

South Branch Township

Master Plan 2020



South Branch Township
Crawford County, Michigan

Offices:

5245 N M-18

PO Box 606

Roscommon, MI 48653

Phone: 989-275-8232

www.southbranchtownship.com

Planning Commissioners

Jennifer Smith, Chair

Julie Crick, Vice Chair

Anna Sylvester, Secretary

Roxanne James

Township Board

Laurie Luck, Supervisor

Brenda Nelson, Clerk

Cathy Lewis, Treasurer

Michael Janisse, Trustee

Anna Sylvester, Trustee

Jeremy Hickmott, Zoning Administrator

Adopted:

With assistance of:



Northeast Michigan Council of Governments

This Page Intentionally Left Blank

Table of Contents

Chapter 1 - Introduction	1-1
Purpose and Planning Process	1-1
Location and Regional Setting.....	1-1
Brief History	1-2
The Status of Planning and Zoning.....	1-2
Chapter 2 - Socio-Economic Characteristics	2-4
Population.....	2-4
Population by Municipality	2-4
Seasonal Population.....	2-5
Age Distribution	2-5
Household Characteristics	2-8
Educational Attainment	2-9
School Enrollment.....	2-10
Disability Status.....	2-11
Housing Characteristics.....	2-11
Income	2-12
Poverty.....	2-12
Labor Force	2-13
Employment and Unemployment.....	2-13
Wage and Salary Employment	2-14
Commuting to Work	2-16
Jobs & Workers in South Branch Township – Detailed Tables	2-16
State Equalized Value.....	2-18
South Branch Township Finances	2-22
Revenues & Expenditures	2-24
Crime Statistics.....	2-28
Chapter 3 - Community Facilities.....	3-29
Water and Sewage Disposal.....	3-29
Waste Disposal.....	3-29
Utility Services.....	3-29
Postal Service	3-29
Transportation	3-29
Road Classification System:	3-30

Public Lands and Buildings	3-31
Schools Libraries and Museums.....	3-32
Cemeteries	3-32
Public Safety.....	3-32
Medical Facilities.....	3-33
Recreational Facilities	3-34
Publicly Owned Facilities.....	3-34
Private Owned Facilities.....	3-34
Chapter 4 - Natural Resources	4-35
Climate	4-35
Geology	4-35
Topography	4-38
Soils	4-38
Hydric Soils and Steep Sloped Areas.....	4-38
Building Site Development.....	4-40
Septic Systems	4-41
Water Resources.....	4-42
Groundwater	4-42
Surface Water Resources.....	4-43
Wetlands	4-44
Forests.....	4-47
Wildlife Habitat	4-48
Ecological Corridors	4-49
Sites of Environmental Contamination	4-50
Oil and Gas Wells	4-50
Chapter 5 - Existing Land Use.....	5-52
Land Division Patterns	5-52
Existing Cover/Land Use Characteristics.....	5-52
Residential.....	5-54
Commercial	5-54
Industrial/Transportation/Extractive.....	5-54
Recreational/Institutional	5-54
Agricultural.....	5-54
Non-Forested Uplands	5-55

Upland Forests	5-55
Lowland Forests and Wetlands.....	5-55
Surface Water	5-55
Chapter 6 - Goals & Objectives	6-56
Community Input	6-56
General Respondent Profile	6-56
Survey Analysis.....	6-56
Renewable Energy	6-57
Development.....	6-57
Community Goals and Objectives.....	6-58
Goal 1: Good Governance	6-58
Goal 2: Fire, Emergency Services	6-58
Goal 3: Land Use	6-58
Goal 4: Recreation.....	6-59
Goal 5: Housing	6-59
Goal 6: Technology and Infrastructure	6-59
Goal 7: Roads	6-59
Chapter 7 - Future Land Use	7-60
Future Land Use Planning Areas	7-60
Resource Conservation	7-61
Stream Corridors.....	7-61
Forest Recreation.....	7-62
Rural Residential	7-63
General Residential.....	7-63
Commercial	7-64
Light Industrial	7-65
Special Issue Areas	7-65
Roads.....	7-65
Open Space Development	7-65
Community Facilities.....	7-66
Resource Protection and Management.....	7-66
Hazard Mitigation	7-66
Chapter 8 - Implementation and Adoption	8-69
Plan Coordination and Review	8-69

Public Hearing8-69

Plan Adoption.....8-69

Plan Implementation8-69

Table of Figures

Figure 1-1: South Branch Township Location Map	1-2
Figure 1-2: South Branch Township Map.....	1-3
Figure 2-1: Trends in Median Age	2-7
Figure 2-2: Age Distribution of Population, 2016	2-7
Figure 2-3: Educational Attainment.....	2-10
Figure 2-4: Unemployment Rates 2006-2016.....	2-14
Figure 2-5: Residential SEV.....	2-19
Figure 2-6: Commercial SEV	2-20
Figure 2-7: Industrial SEV	2-20
Figure 2-8: Personal Property SEV	2-20
Figure 2-9: Real + Personal Property SEV.....	2-20
Figure 2-10: Townships in Crawford County SEV.....	2-21
Figure 2-11: Michigan Munetrix Stress Meter (Northeast Michigan).....	2-22
Figure 2-12: Michigan Munetrix Stress Meter (Crawford County)	2-23
Figure 2-13: South Branch Township Revenue Breakdown.....	2-24
Figure 2-14: South Branch Township Expenditures.....	2-25
Figure 2-15: South Branch Township Revenues, Expenditures and Fund Equity	2-26
Figure 2-16: Available Reserves as a Percent of Total Expenditures	2-26
Figure 2-17: Expenditures as a Percent of Taxable Value.....	2-27
Figure 2-18: Long-Term Debt as a Percent of Taxable Value.....	2-27
Figure 2-19: Size of Fund Balance	2-28
Figure 2-20: Crime Statistics	2-28
Figure 3-1: Road Classification System	3-30
Figure 3-2: Public Lands	3-31
Figure 4-1: Formation of Glacial Landforms	4-37
Figure 4-2: Soil Constraints Map.....	4-39
Figure 4-3: Soil Constraints Map – Buildings Without Basements	4-40
Figure 4-4: Soil Constraints Map – Septic System Limitations.....	4-41
Figure 4-5: Water Resources.....	4-42
Figure 4-6: National Wetlands Inventory Map	4-44
Figure 4-7: Pre-Settlement Vegetation Map.....	4-45
Figure 4-8: Historical Vegetation and Interpolated Fire Observations	4-46
Figure 4-9: Forest Cover Types.....	4-47
Figure 4-10: Oil and Gas Well Development.....	4-50
Figure 4-11: Oil and Gas Wells	4-51
Figure 5-1: Existing Land Cover / Land Use.....	5-53
Figure 7-1: Future Use Map	7-68

Table of Tables

Table 2-1: Crawford County Population: 2000-2010 US Census, 2016 ACS	2-4
Table 2-2: Median Age 2000-2016.....	2-6
Table 2-3: Age Distribution By Municipality For Crawford County - 2016.....	2-6
Table 2-4: Crawford County: Household Characteristics - 2016.....	2-8
Table 2-5: Educational Attainment	2-9
Table 2-6: Roscommon Area Schools Student Enrollment by Year	2-10
Table 2-7: Student Enrollment by Grade 2017-2018	2-10
Table 2-8: Crawford County Disability Status of Civilian Non-Institutionalized Persons	2-11
Table 2-9: Housing Counts and Occupancy Status in Crawford County 2016	2-12
Table 2-10: Median Household Income for South Branch Township, Crawford County & State.....	2-12
Table 2-11: Poverty Rates: South Branch Township, Crawford County and Michigan.....	2-13
Table 2-12: Employment Information Crawford County 2006 - 2016	2-13
Table 2-13: Total Resident Employed Population by Major Employment Type (2016).....	2-14
Table 2-14: Employment & Wages for Crawford County (2016)	2-15
Table 2-15: South Branch Township Work Commute 2016.....	2-16
Table 2-16: Jobs in South Branch Township (2015).....	2-16
Table 2-17: Job Inflow/Outflow in South Branch Township (2015).....	2-17
Table 2-18: Residency of Workers Employed in South Branch Township (2015).....	2-18
Table 2-19: Employment areas of South Branch Township Residents (2015).....	2-18
Table 2-20: South Branch Township Assessed Value: 2014-2018	2-19
Table 2-21: Crawford County Assessed Value: 2014-2018	2-21
Table 2-22: Fiscal Distress Indicator System	2-22
Table 2-23: Financial Health Overview – South Branch Township	2-23
Table 2-24: Expenditures Per Capita – Crawford County Townships	2-24
Table 4-1: Part 201 and 213 Sites	4-50
Table 5-1: Existing Land Use Statistics	5-54

This Page Intentionally Left Blank

Chapter 1 - Introduction

Purpose and Planning Process

The purpose of the South Branch Township Land Use 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 (PA33 of 2008) authorizes townships to develop comprehensive or master plans. As stated in the enabling legislation: The purpose of a master plan is to guide and accomplish development that is coordinated, adjusted, harmonious, efficient, and economical; 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; best promotes public health, safety, morals, order, convenience, prosperity, and general welfare includes provisions for safety, good civic design and wise and efficient expenditure of public funds, public utilities, recreation, and use of resources in accordance with their character and adaptability.

This plan presents background information on social and economic data, natural resources, existing community services and facilities, and existing land uses. The background information is used to identify important characteristics, changes and trends in South Branch Township. Based on information gathered through a survey and the background data, the Township Planning Commission developed goals and objectives. These goals and objectives, along with a series of maps including soils, ownership, existing land use, and zoning, provide the basis for the Future Land Use Map. The future land use map recommends locations for various types of future development within the Township.

The Land Use Master Plan was developed by the South Branch Township Planning Commission with the assistance from the Northeast Michigan Council of Governments (NEMCOG). This plan looks at a 20-year planning horizon, with required reviews every five years or sooner if needed.

Location and Regional Setting

South Branch Township is located in the southern part of Crawford County. The county is located in the northeastern lower peninsula of Michigan. **Figure 1-1** shows the map of the township. South Branch Township is bordered by Roscommon County, Oscoda County, Beaver Creek Township, Grayling and Lovells Townships. The township geographic area covers 105.4 square miles. **Figure 1-2** shows a base map of South Branch Township that depicts roads, ownership, state lands and water features.

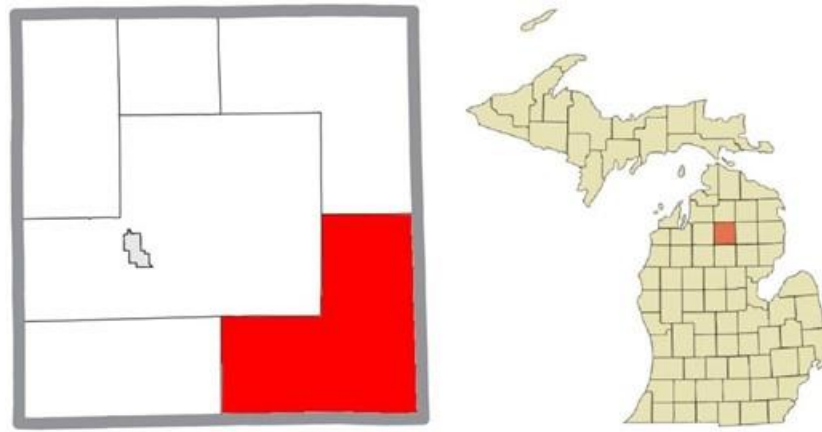


Figure 1-1: South Branch Township Location Map

Brief History

The history of South Branch Township shows a chronological progression from pre-settlement virgin pine and hardwood forests to fairly intense lumbering followed by limited farming; and today a quite rural community with a mix of year-round and seasonal residences that provides an abundance of outdoor recreational opportunities. The rural character is accentuated by the fact that a village center has never been developed within South Branch Township, instead, development has continued to be low density and dispersed. Residents of the Township typically work in Grayling, Roscommon, and Houghton Lake. The seasonal residents are either retirees who spend the summer months in the area or persons who own recreational properties "up north" and may spend weekends and vacations in the area.

