

prohibit sand and gravel excavation but can impose reasonable conditions to protect the neighboring

properties and the infrastructure.

Policy Considerations/Recommendations:

In order to limit the soil erosion and visual impacts of extraction operations, Elmira Township encourages Otsego County, through the Zoning Ordinance, to allow extraction projects only as phased operations when the site for extraction is greater than 40 acres. Extraction operations on such sites should be limited to 40 acres at any given

time and require the area to be reclaimed prior to expanding into another area. All extraction areas regardless of size shall be reclaimed. In order to limit negative impacts, conditions to be considered should include hours of operation, screening, noise and dust, groundwater impacts, and road impacts.

Solar Energy

The Otsego County Zoning Ordinance addresses the topic of solar energy in Section 21.48. *“It is the intent of the County to permit these systems by regulating their siting, design, and installation to protect public health, safety, and welfare, and to ensure their compatibility with adjacent land uses. Solar energy systems shall comply with the provisions of this section and are only permitted as authorized by this section.”*

Goals & Objectives

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. In addition to examining existing characteristics, another important tool in the development of community goals and objectives is to identify community assets, problems and other issues to be addressed.

In preparation for writing this Master Plan, the Elmira Township Planning Commission actively sought input from the Township residents, through a written resident attitude survey, community workshops, and a photo tour exercise to visually document, as well as better understand and confirm the earlier survey findings.

Community Survey

In February 2013, the Planning Commission with assistance from the M.C. Planning & Design, conducted a community survey to understand the views of the Township residents. The complete survey findings are provided in Appendix A. The 2013 survey asked many of the same questions as the previous survey conducted by the Township in 2001, thus providing the opportunity to compare the findings. The 2013 survey was sent to 970 property owner households and 251 surveys were returned for a response rate of 25.8%. In 2023, the Elmira Township Planning Commission opted not to conduct another survey since little growth has been seen since 2013.

Regarding commercial growth, 39 percent of the survey respondents believe the Township should “support” growth (through the marketing of the area), and 30 percent indicated they “favor” commercial growth (through incentives). The survey also provides general community input as to where commercial development should occur, with the highest response being “clustered in areas along M-32”(40%), followed by “concentrated downtown” (34%) and “spread along M-32” (22%).

The survey also provided community input regarding attitudes toward various types of business developments, the most favorable response was “farming” (84%), followed by “small business” (82%), “light manufacturing” (67%), and “restaurant” ranked the fourth most favorable (66%).

The survey findings clearly show the residents’ strong concerns for the natural environment, including support of groundwater protection (80%), lakes and rivers (60%), and forest lands (58%); however the willingness to support a millage for natural resource protection dropped from 55% of the 2001 survey respondents to 39% based on the 2013 survey responses.

Community Workshops

The survey findings were presented at a community workshop conducted in April 2013. An additional community workshop was held in July 2013 to review the full draft plan and accept public comment prior to distribution. Despite advertising, there was limited attendance at both the April meeting and an additional community workshop that was held in July. Those in attendance asked a few questions, to better understand the purpose of the plan and the process, but did not request any significant changes.

Land Use Goal
<p>GOAL:</p> <p>Develop a district for small businesses, and revitalize and expand residential neighborhoods in the village of Elmira while maintaining an ecologically sound balance between human activities and the environment to retain the Township’s scenic and rural character in the remainder of the Township.</p>
<p>OBJECTIVES:</p> <ul style="list-style-type: none">• Encourage landscape requirements for new development, such as setbacks, retention of green space, buffer zones between differing land uses, screened parking areas, and roadside landscaping; and encourage the retention of open space and scenic vistas with Planned Unit Developments (PUDs), clustering, and conservation easements.• Encourage the creation of a new county zoning district to zone large tracts of publicly held lands and establish a minimum lot size of 120 acres.• Encourage the implementation of a multi-use district within the Otsego County Zoning Ordinance, including the use of such for downtown Elmira.

Natural Resource Goal

GOAL:

Protect and preserve groundwater, surface water, woodlands, wetlands, open space, wildlife habitat, and steep slopes.

OBJECTIVES:

- Encourage a land use pattern that is oriented to the natural features and water resources of the area by evaluating the type and density of proposed developments based on soil suitability; slope of land; potential for groundwater and surface water degradation and contamination; compatibility with adjacent land uses; and impacts to sensitive natural areas like wetlands, greenways and wildlife corridors.
- Work to limit and control the density and type of residential and commercial development adjacent to lakes, ponds, streams, and wetlands.
- Encourage the maintenance of greenbelt areas adjacent to lakes, ponds, streams, and wetlands.
- Support groundwater protection and stormwater management regulations in Otsego County's Zoning Ordinance, while encouraging the continued natural use of wetlands as groundwater recharge, stormwater filtering, and stormwater holding areas.
- Limit developments on steeply sloped areas and require erosion control measures where construction is permitted. Require slope stabilization and revegetation on disturbed slopes or in extraction areas.
- Encourage planting of native tree and shrub species when properties are developed.
- Encourage the retention and management of existing forest lands by appropriate zoning and by supporting the efforts of the Otsego County Conservation District.

Agriculture and Forestry Goal

GOAL:

Acknowledge the importance of agricultural and forestry lands and encourage the sustained protection of operations.

OBJECTIVES:

- Recognize that the presence of agricultural land adds to the scenic and rural character of the Township.
- Work to provide economically feasible options for continued agricultural use of active prime farmland.
- Allow for and encourage farmland protection, such as through the transfer of development rights (when available), purchase of development rights, conservation easements, and the clustering of non-farm development.
- Participate in efforts to educate the community regarding agricultural preservation.
- Work to retain and manage existing forestland.
- Promote re-forestation and sound forestry management practices for areas with productive forest soils.

