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BEAVER CREEK TOWNSHIP



Beaver Creek Township

Crawford County, Michigan

8888 S. Grayling Rd.

Grayling, MI 49738

Adopted on:

Planning Commission – February 5, 2019

Township Board – February 12, 2019

**BEAVER CREEK TOWNSHIP MASTER PLAN
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Chapter 1: Introduction

Purpose and Planning Process

The purpose of the Beaver Creek Township Master Plan is to provide guidelines for future development within the community, while protecting the natural resources and rural township character. The Michigan Planning Enabling Act, P.A. 33 of 2008 states: *A local unit of government may adopt, amend and implement a master plan as provided in this act. The general purpose of a master plan is to guide and accomplish, in the planning jurisdiction and its environs, development that satisfies all of the following criteria:*

- 1. Is coordinated, adjusted, harmonious, efficient and economical.*
- 2. Considers the character of the planning jurisdiction and its suitability for particular uses, judged in terms of such factors as trends in land and population development.*
- 3. Will, in accordance with present and future needs, best promote public health, safety, morals, order, convenience, prosperity and general welfare.*
- 4. Includes, among other things, promotion of or adequate provision for 1 or more of the following:*
 - a. A system of transportation to lessen congestion on streets and provide for safe and efficient movement of people and goods by motor vehicles, bicycles, pedestrians and other legal users.*
 - b. Safety from fire and other dangers.*
 - c. Light and air.*
 - d. Healthful and convenient distribution of population.*
 - e. Good civic design and arrangement and wise and efficient expenditure of public funds.*
 - f. Public utilities such as sewage disposal and water supply and other public improvements.*
 - g. Recreation.*
 - h. The use of resources in accordance with their character and adaptability.*

This plan presents background information on demographics and economic data, natural resources, community services and facilities and existing land uses. The background information is used to identify important characteristics, changes and trends in Beaver Creek Township. A community workshop was used to gather input from residents and landowners. Based on information gathered at this workshop and the background data, the Beaver Creek Township Planning Commission developed goals and objectives. These goals and objectives, along with a series of maps including soils, ownership, existing land use and zoning, provide the basis for the Future Land Use Plan. The future land use map (Figure 7.1) recommends locations for various types of future development within the Township.

The Master Plan was developed by the Beaver Creek Township Planning Commission with the assistance from the Northeast Michigan Council of Governments (NEMCOG). This plan looks at a twenty year planning horizon, with required revisits every five years. A series of planning

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workshops were held during 2018. All workshops were open meetings with public welcomed and encouraged to comment on the plan.

Location and Setting

Beaver Creek Township is located in the southwestern corner of Crawford County, in the northeastern region of Michigan's lower peninsula. The Township is approximately 12 miles by 6 miles with a total area of 71.5 square miles. I-75 and US-127 converge in the northern part of the Township. Some 66 percent of the land area is publicly owned with the State of Michigan accounting for 45 percent and Michigan National Guard accounting for 21 percent of the township land area. The US Forest Service and Beaver Creek Township both own less than one percent of the land area. The presence of public lands clearly guides the land use patterns within Beaver Creek Township. As can be seen in Figure 1.1, blocks of private lands are intermixed with public lands forming a patchwork of ownership. Residential development is located on small and large tracts and within several subdivisions. The dispersed areas of residential developments separated by large tracts of public lands, creates challenges for providing community services. Nearly 40 percent of the housing units are seasonal, which creates challenges dealing with the influx of seasonal residents and visitors. North Higgins Lake State Park, located on the north shore of Higgins Lake, is a major recreational facility that brings thousands of visitors to the community each year.

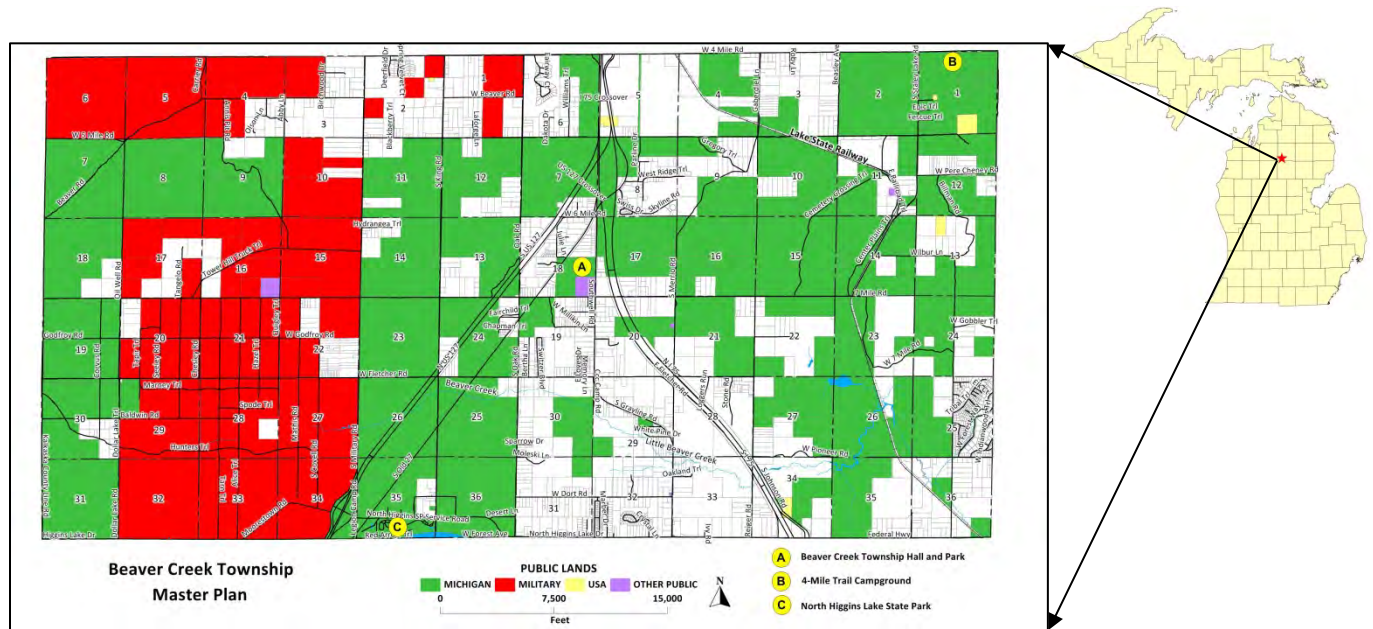


Figure 1.1 Base Map, Beaver Creek Township

The Status of Planning and Zoning

The Township of Beaver Creek established a planning commission and developed its first master plan in 2000. Following completion of the master plan, Beaver Creek Township exercised its legal right to establish and administer local zoning as authorized by the Township Rural Zoning Act (PA 184 of 1943.) A zoning ordinance regulating land use activities was

enacted by the Beaver Creek Township Board on June 9, 2003. The ordinance has been amended several times since its initial adoption with the most recent being October 30, 2015. The ordinance has provided guidance in regulating the location, density and standards for local development. Beaver Creek Township re-established a Planning Commission under State of Michigan Public Act 33 of 2008, as amended.

Beaver Creek Township has recognized the need to complete an extensive update of their 2006 Master Plan in accordance with the Michigan Planning Enabling Act, P.A. 33 of 2008. Two key issues are to provide a legal foundation for the Township Zoning Ordinance and to manage development within the Township. By documenting existing conditions such as environment, socio-economic, community services, transportation, recreation and land use within a master plan, the Township will be able to formulate appropriate land use goals and policies to guide development and serve as the basis for enforceable zoning. The master plan will be used as a basis for re-examining the Township's zoning districts and land use development controls.

Chapter 2: Socio-Economic Profile

Population

The 2010 US Census showed that Beaver Creek Township had a year-round population of 1,736 inhabitants. Past trends continued between 2000 and 2010 as the Township experienced a 16.8 percent population increase, gaining 250 year-round residents. Four of the six other townships in Crawford County experienced population growth with Beaver Creek Township adding the most year round residents and experiencing the highest percent growth rate. Even with four townships showing population growth, the County as a whole showed a population loss over the past decade. **Table 2.1** shows population trends for communities in the County. According to the US Census Bureau, Beaver Creek Township has a total area of approximately 71.5 square miles and a population density of 24.3 persons per square mile.

Table 2.1 Population For Crawford County & Municipalities				
Municipality	2000 Population	2010 Population	Percent Change	Numeric Change
Beaver Creek Township	1,486	1,736	16.8%	250
Frederic Township	1,401	1,341	-4.3%	-60
Grayling Charter Township	6,516	5,827	-10.6%	-689
Lovells Township	578	626	8.3%	48
Maple Forest Township	498	653	31.1%	155
South Branch Township	1,842	2,007	9.0%	165
City of Grayling	1,952	1,884	-3.5%	-68
Crawford County	14,273	14,074	-1.4%	-199
Source: U.S. Bureau of the Census				

Seasonal Population

Obtaining accurate numbers of seasonal residents and tourists is difficult. Because the U.S. Census is conducted each decade in April, the numbers only reflect those persons who live in the County on a year-round basis. The high percentage of seasonal use homes coupled with tourism and annual events, the population can balloon during peak summer months.

A rough estimate of the number of seasonal residents is calculated by multiplying the number of seasonal housing units by the average number of persons per household. The 2010 Census showed that there were 524 seasonal housing units in the Township and an average household size of 2.4 persons. If those seasonal units are occupied the population would increase by roughly 1,260. Considering the additional influx of seasonal visitors and tourists staying in area motels,

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campgrounds, or family homes, one could expect even greater temporary population increases during certain times.

Age Distribution

The median age of Beaver Creek Township increased from 41.9 years in 2000 to 47.8 years in 2010. At the same time, the State's median age increased from 35.5 to 38.9 years. The difference in median age between the Township and State increased from 2000 to 2010 as the Township's population "ages" at the faster rate.

Beaver Creek Township, Crawford County and Michigan all gained population in age groups of 45 years and older population. Losses in population were found in age groups of 5 years & under and 20-44 years. However, unlike the County and State as a whole, the Township experienced growth in school aged population of 5 to 19 years of age (**Table 2.2**).

In conclusion, the Township's population structure is changing. Long-term trends in the increase of median age, continues at a faster rate than the State of Michigan and US. The rate has increased with the downturn in the economy, as young families move to other areas for employment. An aging population needs access to social and medical services. As the population grows and ages the community's emergency response services will experience an increase in demand.

Table 2.2													
Age Distribution By Municipality For Crawford County - 2010													
MUNICIPALITY	< 5 Yrs.	%*	5-19 Yrs.	%*	20-24 Yrs.	%*	25-44 Yrs.	%*	45-64 Yrs.	%*	65 Yrs. & >	%*	Median Age
Beaver Creek Township	67	3.9	330	19.0	67	3.9	317	18.3	601	34.7	354	20.3	47.8
City of Grayling	124	6.6	385	20.4	118	6.3	450	23.9	417	22.1	390	20.8	38.6
Frederic Township	62	5.2	243	18.1	53	4.0	266	19.9	456	34.0	261	19.4	47.5
Grayling Charter Township	282	4.8	1019	17.5	241	4.1	1137	19.4	2009	34.6	1139	19.6	45.0
Lovells Township	14	2.2	63	10.0	14.0	2.2	71	11.4	258	41.2	206	32.9	57.5
Maple Forest Township	28	4.3	126	19.3	19	2.9	129	19.8	235	36.0	116	17.7	46.8
South Branch Township	87	4.3	295	14.7	63	3.1	355	17.7	745	37.1	462	23.0	50.8
Crawford Co.	664	4.7	2461	17.5	575	4.1	2725	19.3	4721	33.5	2928	20.8	47.7
*Figure shows the percentage each age grouping represents of the local unit's total population. Source: U.S. Bureau of the Census													

Household Characteristics

Household characteristics from the 2010 US Census are presented in **Table 2.3**. According to the 2010 Census, of the 733 households in Beaver Creek Township, 174 were reported as householders living alone. Of the 174 households, there were 58 householders 65 years and older who live alone. The average household size was 2.37 persons as compared to Michigan where the average household size was 2.49.

Table 2.3 Beaver Creek and Crawford County: Household Characteristics - 2010						
MUNICIPALITY	Total Households	Avg. Household Size	Households w/ individual under 18 yrs.	Householder Living Alone	Householder Alone 65 yrs. & Older	Household w/ Individual 65 yrs. & older
Beaver Creek Township	733	2.37	187 (25.5%)	174 (23.7%)	58 (7.9%)	246 (33.6%)
Crawford County	6,016	2.31	1,470 (24.4%)	1,625 (27.0%)	685 (11.4%)	2,017 (33.5%)
Michigan	3,872,508	2.49	(31.6%)	(27.9%)	(10.2%)	(25.4%)
Source: U.S. Bureau of the Census						

School Enrollment and Educational Attainment

According to the US Census Bureau 2011-2015 *American Community Survey 5-Year Estimates*, of the 1,334 persons 25 years and older, 86.4 percent were high school graduates, while 9.7 percent attended school into the 9th- 12th grade with no diploma and 3.8 percent had completed less than the 9th grade. Thirty percent had received some college education with no degree, 8.7 percent had associate's degrees, 10.3 percent had earned a bachelor's degree and 5.2 percent had earned a graduate or professional degree. Compared to the State of Michigan and the US as a whole, Beaver Creek Township has a lower percentage of residents with bachelor's and graduate/professional degrees. Discussed further in this chapter, a community's median income level is directly related to the percent population with college degrees (**Table 2.4**).

Disability Status

Data shown in **Table 2.5** from the *American Community Survey* provides an estimate of disabled people who reside in Beaver Creek Township, Crawford County and Michigan. Persons with disabilities include those with a hearing difficulty, a vision difficulty, a cognitive difficulty, an ambulatory difficulty, a self-care difficulty and an independent living difficulty. The percentage of the population of persons with disabilities is higher for Beaver Creek Township and Crawford County than Michigan as a whole. The same is true for the 18 to 64 years of age and 65 years and older age groups. Statistics for population under 18 years of age are comparable for all three entities.

Table 2.4 Educational Attainment Beaver Creek Township, Michigan and US			
	Beaver Creek Township	Michigan	United States
Population 25 years and over	1,334	6,652,665	211,462,522
Less than 9 th grade education	3.8%	3.2%	5.7%
9 th – 12 th grade, no diploma	9.7%	7.2%	7.6%
High school graduate	32.0%	29.9%	27.8%
Some college, no degree	30.1%	23.8%	21.1%
Associate's degree	8.7%	8.9%	8.1%
Bachelor's degree	10.3%	16.5%	18.5%
Graduate or professional degree	5.2%	10.5%	11.2%
Percent High school graduate or higher	86.4%	89.6%	86.7%
Percent Bachelor's degree or higher	15.6%	26.9%	29.8%
Source: 2011-2015 American Community Survey 5-Year Estimates, U.S. Census Bureau			

Table 2.5 Disability Status of Civilian Non-Institutionalized Persons Beaver Creek Township, Crawford County and Michigan				
LOCAL UNIT	% with Disability	% with Disability under 18 Years	% with Disability 18-64 Years	% with Disability 65 Years & Older
Beaver Creek Township	22.5%	5.3%	19.7%	44.4%
Crawford County	20.7%	5.7%	19.4%	36.6%
Michigan	14.1%	5.0%	12.3%	36.0%
Source: 2011-2015 American Community Survey 5-Year Estimates, U.S. Census Bureau				

Housing Stock

Over past decades, Beaver Creek Township has experienced a steady increase in the number of housing units, with a high percentage used as seasonal housing. Housing characteristics from the 2010 US Census are presented in **Table 2.6**. The Census found 1,317 housing units with 733 units occupied and 584 units vacant. Similar to many townships in northern Michigan, Beaver Creek Township has a large percentage of seasonal housing units. By comparison, 5.8 percent of the housing units statewide are classified as seasonal.

According to the US Census Bureau, 20 percent of the housing in Beaver Creek Township was built prior to 1970. Clearly, the “Housing Boom” occurred during the decades of 70s, 80s and 90s when 67 percent (847 units) of the total housing units were constructed. New housing construction sharply dropped off after “The Great Recession of 2008.” Consistent with the data, over 83 percent of the householders moved into the Township’s occupied housing units

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since 1990. Typical of rural northern Michigan communities, over 90 percent of the occupied housing units are owner-occupied.

Data from the *American Community Survey* found the median house value was \$100,200 in Beaver Creek Township. Information reported in the *American Community Survey* found 3.9 percent of the housing units were heated with natural gas, 59.7 percent heat with bottled, tank or LP gas and 3.6 percent heat with electricity and 30.3 percent heat with wood or other fuel.

Table 2.6 2010 Housing Counts and Occupancy Status in Crawford County						
Area Name	2010					
	Total	Occupied	Vacant	Percent Vacant	Seasonal	Percent Seasonal
Crawford County	11,092	6,016	5,076	45.8%	4,535	40.89%
Beaver Creek Township	1,317	733	584	44.3%	524	39.79%
Frederic Township	1,231	576	655	53.2%	586	47.60%
Grayling City	890	764	126	14.2%	20	2.25%
Grayling Charter Township	4,289	2,464	1,825	42.6%	1,629	37.98%
Lovells Township	1,034	315	719	69.5%	694	67.12%
Maple Forest Township	470	263	207	44.0%	181	38.51%
South Branch Township	1,861	901	960	51.6%	901	48.41%
Source: US Census Bureau						

Income

According to the U.S. Census, *American Community Survey*, Beaver Creek Township's median household income is \$42,417, which is higher than the County, but lower than the State. Whereas, for median family income and per capita income, the Township is lower than Crawford County and Michigan. **See Table 2.7.**

Table 2.7 Income: Beaver Creek Township, Crawford County & State			
Income Type	Beaver Creek Township	Crawford County	Michigan
Median Household Income	\$42,417	\$41,743	\$49,576
Median Family Income	\$51,424	\$52,781	\$62,247
Per Capita Income	\$21,615	\$22,595	\$26,607
Source: 2011-2015 American Community Survey 5-Year Estimates, U.S. Census Bureau			

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Table 2.8 shows a breakdown of income sources within Beaver Creek Township, Crawford County and the State of Michigan from the *American Community Survey*. The estimates show 60 percent received earnings from employment, 49 percent received Social Security retirement and 31.5 percent received retirement income from pensions. The high percentage of retirees receiving Social Security and retirement income as compared to the State relates to the population structure previously discussed.

Table 2.8 Income Sources in Beaver Creek Township, Crawford County and Michigan						
Income Sources	Beaver Creek Twp.		Crawford County		Michigan	
Subject	Estimate	Percent	Estimate	Percent	Estimate	Percent
With earnings	450	60.1%	3,772	63.4%	2,829,006	73.7%
Mean earnings	\$50,122		\$45,062		\$68,818	
With Social Security Income	367	49.0%	2,823	47.4%	1,287,930	33.5%
Mean Social Security Income	\$18,826		\$18,318		\$18,736	
With retirement Income	236	31.5%	2,096	35.2%	873,817	22.7%
Mean retirement Income	\$19,053		\$26,465		\$22,049	
With Supplemental Security Income	47	6.3%	502	8.4%	238,704	6.2%
Mean Supplemental Security Income	\$9,523		\$10,091		\$9,744	
With cash public assistance Income	17	2.3%	237	4.0%	131,650	3.4%
Mean cash public assistance Income	\$1,718		\$2,668		\$2,941	
With Food Stamp/SNAP benefits in the past 12 months	135	18.0%	1,145	19.2%	642,482	16.7%
Source: 2011-2015 American Community Survey 5-Year Estimates						

Poverty

Information from the *American Community Survey* showing poverty rates in Beaver Creek Township, Crawford County and Michigan based on income in the past 12 months is present in **Table 2.9**. The percentage of families, individuals and families with female head of household is higher in Beaver Creek Township than the other two entities. However, the percentage of individuals 65 years and over living in poverty is lower in the Township than in Crawford County and in the State of Michigan.