The Status of Planning and Zoning

The township has adopted its own zoning ordinance and is authorized to conduct planning and zoning under the Planning Enabling Act (PA 33 of 2008) and the Zoning Enabling Act (PA 110 of 2006).

Crawford County had requested South Branch Township adopt and administer its own zoning ordinance. South Branch Township created a township planning commission in 2004. The master plan provides a legal foundation for the Township Zoning Ordinance and helps to plan for anticipated growth within the township. By documenting existing conditions such as environment, social-economic, community services, transportation, recreation, and land use within a master plan, the township is able to formulate appropriate land use goals and policies to guide development and serve as the basis for enforceable zoning.

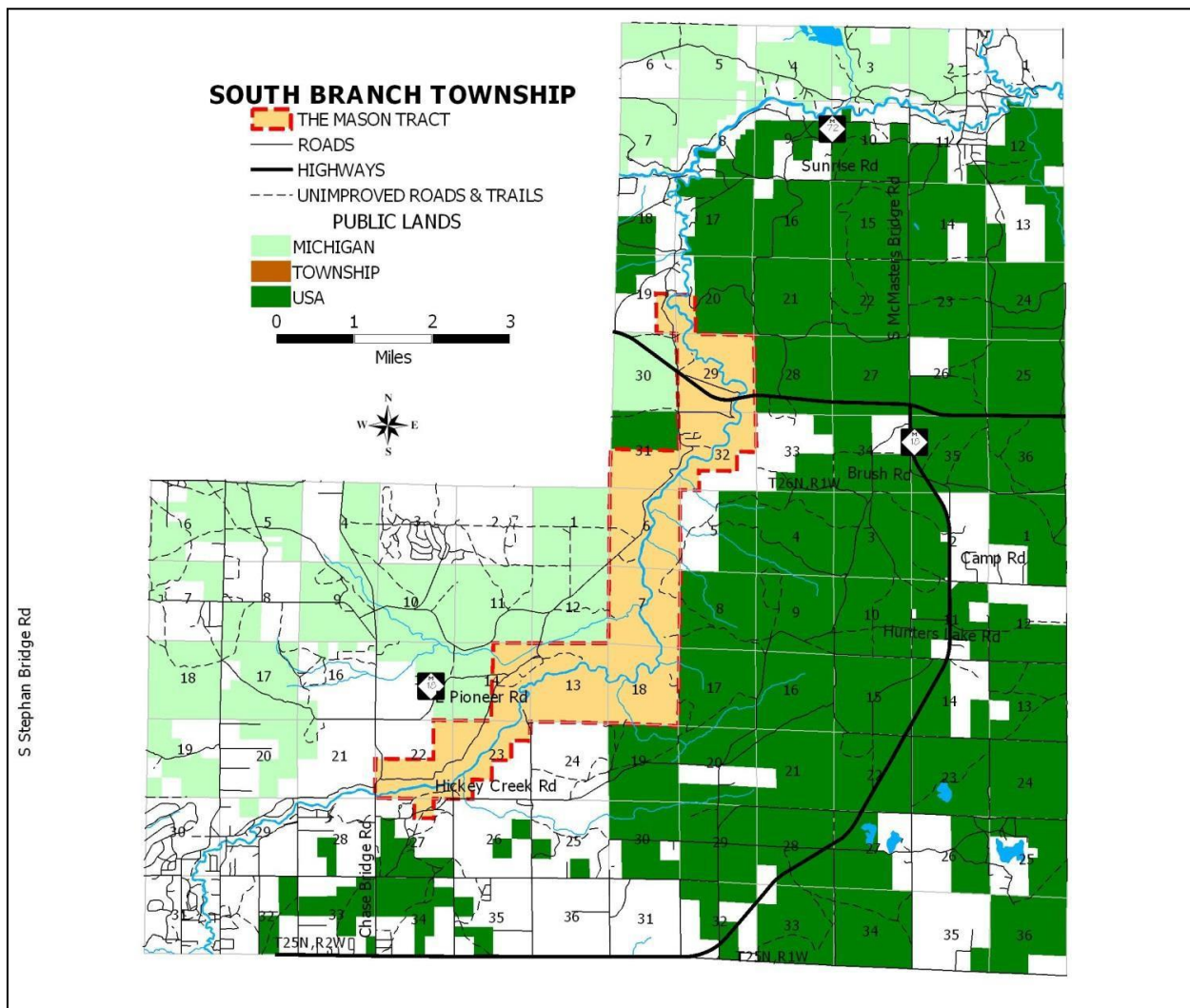


Figure 1-2: South Branch Township Map

Chapter 2 - Socio-Economic Characteristics

Population

The 2016 American Community Survey data from the U.S. Census showed that South Branch Township experienced a population increase of 3.2% (58 people), from 2000 to 2016. South Branch, Beaver Creek, Frederic, and Maple Forest Townships all experienced an increase in population during this period. Grayling and Lovells Townships and the City of Grayling are the only municipalities in Crawford County to experience population decline between 2000 and 2016. Crawford County overall also experienced a population decrease from 2000 to 2016. The county has experienced a loss of 433 residents (3.0%) of its total population from 2000 to 2016. South Branch Township's population density is 18.1 persons per square mile while Crawford County has 24.9 persons per square mile.

Population by Municipality

South Branch Township has the second largest population by township in the county according to the 2016 American Community Survey. In comparison, South Branch had the third largest increase in population over the 2000-2016 period. Between 2000 and 2016, more than half of the municipalities in Crawford County gained population. The highest percentage gains were experienced by Maple Forest Township (30.3%), Beaver Creek Township (11.0%), South Branch Township (3.2%), and Frederic Township (3.0%), **Table 2-1**.

Beaver Creek Township gained the greatest number of people at 163, while Maple Forest Township gained 151, South Branch Township gained 58, and Frederic Township gained 42 people. Grayling Township (12.0%), Lovells Township (5.2%), and the City of Grayling (1.8%) all lost population.

Table 2-1: Crawford County Population: 2000-2010 US Census, 2016 ACS				
Municipality	2000 Population	2010 Population	2016 Population	Percent Change (2000-2016)
South Branch Township	1,842	2,007	1,900	3.2%
Beaver Creek Township	1,486	1,736	1,649	11.0%
Frederic Township	1,401	1,341	1,443	3.0%
Grayling Township	6,516	5,827	5,735	-12.0%
Lovells Township	578	626	548	-5.2%
Maple Forest Township	498	653	649	30.3%
City of Grayling	1,952	1,884	1,916	-1.8%
Crawford County	14,273	14,074	13,840	-3.0%
Source: 2016 American Community Survey 5-Year Estimates (U.S. Census Bureau)				

Seasonal Population

In 2016, the American Community Survey reported that there were 1,880 homes in South Branch Township. Of these, 955 homes classified as seasonal, recreational, or occasional use. A rough estimate of the number of township seasonal residents can be calculated by multiplying the number of township seasonal housing units (955) by the township's average household size (2.17), for a total of 2,072 persons. This figure does not include those seasonal visitors or tourists staying in area motels, campground, etc. It is beyond the scope of this plan to obtain accurate count of the number of the tourists who annually visit the area.

Age Distribution

The 2016 American Community Survey data showed that 1,216 residents (64.0%) of South Branch Township's population was 45 years old or older, a percentage that has increased from 46.1 % in 2000 (see **Table 2-3**). The shift towards an older population may have been due to the existing residents getting older along with an influx of retirees. The age group 45-64 is the most populous age group in South Branch Township (722), while 494 residents fall in the age group of 65 and over.

Increase in the median age is evidence of a stable aging population. The median age of residents in South Branch Township increased from 42.7 to 52.4 (22.7%) during the period 2000- 2016, exceeding the same trend as Crawford County (**Figure 2-1**). The median age of residents in Crawford County increased from 40.6 to 49.7 (22.4%) during the period 2000-2016 (**Table 2-2**). At the same time, the State's median age increase from 35.5 to 39.5 (11.3%) years. South Branch Township median age is 52.4 years. The City of Grayling has the lowest median age (35.3) while Lovells Township has the highest median age (61.2). South Branch Township has the second-highest median age.

Shifts in the township's demographics are changing the population structure. Long term trends in the increase in median age in Crawford County continue at a faster rate than the State of Michigan and the United States. The rate has increased as young families move to other areas for employment.

As the average age of the township's population increases, there will be more need to access social and medical services. A report from the Kaiser Family Foundation estimates that about 60% of human health is determined by individual behavior and social circumstances (e.g., living environment, accessible services, etc.), 30% is determined by genetic make-up, and 10% is determined by the amount of healthcare received. As the baby boomer generation ages, Medicare projected in its 2019 Annual Report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds that Medicare will experience a growing deficit until 2045 as the cost rates increase faster than the income rates and more people in the baby boomer generation will be admitted to the hospital. Additionally, a 2011 Robert Wood Johnson Foundation survey found that 86% of primary care physicians felt unmet social needs (e.g., transportation access, personal assistance, adequate nutrition, etc.) are leading directly to worsening health across all socioeconomic groups.

Table 2-2: Median Age 2000-2016			
Governmental Unit	2000	2010	2016
South Branch Township	42.7	50.8	52.4
Crawford County	40.6	47.7	49.7
Michigan	35.5	38.9	39.5
United States	35.3	37.2	37.7

Table 2-3: Age Distribution By Municipality For Crawford County - 2016													
Community	< 5 Yrs.	%*	5-19 Yrs.	%*	20-24 Yrs.	%*	25-44 Yrs.	%*	45-64 Yrs.	%*	65Yrs. & >	%*	Median Age
South Branch Township	23	1.2	274	14.4	97	5.1	293	15.4	722	38.0	494	26.0	52.4
Beaver Creek Township	46	2.8	231	14.0	107	6.5	223	13.5	676	41.0	366	22.2	51.3
Frederic Township	79	5.5	261	18.1	104	7.2	189	13.1	472	32.7	338	23.4	48.3
Grayling Township	258	4.5	906	15.8	155	2.7	1199	20.9	1795	31.3	1422	24.8	50.4
Lovells Township	2	0.4	55	10.1	2	0.4	54	9.8	218	39.7	218	39.8	61.2
Maple Forest Township	25	3.9	137	21.1	33	5.1	109	16.8	226	34.8	119	18.3	48.2
City of Grayling	148	7.7	400	20.9	172	9.0	433	22.6	437	22.8	326	17.0	35.3
Crawford County	581	4.2	2270	16.4	664	4.8	2491	18.0	4540	32.8	3266	23.6	49.7
*Figure shows the percentage each age grouping represents of the local unit's total population. Source: 2016 American Community Survey 5-Year Estimates (U.S. Census Bureau)													
Source: 2016 American Community Survey 5-Year Estimates (U.S. Census Bureau)													