Recreation Goal
<p style="text-align: center;">GOAL:</p> <p style="text-align: center;"><i>Provide and maintain recreation lands and facilities for safe access and enjoyment by residents and visitors.</i></p>
<p>OBJECTIVES:</p> <ul style="list-style-type: none">• Enhance the Elmira Community Park to provide improved access and facilities to better meet the needs of residents and visitors.• Determine what legal agreements, such as easements, exist and work to supplement with new agreements to allow for the establishment of non-motorized recreational trails and pathway connections to publicly owned, semi-public, and conservation areas within the Township.• Recognize existing recreational trails and their impact on the local economy.• Prepare an overall development and maintenance plan for all recreation facilities and parklands.• Seek grant funding for park improvements.

<i>Residential Goal</i>
GOAL:
Provide for suitable housing opportunities for the varied economic and lifestyle needs of the residents, while retaining the Township’s rural and scenic character.
OBJECTIVES:
<ul style="list-style-type: none">• Encourage the availability of an adequate supply of low- to moderate-income family and senior citizen housing (rental and owner-occupied) that is located near community facilities and shopping areas.• Designate areas appropriate for all types of residential development including single-family, multi-family, condominium, low- to moderate-income rental complexes, and extended care facilities.• Encourage participation with Northern Homes, Inc. and Michigan State Housing Development Authority (MSHDA) programs to rehabilitate substandard housing and to provide needed moderately priced housing in the Township.• Preserve the integrity of existing residential neighborhoods by protecting from the intrusion of incompatible uses.• Require a buffer between Residential uses and other more intensive uses.

<i>Economic Goal</i>
<p>GOAL:</p> <p>Recognize the need for new commercial growth primarily concentrated in downtown Elmira and clustered in concentrated areas along M-32 utilizing sound land use planning principles.</p>
<p>OBJECTIVES:</p> <ul style="list-style-type: none">• Promote existing and encourage new small businesses in downtown Elmira.• Encourage light industrial manufacturing development in appropriate areas in the Township. “Appropriate” includes but is not limited to consideration of zoning, soils, groundwater, slope, highway visibility and safety, and compatibility with surrounding character.

<i>Infrastructure & Public Service Goal</i>
<p>GOAL:</p> <p>Maintain and improve the Township facilities, programs, and systems consistent with the community’s needs, and the ability to finance the improvements.</p>
<p>OBJECTIVES:</p> <ul style="list-style-type: none">• Continue to support the local emergency services including the Elmira-Warner Fire Authority.• Participate in and promote a county-wide comprehensive waste management approach, with an emphasis on recycling.• Monitor and explore the needs for sewer and water services as more development occurs.

<i>Transportation Goal</i>
<p style="text-align: center;">GOAL:</p> <p style="text-align: center;">Provide and/or maintain safe and efficient routes in and through the Township while respecting the rural character.</p>
<p>OBJECTIVES:</p> <ul style="list-style-type: none">• Encourage the improvement and maintenance of the county road network that serves the needs of Elmira Township residents, businesses, and visitors.• Develop, adopt, and begin to implement a Complete Streets policy, to improve transportation equity, while encouraging health through physical activity and active transportation. (see Appendix B)• Work with the Otsego County Road Commission and the Michigan Department of Transportation to plan for vehicular and pedestrian safety at intersections and on roadways.• Encourage shared road access and bike lanes, where appropriate.• Encourage the development of multi-purpose trails and pathways to serve the community.• Encourage the continuation and expansion of public transit to better serve the needs of senior citizens and other transit-dependent Township residents.• Encourage roadside landscaping requirements for new developments.• Encourage sound buffers to be required along major transportation corridors to reduce traffic noise.

CHAPTER

7

**FUTURE
LAND USE**



Elmira Township Master Plan

Introduction

At present, Elmira Township is primarily a rural residential, forested, and agricultural community. While active agricultural uses have declined from historic levels, the many active farms that remain are highly valued by the local residents. Additionally, due to the amount of state land in the Township, some of the forested lands remain as open space.

Through land use planning and land use controls, Elmira Township intends to ensure that existing rural residential, agricultural, and recreational uses can continue, and reasonable growth can be

Agricultural

This category includes land used or appropriate for use for farming, livestock, and related activities. Farm dwellings and agricultural accessory buildings are compatible. These areas could serve as potential “sending zones” for the transferring of development rights, thus allowing the permitted density to be transferred from a designated agricultural area to a designated “receiving zone” where higher density is desired or acceptable. This land use category could be compatible with low-density residential (two to five acre lot sizes) or clustered housing with committed open space.

These future land use recommendations acknowledge that clusters or strips of residential development have occurred within areas where agriculture is the predominant land use. One of the goals identified by the county as part of this planning document is the preservation of agricultural land. Otsego County recognizes that the presence of agricultural land contributes significantly to the scenic and rural character valued by the county residents.

Methods which other communities have employed

accommodated with minimal land use conflicts or negative environmental impacts. Based on the social, economic, and environmental characteristics of the Township, six general categories of land use have been identified to serve existing and future development needs. These categories are:

- Agricultural Forest-Recreation
 - Large Tract Forestry (subcategory)
- Residential Mixed Use
- General Business
- Business & Light Manufacturing

to help protect and preserve agricultural land while protecting a landowner’s economic investment include the Purchase of Development Rights (PDR), Transfer of Development Rights (TDR), clustering requirements for non-agricultural uses, and tax breaks or incentives for continuing agricultural use. It is recommended that these alternatives be investigated for possible application in Otsego County, as a way to balance economic rights with agricultural preservation goals.