Table 2.9 Poverty Rates: Beaver Creek Township, Crawford County and Michigan			
	Beaver Creek Township	Crawford County	Michigan
Families	14.4%	10.7%	11.9%
Families with female head of household	42.5%	35.3%	34.0%
Individuals	17.6%	15.2%	16.7 %
Individuals 65 years and over	6.5%	7.3%	8.1%
Source: American Community Survey, U.S. Census Bureau			

Labor Force

Employment and Unemployment

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

Table 2.10 Employment Trends in Crawford County 2010 - 2016				
Year	Labor Force	Employment	Unemployment	Jobless Rate
2010	5631	4832	799	14.2
2011	5498	4793	705	12.8
2012	5368	4736	632	11.8
2013	5396	4774	622	11.5
2014	5333	4823	510	9.6
2015	5270	4859	411	7.8
2016	5348	4952	396	7.4
Source: Michigan Labor Market Information				

Table 2.10 presents information on employment trends for Crawford County from 2010 to 2016. Unemployment rates experienced a significant increase because of “The Great Recession of 2008.” Jobless rates peaked in 2010 and have dropped to typical long-term rates. The number of persons in the labor force began to fall in 2006. The economic downturn continued to feed this trend. Even though jobless rates have fallen to 7.4% in 2016, the labor force and number of person employed has not returned to pre-recession levels. **Table 2.11** shows the *American Community Survey* estimates for employment status in Beaver Creek Township, Crawford County and Michigan. Fifty-two percent of the population 16 years of age and older was identified as being in the labor force. This percent is slightly higher than Crawford County but some nine points lower than the State as a whole. Additionally, the higher percentage of people not in the labor force within the Township and County is attributed to the high percentage of retirees.

Table 2.11 Employment Status, Beaver Creek Township, Crawford County and Michigan						
Subject	Beaver Creek Twp.		Crawford County		Michigan	
	Estimate	Percent	Estimate	Percent	Estimate	Percent
Employment Status						
Population 16 years and over	1,475		11,642		7,925,988	
In labor force	769	52.1%	5,922	50.9%	4,855,005	61.3%
Civilian labor force	769	52.1%	5,907	50.7%	4,851,264	61.2%
Employed	681	46.2%	5,197	44.6%	4,373,518	55.2%
Unemployed	88	6.0%	710	6.1%	477,746	6.0%
Armed Forces	0	0.0%	15	0.1%	3,741	0.0%
Not in labor force	706	47.9%	5,720	49.1%	3,070,983	38.7%
Source: 2011-2015 American Community Survey 5-Year Estimates, U.S. Census Bureau						

Wage and Salary Employment

Manufacturing accounts for nearly 42 percent of the employment in Beaver Creek Township. The next largest employment types are service and public administration at 22 and 20 percent respectively. The employment picture for Crawford County shows a much higher dependence on service and retail jobs (**Table 2.12**).

Table 2.12				
Total Employees by Major Employment Type (2014)				
Category	Beaver Creek Township		Crawford County	
	Total	Percent	Total	Total
Agricultural, Forestry, Fishing	6	2.4%	34	0.6%
Mining	6	2.4%	6	0.1%
Construction	10	3.9%	182	3.4%
Manufacturing	106	41.6%	496	9.4%
Transportation and Communications	14	5.5%	220	4.2%
Wholesale Trade	-	-	85	1.6%
Retail Trade	5	2.0%	1,095	20.7%
Finance, Insurance And Real Estate	1	0.4%	165	3.1%
Services	57	22.4%	2,349	44.3%
Public Administration	51	20.0%	653	12.3%
Unclassified	-	-	15	0.3%
Source: NEMCOG				

Beaver Creek Township Finances

Information contained in this section was generated from F65 forms filed with the State of Michigan each year. The data is available through Munetrix LLC because the Northeast Michigan Council of Governments is a Munetrix subscriber. This section is intended to give a summary of the financial health of Beaver Creek Township.

Revenues and Expenditures

Revenue is generated from tax dollars generated from the millage rate multiplied by taxable property valuations. Revenue is also generated from other sources such as State and Federal grants, permits, fees, special assessments and state share of sales tax. **Figure 2.1** shows the sources of revenue for Beaver Creek Township. The largest revenue source has historically been property taxes. However in recent years in reaction to the “2008 Recession” and loss of property values the Township has looked to other sources for revenue. **Figure 2.2** shows Township expenses by function from 2007 to 2016.

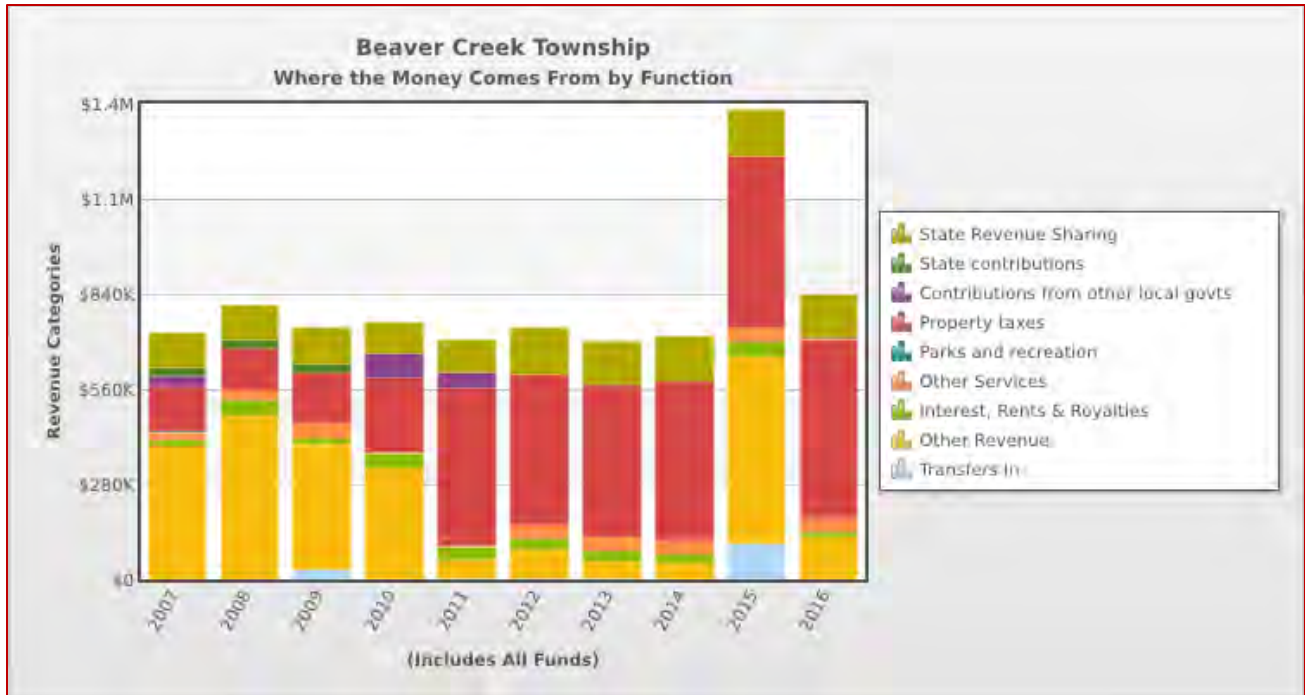


Figure 2.1 - Beaver Creek Township Revenue Breakdown

Financial Stress

Munetrix utilizes financial data submitted annually to the Department of Treasury to calculate the financial stress and assign an Indicator Score to each municipality based on the results of the calculation. 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 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. There are three categories of scores: Fiscally Neutral (Stress Score of 0-4), Fiscal Watch (Stress Score of 5-7) and Fiscal Stress (Stress Score of 8-10). **Table 2.13** lists the Fiscal Stress Indicators and Stress Score for the Township from 2006 to 2016. Beaver Creek Township has been classified as Fiscally Neutral.

Beaver Creek Township Master Plan

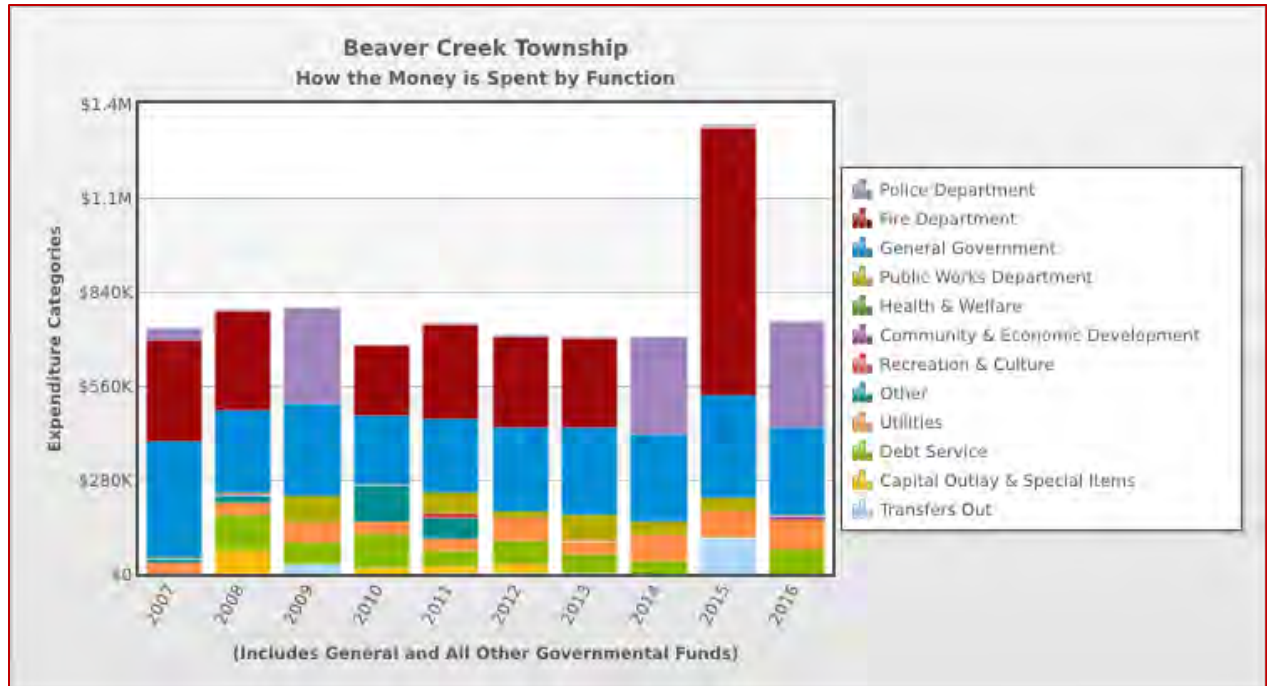


Figure 2.2 - Beaver Creek Township Expenditures Breakdown

Table 2.13 Multi-year General Fund Data and Indicator Score for Beaver Creek Township							
Year	Indicator Score	Population	Revenues	Expenditures	Fund Balance	Long Term Debt	Taxable Value
2016		1,692	\$429,067	\$366,681	\$321,243	\$384,813	\$71,758,425
2015	2	1,692	\$476,993	\$505,026	\$257,323	\$436,868	\$83,759,389
2014	1	1,685	\$435,598	\$419,890	\$285,357	\$95,056	\$83,337,239
2013	1	1,708	\$421,375	\$422,164	\$264,017	\$168,361	\$79,581,126
2012	1	1,719	\$445,146	\$412,535	\$239,686	\$244,530	\$78,504,444
2011		1,729	\$422,206	\$448,622	\$486,706	\$255,118	\$85,355,232
2010	4	1,734	\$460,604	\$384,131	\$152,868	\$332,572	\$86,410,162
2009		1,429	\$410,374	\$482,210	\$75,246	\$416,626	\$91,219,170
2008		1,429	\$460,989	\$448,809	\$108,387	\$500,508	\$90,002,369
2007		1,441	\$381,870	\$421,982			\$64,555,415
2006		1,485	\$359,788	\$711,644	\$136,026	\$572,343	\$60,559,819
<div> <div>0 1 2 3 4 5 6 7 8 9 10</div> <div>Low Risk High Risk</div> </div>							

Chapter 3: Community Services and Facilities

Key factors that contribute to the quality of life in a community are the types and varieties of services available to residents and visitors. Unlike more populated communities, smaller rural communities have limited financial resources to provide essential services. In the case of fire and ambulance response, many rural communities work cooperatively with adjacent communities to provide essential services. Although these services may be sufficient for the needs of the current population, future development may increase the demand to upgrade or expand the services and facilities to maintain a satisfactory living environment.

Township Government

Beaver Creek Township is organized as a General Law Township. The Township Hall is located seven miles south of Grayling at 8888 S. Grayling Road. The Township Hall acts as the government center for residents. The Beaver Creek Township Board consists of five members; the supervisor, clerk, treasurer and two trustees. Current local officials are Kim VanNuck, Supervisor; Sharon Hartman, Clerk; Max Meisner, Treasurer; Meagan Little, Trustee; Carol Raybuck, Trustee; and Donald Johnson, Zoning Administrator. The board members run the Township government and produce the budget. The management of the Beaver Creek Township Park is under the direct control of the Township Board. The Township has a five member Planning Commission and a three member Zoning Board of Appeals.

Water Supply and Sewage Disposal

A small residential development located on Higgins Lake, Camp Curnalia, has public sewer service provided by the Higgins Lake Utilities Authority. While public sewer and water systems are planned for designated areas in the Township, the majority of residents still use on-site septic systems. Residents rely on on-site private wells for domestic drinking water. Private drinking water wells are regulated by the District Health Department #10 under the Public Health Code. Wells for facilities such as schools or motels serving the public fall under regulations of the Federal and State Safe Drinking Water Acts, where isolation distance, minimum yield and water quality testing requirements are more stringent than for private residential wells.

Residents throughout the Township rely on private on-site septic tanks and drain-field sewage systems. For such systems to function properly, suitable isolation distances must be maintained from the on-site waste water treatment system to surface and groundwater sources. The drain-field must have appropriate soil conditions to function properly. If these criteria are not fulfilled, surface water sources and groundwater supplies could be in danger of receiving unwanted or harmful nutrients, bacteria and other pollutants.

Recycling and Solid Waste

Residents dispose of solid waste at a transfer station located adjacent to the Township Hall. The Township transfer site accepts metals for recycling on a seasonal basis.

Utilities

Consumers Power provides electric service to 95 percent of the Township with the exception of a small area in the northeast corner served by Great Lakes Energy Cooperative. Limited public gas service lines are available in the Township. Propane gas is available by tank placement on private and public property.

Transportation

The transportation network consists of federal and state highways, primary and secondary county roads, along with seasonally maintained, unimproved public roads and private roads. I-75 and US-127 are limited access, divided highways. Primary and secondary public roads are under Crawford County Road Commission jurisdiction. The primary road network is made up of North Higgins Lake Drive, South Grayling Road, South Military Road, South Old 27, South Staley Lake Road, West 4 Mile Road, West Fletcher Road and West Pere Cheney Road. The majority of the transportation network consists of gravel, dirt and two-track roads including public and private roads.

Road Pavement Conditions

Each year, an assessment of federal-aid roads within Crawford County is conducted by the Crawford County Road Commission, Michigan Department of Transportation and NEMCOG using the PASER road rating system. The Pavement Surface Evaluation and Rating (PASER) system is a “windshield” road rating system that uses a 1 to 10 rating scale, with a value of 10 representing a new road and a value of 1 representing a failed road. Condition ratings are assigned by monitoring the type and amount of visual defects along a road segment while driving the segment. The PASER system interprets these observations into a condition rating.

- Roads with PASER ratings of 8-10 require routine maintenance.
- Roads with PASER ratings of 5-7 require capital preventive maintenance. The purpose of capital preventive maintenance fixes is to protect the pavement structures, slow the rate of pavement deterioration and/or correct pavement surface deficiencies.
- Roads with PASER ratings of 1-4 require structural improvements. This category includes work identified as rehabilitation and reconstruction, which address the structural integrity of a road.

Annual road ratings conducted by the Northeast MI Council of Governments are reported to the Michigan Transportation Asset Management Council and made available to the public on their web site. **Figure 3.1** shows road ratings for Federal Aid roads in Beaver Creek Township and surrounding communities. Most county primary roads in the Township rated as PASER 1-4 and 5-7. A 1.6 mile segment of South Military Road is rated as 8-10. Data clearly shows a current and growing need to maintain and upgrade the road network in Beaver Creek Township.

Beaver Creek Township Master Plan

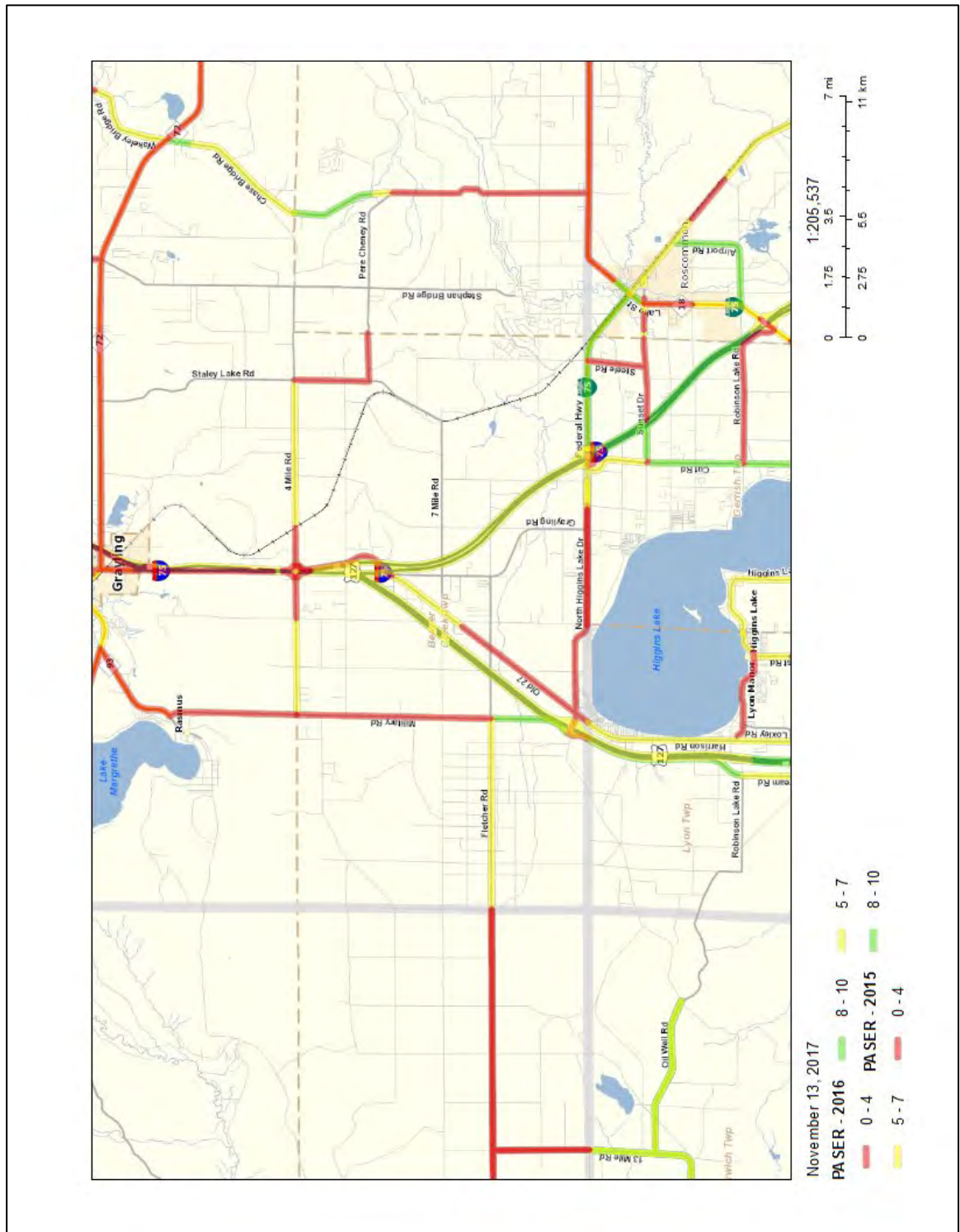


Figure 3.1 PASER Road Ratings

The Crawford County Transportation Authority operates a county-wide Dial-A-Ride bus service that is headquartered in Grayling. Funding for operation of the service is provided by a county millage, user fees and state and federal grants.