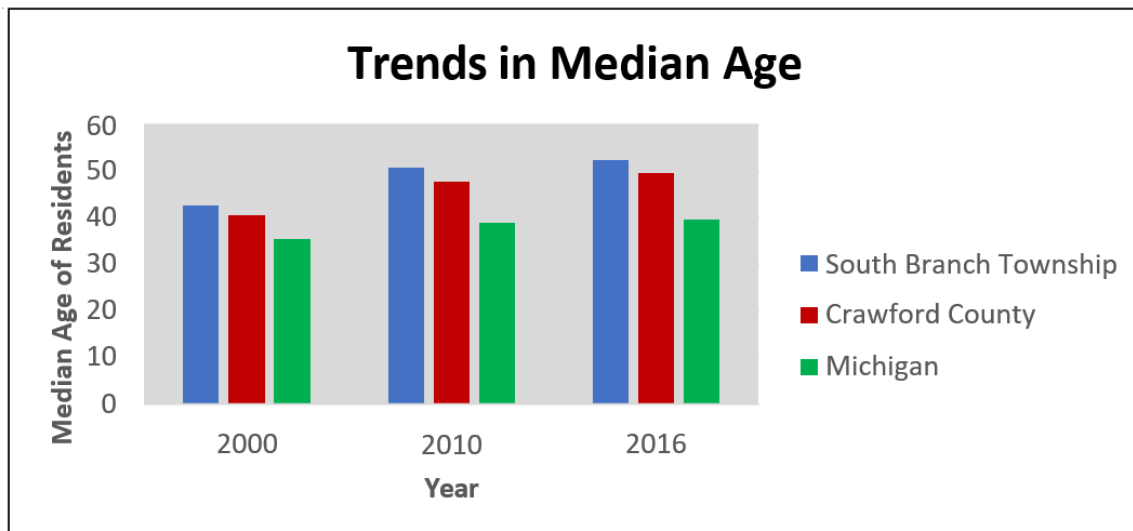


Figure 2-1: Trends in Median Age

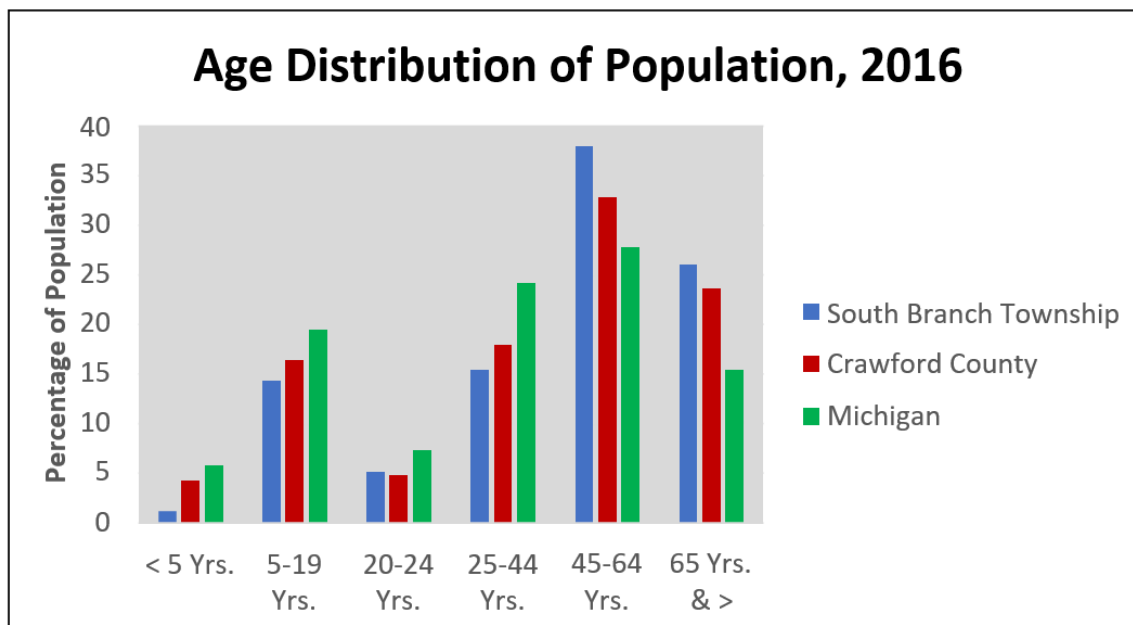


Figure 2-2: Age Distribution of Population, 2016

Figure 2-2 shows the distribution of these age groups. South Branch Township has a slightly smaller percentage of residents 24 years and younger than Crawford County as a whole, and a significant percentage fewer of people 24 years old or younger than the State as a whole. The proportion of persons in the 25 to 44-year age bracket is significantly lower in South Branch Township in comparison to Michigan.

However South Branch Township has a higher portion of its population in both the 45-64 group and 65 years and older group than the state as a whole. Planning now to ensure the transportation, recreation and health care needs of this aging population are met will help avert a potentially critical situation for the township.

Another indication of the changing population is the higher median age reported in the 2000 Census. According to the U. S. Census Bureau, the median age of residents within the township increased from 42.7 years of age in 2000 to 52.4 years of age in 2016. This upward trend is similar to that found in the rest of the state (from 35.5 to 39.5 years) and the nation (from 35.3 to 37.7 years). Records from the 2016 American Community Survey indicate that South Branch Township’s median age is significantly higher than that of the state and the United States. Several other townships in Crawford County also have a high median age. A combination of factors may influence this trend, including an aging population, retirees moving into the area, and the tendency for younger persons to leave the area upon completion of high school. In South Branch Township, 26.0% of the population is aged 65 years and older, 38.0% of the population is aged 45-64 years, 5.1% of the population is aged 20-24 years, and 14.4% of the population is aged 5-19 years (**Table 2-3**). Between 2000 and 2016, South Branch Township has seen a 29.1% decrease in the 5–19-year-old age group and a 62.7% increase in the 20-24 year old age group.

Household Characteristics

Table 2-4 presents information on household characteristics gathered in the 2016 American Community Survey. Information includes total number of households, average household size, householder living alone, households with an individual 65 years and older, and households with one or more people under 18 years of age. The average number of people in the households in Crawford County is 2.25 people and in South Branch Township there is an average of 2.17 people: both smaller than the state average of 2.51. According to the 2016 American Community Survey, of the 877 households in South Branch Township, 236 were reported as householders living alone, 476 were reported as having one or more persons aged 60 years or older and 154 were reported as having one or more persons less than 18 years of age.

Table 2-4: Crawford County: Household Characteristics - 2016					
MUNICIPALITY	Total Occupied Households	Avg. Household Size	Householder Living Alone	Household w/ One or More Persons 60 yrs. & Older	Household w/ One or More Persons under 18 Yrs.
South Branch Township	877	2.17	236	476	154
Beaver Creek Township	726	2.27	160	350	118
Frederic Township	605	2.87	152	288	140
Grayling Township	2,602	2.18	788	1,262	492
Lovells Township	276	1.99	89	192	28
Maple Forest Township	260	2.50	59	118	60
City of Grayling	718	2.45	259	235	239
Crawford County	6,064	2.25	1,746	2,923	1,231
Source: 2016 American Community Survey 5-Year Estimates (U.S. Census Bureau)					

Educational Attainment

Of the 1,509 persons in South Branch Township 25 years and older, 90.3% were high school graduates or higher, while 7.4% attended school into the 9th-12th grade with no diploma and 2.3% had completed less than the 9th grade. Twenty-five percent of residents had attended some college with no degree, 15.3% had an associate degree, 6.0% had earned a bachelor's degree, and 7.8% had earned a graduate or professional degree. South Branch Township has a slightly lower percentage of residents with a bachelor's degree or higher than Crawford County, and a significantly lower percentage than the state. (Table 2-5 and Figure 2-3).

Table 2-5: Educational Attainment						
	South Branch Township	Population 25 years and over (%)	Crawford County	Population 25 years and over (%)	State of Michigan	Population 25 years and over (%)
Population 25 years and over	1,509	-	10,325	-	6,682,881	-
Less than 9 th grade education	35	2.3	278	2.7	209,210	3.1
9 th – 12 th grade, no diploma	112	7.4	963	9.3	467,257	7.0
High school graduate	545	36.1	3,704	35.9	1,978,662	29.6
Some college, no degree	377	25.0	2,604	25.2	1,587,525	23.8
Associate degree	231	15.3	1,054	10.2	608,429	9.1
Bachelor's degree	91	6.0	1,120	10.8	1,117,697	16.7
Graduate or professional degree	118	7.8	602	5.8	714,101	10.7
Percent high school graduate or higher	90.3%	-	88.0%	-	89.9%	-
Percent bachelor's degree or higher	13.9%	-	16.7%	-	27.4%	-
Source: 2016 American Community Survey 5-Year Estimates (U.S. Census Bureau)						

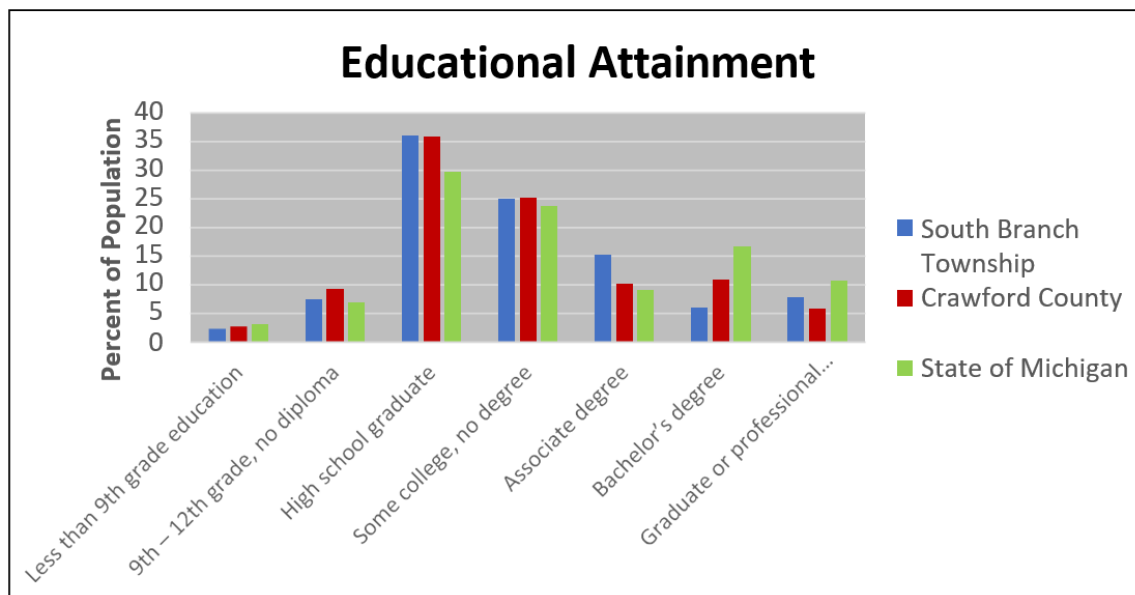


Figure 2-3: Educational Attainment

School Enrollment

In the 2017-2018 school year there were 963 students enrolled. Of these 963 students, 582 were classified as economically disadvantaged and 133 were identified as having a disability. **Table 2-6** shows a steady decline in the number of students attending school at the Roscommon Area Public Schools over the last eight years. **Table 2-7** shows the number of students enrolled in the 2017-2018 school year.

The school of choice program allows township residents to attend Roscommon Area Public Schools, Charlton Heston Academy, Crawford- Au Sable or Houghton Lake Schools. The decline in enrollment in Roscommon Area Schools may be attributed to township residents choosing to send their children to one of the other schools. From 1,455 students in 2010-2011 to 963 in the 2017-2018 school year there is a loss of 492 students at a 33.9% decline.