Another approach to help promote cluster residential development and minimize agricultural land loss would be to designate a maximum lot size (or maximum yard space on larger lots) of one acre for non-agricultural residential development along the road corridors. The minimum lot size for agricultural purposes in the remainder of the Agricultural-Resource District would remain intact, or even be increased.

The result will be to preserve land for agriculture by keeping the residential development on relatively small lots adjacent to the road corridors and leaving the bulk of the parcel in farm use.

Forest-Recreation

The Forest-Recreation category includes existing state-owned land and primarily forested lands protected by conservation easements or other restrictions such as lands protected under the Commercial Forest Act (CFA). These lands are not subject to intense development pressures due to existing public ownership, restrictions, or easement status, consequently, only environmental preservation and low-intensity recreation-related development activities are anticipated on these properties. It is intended that these lands be designated for continued conservation and recreational use. The distribution of the Forest-Recreation designated land throughout the Township is shown on the Future Land Use Map, **Figure 7-1**.

Large Tract Forestry is a subcategory of the Forest-Recreation future land use classification. This subcategory covers State of Michigan lands which are at least 160 contiguous acres. The large tract forestry is designated to promote sound forest management practices and support the Large Tract Forestry Zoning classification proposed for the Otsego County Zoning Ordinance.

Residential

The Residential development category is designed to accommodate single-family dwellings at densities ranging from one unit per 20,000 square feet (slightly less than ½ acre) to one unit per two acres. This development is located on roads with light vehicular traffic. No municipal water or sewer service will be available. Buffers or physical separation from potentially incompatible uses (industrial and agriculture) may be necessary when located adjacent to this type of development. Additional provisions are recommended to be incorporated into the Zoning Ordinance to allow for a cluster development pattern to avoid or minimize development impacts on environmentally sensitive areas, forests, or farmland. This Residential land

Uses proposed in the Forest-Recreation area include public and private forestry, wildlife habitat, parks and recreation, as well as similar open space uses. The portion of this future land use category, not covered by the Large Tract Forestry subcategory, is generally compatible with the Forestry-Recreation District in the Otsego County Zoning Ordinance. The parcel sizes vary significantly from smaller road ends providing lake access to larger tracts of land to protect the forests, therefore the minimum parcel size allowed in the Forestry-Recreation District of 88,000 square feet is compatible. The Township encourages the establishment of conservation parklands and open space, including the preservation of farmlands, wetlands, and riverine habitats for scenic views, recreation, and wildlife protection. The tools include donations, acquisition, cooperative efforts with other units of government and land owners, conservation easements, and zoning ordinance provisions that support the use of conservation easements and sound conservation developments.

use category is consistent with the Township's resource goal to "Maintain an ecologically sound balance between human activities and the environment to retain the Township's scenic and rural character."

The Residential future land use category is intended to direct future residential growth to areas of the Township where adequate public services and transportation links can best be provided. The residential future land use category is general in nature and is compatible with the low-density residential zoning districts of the Otsego County Zoning Ordinance.

Mixed Use

The primary area designated for a mix of commercial and residential development is within the unincorporated Village of Elmira, where retail and small business are encouraged. Consistent with traditional villages, residential uses on the second floor of commercial buildings in this area are also encouraged. This area designated for mixed use is shown on the Future Land Use Map, **Figure 7-1**. The intended business uses are

compatible with those allowed in the B-1 district of the Otsego County Zoning Ordinance. The mix of small-scale commercial uses is compatible with and of service to residential uses. The County Planning Commission could be requested to review this matter, to more specifically allow for and encourage the “traditional village” (concept retail on first floor and residential above) in the County Zoning Ordinance.

General Business

An area just north of the Village of Elmira and a second area along M-32 at the Township’s eastern border, are designated to accommodate more diversified business types, and served by passer-by traffic. This Future Land Use category is consistent with the zoning for the B-2 General

Business District of the Otsego County Zoning Ordinance. The area is planned as a transition between the Mixed Use Area (typically small-scale local business), and the Business & Light Manufacturing Area (light manufacturing and wholesale storage facilities), see **Figure 7-1**.