Regional air service is available at Saginaw MBS Airport, Flint Bishop Airport, Detroit Metro Airport, Lansing Airport, Grand Rapids Airport and Cherry Capital Airport in Traverse City. Gaylord, Roscommon and Grayling have airport facilities for private planes. The Department of Natural Resources maintains an airport facility near Roscommon and the Air National Guard operates an airbase in Grayling. The Lake State Railway runs north-south through the Township. Freight transportation is provided from Gaylord to Bay City and points beyond.

Schools, Libraries and Museums

Beaver Creek Township is served by the Crawford-AuSable School District and Roscommon Area Public School District. The Crawford-AuSable District is the largest covering 79% of the residents of the Township. The Crawford, Ogemaw, Oscoda and Roscommon (COOR) Intermediate School District provides special education, career and technical education, information technology and general education programs and services on request that single local districts find difficult or impossible to provide.

Kirtland Community College (KCC) is located in Roscommon, with satellite campuses in Charter Township of Grayling and Gaylord. KCC is a two-year institution serving the higher education needs of area residents. They offer programs in transfer degrees, health sciences, trades/occupational, public safety, art, business, technology and community enrichment. Mid-Michigan Community College in Harrison, North Central Michigan College (NCMC) in Petoskey and Northwest Michigan College in Traverse City are two-year institutions with host sites for universities offering bachelor's and master's degree programs.

Kirtland Community College operates the Michigan Technical Education Center (M-TEC) in Gaylord. M-TEC offers certificate programs, technical certification programs and associate degree programs. The University Center at Gaylord offers partner programs through Central Michigan University, Davenport University, Kirtland Community College, Madonna University, Michigan State University, North Central Community College and Spring Arbor College.

Residents can access the Devereaux Memorial Library in Grayling, Roscommon District Library in Roscommon and Kirtland Community College Library on campus.

The Civilian Conservation Corps Museum, part of the State of Michigan History Museum System, is located at the southern boundary on North Higgins Lake Drive. The museum tells the story of the CCC in Michigan and its role in providing work to young men during the "Great Depression." It features several CCC buildings and many historic information displays.

The Ralph A. MacMullan (RAM) Conference Center is located on the northern shore of Higgins Lake. The conference center has a 75-year legacy of conservation education. The RAM Center

provides a recreational retreat for nonprofit, government and education-based organizations, as well as private businesses with an outdoor “green-themed” agenda.

Cemeteries

Beaver Creek Township Cemetery is owned and operated by the Township. The Township Cemetery Ordinance establishes regulations relating to the operation, control and management of the cemeteries.

Pere Cheney Cemetery is owned and maintained by Beaver Creek Township. It’s a historic site associated with the ghost town of Pere Cheney Village that was established in 1873 as a railroad stop on the Michigan Central Railroad. The cemetery stopped being used after the town was abandoned in 1917.

Public Safety

The Crawford County Sheriff Department and Michigan State Police provide police and public safety services to the Township residents. The Crawford County Sheriff Department is located in Grayling at 200 West Michigan Avenue.

Beaver Creek Township has its own fire department located in the Township at the corner of W. Seven Mile Road and S. Grayling Road. Ambulance service is available in Beaver Creek Township for basic and advanced life support from MMR which has a staffed office at the fire department building.

Medical Facilities and Health Services

There are no medical facilities located in Beaver Creek Township. Clinics, doctor and dentist offices are located in Roscommon, Houghton Lake, Gaylord and Grayling. Urgent care facilities are located in Roscommon, Prudenville and Grayling. For health care services not available at these facilities, residents travel to McLaren Northern Michigan Hospital in Petoskey, Munson Medical Center in Traverse City, West Branch Regional Medical Center in West Branch, Munson Healthcare Grayling Hospital in Grayling and Otsego Memorial Hospital in Gaylord.

District Health Department #10 strives to fill health care needs of the community, which are not available or affordable elsewhere. The Health Department service area includes Crawford, Kalkaska, Lake, Manistee, Mason, Mecosta, Missaukee, Newaygo, Oceana and Wexford Counties. Programs offered by the Health Department fall under three categories: home health care services, environmental health services and personal health services. North Central Community Mental Health provides support services to developmentally disabled persons as well as persons needing mental health services. The North Central Community Mental Health service area covers Crawford and Roscommon Counties.

Public Lands, Public Facilities and Recreation

The location and amount of public lands guide the land use patterns in Beaver Creek Township. Some 66 percent of the land area is publicly owned with the State of Michigan accounting for 45 percent and Michigan National Guard 21 percent of the total Township area. The US Forest

Beaver Creek Township Master Plan

Service and Beaver Creek Township have small land holdings in comparison. The abundance of public lands provides for a variety of outdoor recreational opportunities. See **Figure 3.2**.

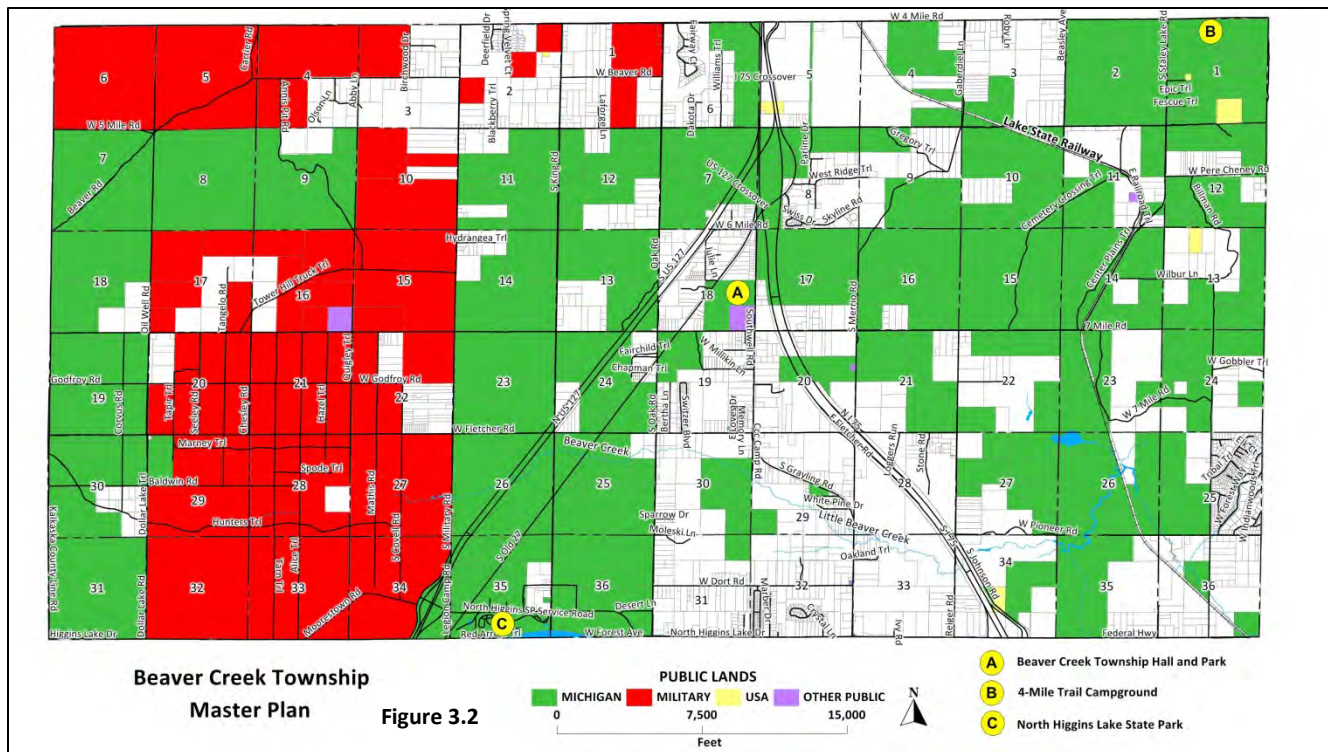


Figure 3.2 Public Lands Map

Several of the county's outdoor recreation facilities are found in Beaver Creek Township. In the northeast corner of the Township, 4 Mile State Forest Trail Camp, managed by Hartwick Pines State Park, provides 50 campsites and a horse camp. On the southern edge of the Township North Higgins Lake State Park covers 449 acres and includes 174 campsites, 2 rental mini-cabins, rental shelter and a trailer sanitation station. The site offers access to Higgins Lake, fishing, hiking and cross-country skiing trails, museum and pavilions. The DNR Ralph A. MacMullan Conference Center is also located on Higgins Lake in Beaver Creek Township. A privately owned RV Park is located on Federal Highway just east of South Grayling Road. The park is situated on 60 acres with mature hardwoods and offers family camping. Ninety-eight sites, from rustic to full hookup are available.

The Fox Run Country Club is located on West 4 Mile Road just west of the I-75 interchange. Fox Run was opened in 1990, situated among numerous hardwoods and follows the natural hilly terrain. It is a favorite among golfers of all skill levels and is usually on the list of courses to play when visiting the Northern Michigan Golf Mecca. Included at Fox Run Country Club is a beautiful club house with a pro shop and restaurant.

Beaver Creek Township Park

The 36-acre Beaver Creek Township Park is located on South Grayling Road, behind the Township Hall, north of the fire station. Facilities in the park include a basketball court, two tennis/pickleball courts, a community center building, a softball diamond with bleachers and dugouts, a playground, soccer field, horseshoe courts, a volleyball court, walking trail, two pavilions and picnic areas with barbeques and paved parking. The parking area for the park can accommodate up to 100 automobiles.

Funds for maintaining the park are allocated by the Township Board to the "Park Fund" in the budget. Two part-time employees maintain the park and facility. The Township has hired youth to assist the maintenance personnel in their duties during the summer.

The Township has made a concerted effort to maintain the park since it was opened. In 2003 the Township received a grant from the National Park Service through the Land and Water Conservation Fund (LWCF), which is administered by the Michigan Department of Natural Resources. Beaver Creek Township provided a 50% match to the grant from the LWCF. Three projects were completed which include a 40 foot by 40 foot picnic pavilion, an approximately half mile long walking trail and expansion and paving of the parking area. The Weyerhaeuser Foundation granted the Township \$5,000 which was used to purchase picnic tables and other needs for the new pavilion. A new sign at the park entrance was completed by late spring 2003. The sign was donated by Jerry DeWitt and Township funds paid for the base. Most of the labor was performed by Rich Raybuck and Larry Helvie. Others contributed to its construction as well.

Chapter 4: Natural Resources

Overview

The forested landscape and rural nature of this portion of the State are central to the community character and economic base. Recreational activities such as hunting, fishing, golfing, snowmobiling, boating and a multitude of other outdoor activities attract people to the area to visit and live. Timber management and forest products rely on the forests in the township and account for numerous jobs.

At the same time, the environment places constraints on human activities. Certain critical and sensitive parts of the natural landscape, if altered, can create problems not easily corrected. For example, the indiscriminate filling of wetlands and clearing land of vegetation can cause increased flooding and soil erosion. Therefore, it is essential that any future development respect the different characteristics of the natural environment. Preserving the attractiveness of this part of the area will maximize the economic benefits of the tourist and recreation industries.

Climate

The climate in Crawford County and Beaver Creek Township is humid continental. It is not strongly influenced by the climate moderation typical of areas closer to the Great Lakes. The most noticeable lake influence is the increased cloudiness and snowfall during fall and winter months.

The average temperature during a year is 42 degrees Fahrenheit. The lowest temperature on record is -42 degrees, occurring on February 17, 1979. In summer, the average temperature is 65.5 degrees and the average daily high temperature is 78.8 degrees. The highest recorded temperature was 106 degrees occurring on June 28, 1887.

Table 4.1 presents monthly temperature and precipitation averages for the years between 1981 and 2010.

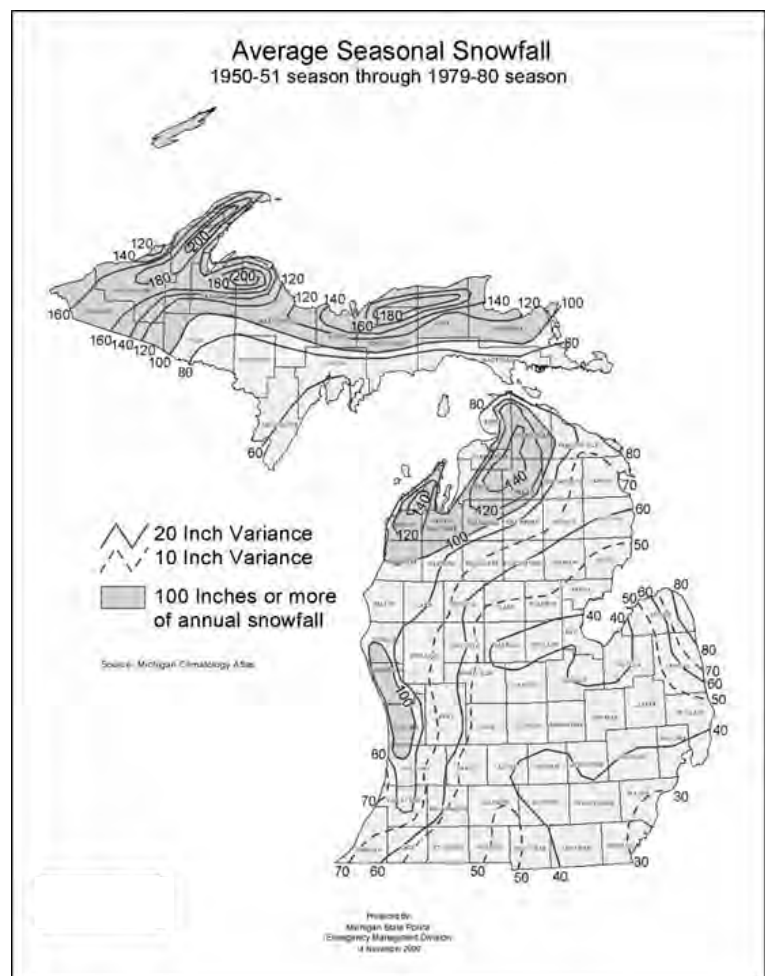


Figure 4.1 - Average Seasonal Snowfall

<p>Table 4.1 Temperature and Precipitation Summary 1981-2010</p>					
	Temperature Averages			Precipitation Averages	
Month	Max	Min	Mean	Precip. Equivalent	Snow
JAN.	25.8	7.9	16.8	1.71	30.1
FEB.	28.8	8.0	18.4	1.29	20.7
MAR.	38.8	15.4	27.1	1.72	14.2
APR.	53.4	28.8	41.1	2.77	3.8
MAY	66.0	39.3	52.7	3.27	.1
JUNE	75.8	49.2	62.5	3.69	.0
JULY	79.8	53.9	66.8	3.58	.0
AUG.	77.6	51.9	64.7	3.68	.0
SEPT	69.5	43.7	56.6	3.75	.0
OCT.	56.0	33.9	45.0	3.77	1.3
NOV.	42.4	25.3	33.8	2.61	11.3
DEC.	30.5	15.6	23.1	1.76	26.5
ANNUAL	53.7	31.1	42.4	33.6	108.0
Source: Midwestern Regional Climate Center, Champaign IL, Station 203391 Grayling MI					

The average annual precipitation is nearly 34 inches. Of this, 20.7 inches, or 64 percent usually falls in April through September. The growing season, for most crops, falls within this period. The heaviest 24-hour rainfall during the period of record was 5.02 inches on August 8 and 9, 1965. Thunderstorms occur an average of 30 days each year and most occur in June, July and August.

Snowfall in northern Michigan is influenced by prevailing west/northwest winds and by proximity to Lake Michigan. **Figure 4.1** on the previous page clearly shows the Northwestern Lower Peninsula Snow Belt. The figure shows Beaver Creek Township is just south of the heavy snow belt and has an average annual snowfall of about 80 inches. The greatest snow depth at any one time during the period of record was 51 inches. On the average, 127 days of the year have at least one inch of snow on the ground.

Topography

Most of the Township is nearly level or gently rolling with a general trend of higher elevations approximately 1,300 feet above sea level in the northern parts of the Township and gradually falling to 1,170 feet above sea level at southern border. Three prominent hills rise above the landscape in the northern areas. These detached swells or ridges are irregular in outline and have general east to west trends. The hills include Portage Lake Fire Tower 1,532 feet above sea level; Sewel Fire Tower at 1,493 feet above sea level and Cote Dame Marie Hills at 1,524 feet above sea level. It should be no surprise the State of Michigan located fire lookout towers on these hills.

Geology

The nearly level or gently rolling terrain, broken up by the three prominent hills and small stream valleys were created by glacial activity as the last continental glacier left the landscape some 12,000 years ago. Beneath a thick mantle of the glacial deposits lays a foundation of layered sedimentary bedrock. This section will describe the glacial landforms or quaternary geology and the underlying bedrock geology.

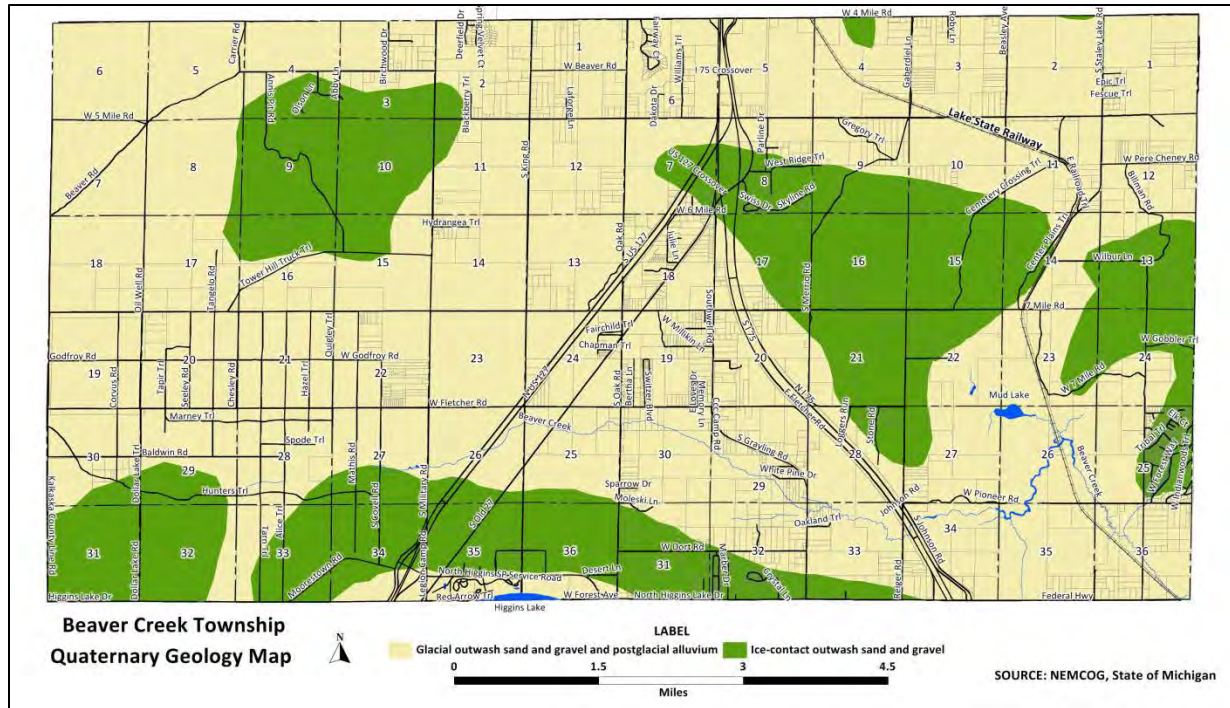
Starting some 2 million years ago, during the Pleistocene Epoch, continental glaciers formed in the Hudson Bay area. Several times, over this two million year period, massive sheets of ice built up and inched their way south across North America. Massive ice sheets more than one mile thick bulldozed their way across the landscape pushing material; incorporated rocks and soil into the debris laden ice and scraped ground and broke apart the sedimentary bedrock of the Michigan Basin.