Table 2-6: Roscommon Area Schools Student Enrollment by Year

School Year	Enrollment
2017-2018	963
2016-2017	1,028
2015-2016	1,034
2014-2015	1,101
2013-2014	1,155
2012-2013	1,174
2011-2012	1,403
2010-2011	1,455

Source: mischooldata.org

Table 2-7: Student Enrollment by Grade 2017-2018

Grade	Number of Students
Kindergarten	61
1 st Grade	57
2 nd Grade	56
3 rd Grade	77
4 th Grade	73
5 th Grade	67
6 th Grade	80
7 th Grade	70
8 th Grade	92
9 th Grade	80
10 th Grade	101
11 th Grade	76
12 th Grade	72

Source: mischooldata.org

Disability Status

Table 2-8 provides data from the 2016 American Community Survey and gives an indication of disabled people residing in South Branch 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 proportion of persons with disabilities is higher for South Branch Township and Crawford County than Michigan. The same is true for the population 18 to 64 years of age. Statistics for 5 to 17 years are comparable for all three entities. The 65 and older age group has a significantly lower percentage for South Branch Township than both Crawford County and Michigan. Note that there is a high margin of error listed for this dataset on the US Census website.

Table 2-8: Crawford County Disability Status of Civilian Non-Institutionalized Persons					
LOCAL UNIT	% Disabled persons	% of Disabled, under 5 Years of Age	% of Disabled, 5-17 Years of Age	% of Disabled, 18-64 Years of Age	% of Disabled, 65+ Years of Age
South Branch Township	19.7	0.0	6.7	62.8	32.9
Crawford County	19.9	0.0	7.7	53.3	41.1
Michigan	14.2	0.9	6.4	53.9	38.1

Source: 2016 American Community Survey 5-Year Estimates (U.S. Census Bureau)

Housing Characteristics

Housing characteristics for South Branch Township and Crawford County are found in **Table 2-9**. The U.S. Census Bureau reports a wide variety of housing characteristics. In 2016, there were 1,880 housing units in South Branch Township. The total number of units includes single and multiple family housing types. According to the 2016 American Community Survey, 5.5% of the housing in South Branch Township was built prior to 1939, 14.3% was built between 1940 and 1959, 38.3% was built between 1960 and 1979, and 41.9% was built after 1979. The American Community Survey reports that of the 877 occupied housing units, 11.2% were heated with natural gas, 51.8% heat with bottled, tank or liquid propane (LP) gas, 8.1% heat with electricity, 2.3% heat with fuel oil or kerosene, 22.8% heat with wood, and 3.9% heat with other fuels. 49.9% of the 780 owner-occupied housing units are valued at \$100,000 and greater. The median house value was \$99,600 in South Branch Township as compared to \$93,500 for Crawford County and \$127,800 for the entire state.

Certain characteristics contrast sharply with the rest of the state. For example, 50.8% of the housing in South Branch Township was seasonal as compared to 40.0% in Crawford County and 6.3% in the state. In the township, 46.6% (877 out of 1,880) of the total were occupied. Of the occupied housing units, 88.9% (780 of the 877) were owner occupied as compared to 70.8% in the state. The vacancy rate in the township was 53.4%, which is higher than the 45% for Crawford County. In comparison, the vacancy rates in the township are higher than at the state level, (15.1%).

Table 2-9: Housing Counts and Occupancy Status in Crawford County 2016

Area Name	2016					
	Total	Occupied	Vacant	Percent Vacant	Seasonal	Percent Seasonal*
South Branch	1,880	877	1,003	53.4	954	50.8
Beaver Creek Township	1,279	726	553	43.2	515	40.3
Frederic Township	1,209	605	604	50.0	563	46.6
Grayling Township	4,374	2,602	1,772	40.5	1,462	35.7
Lovells Township	1,063	276	787	74.0	754	70.9
Maple Forest Township	434	260	171	40.1	143	33.0
City of Grayling	831	718	113	13.6	32	3.9
Crawford County	11,070	6,064	5,006	45.2	4,423	40.0

* Percent of total housing

Source: 2016 American Community Survey 5-Year Estimates (U.S. Census Bureau)

Income

According to the American Community Survey 5-Year Estimates of the U.S. Census, South Branch Township's median household income of \$39,375 is lower than the County (\$41,034) and State (\$50,803). The township median family income (\$44,009) and per capita income (\$20,563) is lower than Crawford County and Michigan. (**Table 2-10**)

Table 2-10: Median Household Income for South Branch Township, Crawford County & State

	South Branch Township	Crawford County	Michigan
Median Household Income	\$39,375	\$41,034	\$50,803
Median Family Income	\$44,009	\$51,332	\$63,958
Per Capita Income	\$20,563	\$22,348	\$27,549

Source: 2016 American Community Survey 5-Year Estimates (U.S. Census Bureau)

Poverty

According to the US Census Bureau, a person or family is living in poverty if their total income is less than their poverty threshold (the least amount of income needed for a person or family to meet their basic needs). Information from the American Community Survey shows poverty rates in South Branch Township, Crawford County and Michigan (**Table 2-11**). The percent of families living in poverty is slightly higher in all categories than Crawford County or the state. The percent of families living in poverty with a female head of household in the township has a slightly lower percentage than the county.

Table 2-11: Poverty Rates: South Branch Township, Crawford County and Michigan

	South Branch Township	Crawford County	Michigan
Families	12.8%	12.4%	11.5%
Families with female head of household	36.7%	43.8%	32.9%
Individuals	18.7%	17.2%	16.3%
Individuals 65 years and over	9.1%	8.4%	8.1%
<i>Source: 2016 American Community Survey 5-Year Estimates (U.S. Census Bureau)</i>			

Labor Force

Employment and Unemployment

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

Table 2-12 presents information on labor force, employment, and unemployment for Crawford County from 2006 to 2016. Unemployment rates experienced a significant increase in between 2008 and 2010 as a result of the recession in 2008. Unemployment rates peaked in 2010 and have dropped back to 2006 levels. The number of persons in the labor force and employed have fallen since 2006. The economic downturn continued to feed this trend. Jobless rates have fallen to 7.6% in 2016, though the labor force and number of persons employed have not returned to 2006 levels. As seen in **Figure 2-4**, unemployment rates in Crawford County mirror those in the State and U.S. however they are consistently at a higher level.

Table 2-12: Employment Information Crawford County 2006 - 2016

Year	Labor Force	Employment	Unemployment	Jobless Rate
2016	5364	4957	407	7.6%
2015	5264	4852	412	7.8%
2014	5329	4823	506	9.5%
2013	5375	4760	615	11.4%
2012	5368	4736	632	11.8%
2011	5498	4793	705	12.8%
2010	5631	4832	799	14.2%
2009	6390	5527	863	13.5%
2008	6459	5864	595	9.2%
2007	6655	6120	535	8.0%
2006	6811	6274	537	7.9%
<i>Source: Michigan Bureau of Labor Market Information and Strategic Initiatives</i>				

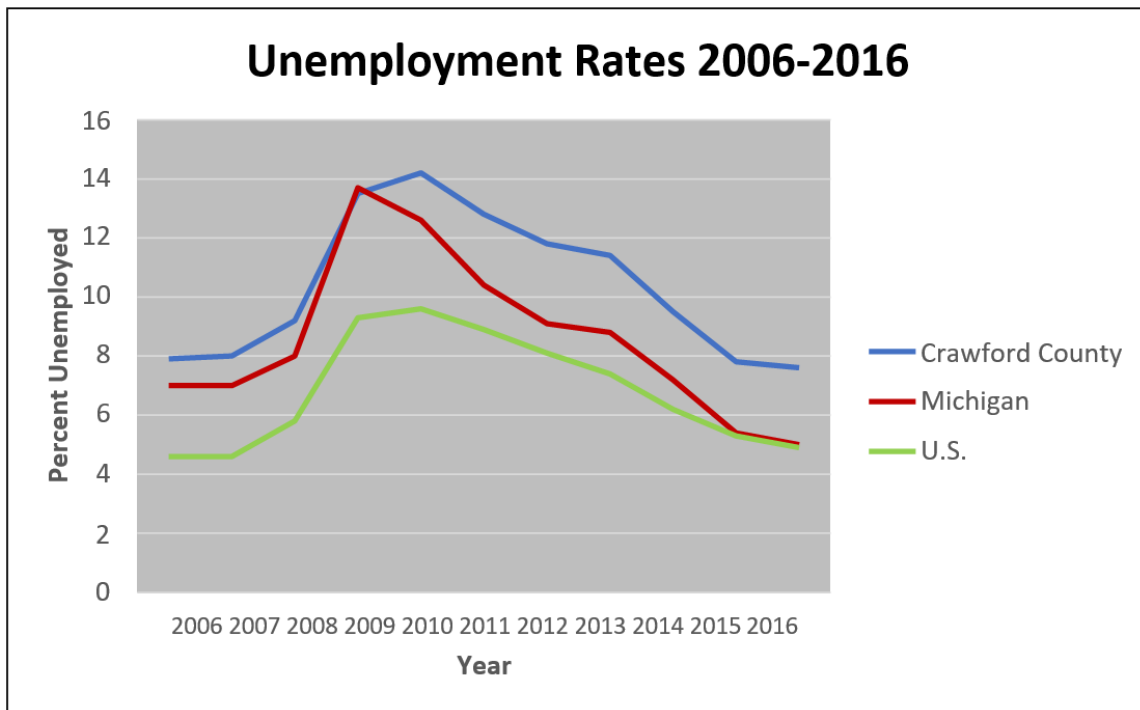


Figure 2-4: Unemployment Rates 2006-2016

Wage and Salary Employment

Within the township and county, the largest employment sectors are manufacturing, retail trade and services. Service employment in 2016 was dominant at 50.7% in South Branch Township. Employment in retail trade was second at 13.1% of employment. Manufacturing employment was a close third at 12.2% of employment (**Table 2-13**).

Table 2-13: Total Resident Employed Population by Major Employment Type (2016)				
Category	South Branch Township		Crawford County	
	Total	Percent	Total	Percent
Agricultural, Forestry, Fishing & Mining	3	0.5%	76	1.5%
Construction	32	4.8%	317	6.1%
Manufacturing	82	12.2%	512	9.9%
Transportation, Warehousing & Utilities	6	0.9%	352	6.8%
Wholesale Trade	5	0.7%	87	1.7%
Retail Trade	88	13.1%	695	13.4%
Finance, Insurance & Real Estate	25	3.7%	183	3.5%
Services	341	50.7%	2508	48.3%
Public Administration	72	10.7%	412	7.9%
Source: 2016 American Community Survey 5-Year Estimates (U.S. Census Bureau)				

Table 2-14: Employment & Wages for Crawford County (2016)

Industry	Number of Establishments	Average Employment	Avg Weekly Wages
Agriculture, forestry, fishing & hunting	**	**	**
Mining	**	**	**
Utilities	**	**	**
Construction	23	176	\$1203
Manufacturing	16	426	\$1054
Wholesale trade	4	100	\$996
Retail trade	44	448	\$478
Transportation and warehousing	6	42	\$630
Information	4	33	\$489
Finance and insurance	13	84	\$786
Real estate and rental and leasing	12	29	\$457
Professional and technical services	20	99	\$797
Administrative and waste services	14	50	\$829
Educational services	**	**	**
Health care and social assistance	30	905	\$918
Arts, entertainment, and recreation	5	31	\$435
Accommodation and food services	34	509	\$263
Other services, except public administration	28	93	\$458
Federal government	4	126	\$1009
State government	8	217	\$985
Local government	13	397	\$764
<i>Source: Michigan DTMB Michigan Bureau of Labor Market Information and Strategic Initiatives Quarterly Census of Employment & Wages – 4th Quarter 2016 *Data suppressed. **Data was not included in database.</i>			

Table 2-14 shows that, in Crawford County, the top industries producing the greatest number of establishments are retail trade, accommodation and food services, and health care and social assistance followed by other services, construction, and professional and technical services. However, health care and social assistance employs the greatest average number of workers by almost double that of accommodation and food services, which comes in second. Construction, manufacturing, and the federal government produce the highest weekly wages followed by wholesale trade, state government, and health care and social assistance.