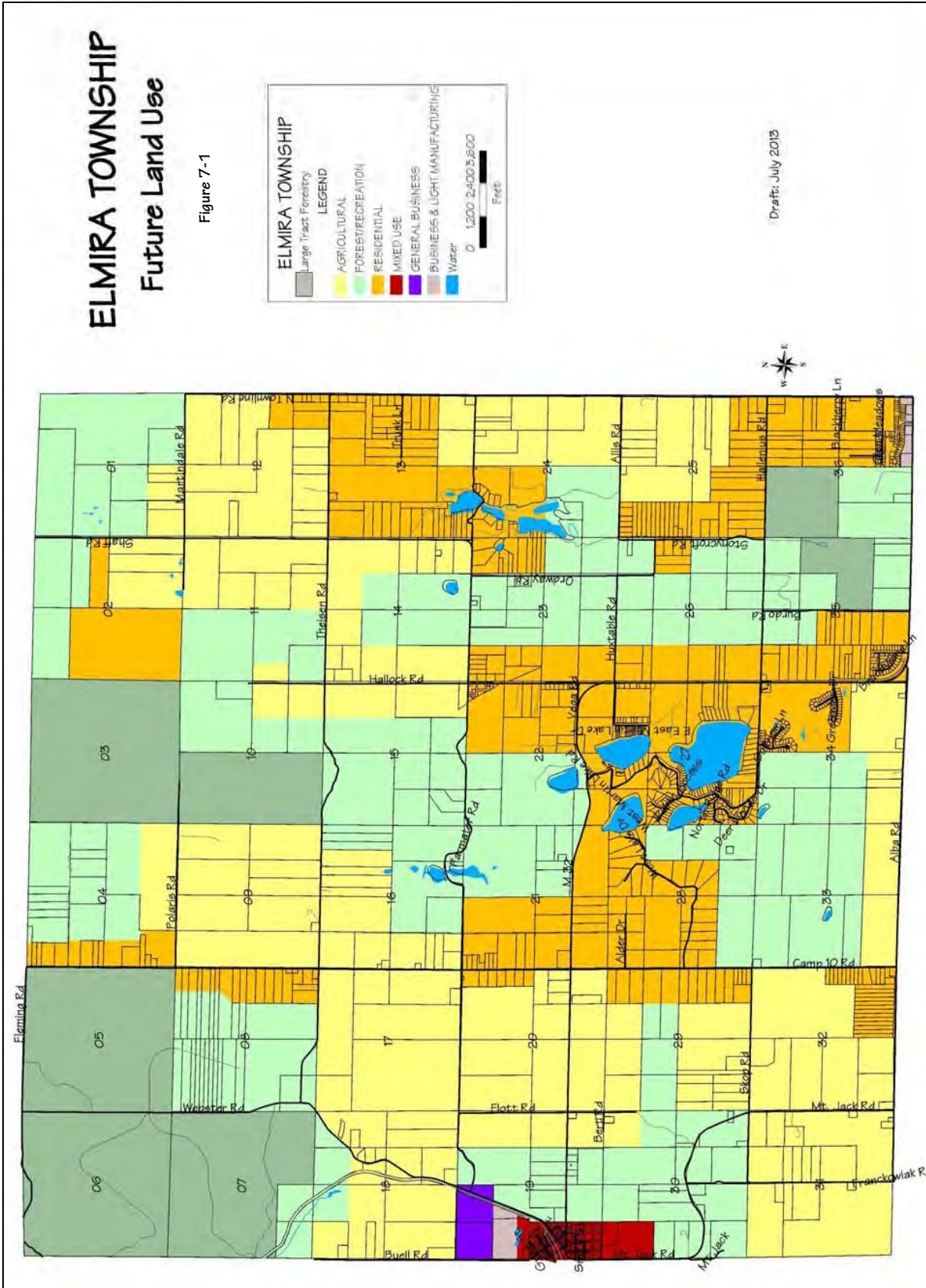
Business & Light Manufacturing

Consistent with the goals and objectives of this plan, light manufacturing, and light industrial uses are encouraged in appropriate locations. This area provides for light manufacturing, wholesale storage, and wholesale distribution, and is served by an active rail line. The area shown incorporates a bulk cement distribution operation area in the

western portion on Webster Road. A business and light manufacturing area are shown on the Future Land Use Map, **Figure 7-1**. This future land use category is consistent with the B-3 (Business, Light Manufacturing) Zoning District in the Otsego County Zoning Ordinance.

ELMIRA TOWNSHIP Future Land Use

Figure 7-1



CHAPTER

8

PLAN ADOPTION
IMPLEMENTATION



Elmira Township Master Plan

Review Process

The draft Elmira Township 2024 Master Plan was transmitted to the Township Board for review and comment in _____ of 2023. The Board authorized the distribution of the plan to the adjacent Townships and Counties, as required by statute, on _____ 2023. Following the Board's authorization, the draft 2024 Master Plan Update was distributed to the adjacent Townships, as well as to the county planning commissions of Antrim, Charlevoix and Otsego Counties on _____. Written comments are copied at the end of this chapter.

2023 Master Plan

The draft Elmira Township 2013 Master Plan Update was transmitted to the Township Board for review and comment in August 2013. The Board authorized distribution of the plan to the adjacent Townships and Counties, as required by statute, on August 8, 2013. Following the Board's authorization, the draft 2013 Master Plan Update was distributed to the adjacent Townships, as well as to the county planning commissions of Antrim, Charlevoix, and Otsego Counties on August 15, 2013. Written comments were received from Antrim and Charlevoix County and are copied at the end of this chapter.

2004 Master Plan

The draft Elmira Township Master Plan was transmitted to the Township Board for review and comment following the June 22, 2004, Planning Commission meeting. The Township Board approved the draft plan for distribution on July 8, 2004. Following the Board's approval for distribution, the proposed plan was distributed to the adjacent Townships, as well as to the Antrim County Planning Commission, Charlevoix County Planning Commission, and the Otsego County Planning Commission on July 16, 2004, for review and comment. The only comments received are from Charlevoix and Antrim Counties.

Public Hearing

A public hearing on the proposed 2024 Master Plan Update for Elmira Township, as required by the Michigan Planning Enabling Act, was held on _____. The legally required public hearing notice was published in the Gaylord Harold Times newspaper on _____, as well as posted on the Township website. A copy of the public hearing notice is reproduced at the end of this chapter. During the review period, the draft 2024 Master Plan Update was available for review on the Township's website, at the Otsego Public Library in Gaylord, or by contacting the Township office.

2013 Master Plan

A public hearing on the proposed 2013 Master Plan Update for Elmira Township, as required by the Michigan Planning Enabling Act, was held on October 28, 2013. The legally required public hearing notice was published in the Gaylord Harold Times newspaper on October 11, 2013, as well as posted on the Township website. A copy of the public hearing notice is reproduced at the end of this chapter. During the review period, the draft 2013 Master Plan Update was available for review on the Township's website, at the Otsego Public Library in Gaylord, or by contacting the Township office.