Each advance and retreat of the continental glaciers took tens of thousands of years. This recurrent process shaped and reshaped the land; creating and then obliterating hills, valleys, plains, rivers and lakes. The last glacial episode, called the Wisconsin Glacial Episode lasted between 85,000 and 11,000 years before present. The glacier left behind boulders, rocks, cobble, sand, gravel, silt, clay and loam. In some areas the material was deposited in unsorted masses called till plains, ground moraines and end moraines. Water flowing from the melting glaciers also sorted materials, creating outwash channels, sand deltas, kames and eskers. Fine materials, captured in the fast moving glacial meltwater, settled to the bottom of expansive glacial lakes creating lacustrine clay and silt plains

Beaver Creek Township consists of nearly level to gently sloping sandy plain that is interrupted by a several high kame moraines. Much of the gently sloping plain is over washed with sand. The kame moraines are hills, irregular in outline and have general east to west orientation. Some of the higher elevations in the county are found on these moraines. See **Figure 4.2**. At the front of the massive retreating glaciers, large streams originated from the melting ice. The debris laden water carved through moraines creating wide drainage ways and outwash channels. The Au Sable River and Manistee River further to the north are located in the glacial drainage ways.

Beneath the glacial deposits, some 200 to 300 feet below the surface, is sedimentary bedrock that was created during the Late Mississippian Ages of the Paleozoic Era. The bedrock was formed in ancient seas, which covered the area some 310- 345 million years ago. The shallow marine seas deposited layers of silt, clay, sediments, marine animals, plants, coral and other calcareous materials. These deposits formed shale, sandstone and limestone bedrock.

According to the 1987 Bedrock Geology of Northern Michigan map, prepared by the Geological Survey Division of the Michigan Department of Environmental Quality, two main bedrock formations underlie Beaver Creek Township. The northwest part of the Township is underlain by bedrock of the Marshall Formation. This formation is composed of 50 to 100 feet of very fine to



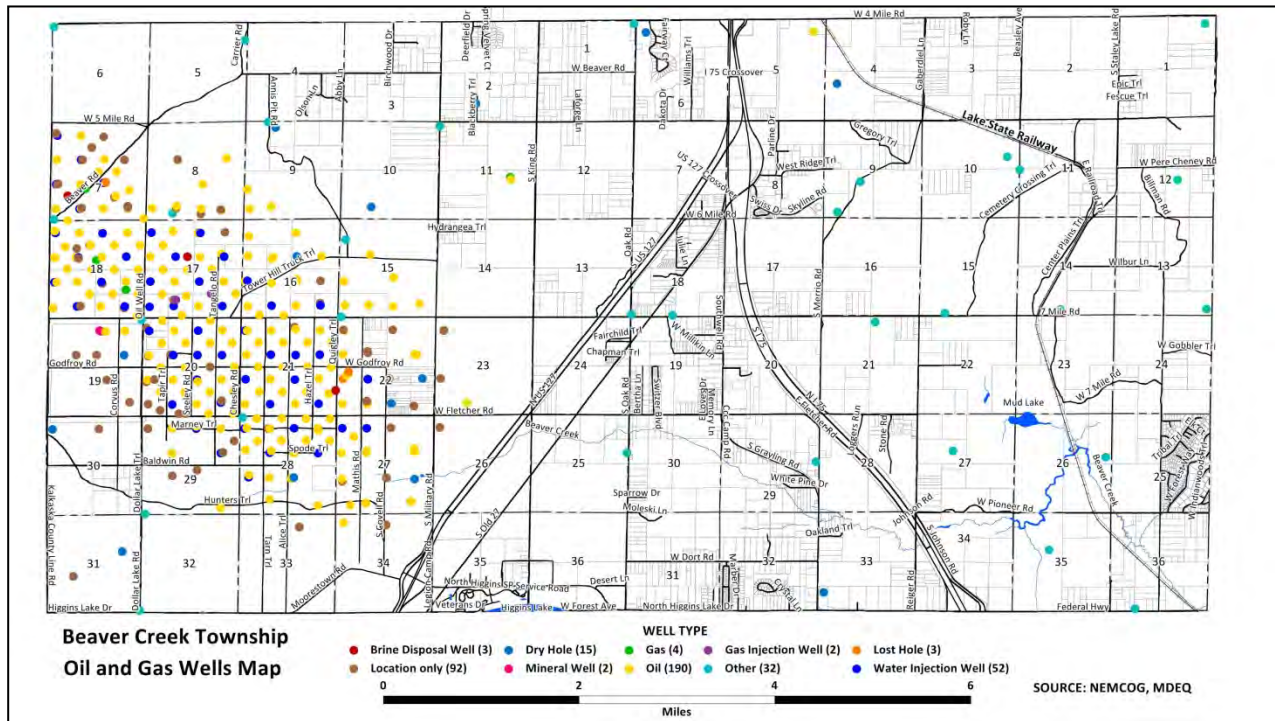


Figure 4.3 - Oil and Gas Wells Map, Beaver Creek Township

The Natural Resource Conservation Service completed a detailed soil survey of Crawford County. A digital or computerized version of the soil survey maps was acquired from the Michigan Center for Geographic Information and used to analyze soils conditions and generate color thematic soil maps.

Hydric Soils and Steeply Sloped Areas

Figure 4.4 is a color thematic map that classifies hydric soils and soil units with slopes 18% and greater. Lower density and less intensive development should be directed to these areas with severe building constraints. Hydric soils are saturated, flooded or ponded during part of the growing season and are classified as poorly drained and very poorly drained. Hydric soils have poor potential for building site development, sanitary facilities, forest management and will not support heavy equipment. Wetness and frequent ponding are severe problems that are difficult and costly to overcome. Sites with high water tables may be classified as wetlands and a wetlands permit would be required to develop these areas.

Hydric soils (colored green on the map) are mainly associated with Beaver Creek. Mud Lake, which is hydrologically connected to Beaver Creek, is centered within a large wetland complex that covers over 2 square miles. Note the green areas or hydric soils are drained by Beaver Creek that in turn empties into the Au Sable River. This connectivity of riparian wetlands and surface water features can be seen throughout the landscape.

Hills and steeply rolling terrain provide opportunities for spectacular views of the landscape. However, steeply sloped sites have severe building constraints and are more difficult and costly to develop. Maintenance costs tend to be higher on steeply sloped terrain. Special design standards such as erosion control measures, limiting size of disturbed areas, retaining natural vegetation, revegetation, slope stabilization and on-site retention of water run-off from impervious surfaces would all serve to minimize resource impacts. Additionally, steeply sloped areas influence fire behavior and are difficult to access when fighting wildfires. According to information presented in the Crawford County Soil Survey areas with slopes 18 percent and greater are associated with three prominent hills. Steeply sloped areas are depicted in red on **Figure 4.4**.

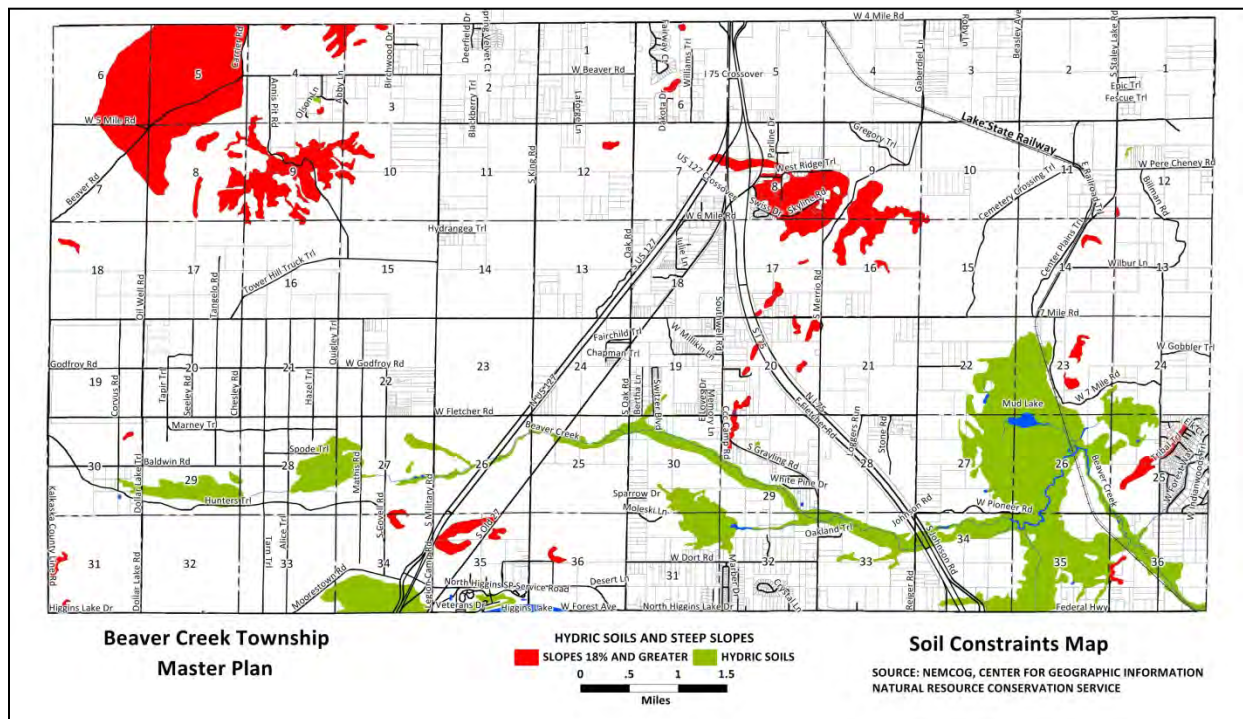


Figure 4.4 – Steep Slopes and Hydric Soils

Building Site Development

The USDA soil survey of Crawford County rates soils for various uses such as building site development and identifies the limiting factors such as steep slopes or high water table. The rating system is slight, moderate and severe limitations. Using the rating system developed by USDA, soil limitations for buildings without basements have been mapped and are displayed in **Figure 4.5**. Generally, areas with well drained soils and slopes less than 10 percent tend to have slight limitations for building development. Areas with steep slopes, high water tables and organic soils have severe limitations. As shown in **Figure 4.5** much of the Township has slight to moderate soil constraints for buildings without basements.

Septic Systems

Using a computer mapping system, soil maps have been color coded to show areas with slight to severe septic system limitations as defined by the USDA Natural Resource Conservation Service. Criteria include depth to water table, wetness, slopes, filtering capacity and ability to percolate water. **Figure 4.6** is a septic system limitations map. In contrast to the previous two soil constraints maps (Figures 4.4 and 4.5), much of the township is classified as having severe limitations. Clearly the greatest limiting factor is the prevalence of sandy soils with severe limitations due to poor filtration of septic effluents. This is a critical issue when the water table is close to the surface or when high density development occurs. Limiting types and density of development or making public water and sewer available for high density development are likely the best options for protecting the groundwater resources in these areas. Other severe limiting factors include steep slopes and areas of high water table.

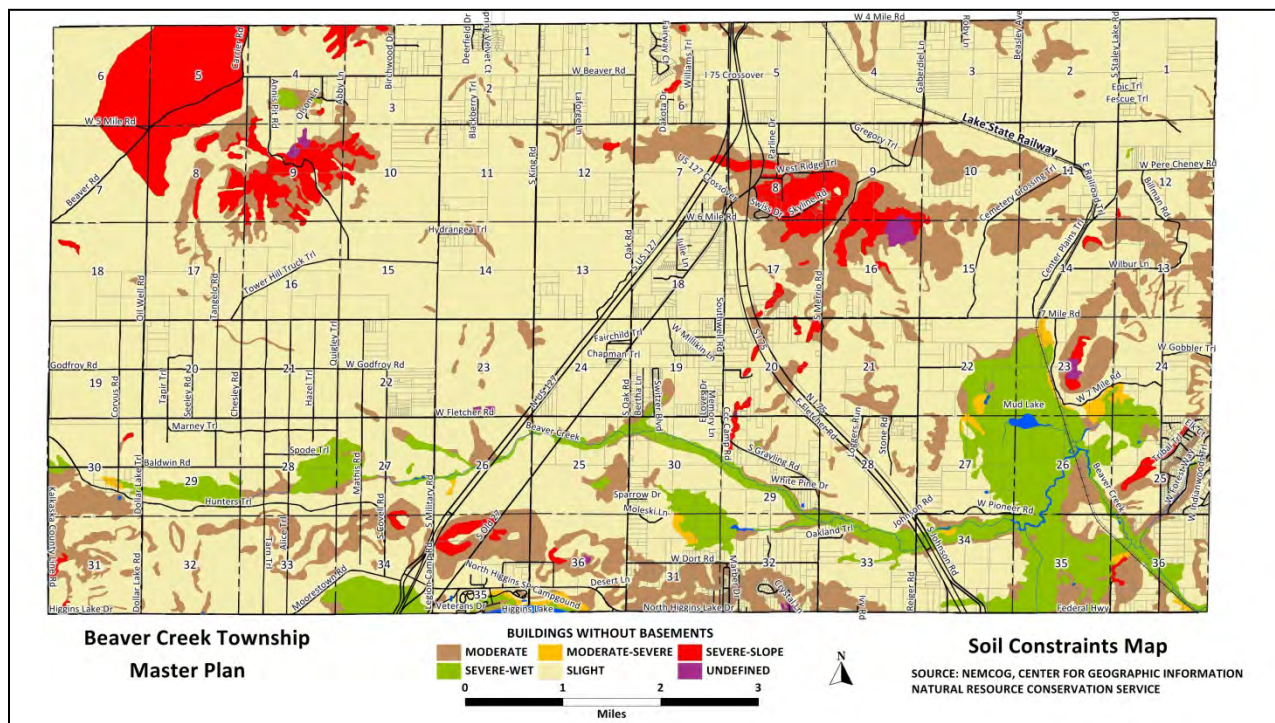


Figure 4.5 - Building Limitations

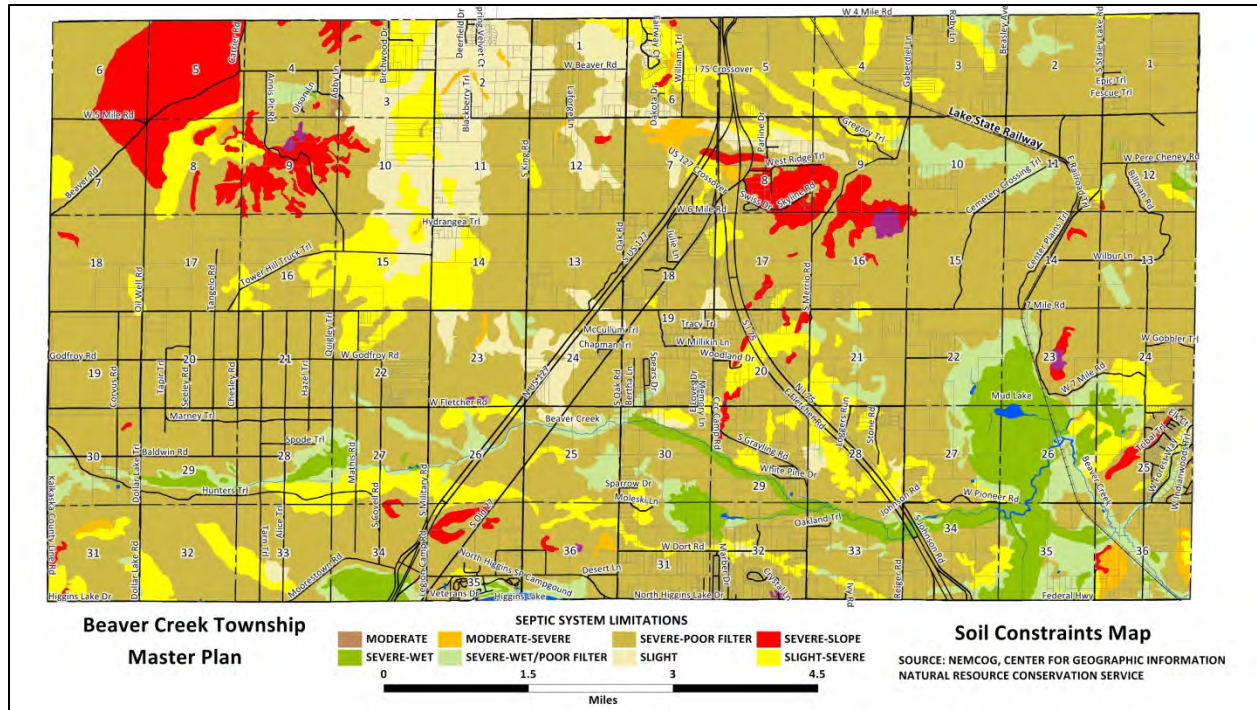


Figure 4.6 - Septic System Limitations

Water Resources

Water is an extremely important, yet finite, resource in Beaver Creek Township. Maintaining high quality groundwater and surface water is vital to the long term sustainability of the community. Residents of the Township must rely on individual wells for drinking water. Water features provide scenic values and recreational opportunities for residents and visitors. Water resources provide critical habitat components for a wide range of fish and wildlife species.

Groundwater

Two factors used to evaluate groundwater are the quantity and quality of the water. The thick mantle of glacial till contains vast underground aquifers that provide residents with sufficient water quantities. Water availability will not be a limiting factor in community growth. In general, Beaver Creek Township has good ground water quality.

The vulnerability of drinking water aquifers to surface contamination is high in the Township due to highly permeable soils. A review of the *Aquifer Vulnerability to Surface Contamination in Michigan Map* prepared by the Center for Remote Sensing and Department of Geography at Michigan State University shows the vulnerability classification as highly permeable soils over highly sensitive drift lithology. Therefore, in Beaver Creek Township, water quality is potentially more of a limiting factor than water supply. For example, the combination of highly permeable soils, shallow wells, on-site septic systems and dense residential development can result in high nitrate levels in drinking water.