Commuting to Work

The vast majority of residents of South Branch Township drive alone to work (**Table 2-15**). According to the 2016 American Community Survey, 2.6% of workers worked from home.

Table 2-15: South Branch Township Work Commute 2016		
Mode of Transportation	Number	Percent
Drove Alone	567	85.4%
Carpooled	75	11.3%
Public Transportation (includes taxi)	0	0.0%
Walked	5	0.8%
Bicycle	0	0.0%
Worked at home	17	2.6%
Source: 2016 American Community Survey 5-Year Estimates (U.S. Census Bureau)		

Jobs & Workers in South Branch Township – Detailed Tables

The following tables show a detailed breakdown of jobs and workers within South Branch Township.

Table 2-16 shows how the jobs are broken down in terms of age and earnings. **Table 2-17** shows job inflow and outflow. It should be noted that only 14 people both live and are employed within South Branch Township, 562 people live in the township and work outside of that area, 33 people live outside the township but work within it. **Table 2-18** shows where workers are living that are employed in the township while **Table 2-19** shows where township residents are working.

Table 2-16: Jobs in South Branch Township (2015)	Count	Share
<i>Total Jobs</i>	<i>47</i>	<i>100.0%</i>
Jobs by Worker Age		
Age 29 or younger	8	17.0%
Age 30 to 54	25	53.2%
Age 55 or older	14	29.8%
Jobs by Earnings		
\$1,250 per month or less	19	40.4%
\$1,251 to \$3,333 per month	14	29.8%
More than \$3,333 per month	14	29.8%
Source: U.S. Census Bureau "On the Map"		

Table 2-17: Job Inflow/Outflow in South Branch Township (2015)		Count	Share
Employed in South Branch Township		47	
Living in South Branch Township		576	
Net Job Inflow (+) or Outflow (-)		-529	
In-Area Labor Force Efficiency			
Living in South Branch Township		576	100.0%
Living and Employed in South Branch Township		14	2.4%
Living in South Branch Township but Employed Outside		562	97.6%
In-Area Employment Efficiency			
Employed in South Branch Township		47	100.0%
Employed and Living in South Branch Township		14	29.8%
Employed in South Branch Township but Living Outside		33	70.2%
Outflow Job Characteristics			
External Jobs Filled by Residents		562	100.0%
Workers Aged 29 or younger		108	19.2%
Workers Aged 30 to 54		311	55.3%
Workers Aged 55 or older		143	25.4%
Workers Earning \$1,250 per month or less		171	30.4%
Workers Earning \$1,251 to \$3,333 per month		221	39.3%
Workers Earning More than \$3,333 per month		170	30.2%
Workers in the "Goods Producing" Industry Class		125	22.2%
Workers in the "Trade, Transportation, and Utilities" Industry Class		129	23.0%
Workers in the "All Other Services" Industry Class		308	54.8%
Inflow Job Characteristics			
Internal Jobs Filled by Outside Workers		33	100.0%
Workers Aged 29 or younger		7	21.2%
Workers Aged 30 to 54		14	42.4%
Workers Aged 55 or older		12	36.4%
Workers Earning \$1,250 per month or less		14	42.4%
Workers Earning \$1,251 to \$3,333 per month		11	33.3%
Workers Earning More than \$3,333 per month		8	24.2%
Workers in the "Goods Producing" Industry Class		7	21.2%
Workers in the "Trade, Transportation, and Utilities" Industry Class		0	0.0%
Workers in the "All Other Services" Industry Class		26	78.8%
Interior Flow Job Characteristics			
Internal Jobs Filled by Residents		14	100.0%
Workers Aged 29 or younger		1	7.1%
Workers Aged 30 to 54		11	78.6%
Workers Aged 55 or older		2	14.3%
Workers Earning \$1,250 per month or less		5	35.7%
Workers Earning \$1,251 to \$3,333 per month		3	21.4%
Workers Earning More than \$3,333 per month		6	42.9%
Workers in the "Goods Producing" Industry Class		3	21.4%
Workers in the "Trade, Transportation, and Utilities" Industry Class		0	0.0%
Workers in the "All Other Services" Industry Class		11	78.6%
Source: US Census Bureau "On the Map"			

Table 2-18: Residency of Workers Employed in South Branch Township (2015)

	Count	Share
Total Jobs	47	100.0%
Grayling, MI	2	4.3%
Roscommon, MI	2	4.3%
Fishers, IN	1	2.1%
Houghton Lake, MI	1	2.1%
St. Helen, MI	1	2.1%
Skidway Lake, MI	1	2.1%
All Other Locations	39	83.0%

Source: US Census Bureau "On the Map"

Inflow/Outflow Job Counts in 2015

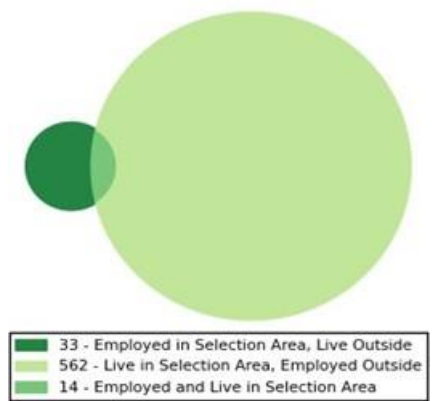


Table 2-19: Employment areas of South Branch Township Residents (2015)

	Count	Share
Total Jobs	576	100.0%
Grayling, MI	63	10.9%
Roscommon, MI	48	8.3%
Houghton Lake, MI	21	3.6%
Traverse City, MI	13	2.3%
Gaylord, MI	9	1.6%
Lansing, MI	8	1.4%
Alpena, MI	6	1.0%
Detroit, MI	6	1.0%
Midland, MI	6	1.0%
Mio, MI	6	1.0%
All Other Locations	390	67.7%

Source: US Census Bureau "On the Map"

State Equalized Value

By analysis of the State Equalized Value (SEV), characteristics of property values can be obtained. As shown by **Table 2-20** and **Figure 2-5**, South Branch Township's residential SEV decreased slightly from 2014 to 2015, and then has increased steadily. Commercial SEV steadily rose until 2017 and declined slightly in 2018. South Branch Township's Industrial SEV has fallen steadily since 2014. As of 2018, there are no industrial properties in the township. Personal property has fluctuated and increased since 2014. Overall SEV dropped slightly in 2015 and has increased in the township. **Table 2-21** and **Figure 2-10** show overall SEV in the townships located in Crawford County. **Figure 2-5** through **Figure 2-9** show the change in SEV per property class between 2014-2018.

Table 2-20: South Branch Township Assessed Value: 2014-2018

Year	Agricultural Real Property	Residential Real Property	Commercial Real Property	Industrial Real Property	Personal Property	Real & Personal Property
	\$	\$	\$	\$	\$	\$
2018	0	91,505,300	2,813,800	0	4,032,000	98,351,100
2017	0	89,865,200	2,852,800	15,300	3,812,100	96,545,400
2016	0	85,922,800	2,221,200	14,900	3,919,400	92,078,300
2015	0	84,075,000	2,102,600	15,100	3,809,400	90,002,100
2014	0	84,959,200	1,807,200	20,100	3,864,600	90,651,100

Source: Michigan Department of Treasury

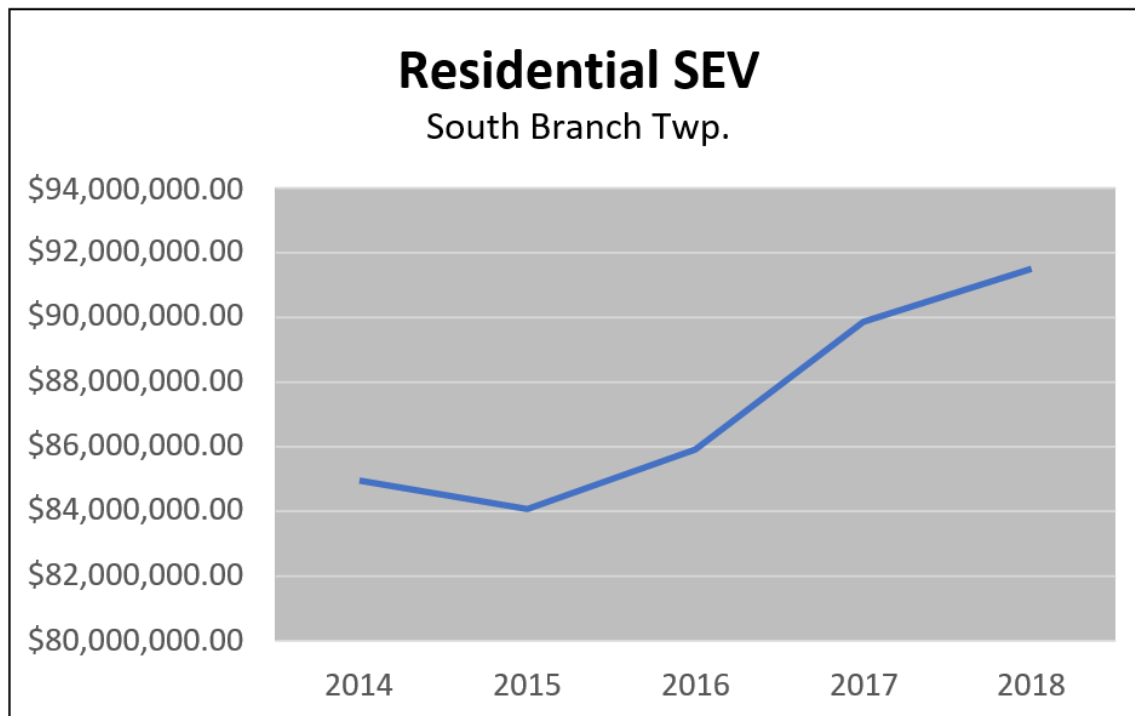
**Figure 2-5: Residential SEV**

Figure 2-6: Commercial SEV

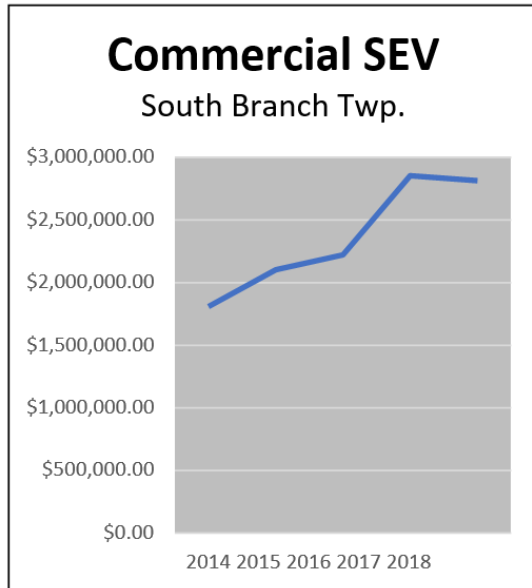


Figure 2-7: Industrial SEV

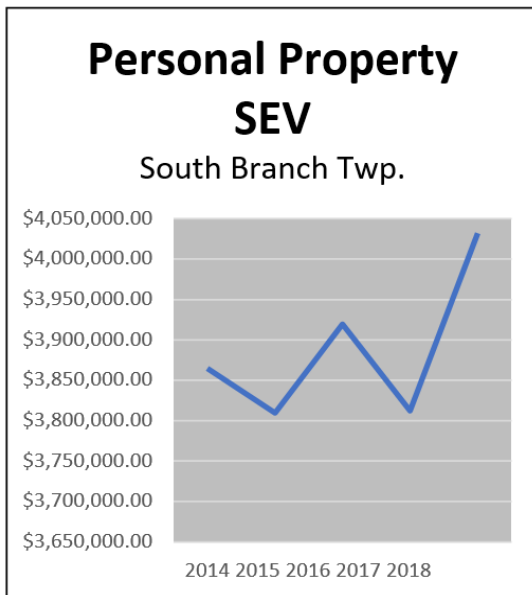
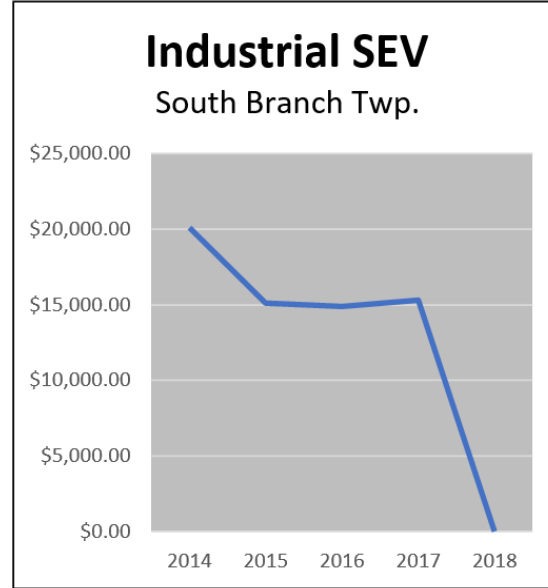