2004 Master Plan

A public hearing on the proposed Master Plan for Elmira Township as required by the Township Planning Act, Act 168 of 1959 as amended, was held November 3, 2004. Section Nine of the Act requires that two notices of public hearing be given, the first to be published 20-30 days prior to the public hearing, and the second to be

published not more than eight days prior to the public hearing. Notice of the public hearing was published in the Gaylord Harold Times on October 13, 2004, and October 30, 2004.

Additional notice of the public hearing was mailed to all Elmira Township property owners notifying them of the November 3, 2004 Public Hearing. A copy of the public hearing information was placed at the Elmira Township Post Office, Elmira Grocery, and at Hops & Schnapps (now known as EZ Mart).

The purpose of the public hearing was to present the proposed Master Plan and to accept comments from the public.

The public hearing began with a brief explanation of the planning process. Plan development included several Planning Commission workshop meetings and input from the Township Board. During the hearing, maps of existing land use, natural resources, and proposed future land use recommendations were presented.

Plan Adoption

The Elmira Township Master Plan, including all associated maps, was formally adopted by the Planning Commission by resolution on _____. The Township Board having formally asserted its right to approve or reject the plan in _____ and formally adopted the Master Plan on _____.

2013 Master Plan

The Planning Commission formally adopted by resolution, the Elmira Township 2013 Master Plan Update, including all associated maps on October 28, 2013. The Township Board having formally asserted its right to approve or reject the plan on August 8, 2013, formally adopted the Elmira Township 2013 Master Plan Update on November 14, 2013.

2004 Master Plan

The Planning Commission formally adopted the Master Plan at a regularly scheduled Planning Commission meeting on November 22, 2004. The Township Board adopted the Master Plan at a regularly scheduled board meeting on January 13, 2005. The minutes from both the Planning Commission meeting and the Township board meeting are provided at the end of this chapter.

Legal Transmittals

Michigan planning law requires that the adopted Master Plan be transmitted to the adjacent townships and counties. A copy of the transmittal letter is provided at the end of this chapter.

Plan Implementation

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

According to the Michigan Zoning Enabling Act, master planning provides the legal foundation for the development of a zoning ordinance. Section 203 (1) of the Act states: "A zoning ordinance shall be based upon

a plan designed to promote the public health, safety and general welfare, to encourage the use of lands in accordance with their character and adaptability, to limit the improper use of land, to conserve natural resources and energy, to meet the needs of the state's residents for food, fiber, and other natural resources, places of residence, recreation, industry, trade, service, and other uses of land, to insure that uses of the land shall be situated in appropriate locations and relationships, to avoid the overcrowding of population, to provide adequate light and air, to lessen congestion on the public roads and streets, to reduce hazards to life and property, to facilitate adequate provision for a system of transportation including public 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."

Zoning

The Zoning Ordinance is the most important tool for implementing the Master Plan. Zoning is the authority to regulate the private use of land by creating land use zones and applying development standards in various zoning districts. Elmira Township is under the Otsego County Zoning Ordinance. The Ordinance has provided guidance in regulating the location, density, and standards for local development. The Zoning Ordinance, as it pertains to Elmira Township, should now be reviewed to ensure consistency between the Ordinance and this Master Plan. If areas of difference are identified then Elmira Township may wish to request the County consider some specific changes to the Zoning Ordinance.

Grants and Capital Improvement Plan

A 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 find it beneficial to prioritize and budget for capital improvement projects, such as infrastructure improvements, park improvements, etc. A Capital Improvements Program (CIP) is one tool which is often used to establish a prioritized schedule for all anticipated capital improvement projects in the community. A CIP includes cost estimates and sources for financing for each project and, therefore can serve as both a budgetary and policy document to aid in the implementation of a community's goals defined in the Master Plan.

[LEGAL TRANSMITTALS ADDED AFTER ADOPTION]

Appendix A

2013 Survey Findings

With comparison to 2001 Survey Findings

Elmira Township 2013 Survey Findings






1. Please enter your property ID # as it appears on the mailing label. (Used solely to verify one response per property)

	Response Count
	251
answered question	251
skipped question	0







2. Do you feel that Elmira Township should do more to preserve or protect any of the following natural resources?

	Yes	2001 %	Neutral	2001 %	No	2001 %	Rating Count
Open space	39.8% (94)	55.0	41.5% (98)	29.5	18.6% (44)	15.5	236
Farm land	50.4% (122)	63.4	33.5% (81)	25.2	16.1% (39)	11.4	242
Forest lands	58.2% (139)	73.8	26.8% (64)	16.8	15.1% (36)	9.4	239
Wetlands	49.6% (116)	64.8	33.8% (79)	22.5	16.7% (39)	12.7	234
Lakes and rivers	60.6% (143)	77.3	25.4% (60)	14.2	14.0% (33)	8.4	236
Groundwater	64.2% (154)	80.4	25.0% (60)	12.3	10.8% (26)	7.3	240
Wildlife habitat	51.3% (120)	69.1	32.9% (77)	19.6	15.8% (37)	11.2	234
	answered question						245
	skipped question						6






3. If you feel that Elmira Township should do more to protect the natural resources listed in question 2, would you be willing to help pay for these efforts through a voted millage?