Surface Water Resources

Beaver Creek Township is located within three watersheds. The Au Sable River Watershed covers 66.54 square miles. Higgins Lake/Muskegon River Watershed drains 4.8 square miles of the southwestern part of Beaver Creek Township. The Manistee River Watershed touches a small part (30 acres) of the northwest edge of the Township. Without question, the Au Sable River, its numerous tributaries and Higgins Lake are important to the local economy and community character. Compared to many townships in northeastern lower peninsula, surface water resources are quite limited in the Township.

Beaver Creek is a cold water fishery and a tributary of the South Branch of the Au Sable. The creek arises in Section 29 of T25N, R4W; flows easterly traversing the Township; and exits the Township in Section 36 of T25N, R3W along the Lake State Railroad tracks. Beaver Creek from its source (T25N, R4W) to its confluence with the Au Sable River is a designated wild-scenic stream under authority of Part 305, P.A. 451 of 1994. Approximately 4,600 feet of the northern shore of Higgins Lake is located along the southern edge of Beaver Creek Township. The shoreline is publicly owned; North Higgins Lake State Park and the Ralph A. MacMullan Conference Center are located along the waterfront. Mud Lake is a shallow, mucky bottomed lake centered in a large wetland complex. Given it is surrounded by emergent and shrub-scrub wetlands; there is no vehicle or hiking access to the lake.

Forests and Wetlands

Approximately 77 percent of the Township is covered with upland and lowland forests. Tree species vary depending upon the soils, moisture and past activities such as logging, fires and land clearing. For example, areas with sandy soils and a history of wildfires support dense stands of jack pine, which is critical habitat for the Kirtland's warbler, also known as the jack pine warbler. Pine and oak forests are the more common forest communities found in Beaver Creek Township. According to the Michigan Resource Inventory System (MIRIS) Land Cover/Use Update, pine forests (jack, red and white pine) account for approximately 48 percent of the forest cover; while 26 percent of the forest is central hardwoods (oak). **Figure 4.7** is a generalized forest type map of the Beaver Creek Township based on the MIRIS data generated in the early 1980s. NEMCOG updated the original MIRIS digital map file using current digital aerial photos as part of the Existing Land Cover/Use analysis in Chapter 5. Spot field checking was used to verify urban built-up land uses. Project scope did not allow for intensive field checking typically required for detailed forest cover type mapping. However, the generalized forest cover map is more than adequate for community level planning but should not be used for site specific forest planning.

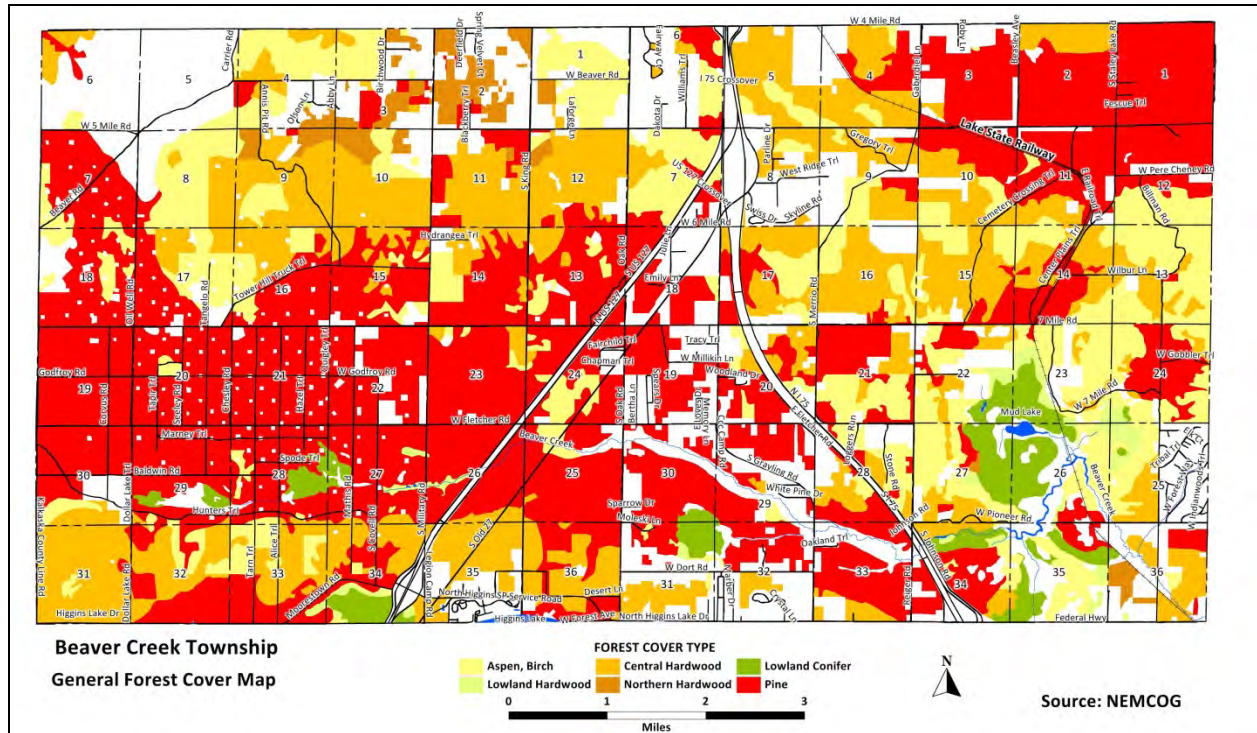


Figure 4.7 - General Forest Types Map

Forest fires have been identified as the number one natural hazard in the Crawford County Hazard Mitigation Plan. During dry spring conditions forest fires can occur in any forests type. However some forest types have higher risks. Jack pine and red pine forests have a high risk for wildfires. Oak and white pine forests have a moderate risk for wildfires. Draughty, low fertility sandy soils, found in outwash plains and channels, supported pre-settlement pine forests that for thousands of years were perpetuated by wildfires. According to the pre-settlement vegetation map of Crawford County, pine forests covered 51 percent of the land area in Beaver Creek Township. Logging, wildfires and land clearing converted some of these areas to forests dominated by oak and aspen-birch forests. Today, residential development has occurred within these same wildfire prone areas. A community-wide FireWise Program will lessen the risk for loss of property and life.

Figure 4.8 is a color thematic map prepared from the US Fish and Wildlife Service. The National Wetlands Inventory depicts emergent, forested and scrub-shrub wetland areas. Wetlands are concentrated along Beaver Creek and in the large Mud Lake wetland complex. The land cover/use inventory in Chapter 5; the hydric soils analysis on page 4-5 and the National Wetlands Inventory all show that forested and nonforested wetlands are a finite resource in the township. Land use planning activities should focus on protecting and preserving these limited and critical resources.

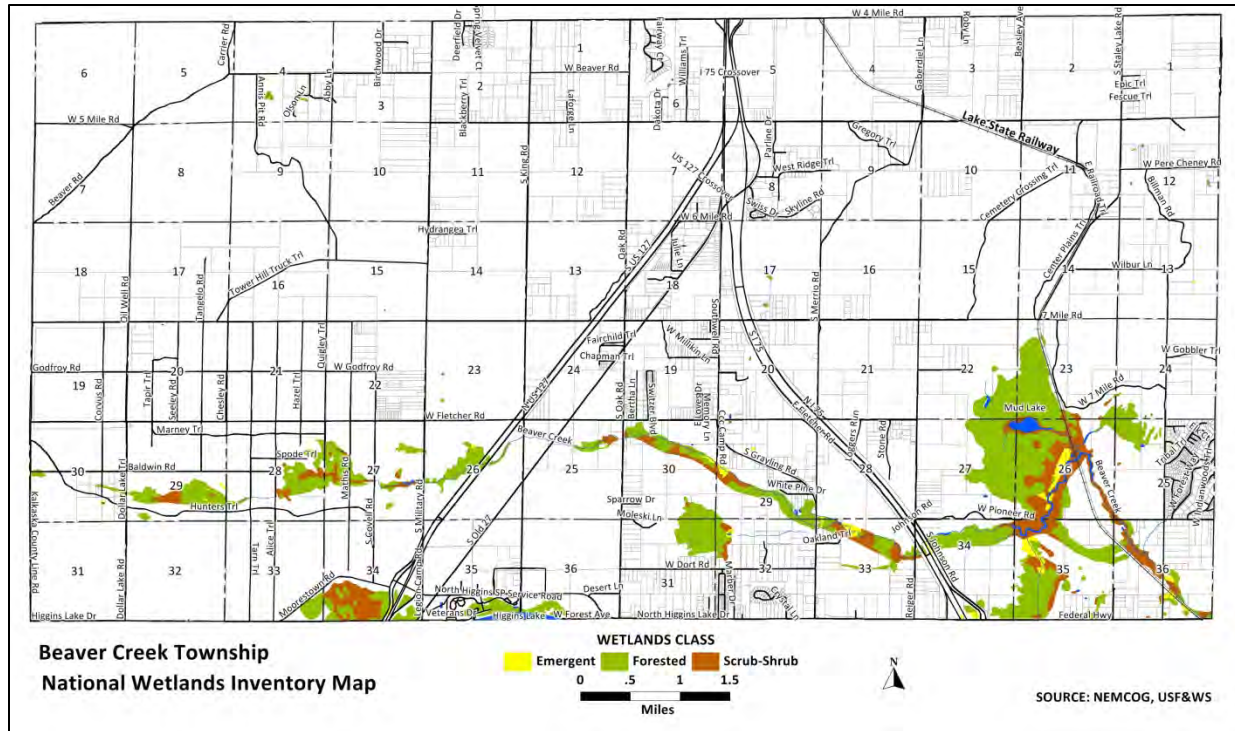


Figure 4.8 - National Wetlands Inventory Map

Poorly drained, lowland areas support northern white cedar, tamarack, balsam fir, black spruce, eastern hemlock, white pine, balsam poplar, aspen, paper birch, black ash, speckled alder and shrub willows. Northern white cedar dominates the wetland areas where there is good lateral water movement and the soils are high in organic content. Lowland forests are typically located adjacent to water features and function as water quality buffers. The network of lowland forests, associated with rivers and creeks, also function as wildlife corridors and are the backbone of large regional ecological corridors.

Cover Type Map circa 1800

The Michigan Department of Natural Resources and Michigan Natural Features Inventory have compiled circa 1800 cover type maps of counties in Michigan. The maps were generated from information contained in the first Government Land Office (GLO) survey notes in the early to mid-1800s along with information such as current vegetation, land forms and soils. A review of the pre-settlement vegetation map of Beaver Creek Township, **Figure 4.9**, shows large areas of pine-oak barrens perpetuated by frequent wildfires. This clearly shows a long history of wildfires prior to any logging and forest management activities. The map also shows jack pine-red pine forests, white pine-red pine forests and pine-oak forests were common. In the late 1800s extensive logging and subsequent wildfires altered the forest make-up. For example, aspen-birch forests became much more common and pine-mixed hardwoods forests transitioned to predominately oak forests. Northern hardwood forests (maple, beech, basswood) were found in the northwestern part of the Township. Northern hardwood forests grow in the same areas today, however, because of logging activities the acreage of aspen forests has expanded.

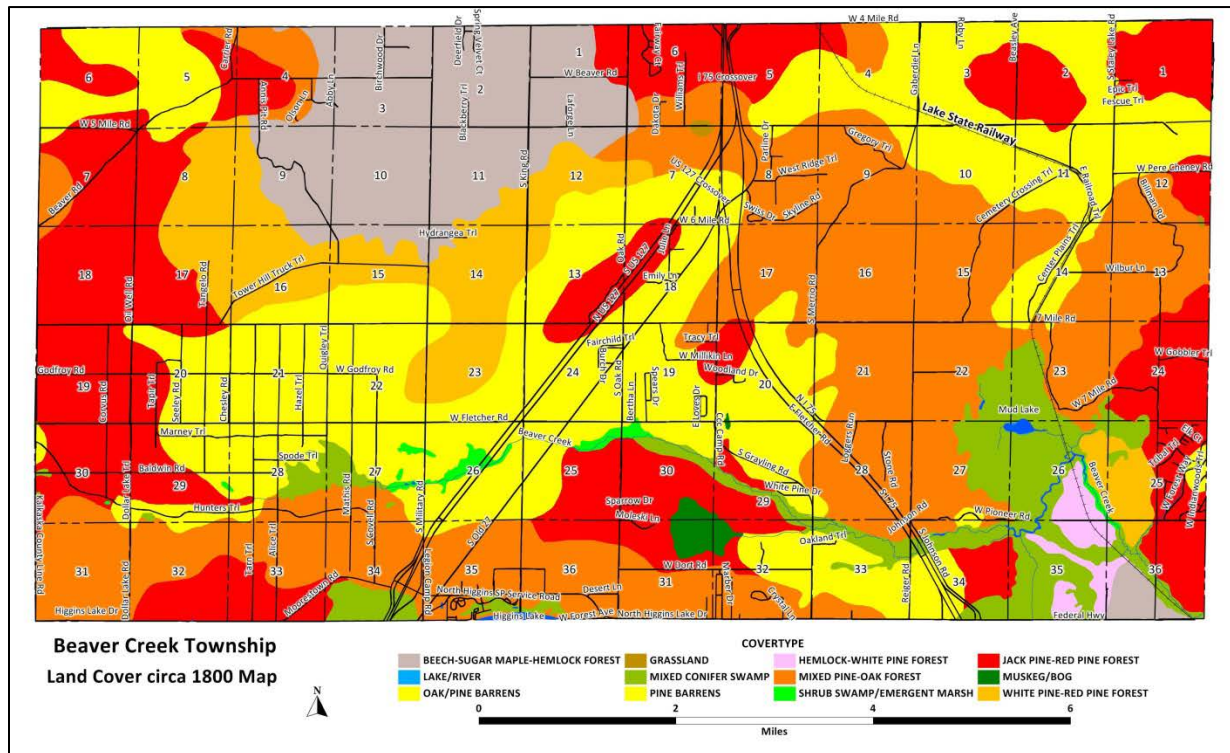


Figure 4.9 – Land Cover circa 1800 Map

Figure 4.10 shows historical vegetation and interpolated fire observations from General Land Office Survey Notes. Note large areas in Beaver Creek Township that were identified as having recently burned when the land was surveyed in the mid-1800s; again supporting that wildfires and jack pine forests have long been a part of the landscape in this region. Today, the community safety concern is where residential development has occurred within these historic fire-prone areas.

Wildlife Habitat

Within the Township, there are a variety of wildlife habitats, ranging from upland forests to flowing cold water bordered by marshes, lowland brush and floodplain forests. The significance of these resources extends beyond Beaver Creek Township. The predominance of upland pine and hardwood forests provide extensive natural areas for wildlife. Habitat for wildlife requiring wetlands such as marshes and cedar swamps is limited. Additionally, natural openings or pine barrens, once more common during pre-settlement times, are limited in today's landscape. Land use planning should consider protecting these finite resources. Riparian forests adjacent to Beaver Creek provide critical habitat for many species of wildlife and reptiles. Conifers provide important winter (thermal) cover for wildlife, particularly, when located next to winter food sources.

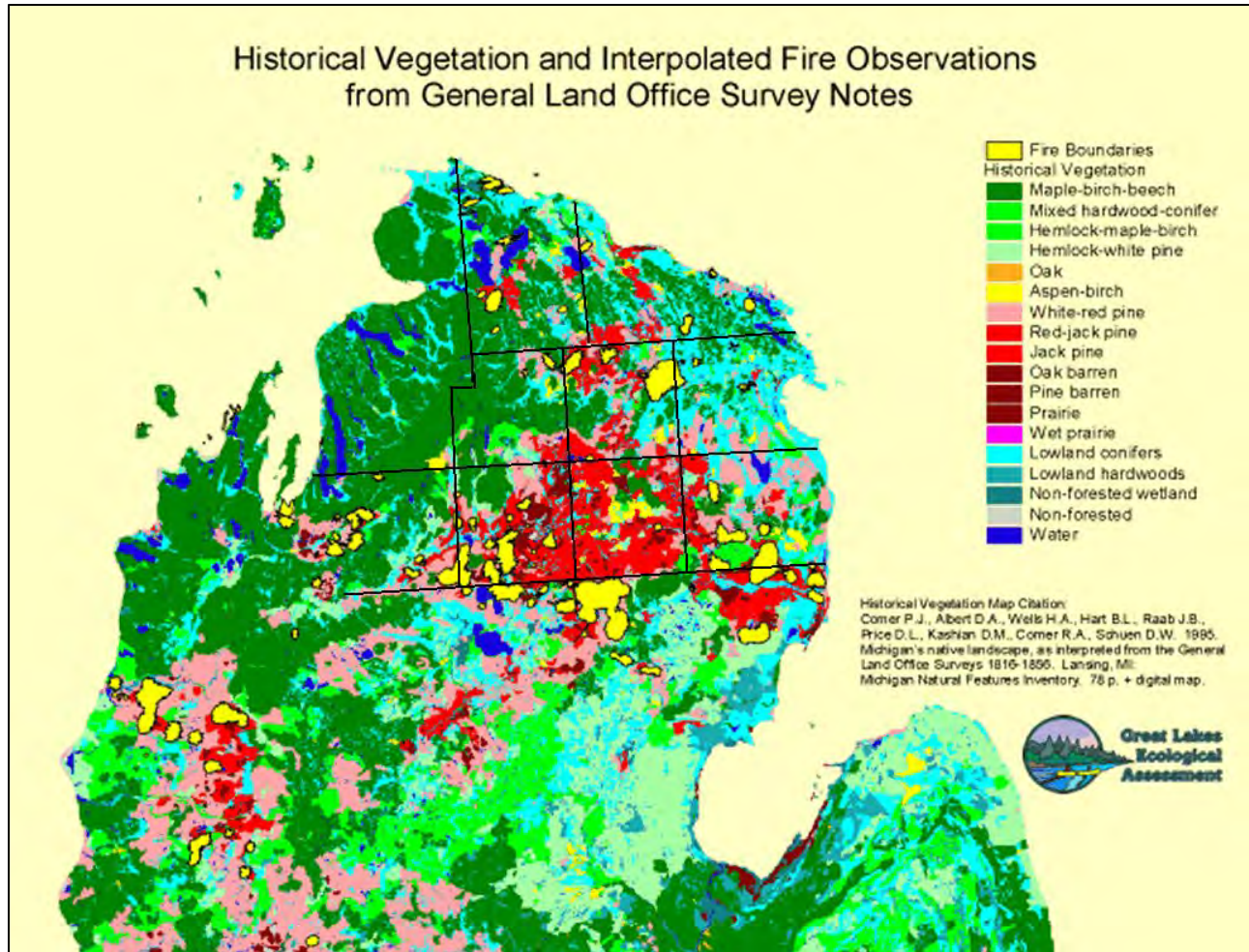


Figure 4.10 – Historical Vegetation and Interpolated Fires Map

The Kirtland's warbler is a rare and endangered songbird that resides in a very limited area of the State. Its summer/nesting range includes ten counties in the northern lower peninsula and four counties in the upper peninsula. Alcona, Crawford, Oscoda and Ogemaw Counties have the highest number of Kirtland's warblers.

Ecological Corridors

Prior to logging and land clearing during the late 1800s, this area was covered with pine and hardwood forests. The pre-settlement forests were rich ecosystems that stretched across the northern Lower Peninsula of Michigan. The backbones of these ecological corridors were the many rivers, creeks and intermittent drainages, along with their associated wetlands and riparian forests. Beaver Creek is a key ecological corridor. Associated wetlands and riparian forests are a link in a long green chain or ecological corridor that connects Beaver Creek with larger network of ecological corridors consisting of the creeks, streams, wetlands and upland forests within the Au Sable River Watershed. This network, in turn, is connected to larger networks in the Lake Huron Watershed. Ecological corridors or "green infrastructure," can be likened to a highway system. All segments of the highway must be connected and in working order for the highway system to properly function. If segments are degraded or missing then the highway will not function to its

fullest potential. The same holds true for ecological corridors, when segments are degraded or fragmented, the system will not function properly. In other words, activities on a given piece of property can have implications that reach far beyond the ownership boundaries.