Figure 2-8: Personal Property SEV



Figure 2-9: Real + Personal Property SEV

Table 2-21: Crawford County Assessed Value: 2014-2018					
	2014	2015	2016	2017	2018
	\$	\$	\$	\$	\$
Beaver Creek Twp	86,807,250	89,610,700	79,048,100	78,644,750	92,007,700
Frederic Twp	62,992,800	65,167,900	63,740,169	66,260,900	65,832,025
Grayling Twp	233,676,350	222,910,250	231,319,000	246,096,500	277,700,900
Lovells Twp	71,001,600	66,915,575	69,482,600	75,330,900	73,225,600
Maple Forest Twp	30,845,060	27,674,000	27,674,510	27,574,700	28,309,600
South Branch Twp	90,651,100	90,002,100	92,078,300	96,545,400	98,351,100
City of Grayling	50,070,800	50,367,300	50,062,800	53,627,800	53,706,800
Source: Michigan Department of Treasury					

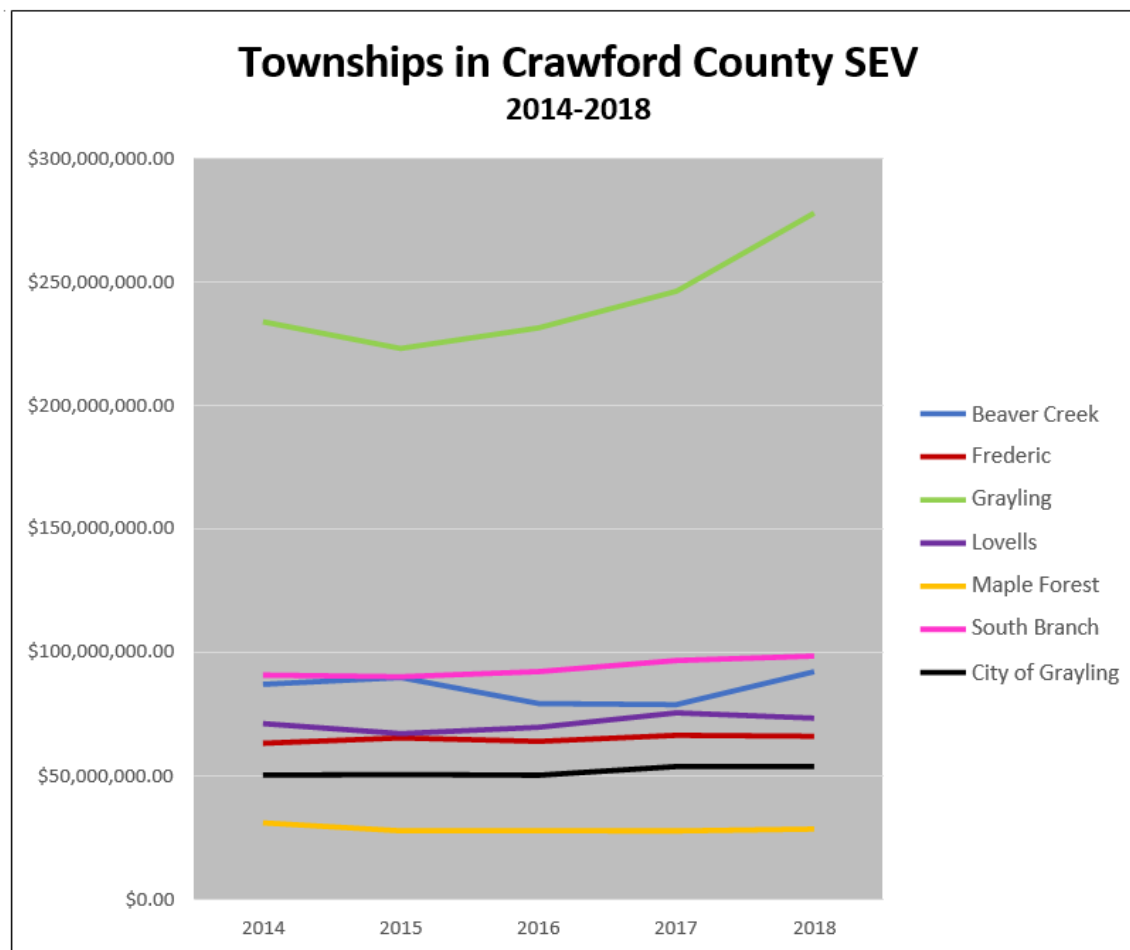


Figure 2-10: Townships in Crawford County SEV

South Branch Township Finances

The "Stress Meter" provides an overview of Indicator Scores used to calculate the financial stress of a municipality. The Indicator Score gives an overall picture of the soundness of local governments, the trend of stability over time, and allows the identification of local units that are most in need of help. Scores are generated based on the criteria of population growth, real taxable value growth, large real taxable value growth, general fund expenditures as a percent of taxable value, general fund operating deficit, prior general fund operating deficit, size of general fund balance, fund deficits in current or previous year, and general long-term debt as a percent of taxable value. A low number identifies a fiscally sound local unit. There are three categories of scores grouped by color; shades of green, blue, and red (**Table 2-22**).

Table 2-22: Fiscal Distress Indicator System	
Points from Scale	Category
0-4	Fiscally Neutral
5-7	Fiscal Watch
8-10	Fiscal Stress

Source: Munetrix LLC, 2012

Figure 2-11 shows the indicator scores for all municipalities in Northeast Michigan. The graph shows a trend of more moderate fiscal stress in 2008, 2013, and 2014, but most municipalities remain in the Fiscally Neutral category throughout. **Figure 2-12** shows the indicator scores for municipalities within Crawford County. As can be seen, most municipalities in Crawford County are in extremely low fiscal stress, but a small percentage have higher stress level.

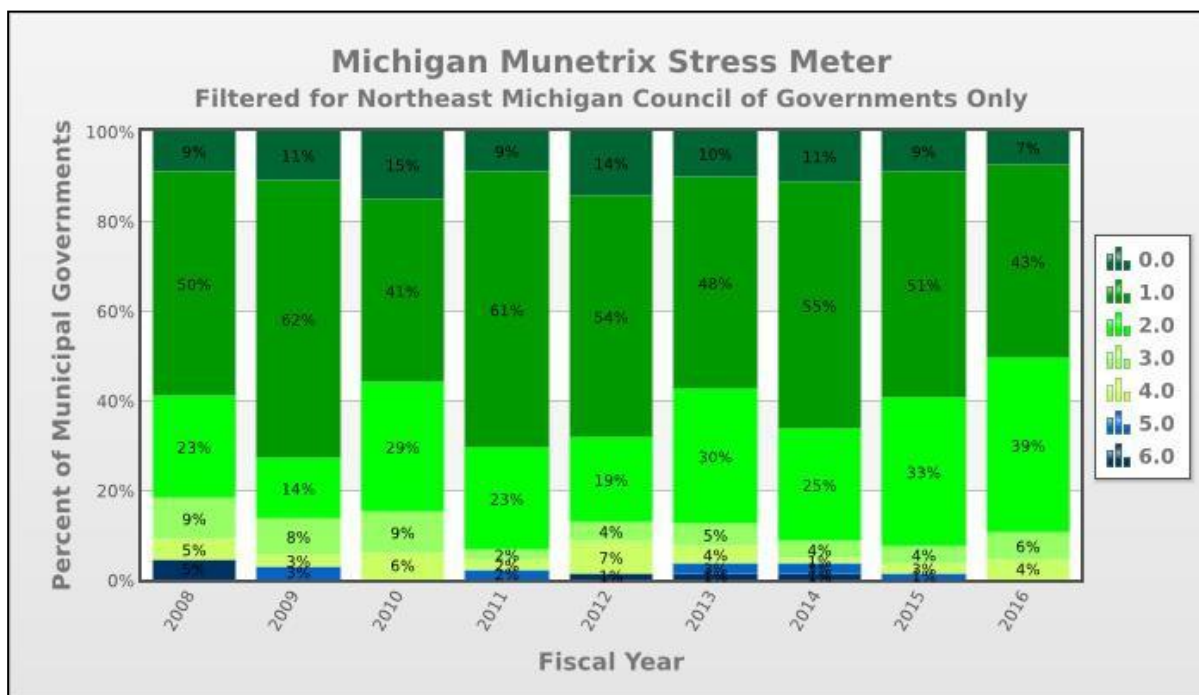


Figure 2-11: Michigan Munetrix Stress Meter (Northeast Michigan)

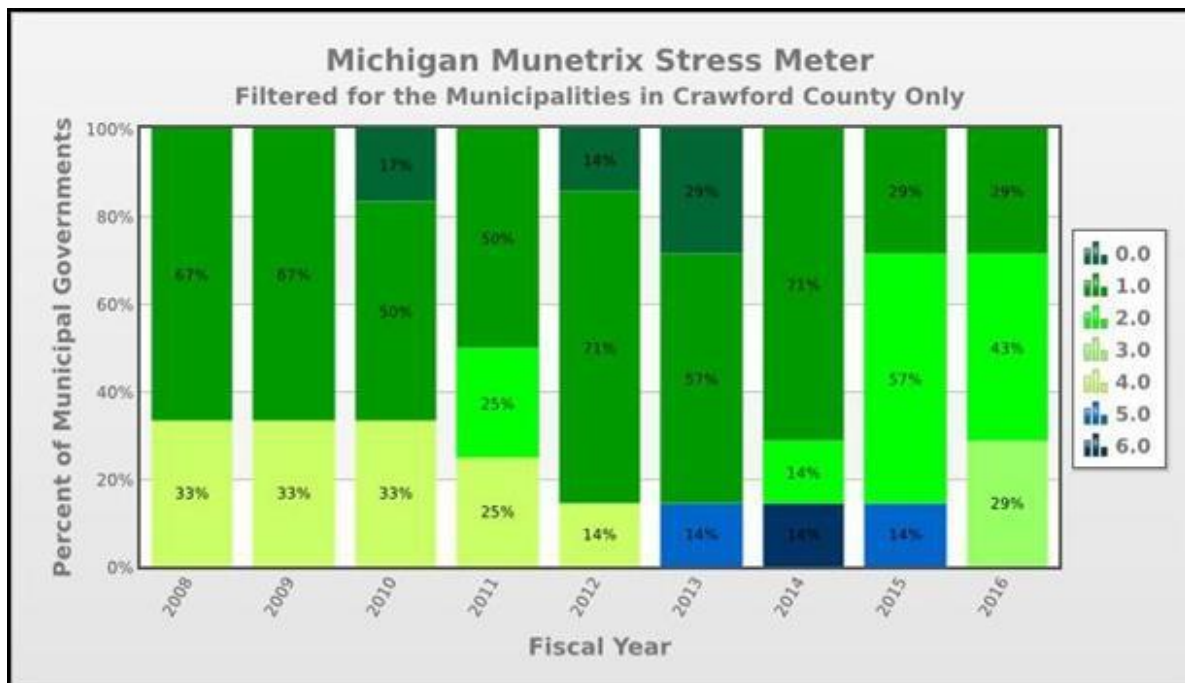


Figure 2-12: Michigan Munetrix Stress Meter (Crawford County)

Information contained in this section was generated from F65 forms filed with the State of Michigan each year. The Northeast Michigan Council of Governments is a Munetrix subscriber. This section is intended to give a summary of the financial health of South Branch Township. Indicator triggers can be located throughout the graphs on the following pages. These indicators refer to trigger points at which communities could be facing a higher fiscal stress score. **Table 2-23** provides a snapshot of the overall financial health of the township from 2008 to 2016. The consistent indicator scores of 1 reflect very low fiscal stress in the township. **Table 2-24** shows that South Branch Township ranks 4th in total township expenditures in the county and ranks 5th in expenditures per capita. Of the 81 townships in the Northeast Michigan Eight-County Region, South Branch ranks 8th in total expenditures and 17th in expenditures per capita.