		2001%	Response Percent	Response Count
Yes		54.8	39.8%	94
No		36.3	45.8%	108
Not applicable. I do not feel that Elmira Township should do more to protect natural resources.		8.9	14.4%	34
answered question				236
skipped question				15




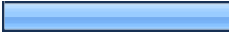

4. Which are the two most important reasons to preserve farmland and/or open space in Elmira Township? (Select 2)

		Response Percent	Response Count
To preserve the scenic beauty and rural character of the Township.		32.1%	78
To make it easier to transfer farms to family members or other farmers.		23.0%	56
To preserve family farms and the township's farm economy.		41.6%	101
To maintain the ability to grow food in the future.		40.7%	99
To protect the natural environment and wildlife habitat.		41.6%	101
Not Important		8.6%	21
answered question			243
skipped question			8

5. Please indicate how you feel about the preservation of scenic rural roads:

		Response Percent	Response Count
Strongly Agree		21.4%	53
Agree		36.3%	90
Neutral/Uncertain		35.1%	87
Disagree		3.2%	8
Strongly Disagree		4.0%	10
answered question			248
skipped question			3

6. How should Elmira Township balance the preservation of open space vs. an individual's right to develop their own property?

		2001 %	Response Percent	Response Count
Severely restrict development rights.		19.3	4.8%	11
Provide incentives to property owner to preserve open space (e.g. the Township or another entity would purchase the development rights to the property).		22.8	22.1%	51
Allow the property owner to develop portions of their property at a greater density, in exchange for leaving the rest of the property in open space.		36.1	29.0%	67
Do nothing.		18.8	33.8%	78
Other (please describe)		3.0	10.4%	24
answered question				231
skipped question				20

APPENDIX

7. How much of a problem are these issues in Elmira Township?

	Not a problem 2001 %	Small problem 2001 %	Medium problem 2001 %	Big problem 2001 %	Rating Count
Empty buildings	33.0% (74) 33.4	41.5% (93) 40.4	18.3% (41) 18.9	7.1% (16) 7.3	224
Groundwater contamination	31.6% (65) 35.6	31.1% (64) 35.3	23.3% (48) 16.4	14.1% (29) 12.7	206
Illegal dumping	18.2% (39) 14.4	35.5% (76) 31.2	31.8% (68) 29.9	14.5% (31) 24.5	214
Noise from traffic	47.7% (106) 31.1	31.1% (69) 36.5	15.8% (35) 23.3	5.4% (12) 9.1	222
Potholes and road disrepair	10.9% (24) 12.1	34.1% (75) 28.0	38.2% (84) 27.8	16.8% (37) 32.1	220
Too much truck traffic	40.3% (87) 22.7	28.2% (61) 29.4	21.8% (47) 30.2	9.7% (21) 17.7	216
Unightly or unsuitable business operations	39.7% (85) 29.9	37.9% (81) 36.3	19.2% (41) 19.8	3.3% (7) 13.9	214
Lack of zoning enforcement	46.1% (94) 33.2	33.8% (69) 26.0	14.2% (29) 23.7	5.9% (12) 17.0	204
Water pollution	40.4% (80) 40.4	31.8% (63) 37.1	16.2% (32) 14.3	11.6% (23) 8.2	198
Lack of organized teen activities	48.3% (97) 31.2	22.4% (45) 23.4	20.9% (42) 26.1	8.5% (17) 19.4	201
Lack of affordable housing	45.5% (96) 31.1	28.0% (59) 30.3	20.9% (44) 20.8	5.7% (12) 17.9	211
Seasonal population shifts	63.1% (135) 58.3	27.1% (58) 27.8	7.9% (17) 10.7	1.9% (4) 3.2	214
Oil and gas development	42.3% (94) 26.2	25.7% (57) 22.3	14.9% (33) 24.1	17.1% (38) 27.3	222
Noise from industry	66.8% (145) 53.7	23.5% (51) 28.3	6.9% (15) 11.3	2.8% (6) 6.8	217
				Other (Describe)	22
				answered question	233
				skipped question	18

8. Would you support adding more of the following types of residential developments within Elmira Township's boundaries?

	Favorable	Neutral	Unfavorable	Rating
	2001 %	2001 %	2001 %	Count
Single family subdivision	53.6% (128) 60.7	32.2% (77) 23.2	14.2% (34) 16.2	239
Condominiums	33.6% (80) 34.0	39.9% (95) 23.6	26.5% (63) 42.5	238
Apartment buildings	21.6% (50) 27.1	39.4% (91) 25.2	39.0% (90) 47.6	231
Affordable housing	46.0% (108) 50.6	31.5% (74) 27.2	22.6% (53) 22.2	235
Mobile homes	11.4% (27) 13.7	27.0% (64) 22.5	61.6% (146) 63.8	237
Mobile home parks	9.4% (22) 12.3	23.8% (56) 17.8	66.8% (157) 69.9	235
Senior citizen housing	58.6% (139) 63.4	32.5% (77) 25.8	8.9% (21) 10.8	237
			answered question	242
			skipped question	9