Sites of Environmental Contamination

The Michigan Environmental Response Act (Part 201 of PA 451 of 1994, as amended) provides for the identification, evaluation and risk assessment of sites of environmental contamination in the State. The Environmental Response Division (ERD) is charged with administering this law. A site of environmental contamination, as identified by ERD, as “a location at which contamination of soil, ground water, 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 database has information for sites of environmental contamination (Part 201), Leaking Underground Storage Tanks (Part 213) and Baseline Environmental Assessments (BEAs). The BEA is completed when a property is purchased, leased or foreclosed on for the purposes of documenting contamination and protecting from liability for cleanup of existing contamination on the property.

A search of the database found one site of environmental contamination (Part 201) located on West 7 Mile Road in Section 20 of T25N, R4W. The source is listed as pumps and pumping equipment and the contaminant is BTEX (benzene, toluene, ethylbenzene and xylene).

Chapter 5: Existing Land Cover/Use

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

General Land Division Patterns

As development occurs, larger tracts of land are subdivided into smaller parcels. Therefore, studying the existing pattern of land divisions is one way to analyze the status of land use and development. Thirty-one percent of the Township's land base is under private ownership. Blocks of private lands are intermixed with public lands forming a patchwork of ownerships. Residential development is located on small and large tracts and within several subdivisions. **Figure 5.1** is a color thematic map showing private ownership grouped into three size classes of parcels: less than 5 acres, 5 to 10 acres, greater than 10 acres. As can be seen on the parcel size map, small tracts and subdivisions are generally located along county primary and paved local roads; proximity to highways and water features are significant factors.

Land Cover/Use

The existing land cover/use was mapped in 2017. The map, shown as **Figure 5.2**, illustrates the distribution of land cover/uses throughout the Township. Michigan Resource Information Systems (MIRIS) land cover/use classification categories were used to develop the map. The map represents an update of the 1978 MIRIS land cover/use map, using digital aerial photos from 1998, 2012 and 2014. Updated information was computerized to produce the existing land cover/use map and statistics. Ancillary digital map data including parcels, soils, national wetlands inventory and gas wells were used to refine the update. Limited field checking and Planning Commission review help to refine the map. **Table 5.1** presents the land uses, showing the number of acres and percent of the Township in each of the land use categories. Each of the land use categories is discussed later in this chapter.

Residential

As can be seen in **Figure 5.1 - Existing Land Cover/Use Map** and **Table 5.1**, residential use ranks second in the amount of land under a particular land use. Residential use occupies approximately nine percent (4,135 acres) of the land in the Township. According to the Crawford County Equalization records there are 14 subdivision plats in the Township. While most of the subdivisions have less than 40 lots, Indian Glens of the Au Sable (No. 5 & 6) have a combined 321 lots. Residential development is concentrated along county primary and paved local roads, with highway interchanges and water features also being factors. Single family residential accounts for all of the residential development in the Township.

Table 5.1 Existing Land Cover/Use Statistics Beaver Creek Township		
Land Use Category	Number of Acres	Percent of Township
Residential	4,135	9.1%
Commercial	66	0.1%
Industrial/Extractive/Transportation	1,814	4.0%
Institutional/Recreational	2,008	4.4%
Agricultural	464	1.0%
Non-forested Uplands	1,210	2.6%
Upland Forests	33,458	73.2%
Lowland Forests	1,567	3.4%
Non-Forest Wetlands	910	2.0%
Water	53	0.1%
TOTAL	45,686	100.0%
Source: NEMCOG		

Commercial

Lands used for commercial purposes account for 66 acres or 0.1 percent of the Township's area.

Industrial/Extractive/Utilities

Land in this use category covers nearly four percent or 1,814 acres of the Township. This category includes industries along West 4 Mile Road, several sand and gravel pits, oil and gas wells and processing facilities, the septage treatment facility associated with North Higgins Lake State Park and US-127 and I-75 corridors. The oil and gas wells are numerous and are primarily located in the western half of the Township.

Institutional/Recreational

This category accounts for 2,008 acres or 4.4 percent of the Township; it includes parks, cemeteries, campgrounds, golf courses, community facilities and the military range. The military range is used for training exercises with explosive ordnance and therefore off limits to non-military personnel. The area is managed in a non-forest condition due to potential wildfires and essentially creates a large 1,480 acre wildlife opening. As noted earlier, some 68 percent of Beaver Creek Township area is in public ownership. While these areas were not classified as recreational, the considerable amount of public land does offer residents and visitors ample area for a wide range of outdoor recreational activities.

Agricultural

Due to the sandy, droughty soils, agricultural uses were historically very limited in the Township. The limited agricultural base has diminished in the past several decades to about 464 acres or is approximately one percent of the Township.

Non-Forested Uplands

The non-forested category is the third most prominent land cover type in the Township. As shown in **Table 5.1** there are 1,210 acres or 2.6 percent of the Township classified as non-forested. Herbaceous plants and shrubs are typically found on growing in the old farm fields and forest openings. Information sources on pre-settlement vegetation types show non-forest openings were more prevalent 200 or more years ago. The cover type map circa 1800 (Figure 4.8) shows large areas in grassland, pine barrens and pine/oak barrens. These open cover types were created and perpetuated by frequent wildfires.

Upland Forests

The upland forested lands are the most predominant land cover in the Township and accounts for over 73 percent or 33,458 acres of the Township. Of the forested lands, the most prevalent forest type is pine, representing over 50 percent of the upland forest category. Jack, red and white pine trees are found in the pine forest category. Droughty, low fertility sandy soils in the Township supported pre-settlement jack pine forests that were perpetuated by wildfires. Today, the forest type is perpetuated by management activities of the U.S. Forest Service and Michigan Department of Natural Resources. Other forest types include aspen-birch, oak and northern hardwoods. More information on these forest types can be found in Chapter 4.

Lowland Forests and Wetlands

Wetlands are defined as land that has sufficient water at, or near, the surface to support wetland or aquatic vegetation. These areas are commonly referred to as swamps, fens, marshes and bogs. Two of the most important functions of wetlands are water quality protection and ecological corridors. As can be noted on the Existing Land Cover/Use Map, the major wetland areas are adjacent to rivers and creeks. The network of wetlands receives surface water and subsurface water discharge, creating the many streams and creeks which, in turn, flow into the area lakes. The interconnected resources exemplify how activities distant from major water bodies can still have an impact on the water quality.

The wetland category comprises Non-Forested types such as lowland brush (tag alder and willow), sphagnum bogs, emergent vegetation in lakes and beaver floodings and wet meadows. Non-Forested wetlands are concentrated along Beaver Creek and Mud Lake. Non-Forested wetlands account for 910 acres or 2.0 percent of the Township.

Lowland forests grow in soils with a seasonally high water table and are often classified as wetlands. Lowland forests, include areas that support lowland hardwoods and conifers, such as northern white cedar, black spruce, balsam fir, elm, black ash, red maple, ash and aspen species. Lowland forests occupy 1,567 acres or 3.4 percent of the Township area. Forested wetlands are primarily associated with Beaver Creek and Mud Lake.

Surface Water

Open water comprises less than 0.1 percent of Beaver Creek Township. Mud Lake and a small part of Higgins Lake are located within the Township.

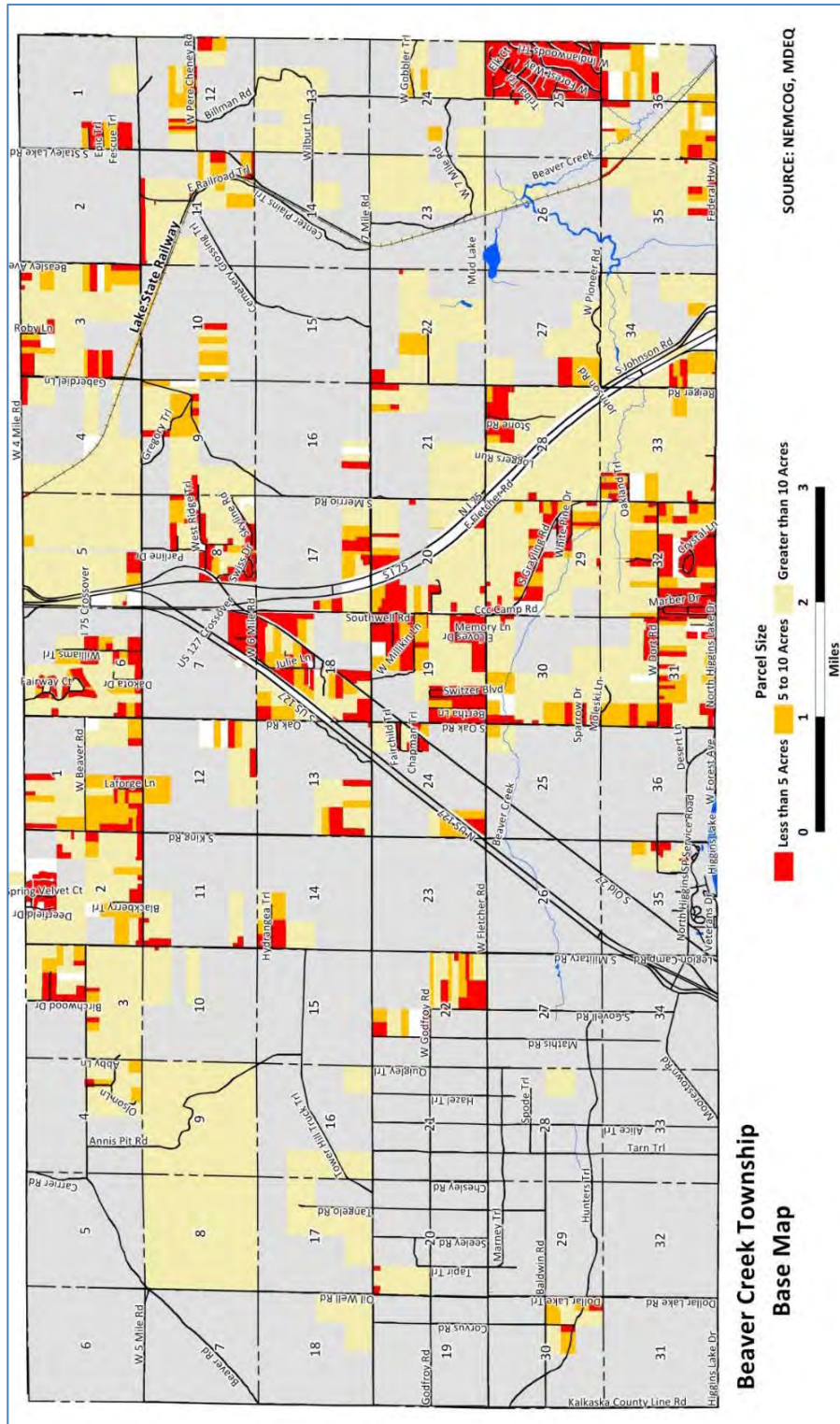
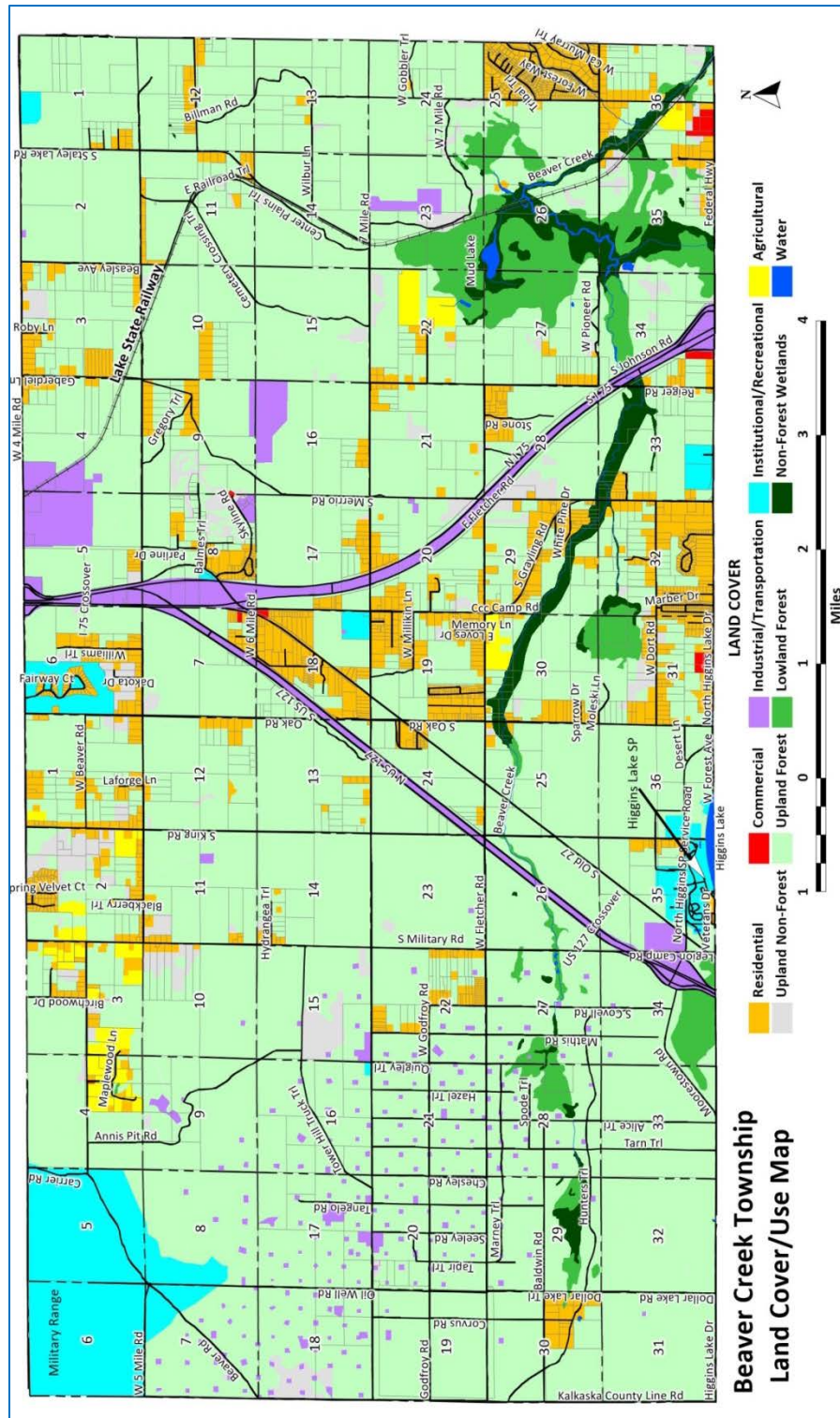


Figure 5.1 - Beaver Creek Township Parcel Size Map



Chapter 6: Community Goals and Objectives

The purpose of this chapter is to establish goals and objectives to guide future development within the Township. Citizen participation and input was an important component in developing these goals and objectives. Community input, combined with the data compiled in the earlier chapters, has identified areas suited for preferred growth along with important resource areas. By encouraging new development to conform to community-based standards and guidelines, the rural character and the natural resources of the Township can be preserved to the fullest extent possible.

In developing community goals and objectives, it is important to analyze existing community characteristics, such as social and economic features, environmental conditions, services, 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 and problem areas.

Public Input

The Township held a workshop on May 1, 2018 to gather input for establishing long and short-term community goals and objectives. Twenty-eight people attended and participated in the workshop. A short presentation by NEMCOG provided information on demographic trends and an overview of the planning process. Next, the attendees were asked to share their thoughts on the following two questions: *“What makes our community a great place to live and work?”* and *“What can the Township do to make the community an even better place to live?”* Summary of comments are listed at the end of chapter.

Goals and Objectives

QUALITY OF LIFE

Goal: Maintain and enhance the overall quality of life in Beaver Creek Township.

Objectives:

1. *Strive to balance future growth and development in the Township while maintaining its rural and “up north” character.*
2. *Encourage public feedback regarding ongoing efforts to improve the Township’s quality of life.*
3. *Promote the quality of life in Beaver Creek Township in order to attract new families to the Township.*
4. *Coordinate with Crawford County Sheriff Department and Michigan State Police to provide adequate township-wide police protection.*
5. *Develop public services and facilities to create an attractive environment for active families and retirees.*

6. *Work with County officials and local residents to improve and expand programs and access to programs for senior citizens.*
7. *Utilize the Beaver Creek Community Center for activities that cater to the older segment of the Beaver Creek Township population.*

COMMUNITY CHARACTER

Goal: Maintain and enhance the appearance and character of Beaver Creek Township.