Year	Indicator Score	Population	Revenues	Expenditures	Fund Balance	Long Term Debt	Taxable Value
2016	1	1,957	\$341,060	\$260,313	\$925,913	\$0	\$80,541,605
2015	1	1,957	\$336,837	\$253,912	\$845,166	\$0	\$79,190,375
2014	1	1,949	\$320,478	\$262,259	\$762,241	\$0	\$77,830,498
2013	1	1,975	\$330,541	\$321,618	\$704,022	\$0	\$76,753,323
2012	1	1,989	\$327,035	\$375,835	\$695,099	\$38,356	\$77,762,665
2011	1	1,999	\$317,372	\$339,480	\$743,899	\$75,272	\$80,707,374
2010	1	2,005	\$328,507	\$323,229	\$766,007	\$110,803	\$87,823,794
2009	1	1,743	\$341,847	\$316,726	\$760,729	\$145,000	\$95,877,171
2008	1	1,773	\$344,726	\$339,391	\$735,608	\$0	\$90,946,471

Source: Munetrix LLC 2016

Table 2-24: Expenditures Per Capita – Crawford County Townships

Townships	Population	Total Expenditures	Peer Rank ¹	Expenditures Per Capita	Peer Rank ²
Beaver Creek	1,692	\$753,358	3	\$445	2
Frederic	1,354	\$1,393,856	1	\$1,029	1
Grayling	5,707	\$1,146,264	2	\$201	6
Lovells	612	\$265,731	6	\$434	3
Maple Forest	635	\$271,566	5	\$428	4
South Branch	1,957	\$741,228	4	\$379	5

Source: Munetrix LLC 2016

¹Rank is based on Total Expenditures

²Rank is based on the Cost per Resident

Revenues and Expenditures

Revenue is generated from tax dollars received from residents and businesses which are generated from the millage rate multiplied by property valuations. Revenue is also generated from other sources such as State and Federal grants, permits, and fees. **Figure 2-13** shows the sources of revenue for South Branch Township. The largest revenue sources are Property Taxes, State Revenue Sharing, and Other Revenue.

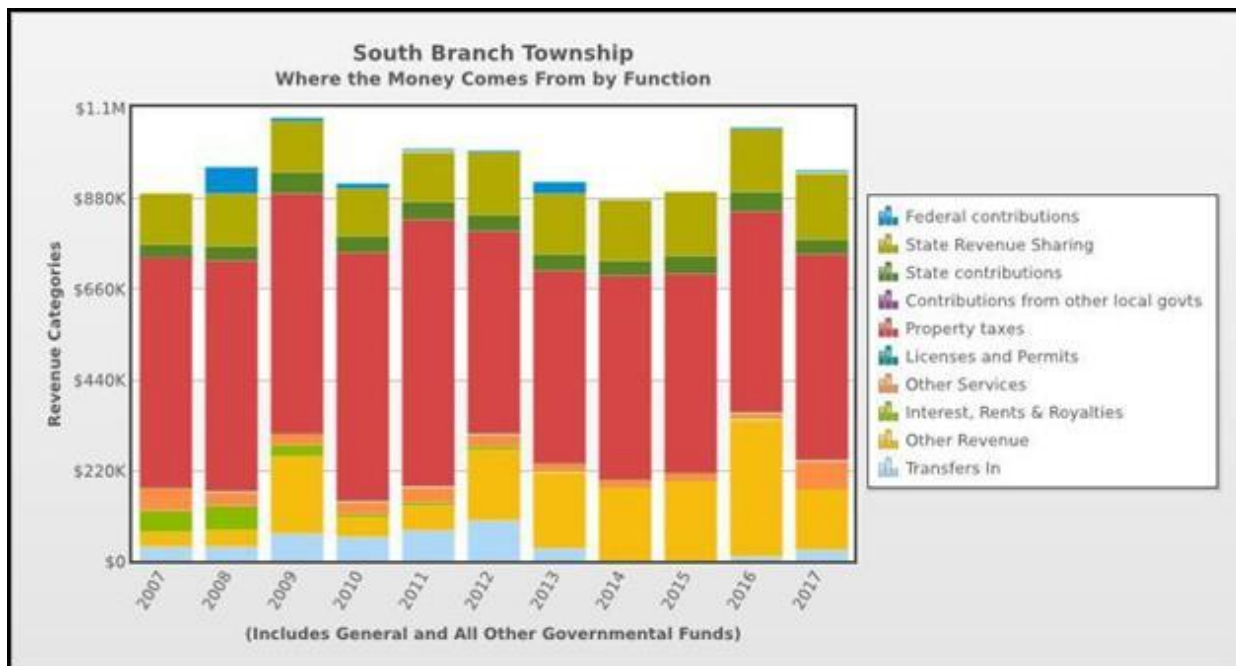


Figure 2-13: South Branch Township Revenue Breakdown

As a service provider for the community, expenses cover the costs associated with running the township government. As seen in **Figure 2-14**, the majority of South Branch Township expenses are incurred in the category of General Government. **Figure 2-15** shows the net effect of revenues and expenditures on fund equity. **Figure 2-16** shows available reserves (total equity minus any designated and reserved funds) divided by total annual expenditures. **Figure 2-17** shows general fund expenditures as a percent of taxable value. This indicator assesses the size of a unit's public sector relative to its ability to generate revenues. A unit that scores relatively high on this variable indicates a unit that has a large public sector relative to the size of its tax base. Units with high scores on this indicator may wish to decrease this ratio through cutting expenditures, providing more efficient delivery of services, and/or attracting new residents or businesses that will increase the tax base. South Branch Township expenditures are safely below the trigger in this category. **Figure 2-18** shows long-term debt as a percent of taxable value; South Branch Township debt is far below the indicator trigger. **Figure 2-19** shows the size of the fund balance. Again, South Branch Township is well below the trigger point and maintains a growing fund balance.