9. What is your general attitude towards adding any of the following developments in Elmira Township?

	Favorable		Neutral		Unfavorable		Rating Count
	2001 %		2001 %		2001 %		
Light manufacturing	67.5% (162)	55.0	24.2% (58)	26.3	8.3% (20)	18.7	240
Heavy manufacturing	29.1% (69)	15.3	32.1% (76)	21.3	38.8% (92)	63.3	237
Farming	84.5% (201)	83.5	13.9% (33)	15.5	1.7% (4)	0.9	238
Small business	82.4% (197)	77.9	15.1% (36)	17.3	2.5% (6)	4.8	239
No growth	8.1% (18)	20.0	41.3% (92)	34.4	50.7% (113)	45.5	223
Retail stores	50.6% (120)	53.1	38.4% (91)	27.3	11.0% (26)	19.6	237
Restaurants	66.3% (159)	62.0	28.3% (68)	26.2	5.4% (13)	11.8	240
Office buildings	43.8% (103)	43.6	42.6% (100)	32.6	13.6% (32)	23.7	235
Health care	63.0% (150)	65.2	31.1% (74)	25.1	5.9% (14)	9.7	238
Mining (sand & gravel)	23.8% (57)	11.8	38.1% (91)	31.7	38.1% (91)	56.6	239
Oil and gas extraction	33.3% (80)	16.0	36.3% (87)	35.3	30.4% (73)	48.7	240
Outdoor recreation (e.g. golf course, hunting)	63.1% (152)	57.3	27.8% (67)	27.7	9.1% (22)	15.0	241
Commercial tourism developments (e.g. hotel, gift shop)	43.2% (102)	39.0	39.4% (93)	32.5	17.4% (41)	28.5	236
Race track	16.2% (39)	12.3	26.6% (64)	19.4	57.3% (138)	68.3	241
Casino	18.4% (44)	11.1	18.0% (43)	10.8	63.6% (152)	78.1	239
Prison or jail	6.3% (15)	5.9	21.0% (50)	12.3	72.7% (173)	81.8	238
Homeless shelter	16.1% (38)	22.0	37.7% (89)	32.8	46.2% (109)	45.2	236
Schools/vocational center	59.7% (142)	62.6	33.2% (79)	27.1	7.1% (17)	10.2	238
Grocery store	61.9% (148)	66.0	31.4% (75)	23.3	6.7% (16)	10.7	239
Movie theater	29.8% (71)	32.6	42.9% (102)	35.0	27.3% (65)	32.4	238
Outdoor theater	22.5% (53)	24.5	39.4% (93)	33.0	38.1% (90)	42.5	236





APPENDIX

	Favorable		Neutral		Unfavorable		
Open Elmira Township public roads to off-road vehicle (ORV) uses	33.2% (80)	NA	17.0% (41)	NA	49.8% (120)	NA	241
answered question							245
skipped question							6





10. How do you feel about adding the following types of commercial/retail developments within Elmira Township's boundaries?

	Favorable		Neutral		Unfavorable		Rating Count
	2001%		2001%		2001%		
Stand alone business	67.6% (161)	60.6	26.5% (63)	29.2	5.9% (14)	10.2	238
Strip mall	24.7% (59)	22.9	30.5% (73)	22.2	44.8% (107)	54.8	239
Large retail store: 30,000 sq. ft + (e.g. K-Mart)	25.3% (60)	24.8	25.7% (61)	21.8	48.9% (116)	53.4	237
Downtown development or redevelopment	49.2% (116)	53.4	36.0% (85)	29.3	14.8% (35)	17.3	236
Gas station/convenience store	49.0% (117)	46.4	37.2% (89)	36.8	13.8% (33)	16.9	239
Office building	43.3% (104)	40.7	40.4% (97)	33.4	16.3% (39)	25.9	240
Cyber Cafe'	38.2% (91)	NA	38.7% (92)	NA	23.1% (55)	NA	238
answered question							242
skipped question							9





11. What should Elmira Township do to encourage more commercial/retail growth?

		2001%	Response Percent	Response Count
Favor growth (e.g. through incentives such as tax abatements).		16.4	29.5%	70
Support growth (e.g. through marketing the area).		39.9	40.1%	95
Do nothing.		15.9	24.1%	57
Discourage growth (e.g. through zoning controls).		27.8	6.3%	15
answered question				237
skipped question				14

12. What should Elmira Township do to encourage more industrial/manufacturing growth?

		2001%	Response Percent	Response Count
Favor growth (e.g. through incentives such as tax abatements).		14.4	31.7%	76
Support growth (e.g. through marketing the area).		29.4	28.3%	68
Do nothing.		18.6	24.2%	58
Discourage growth (e.g. through zoning controls).		37.6	15.8%	38
answered question				240
skipped question				11

13. If commercial/retail developments are to take place in Elmira Township, where do you think they should be located?

		2001%	Response Percent	Response Count
Spread along M-32.		22.9	22.7%	54
Clustered in concentrated areas along M-32.		39.3	41.6%	99
Concentrated within the downtown.		36.6	33.6%	80
Near neighborhoods.		1.2	2.1%	5
answered question				238
skipped question				13



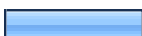


14. What additional businesses, products or services would you like to see available in the Elmira Township business community?

	Response Count
	71
answered question	71
skipped question	180

15. I support the installation of home-based alternative energy systems, such as:

	Strongly Agree	Agree	Neutral/Uncertain	Disagree	Strongly Disagree	Rating Count
Solar panels	42.2% (103)	34.8% (85)	13.5% (33)	2.0% (5)	7.4% (18)	244
Small scale wind turbine generators	40.1% (97)	27.3% (66)	14.9% (36)	6.6% (16)	11.2% (27)	242
Outdoor wood burners	29.9% (73)	25.4% (62)	20.5% (50)	11.9% (29)	12.3% (30)	244
answered question						247
skipped question						4







16. Commercial Wind Turbine Generators (WTG) should be allowed in ElmiraTownship.

		Response Percent	Response Count
Strongly Agree		30.3%	74
Agree		20.5%	50
Neutral/Uncertain		20.1%	49
Disagree		8.2%	20
Strongly Disagree		20.9%	51
answered question			244
skipped question			7







17. Please list any other comments you wish to make or questions you wished we had asked about growth and land use issues within Elmira Township?

	Response Count
	56
answered question	56
skipped question	195





18. Which of the following would you support in order to raise funds to accelerate the rate of improvements to Elmira Township's roads?