Objectives:

1. *Preserve the integrity of existing neighborhoods and residential areas by protecting them from the intrusion of incompatible uses.*
2. *Protect and preserve local history of areas such as the Historic Pere Cheney Cemetery and the farming community of Wellington.*
3. *Enhance community gateways through the implementation of land use controls, landscaping, screening and wayfinding.*
4. *Encourage the maintenance and upgrade of private businesses and residences.*
5. *Enforce the Township Blight Ordinance in a fair and consistent manner.*

PLANNING AND COMMUNITY DEVELOPMENT

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

Objectives:

1. *Enforce all ordinances in a consistent and fair manner.*
2. *Control the location of new development by designating appropriate areas for new residential, commercial, industrial and resort/recreational land uses.*
3. *Implement landscape requirements for new development, such as appropriate setbacks, retention of green space, buffer zones between differing land uses, screened parking areas and roadside landscaping.*
4. *Increase safety and reduce the visual impact of on-site and off-site signs and billboards, by controlling their size, number, illumination and configuration.*
5. *Provide regulations and standards to protect the community against high noise levels and exterior lighting glare.*
6. *Provide standards that regulate the placement and size of cellular towers, communication towers, transmission towers and wind turbine generators.*
7. *Provide waterfront regulations that have consistent special requirements and standards for development along waterfronts.*
8. *Use FireWise strategies for new subdivisions, condominium developments and multi-family residential complexes and any development requiring site plan review.*
9. *Collaborate with other communities, Crawford County and State & Federal agencies to implement a community FireWise Community Program within developed areas prone to wildfires.*

10. *Periodically review blight ordinance and consistently enforce to work towards improving the quality of housing and protecting property values.*
11. *Enforce the blight and nuisance ordinances by issuing Civil Infractions.*
12. *Develop adequate water, sewer and gas utilities to service industry and commerce.*
13. *Work to encourage commercial and industrial development east of I-75 along the W. Four Mile Road corridor and south along Old US-27.*

RESIDENTIAL LAND USES

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

Objectives:

1. *Designate areas appropriate for all types of residential development including single family, multi-family, elderly housing, condominium, low to moderate income housing and extended care facilities.*
2. *New residential development should be constructed in a manner that protects the rural and “up north” character and scenic views by maintaining proper setbacks and providing landscaping screening as appropriate.*
3. *Require adequate buffers and transition areas between residential and non-residential uses to maintain property values and visual attractiveness.*
4. *Encourage existing housing stock and neighborhoods to be kept in good repair, appearance, usefulness and safety.*
5. *Preserve the integrity of existing residential neighborhoods by protecting them from intrusion of incompatible uses.*
6. *To preserve open space and vital natural resources, provide the development option of clustered housing in buildable portions of the Township.*
7. *Allow modular/factory built dwelling units that will contribute to overall housing quality by implementing adequate standards.*
8. *Encourage the construction of homes at a reasonable minimum square footage to contribute to the quality of the Township's housing stock, while promoting affordable housing.*
9. *Establish design review standards by ordinance for residential subdivision and multiple-family development.*

COMMERCIAL AREAS AND ACTIVITIES

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

Objectives:

1. *Make parking (public and private) needs a consideration for all expansions and new development.*
2. *Require landscape buffers where commercial uses are adjacent to residential land uses.*
3. *Work with existing businesses and attract new commercial enterprises.*

4. *Regulate home occupations and home based businesses to assure compatibility with existing residential areas.*
5. *Work with Roscommon County to the south to establish commercial development at the exits along US-27 and I-75.*

INDUSTRIAL LAND USES

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

Objectives:

1. *Ensure that industrial uses are developed in an environmentally sensitive manner, are harmonious with the existing community and are located near access to state trunk lines.*
2. *Work with the City of Grayling and Grayling Charter Township to coordinate industrial development north and south of W. Four Mile Road east of I-75.*
3. *Encourage light industries and high tech industries that do not pollute the air, soil, or water; nor offend because of noise, odor, or visual impact, in industrial zoned areas within the Township. Due to the lack of public water and sewer, these industries should not require high water usage or generate large amounts of septage.*
4. *Require landscape buffers where industrial uses are adjacent to other land uses.*
5. *Develop guidelines to ensure that extractive development takes place in an environmentally sensitive manner.*
6. *Require landscape buffers around extractive uses to screen adjacent properties and public roadways.*
7. *Establish criteria and require reclamation extractive areas after the operation is complete.*

INFRASTRUCTURE AND COMMUNITY FACILITIES

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

Objectives:

1. *Develop a Capital Improvements Plan to address the long term needs for road improvements, Township Hall maintenance, fire protection, emergency services, trails and community recreation.*
2. *Continue to maintain and upgrade Township Hall and Fire Station. Investigate outside funding sources such as grants, donations, low interest loans and foundations.*
3. *Provide public sewer and water service to the northern most portion of the Township to accommodate residential, industrial and commercial development. Expand these services to the southward as they are needed over time in the triangle area west of I-75.*
4. *Orient public facilities to accommodate and serve retired residents.*
5. *Seek grants through federal, state and other funding sources for infrastructure improvements, community facility improvements and economic development projects.*
6. *Improve existing Township roads in a cost-effective manner.*

7. *Improve communication with the Crawford County Road Commission to better work toward maintaining the crumbling primary and local road system.*
8. *Work with MDOT and the County Road Commission to address vehicular and pedestrian safety at major intersections and on roadways.*
9. *Consider standards for private roads and shared road access.*
10. *Explore options for funding road maintenance, such as special assessments, use of state and federal road improvement funds and a Township-wide millage.*
11. *Promote the policy that, once a specified development density along an unpaved road is reached, that road will be paved with an available source of funding.*
12. *Expand the Township's road system to allow for easy access to existing residential areas, accommodating future residential and commercial development.*
13. *Conduct a survey of local road conditions and, based upon the future land use plan, identify necessary future road system expansion and improvement needs.*
14. *Consider adopting and implementing a Local Development Finance Authority (LDFA) with tax increment finance when appropriate in business and industrial areas to provide needed public facilities and utilities, including access roads.*
15. *Promote, maintain and expand recreational trails by working with Crawford County Road Commission, MDNR, MDOT and user groups to connect community assets and connect with regional trail systems.*
16. *In 2005, the Township passed a Resolution adopting a Final Project Plan for a waste water collection and treatment system for Camp Curnalia Area of Higgins Lake. Lyon and Beaver Creek Townships formed an authority to oversee the operation of the system. The treatment facility has additional capacity and is currently underutilized. Investigate expanding the service area to include adjacent sites such as the RAM Center and North Higgins Lake State Park.*

RECREATION AND PUBLIC LANDS

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

Objectives:

1. *Continue implementation of the Beaver Creek Township Recreation Plan.*
2. *Maintain an inventory and analysis of existing recreational areas in the Township.*
3. *Pursue grants and outside funding sources such as Michigan Natural Resources Trust Fund for community parks, land acquisition and recreational development.*
4. *Connect parks, community centers and residential areas with non-motorized trails.*
5. *Work with the regional, state and federal agencies to create and expand recreation trails.*
6. *Through zoning and review procedures, proposed subdivisions, site condominiums, planned unit developments, commercial and industrial developments should be encouraged to provide or participate in the development of neighborhood parks.*
7. *Encourage creative design and planning techniques such as PUDs, clustering and conservation easements, for all new development so as to maintain open space and scenic vistas.*

8. *Maintain communication with the Department of Natural Resources to provide input into the usage and management of the public lands within the Township.*

GOVERNMENT

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

Objectives:

1. *Ensure a responsible fiscal policy and budget process to finance the Township government.*
2. *Seek the involvement of volunteers in the government process.*
3. *Investigate ways to generate economies of scale and cost savings through collaboration and coordination with other local units of government.*
4. *Support intergovernmental and regional cooperation on issues of mutual concern.*
5. *Continue to work with Crawford County to provide emergency services and police services to Township residents.*
6. *Continue to participate in local meetings of the Michigan Township Association.*
7. *The Planning Commission will work with the Township Board:*
 - a. *to deliver township planning and zoning services in a wise and efficient manner.*
 - b. *on planning for future issues impacting Beaver Creek Township.*
 - c. *to ensure continued funding and support for the Beaver Creek Township Planning Commission.*
8. *Focus on cross-jurisdictional issues when reviewing community master plans and zoning ordinances.*
9. *Continue to use and update the Township's website to provide access to township government activities. This includes posting plans, ordinances, required forms and permits and publishing Planning Commission and Township Board meeting agendas, notices and minutes electronically.*
10. *Continue the semi-annual newsletter that is mailed out with taxes informing residents of activities, programs and events that have occurred or are proposed to occur within the Township.*
11. *Encourage public feedback from a wider array of Township residents, including youth, young families, seniors and seasonal residents.*
12. *Establish annual survey of residents to keep abreast of problems, concerns and suggestions associated with Township programs and management. Due to the high percentage of seasonal and non-residential landowners use mailed or web based surveys to solicit community input.*

ECONOMIC DEVELOPMENT

Goal: Provide for economic growth that creates a diversified economic base and improves the competitiveness of the county's economy by enhancing employment opportunities for residents and the profitability of businesses and industries, while maintaining the community character and environment.

Objectives:

1. *Strive to balance economic development with the rural and “up north” character of the Township.*
2. *Work toward an expanding employment base in the area to retain younger workers in the Township.*
3. *Encourage a diverse mix of new businesses.*
4. *Work with Crawford County to develop incentives to attract new small businesses and industry into the Beaver Creek Township area as well as to assist existing businesses in operating and expansion programs.*
5. *Work with county and regional organizations to develop strategies for marketing the area as a tourism destination with recreational, cultural, historic and natural resource components.*
6. *Support the expansion of high-speed internet service in the Township.*
7. *Encourage the expansion of the infrastructure required to make the Township attractive to commercial, industrial and home-based business.*
8. *Use reasonable land use and development regulations and assist in the expansion of infrastructure necessary to support economic development in a planned and managed way.*
9. *Support and cooperate with regional economic development organizations to explore ways that help promote and develop all of Northern Michigan.*

Overall Resource Conservation Goal

Goal: The overall goal of Resource Conservation is to preserve and maintain the ecological, visual, forest, wetland and scenic resources of the Township, preserve the environment and maintain and enhance the overall quality of life for Township residents.

COLLABORATION

Goal: Use a collaborative approach to protecting and managing natural systems by forming partnerships with local, regional, state and federal agencies, adjacent units of governments, county government and resource organizations.

Objectives:

1. *Encourage local organizations, businesses, government agencies, educators and private citizens to become active participants in natural resource protection in the community through voluntary conservation programming.*
2. *Invite guest speakers (DNR, Cooperative Extension, US Fish and Wildlife Service, NOAA, Natural Resource Conservation Service, Crawford Conservation District, Northeast Michigan Council of Governments, Huron Pines RC&D Council, Audubon, Chamber of Commerce, etc.) to lecture or hold discussions on all aspects of the natural environment.*

FARM LAND AND FOREST LAND

Goal: Support the retention of the community's forestry and agricultural land bases and insure they are a component of the economic diversity of the Township.

Objectives:

1. *Support and provide for the preservation of woodlands and farmland through master plan and zoning.*
2. *Protect agricultural lands, forest lands and ecological corridors through available mechanisms such as open space/cluster development and farmland agreements, forest stewardship programs and conservation easements, as well as zoning incentives.*
3. *Implement zoning regulations that encourage and promote agricultural tourism activities.*
4. *Allow farmers to produce, process and market at wholesale and retail the products grown on their property.*
5. *Educate residents and local officials on Michigan's Right to Farm Act.*
6. *Encourage the use of Generally Accepted Agricultural Management Practices (GAAMPs).*
7. *Participate in the Michigan Department of Natural Resources Forestry Planning activities for lands within the Township.*

RESOURCE CONSERVATION

Local planning and zoning are some of the primary tools communities can use to encourage the use of lands in accordance with their character and adaptability, to limit the improper use of land and to conserve natural resources and energy.

Goal: Develop planning & zoning strategies that recognize the land's environmental constraints; by considering the level of infrastructure available/needed and support concept of sustainable development.

Objectives:

1. *Plan for a land use pattern that is oriented to the natural resources of the community by evaluating type and density of proposed developments based on:*
 - a. *soil suitability;*
 - b. *slope of land;*
 - c. *potential for ground water and surface water degradation and contamination;*
 - d. *compatibility with adjacent land uses;*
 - e. *impacts to sensitive natural areas like wetlands, greenways and wildlife corridors.*
2. *Encourage the use of native plants for reforestation, wildlife habitat, street and neighborhood trees, landscaping, parks and roadside corridors, by providing a list of recommended native plants.*
3. *Review model ordinance language in the DEQ Filling the Gaps publication and consider use of resource overlay zones; environmental assessment requirements; fees for professional reviews; sensitive areas protection, PUD/cluster development, conservation cluster residential development; site plan review standards; shoreline protection provisions; recommended setback distances; stormwater management guidelines;*

greenbelt provision language; groundwater protection standards and coordinated permit review and approval procedures.

Goal: Support the long-term conservation of the natural environment by protecting groundwater, surface water, environmentally sensitive areas, shorelines and highly erodible areas; and supporting proper management of woodlands, wetlands, open space, fish and wildlife.

Objectives:

- 1. Limit development density on steeply sloped areas.*
- 2. Direct development away from wetlands, environmentally sensitive areas and high risk erosion areas.*
- 3. Support the preservation and management of plant communities that provide critical habitat for resident and migratory wildlife species.*
- 4. Support workshops that focus on water quality, woodlands, wetlands, threatened and endangered species and wildlife habitat.*
- 5. Work with county departments to effectively administer and enforce regulations such soil erosion and sedimentation control and adopt needed ordinances such as storm water control.*
- 6. Due to negative impact to groundwater and surface water resources, discourage the establishment of large Confined Feeding Operations (CFOs).*

WATER RESOURCE PROTECTION

Goal: Preserve and improve surface water and groundwater resources that are essential to the Township's short-term and long-term economic viability and the overall quality of life for Township residents.

Objectives:

- 1. Preserve the scenic and fragile nature of waterfront property from the negative impacts caused by intensive development and provide areas for public access and enjoyment.*
- 2. Regulate the density and type of residential and commercial development adjacent to lakes, ponds, streams and wetlands.*
- 3. Provide, as necessary, suitable water and sewer service in developed areas and lake areas to eliminate or minimize surface and subsurface water pollution.*
- 4. Evaluate whether to incorporate a waterfront greenbelt protection section in the zoning ordinance.*
- 5. Consider keyhole development regulations for waterfront areas. Keyhole development also known as "funnel" development, is the use of a riparian's waterfront lot to provide water access to back-lot owners who normally would not have rights to the lake, except at public access sites*
- 6. Consider use of community septic systems, where applicable, in areas where public sewer and/or water systems are not available.*
- 7. Consider amending the zoning ordinance to include groundwater protection standards.*

**Comments from Input Session
May 1, 2018 at 7:00 P.M.**

“What makes our community a great place to live and work?”

1. *Central location that is close to many things, like shopping, recreation, education, & employment.*
2. *Abundant wildlife*
3. *Higgins Lake*
4. *Low traffic levels on roads*
5. *Scenic and wild*
6. *Au Sable River*
7. *Access to outdoor recreation on state land*
8. *Comradery with neighbors helping each other*
9. *Plenty of elbow room*
10. *Air quality*
11. *Golf course*
12. *Beaver Creek Township Park, Higgins Lake State Park and state forest and private campgrounds.*
13. *No Strangers*
14. *Good pace of life*
15. *Serenity*
16. *Access to major highways and airports*
17. *Safe*
18. *Four seasons*
19. *Hunting and fishing*
20. *Family and friends*
21. *Abundant state land for recreation of many types*
22. *Access for quads and snowmobiles*
23. *Fire department and first responders*
24. *Trash services*
25. *Views*
26. *Dark skies*
27. *Fresh water*
28. *Quality surface and groundwater*
29. *Community pride*
30. *Camp Grayling*

“What can the Township do to make the community an even better place to live?”

1. *Fix bad roads*
2. *Mitigate freeway noise*
3. *General road noise during summer with ORV traffic and winter months with snowmobiles*
4. *Quads*
5. *Back roads/two-tracks are torn up by quads*

6. *Snowmobilers who do not respect private property*
7. *Tourists who do not respect the natural resources and quiet rural lifestyle*
8. *No trash pick-up at residences*
9. *No recycling*
10. *No natural gas*
11. *Lack of restaurants*
12. *Dust control lacking*
13. *Can't camp on private vacant property*
14. *Fire danger with large areas of jack pine forests*
15. *4 Mile Road – safety concerns as more development occurs*
16. *Factors that impact the community but are located outside the township.*
17. *Concern with impact to groundwater quality from fracking*
18. *Broadband internet is lacking*
19. *Need to have ordinances that fit a rural community*
20. *Smell from oil wells*
21. *Need better leadership at County Road Commission*
22. *Need for more bike trails*
23. *Lack of local shopping options*

Chapter 7: Future Land Use Plan

The 2010 US Census showed that Beaver Creek Township had a year round population of 1,736 persons. Past trends in population growth continued between 2000 and 2010 as the Township experienced a 16.8 percent population increase gaining 250 year round residents. Contrary to most communities in northern Michigan, who felt the impacts of the “Great Recession of 2008” and experienced population losses, the Township gained population (see **Table 2.1**). According to the US Census Bureau, Beaver Creek Township has a total area of 71.5 square miles and a population density of 24.3 persons per square mile. The low population density is directly attributed to 66 percent of the Township’s land area being publicly owned. According to the Existing Land Use Inventory detailed in Chapter 5, nearly 18 percent of the land area was classified as developed (residential, commercial, institutional/recreational and industrial/extractive/transportation).

The final major element of the Master Plan update involves establishing a Future Land Use Plan. The plan identifies areas within the Township where types of compatible land uses should occur over the next twenty years. With the establishment of the Future Land Use Plan, Beaver Creek Township intends to ensure that existing land uses such as residential, commercial and industrial can continue and expand when necessary. Irreplaceable resources such as water, wetlands, forestlands and farmlands will be protected. Reasonable growth can be accommodated with minimal land use conflicts or negative environmental impacts.

The Planning Commission with assistance from NEMCOG developed the following future land use recommendations for Beaver Creek Township. Recommendations are based on an analysis of several factors including: socio-economic characteristics, environmental conditions, existing land uses, available community services and facilities, existing patterns of land divisions, current zoning and community goals and objectives.

Future Land Use Planning Areas

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

- General Residential
- Agricultural Residential
- Forest Residential
- Commercial
- Industrial

- Resource Management
- Resource Conservation
- Public/Recreation

GENERAL RESIDENTIAL

Purpose and Location: The General Residential category provides for single-family residential housing at varying densities. Lot sizes should be large enough to protect groundwater from pollution due to an over-concentration of septic tank systems, particularly in areas with high water tables and/or adjacent to surface water features. The plan supports preservation of existing residential development where land has already been subdivided into smaller lots and where justified to expand specific areas for future residential growth. These areas are concentrated along West 4 Mile Road, North Higgins Lake Drive and between I-75 and US-127. These areas are currently zoned Low Density Residential and Medium Density Residential. The General Residential category covers approximately 20 percent of the Township. See **Figure 7.1** for locations of residential future land use planning areas.

Uses: Primary uses are single family dwellings and other uses allowed by state statute such as adult foster care facilities. Where appropriate and designed to be compatible, other uses to be considered are apartment, townhouse, condominium, mobile home parks, convalescent or nursing home and manufactured home developments, religious institutions, public facilities, parks, playgrounds, nature areas, golf courses, educational and social institutions, child care facilities, adult foster care facilities and home occupations.

Development Density: The residential development category is primarily designed to accommodate single-family dwellings on lots 20,000 sq. feet and larger. Older platted subdivision areas contain lots created prior to implementation of the zoning ordinance. These lots-of-record are smaller than minimal lot sizes in current residential zoning requirements. Future development regulations should recognize these conditions and provide for the reasonable continuance of their use and character.

Other Development Considerations: Due to a lack of public water and sewer service available, higher density residential uses, such as apartment, townhouse, condominium, mobile home parks, convalescent or nursing home and manufactured home developments should require special development and design standards. If adequately engineered wastewater disposal systems are included as part of the design, higher density development can be considered. It is also important to note that under state law, manufactured homes are allowed in any residential area if the structure meets all requirements set for site-built homes.

AGRICULTURAL RESIDENTIAL

Purpose and Location: Beaver Creek Township recognizes farmlands contribute to the rural character around the old farming community of Wellington. The future land use designation is intended to encourage the continued existence of farmlands while allowing for residential building in a pastoral and forest setting. Agricultural Residential Future Land Use (FLU) areas are generally consistent with Agricultural Zoning Districts in the Township. This category supports the continuation of resource management and outdoor recreational activities.

Uses: Along with low density residential uses, agricultural activities such as raising crops and livestock and forestry activities associated with timber and wildlife management are considered compatible. If designed to be compatible with surrounding neighborhoods commercial uses such tourist accommodations like bed & breakfasts and resorts, distilleries and breweries, campgrounds, wedding/event venues, well drilling businesses, agri-business, landscaping supply, educational facilities and cottage industries would be allowed as special uses.

Development Density: Larger lots provide privacy and tend to maintain ecological integrity of the natural resources. To protect important areas and maintain larger tracts available for other uses, the plan recommends this category accommodates dwellings at an average density of one unit per 20 acres.

Other Development Considerations: The Agricultural Residential areas will remain unserved by public water distribution and wastewater disposal systems in the foreseeable future. Buffers or physical separation from incompatible uses, such as commercial and industrial, are necessary. This plan further recommends using open space development options, native vegetation greenbelts and landscaping requirements in the Zoning Ordinance.

FOREST RESIDENTIAL

Location and Purpose: The Forest Residential category is the third most extensive future land use category. While homes are found throughout the planning area, land cover is primarily pine-oak forests and occasional old farm fields. Both seasonal and year round homes are located in this area. This type of residential development, by default, functions as cluster development. Private inholdings that were 40 acres and larger have been subdivided into tracts ranging from 2 acres to 40 or more acres. These areas show up as yellow islands surrounded by a sea of green public lands, **Figure 7.1**. The private inholdings are currently included in the Resource Development and Low Density Residential zoning districts. This category encourages the continuation of resource management and wildlands recreation activities. The Township recognizes the presence of forest lands as well as old farm fields contribute to the scenic character valued by Township residents.

Uses: Along with low density residential uses, forestry activities associated with timber and wildlife management would be considered compatible in this area. Other compatible uses include vacation homes, public and private conservation areas, hunting camps, parks and playgrounds. If designed to be compatible with surrounding neighborhoods, special uses such as recreational camps and clubs, home occupations, cottage industries/home based businesses, campgrounds, golf courses and resorts (recommended on twenty acres or more) would be allowed.

Development Density: The plan recommends this category accommodates single family dwellings at an average density of one unit per five to ten acres. Larger residential lots provide privacy and tend to maintain ecological integrity of the natural resources.

Other Development Considerations: No municipal water or sewer service is planned for these areas. Buffers or physical separation from incompatible uses (commercial and industrial) are necessary when Forest Residential areas are located next to more intensive development. The plan further recommends incorporating open space development options, native vegetation greenbelts and landscaping requirements into the Zoning Ordinance.

COMMERCIAL

Location and Setting: While much of the commercial services for Beaver Creek Township residents are met by businesses located in Grayling, Roscommon and other nearby communities, the Township wishes to set aside areas to accommodate future local and highway commercial uses. The Commercial Future Land Use category includes areas currently zoned as Community Service Commercial, Highway Service Commercial and Low Density Residential. At the present time commercial development is limited in the Township. Commercial areas are located along North Higgins Lake Drive, Federal Highway and near the intersection of Old 27 and 6 Mile Road. The “red stars” on the map indicate areas where commercial enterprises exist within residential areas. The plan supports continued use of these properties and, if not detrimental to surrounding neighborhoods, expansion of small scale commercial enterprises would be acceptable. Due to the limited year- round population, local retail and service businesses have a difficult time surviving. The areas identified as commercial would accommodate highway commercial around interchanges and local businesses along North Higgins Lake Drive, Federal Highway and West 4 Mile Road. The areas are currently zoned Highway Service Commercial, Community Service Commercial and Low Density Residential.

Uses: Viable business enterprises in rural, recreational based tourism townships survive by serving local residents and visitors. Due to the rural character, distance from population centers and low population levels in the Township large scale, regional retail/shopping centers are not viable. Compatible uses include a variety of commercial, retail, office, education, human care, social assistance and public facilities.

Development Density: Commercial lots along major roads, with higher traffic volumes and higher speed limits, should have widths that can accommodate recommended driveway spacing in MDOT’s Access Management Guidebook for local communities. Access management will preserve the safety and efficiency of travel, preserve community character, advance economic development goals and protect the substantial public investment in roads and highways. Current zoning requires a minimum lot size of one acre for lots not served by public water and sewer. It is anticipated lots will vary in size depending upon the location and business types.

Other Considerations: Businesses should have adequate buffers separating operations from residential and resource uses. Access management, shared driveways and parking lots, stormwater management, groundwater protection, pedestrian access, landscaping, buffering, signage, billboards, traffic and pedestrian safety and outdoor lighting should be considered in development plans. Roadside landscaping to maintain traffic safety and minimize any negative visual impacts of development should be required along the main roads.

INDUSTRIAL

Location and Setting: The community has identified the need to improve employment opportunities and enhance the local tax base. Industrial future land use area is located east of I-75 on West 4 Mile Road and includes parcels currently zoned as Industrial and Community Service Commercial. Weyerhaeuser and Georgia Pacific are located within the designated area.

Uses: The industrial future land use category is designed to provide sites for wholesale activities, manufacturing industries, materials processing facilities, warehouse and storage facilities and freight terminals. The review process for development projects should provide a more streamlined review process for less intensive uses that fit the given zoning district and a more thorough review for projects that are more intensive and require special standards. Developments are subject to performance standards relative to impacts on the community.

Development Density: Recommended minimum lots sizes would be two (2) acres per principal use, except where a lot or parcel is served by a public or common water supply system and a public wastewater sewerage and treatment system.

Other Development Considerations: Development standards should address access management, buffering, signage, stormwater management, groundwater protection and landscaping to maintain traffic safety and minimize any negative visual impacts of development along the main roads. Manufacturing and warehousing development should be located on all-season roads. Larger scale development often needs municipal water and sewer or may need a satellite water or sewer system. Due to the lack of community water and sewer, intensive development will be dependent on adequately addressing the water and waste disposal issues.

RESOURCE MANAGEMENT

Location and Purpose: Beaver Creek Township recognizes extensive areas of forests contribute significantly to the quality of life and community character which are valued by Beaver Creek Township residents and visitors. The Resource Management category encompasses publically owned lands, which include State of Michigan (Department of Natural Resources), Michigan Department of Military Board (Camp Grayling) and US Forest Service. The area includes a few large tracts of privately owned forest lands; some have facilities associated with oil and gas extraction. This category covers nearly 56 percent of Beaver Creek Township and is currently zoned Resource Development and Low Density Residential. Some areas have limited road access with many seasonal maintained roads. The State manages parts of the forest for Kirtland's warbler nesting habitat. Locations recommended for this category are shown as dark green on the future land use map, **Figure 7.1**.

Uses: This plan encourages the retention of large tracts of lands, contiguous resource areas, scenic areas and wildlife habitat. The Resource Management category is designed to provide protection to important resource areas, while allowing for limited and low density residential development to occur. Primary uses are hunting, fishing, skiing, hiking, camping, birding, wildlife management, resource extraction and forestry management.

Development Considerations: The Resource Management category is designed to provide protection to important resource management areas in the region, the plan recognizes privately owned parcels are located within the planning area. The Township does not intend to restrict the construction of new residences or continued residential use of these existing parcels.

RESOURCE CONSERVATION

Location and Purpose: Wetlands are a limited resource in the Township. Wetlands are concentrated along Beaver Creek and within the large Mud Lake wetland complex. Beaver Creek Township recognizes wetlands play an important role in protecting surface water quality and as good stewards strive to protect headwater streams of the Au Sable River. Resource Conservation Future Land Use areas, which includes wetlands, lowland forests and flood plains are represented by the Resource Development Zoning District.

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

Development Density: The Conservation category is designed to provide protection to environmentally sensitive areas, while allowing for very limited and low intensity development to occur. This development would be consistent with recreational and conservation uses. A development density of one dwelling per 20 acres is recommended for the category.

PUBLIC FACILITIES AND RECREATION

Location and Purpose: Public lands solely dedicated to developed recreation such as camping, sports and playgrounds are included in this category. This includes North Higgins Lake State Park, Beaver Creek Township facilities and park and 4 Mile State Forest Trail Camp. The Beaver Creek Cemetery and Pere Cheney Cemetery and other public facilities are included in this category. The plan encourages the retention of these facilities.

Uses: Uses are governed by facility rules and guidelines.

SPECIAL ISSUE AREAS

Community Parks and Recreation: The community also supports development of non-motorized trails and snowmobile trails. This plan recommends Beaver Creek Township work with adjacent communities, MDNR and MDOT to develop these trails. Demographic trends show the median age is 10+ years “older” than Michigan and the United States. Thus recreational facilities and activities designed to accommodate the elderly population will become increasingly important. Beaver Creek Township should collaborate with local, regional and state organizations to address this growing need. The proposed route of the Iron Belle

Trail will traverse the Township. This segment will connect Roscommon, North Higgins Lake State Park and Grayling.

Roads: Money for maintaining county roads comes from state and local sources. There is a county wide road millage, but funds and revenues are limited and conditions of roads continue to degrade. The Township intends to work cooperatively with the County Road Commission to implement a coordinated asset management program to maintain and improve the road network. To address safety and maintenance, it is recommended the Township have driveway, private road and access management standards.

Community Facilities: The majority of development in the Township relies upon individual private water wells and septic systems. A public wastewater treatment service is provided by Beaver Creek Township for Camp Curnalia on Higgins Lake. In addition, the Beaver Creek Township/Grayling Charter Township's Utility Authority provides public water and wastewater treatment services to the 4 Mile Road Economic/Industrial Corridor. Surface and groundwater protection is a primary goal of Beaver Creek Township's long range planning effort. This plan recognizes existing small lot development along waterways and in older subdivision may someday require public or common water and sewer facilities. With limited local financing, it would be necessary to pursue grant funding to implement community water supply and/or sewer facilities.

Resource Conservation and Management: This plan supports the retention of managed public and private forestlands and wetlands in Beaver Creek Township. Timber management and regeneration of mature stands are keys to reducing fuel build-up and threats of wildfires. A technique for maintaining a forested atmosphere is to hide development from adjacent roads and properties. Arranging lots and internal subdivision roads to use hills and ridges is an effective way to screen homes, outbuildings and lawns. Use of woodlands and existing native vegetation may also make very effective screens for all types of development.

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

Hazard Mitigation: The Crawford County Hazard Mitigation Plan identified wildfires as the number one natural hazard. Crawford County, local communities, MDNR and USFS developed a Community Wildfire Protection Plan to address wildfire concerns. Given the presence of jack pine and oak forests, Beaver Creek Township is a community at risk. Timber management to reduce fuel build-up at the urban-wild lands interface should be encouraged. The plan supports implementation of a community wide FireWise program. This includes use of supplemental development standards and site plan review through zoning regulations and a landowner education program.

Hazard Mitigation Guidelines:

Prevention. Government administrative or regulatory actions or processes that influence the way land and buildings are developed and built. These actions also include public activities to reduce hazard losses. Examples include planning and zoning, building codes, capital improvement programs, open space preservation and storm water management regulations.

Natural Resource Protection. Actions that, in addition to minimizing hazard losses, also preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management and wetland restoration and preservation.

Emergency Services. Actions that protect people and property during and immediately after a disaster or hazard event. Services include warning systems, emergency response services and protection of critical facilities.

Beaver Creek Township Master Plan

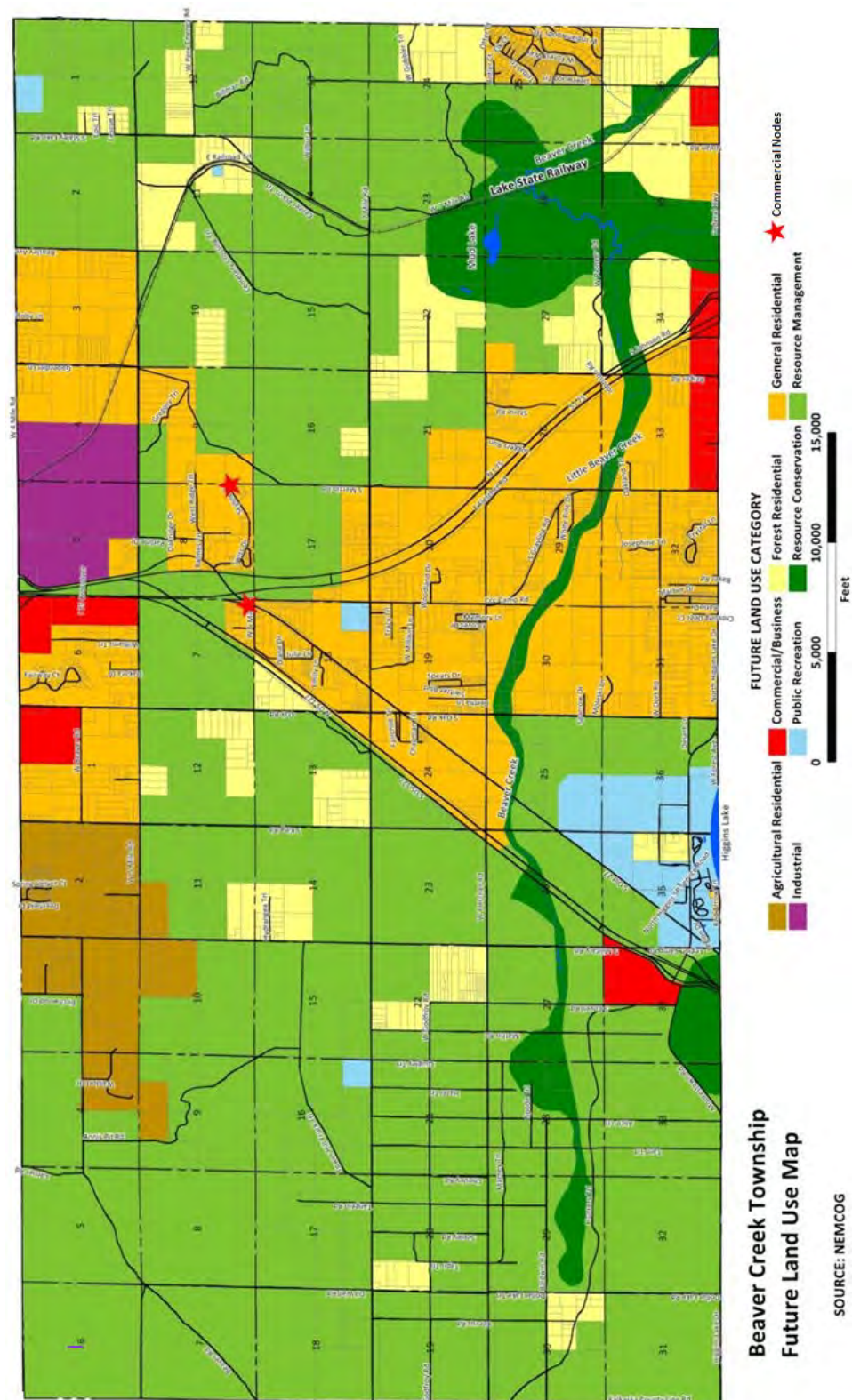


Figure 7.1 – Beaver Creek Township Future Land Use Map

Chapter 8: Plan Adoption and Implementation

Plan Coordination and Review

As required by the Michigan Planning Enabling Act of 2008 (P.A. 33 of 2008 as amended), notification of intent to update the Beaver Creek Township Master Plan was sent on September 28, 2017 to all adjacent communities and other relevant entities to request cooperation and comment. A copy of the notice letter, affidavit of mailing and entities notified can be found at the end of this chapter.

After the draft plan was completed by the Planning Commission with the assistance of NEMCOG, a draft was transmitted to the Township Board for approval to distribute the plan for review and comment. The draft plan was transmitted on November 26, 2018 to entities notified at the initiation of the plan development. After the required comment period, a public hearing notice and notice of plan adoption of the final plan was transmitted to all required entities. A copy of all relevant information can be found at the end of this chapter.

Public Hearing

A public hearing on the proposed Beaver Creek Township Master Plan, as required by the Michigan Planning Enabling Act of 2008 (P.A. 33 of 2008 as amended) was held on February 5th, 2019 by the Township Planning Commission. The Act requires that a 15 day notice of the public hearing be given in a publication of general circulation in the community. Notice of the public hearing was published in the Crawford County Avalanche December 20th, 2018.

Plan Adoption

The Beaver Creek Township Planning Commission formally adopted the Beaver Creek Township Master Plan on _____, 2019. The Beaver Creek Township Board passed a resolution of concurrence on _____, 2019.

Plan Implementation

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

On an annual basis, the Township Planning Commission will review the goals and objectives of the master plan and identify objectives to be completed that year. The review will be shared with the Township Board. These identified priority items will be the focus of the Planning Commission's activity throughout that particular year. This will allow the Planning Commission to work on a proactive basis in order to better accomplish the goals identified in the master plan.

Zoning Plan

The Michigan Planning Enabling Act, P.A. 33 of 2008, as amended, requires a Master Plan to include a Zoning Plan – *an explanation of how the land use categories on the future land use map relate to the districts on the zoning map*. The zoning ordinance is the primary tool for implementing Beaver Creek Master Plan. This plan recommends each Township's zoning ordinance be reviewed to ensure the ordinances are consistent with the goals and the future land use plan. At that same time the zoning ordinance should be reviewed to assure it conforms to current State of Michigan statutes and court rulings.

The zoning ordinance will be periodically reviewed and evaluated to determine if changes are needed in order to facilitate orderly development, incorporate innovative approaches and maintain the desired community character. After completing this master plan update, the Township intends to update its zoning ordinance. The zoning update will address, as appropriate, the new goals and objectives found in Chapter 6 of this plan.

In Chapter 7, the Future Land Use Plan depicts locations of future land use planning areas and provides explanations of each land use planning area including purpose, recommended development density and compatible uses. Future Land Use categories and their boundaries are somewhat different from the current zoning ordinance. For example, extensive areas of public lands are delineated into a separate category of Resource Management. The Township will consider amending its zoning ordinance to reflect recommendations in the Future Land Use Plan which may include changing zoning districts, district boundaries, allowable uses and development densities. Finally, it is important to note, the Future Land Use Map is a general guideline and conditions may change to warrant a zoning district other than what is shown on the map.

Agricultural Residential Future Land Use areas are generally consistent with the Agricultural Zoning Districts in the Township. The Township will examine boundaries during the next zoning ordinance update. Allowing certain compatible commercial uses will be considered during the comprehensive zoning ordinance update. Forest Residential FLU areas are blocks of private ownership surrounded by public lands. The private inholdings are currently included in the Resource Development and Low Density Residential Zoning Districts. The Township will consider creating a new zoning district for the Forest Residential FLU areas. Allowing certain compatible commercial uses will be considered during the comprehensive zoning ordinance update. General Residential Future Land Use includes areas currently zoned Low Density Residential and Medium Density Residential. The Township will review residential zoning districts and district regulations during the zoning ordinance update.

The Commercial Future Land Use category includes areas currently zoned as Community Service Commercial, Highway Service Commercial and Low Density Residential. Commercial FLU identifies areas of existing commercial development and allows for expansion of new commercial enterprises. Commercial Zoning Districts will be reviewed during the update. The Township should review and if needed amend general provisions and supplemental regulations to address groundwater protection, noise, lighting, landscaping, screening, signage

and access management; especially when development is located along major roadways, within neighborhoods and along community entryways.

Industrial Future Land Use areas represent a shift in boundaries from the current Industrial Zoning District. This plan recommends moving the eastern boundary of the Industrial Zoning District to the west, excluding private residential ownerships along Gaberdiel Lane. Furthermore, the plan recommends ownership located along W. 4 Mile Rd. and S. Grayling Rd. currently zoned Community Services Commercial, could also accommodate industrial development provided the zoning is changed. Presently, there is limited demand for new industrial development. The Township should review and if needed, amend general provisions and supplemental regulations to address groundwater protection, noise, lighting, landscaping, screening, signage and access management in relation to industrial development.

Resource Conservation FLU area, which includes wetlands, lowland forests and flood plains, is represented by the Resource Development Zoning District. There are portions of private lands in this category. The Township does not intend to move zoning district boundaries. The Resource Management FLU area includes lands currently zoned Resource Development. The Township will consider amending its zoning ordinance to reflect recommendations in the Future Land Use Plan which may include boundaries, allowable uses and development densities.

Grants and Capital Improvement Plan

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

Recreation Plan

The Township must have a current DNR approved Community Recreation Plan (CRP) to be eligible for recreation grant funding. Beaver Creek Township maintains a recreation plan. DNR approved recreation plans cover a five year planning period. Grant funds may be pursued for recreation projects identified in the Master Plan and Community Recreation Plan. Projects may include improvements to the baseball, softball and soccer fields, expansion of indoor and outdoor recreation facilities, expansion of bike and hiking trails and improving public access to the lakes and streams.

Official Documentation

The following pages contain the official documentation of the master planning process.

Notice of intent
Workshop flyer

Transmittal of Draft

Legal Notice

Beaver Creek Township Planning Commission minutes from public hearing

Resolution of Adoption

Resolution of Concurrence