		2001 %	Response Percent	Response Count
An increase in property taxes of .25 mills		11.4	12.3%	29
An increase in property taxes of .5 mills		12.6	10.6%	25
An increase in property taxes of 1 mill		21.5	20.4%	48
An increase in property taxes of 1.5 mills		2.0	3.4%	8
An increase in property taxes of 2 mills		16.0	9.4%	22
I would not support a township road millage.		39.3	43.8%	103
			answered question	235
			skipped question	16

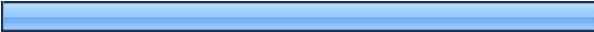

19. For what length of time would you support an Elmira Township road millage?

		2001 %	Response Percent	Response Count
5 years		23.2	19.2%	45
10 years		22.3	24.4%	57
15 years		3.7	3.8%	9
20 years		5.7	4.7%	11
Longer than 20 years		6.4	3.4%	8
Not applicable. I would not support a township road millage		39.5	44.4%	104
answered question				234
skipped question				17





20. Would you support weekly door-to-door garbage pick-up at one of the following annual cost ranges?

		Response Percent	Response Count
\$100-\$150 annual tax		20.7%	50
\$151-\$200 annual tax		7.0%	17
\$201-\$250 annual tax		3.7%	9
No, I do not support this tax.		68.6%	166
answered question			242
skipped question			9

21. Do you support the continuation of a once per year drop off trash disposal day funded by the Township? The purpose of this service is to give residents a chance to get rid of hard-to-dispose of items.

		2001%	Response Percent	Response Count
Yes		83.6	89.2%	215
No		16.4	10.8%	26
answered question				241
skipped question				10

22. Would you support Township wide Wi-Fi at one of the following annual cost ranges?

			Response Percent	Response Count
\$100-\$150 annual tax			19.3%	45
\$151-\$200 annual tax			5.2%	12
\$201-\$250 annual tax			4.3%	10
No, I do not support this tax.			71.2%	166
answered question				233
skipped question				18


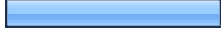
23. Please indicate your current resident status:

		2001 %	Response Percent	Response Count
I am a full-time resident of Elmira Township.		72.2	67.6%	165
I am a part-time resident of Elmira Township.		10.7	12.7%	31
I own property in Elmira Township, but do not live here.		17.1	19.7%	48
answered question				244
skipped question				7

24. Do you work in:

			Response Percent	Response Count
Gaylord area			24.7%	61
Northern Michigan			10.5%	26
Outside Northern Michigan			10.5%	26
Retired			53.0%	131
Not Working			3.6%	9
answered question				247
skipped question				4

25. Are you a registered voter in Elmira Township?

		Response Percent	Response Count
Yes		68.0%	168
No		32.0%	79
		answered question	247
		skipped question	4

Appendix B

Complete Streets Information

Complete Streets Vocabulary

The following are generally accepted planning definitions for some common phrases that may come up in a Complete Streets conversation.

Complete Streets: are designed and operated to enable safe access for all users. Pedestrians, bicyclists, motorists and bus riders of all ages and abilities are able to safely move along and across a complete street.

Complete Streets Policy: an official government plan, at any level, that mandates the inclusion of complete streets in transportation and other infrastructure planning.

Non-Motorized Network: the existing infrastructure for non-motorized transportation, including sidewalks, bike-lanes, mixed-use paths, public transportation (buses, subways, light-rail), and bike routes.

Non-Motorized Network Plan: a plan, generally completed at the local level, that provides a plan of action for making the community more friendly to biking and walking. Generally, a non-motorized plan will identify the transportation system's existing non-motorized facilities, establish a future conceptual network with a map and list of improvements, and identify resources to help fund future additions to the nonmotorized transportation network.

Bike Plans are a community's vision to make bicycling an integral part of daily life. A plan recommends projects, programs and policies to encourage use of this practical, non-polluting and affordable mode of transportation.

Two common overall goals of a bicycle plan:

- To increase bicycle use, so that 5 percent of all trips less than five miles are by bicycle.
- To reduce the number of bicycle injuries by 50 percent from current levels.

Context Sensitive Solutions: Context sensitive solutions (CSS) is a collaborative, interdisciplinary approach that involves all stakeholders to develop a transportation facility that fits its physical setting and preserves scenic, aesthetic, historic and environmental resources, while maintaining safety and mobility. CSS is an approach that considers the total context within which a transportation improvement project will exist.

Mixed Use: An appropriate combination of multiple uses, inside a single structure or place within a neighborhood, where a variety of different living activities (live, work, shop, and play) are in close proximity (walking distance) to most residents.

http://ncppp.org/resources/papers/surprenant_development.pdf

Road Diet: A change in the number of travel lanes, or width of existing lanes, with the addition of other elements such as bike lanes or car parking. Enhances safety by reducing traffic conflict points and lowering speeds.

Transit-Oriented Development: Residential and commercial districts designed to maximize access by public transit and non-motorized transportation, with good connectivity, mixed-use, parking management and other design features that facilitate public transit use and maximize overall accessibility.

Smart Growth: invests time, attention, and resources into restoring community and vitality to center cities and older suburbs. New smart growth is more town-centered, is transit and pedestrian oriented, and has a greater mix of housing, commercial and retail uses. It also preserves open space and many other environmental amenities.

Greenways are linear corridors of land that connect key resources and open space within a region. Open spaces are blocks of land that are generally self-contained with limited connections or linkages to other areas. A greenways network includes greenways as well as hubs of specifically identified natural resources or open space and manmade features or destinations that influence the development of the development of the linear greenway corridor.