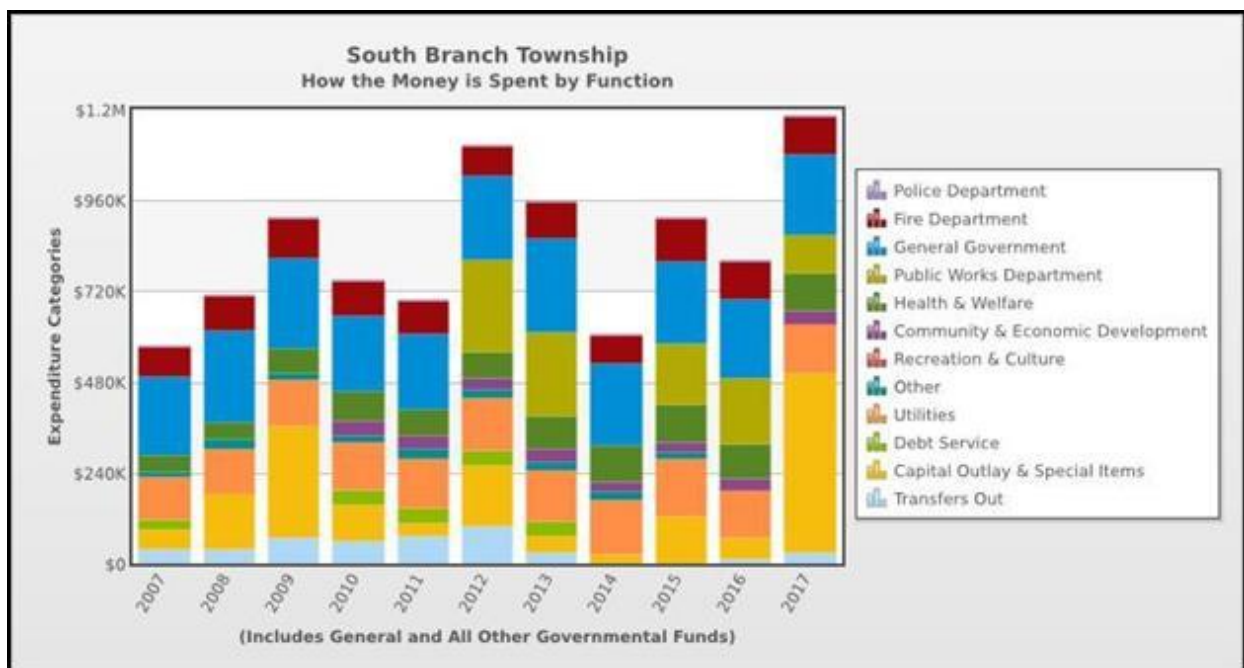


Figure 2-14: South Branch Township Expenditures

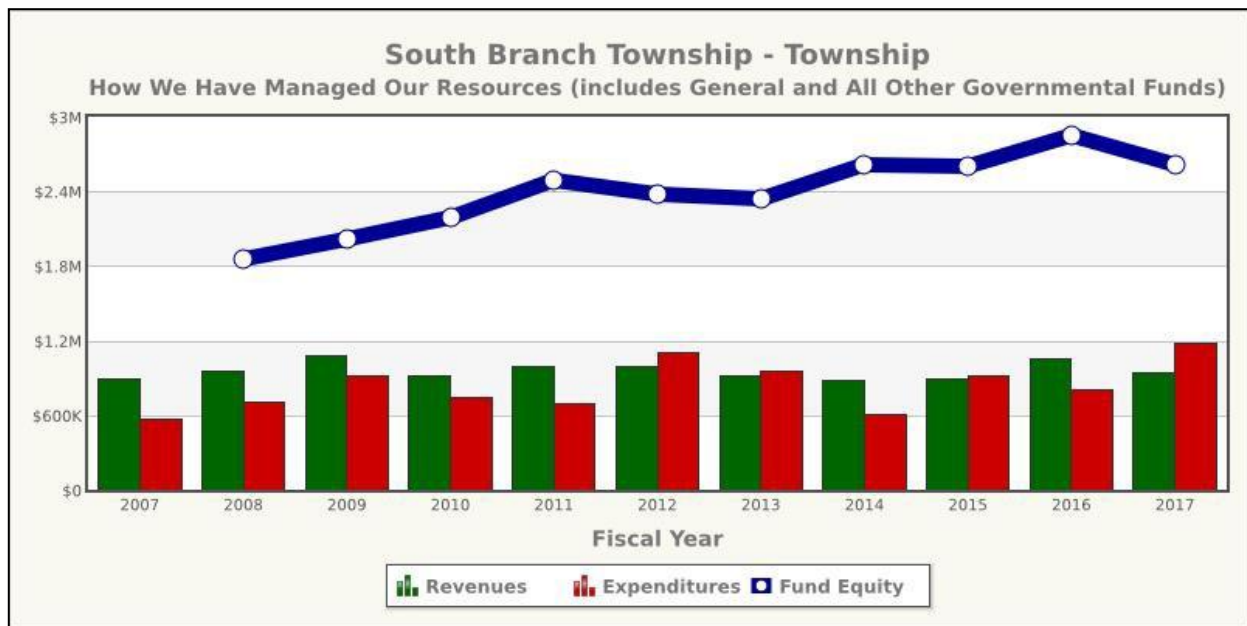


Figure 2-15: South Branch Township Revenues, Expenditures and Fund Equity

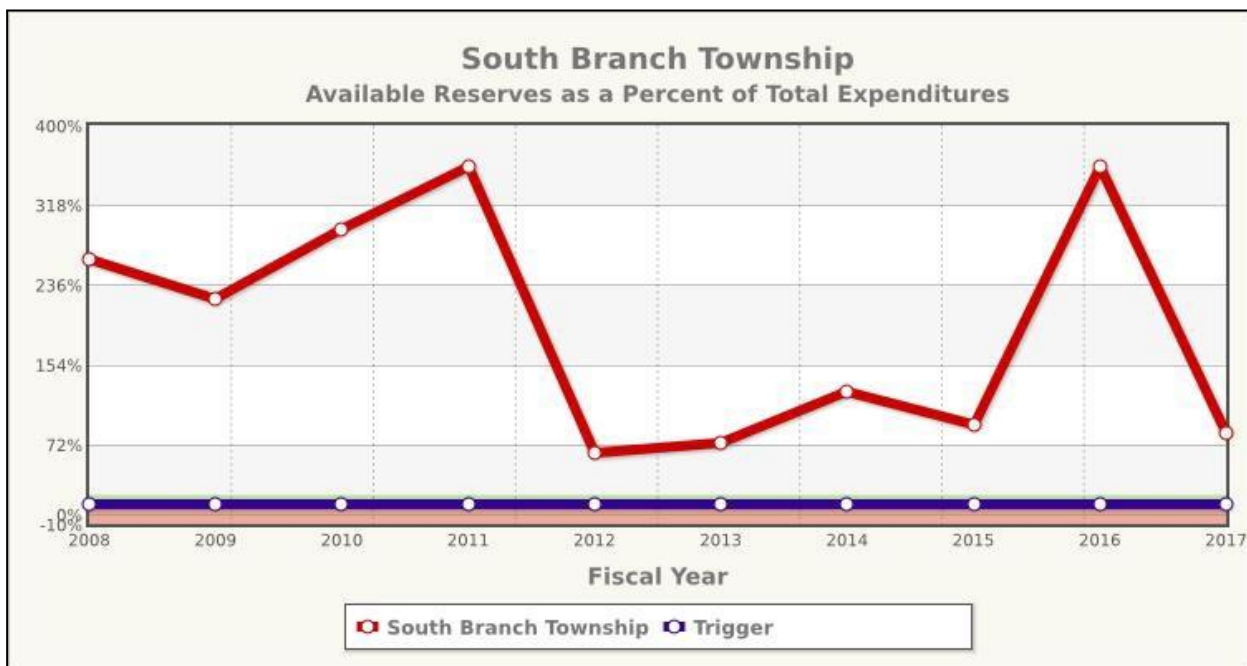


Figure 2-16: Available Reserves as a Percent of Total Expenditures

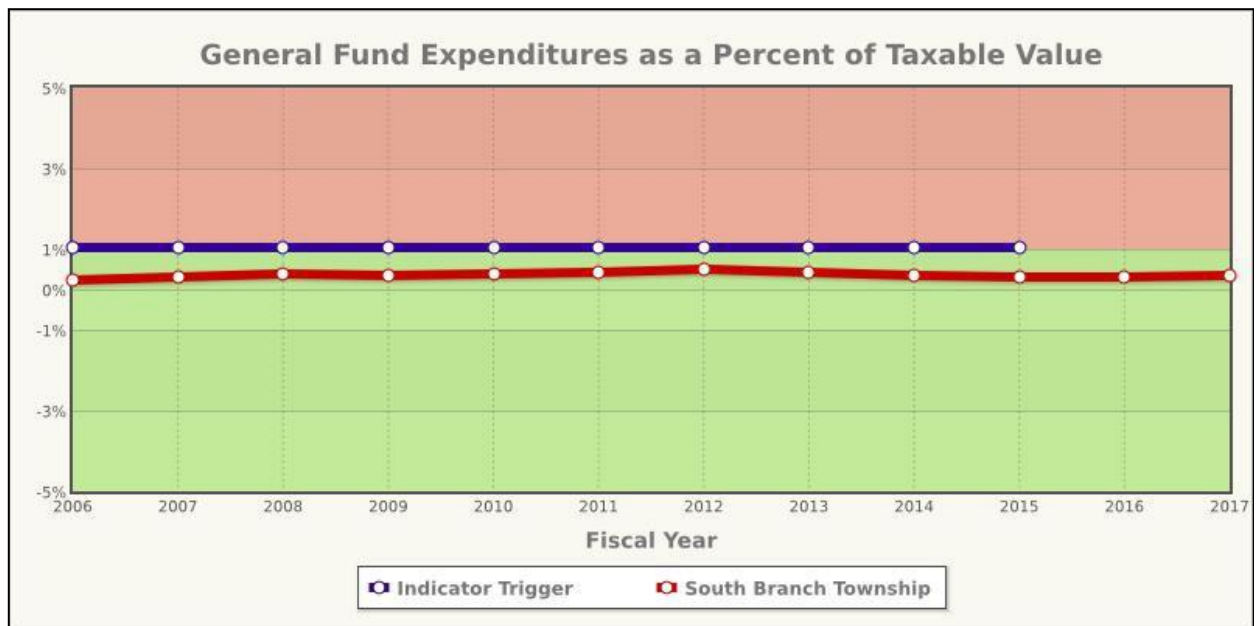


Figure 2-17: Expenditures as a Percent of Taxable Value

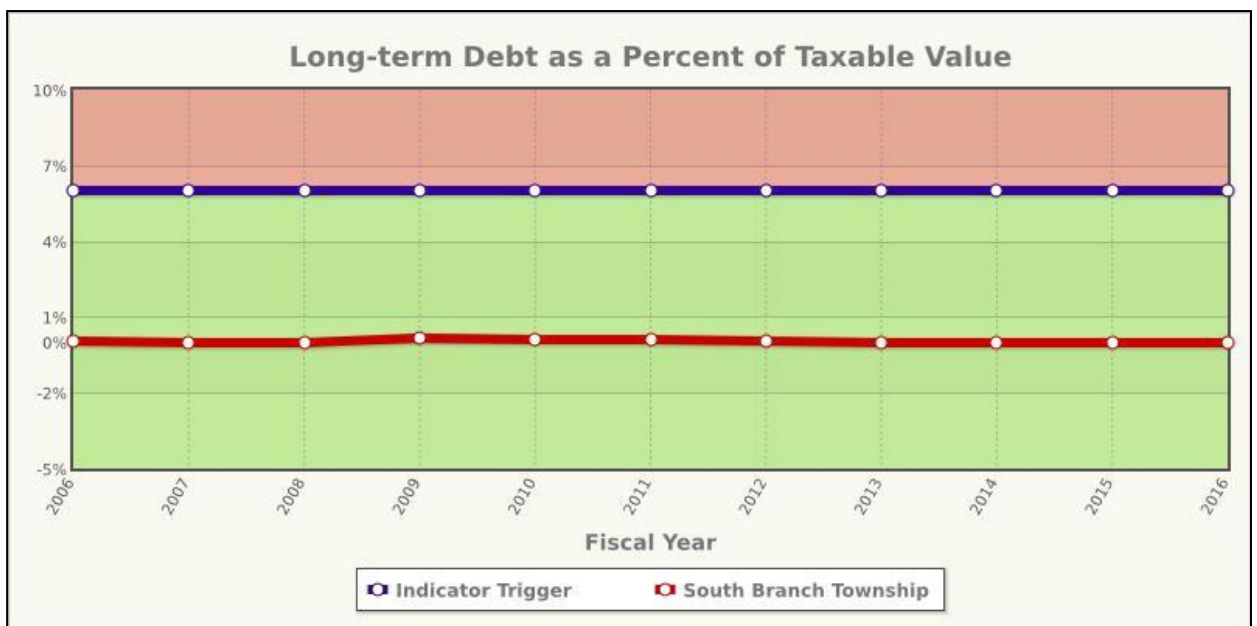


Figure 2-18: Long-Term Debt as a Percent of Taxable Value

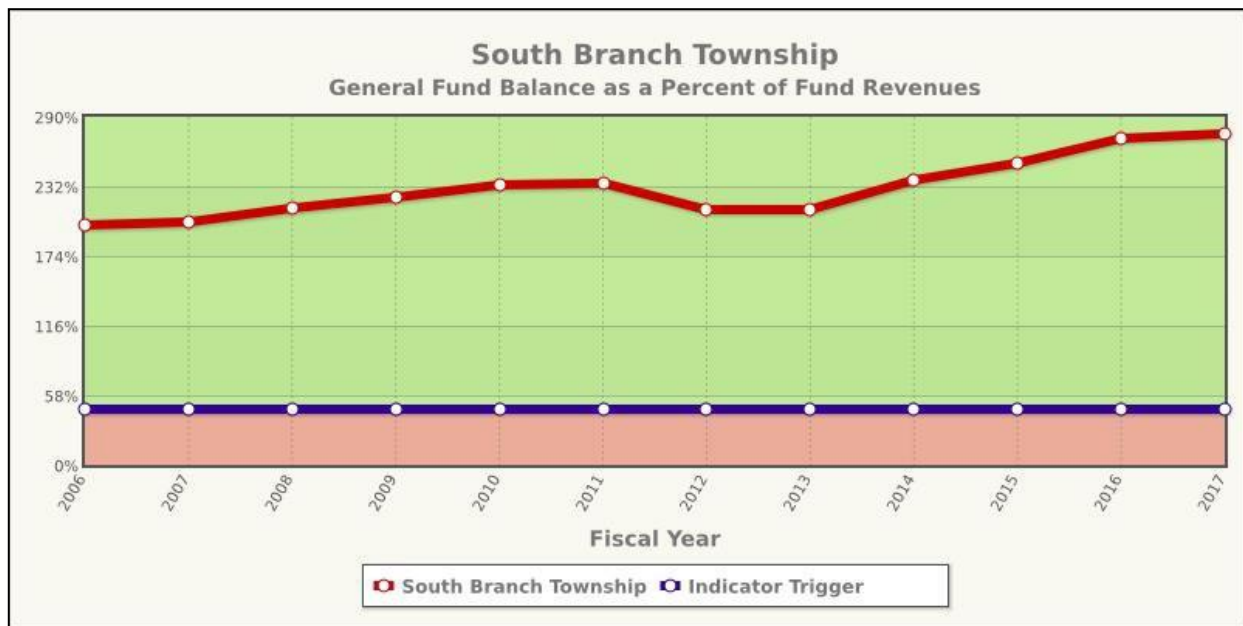


Figure 2-19: Size of Fund Balance

Crime Statistics

Crime statistics are often used on an operational level to provide information on how best to allocate municipal resources. Therefore, Munetrix LLC provides crime data which is used to evaluate needed resources in public safety.

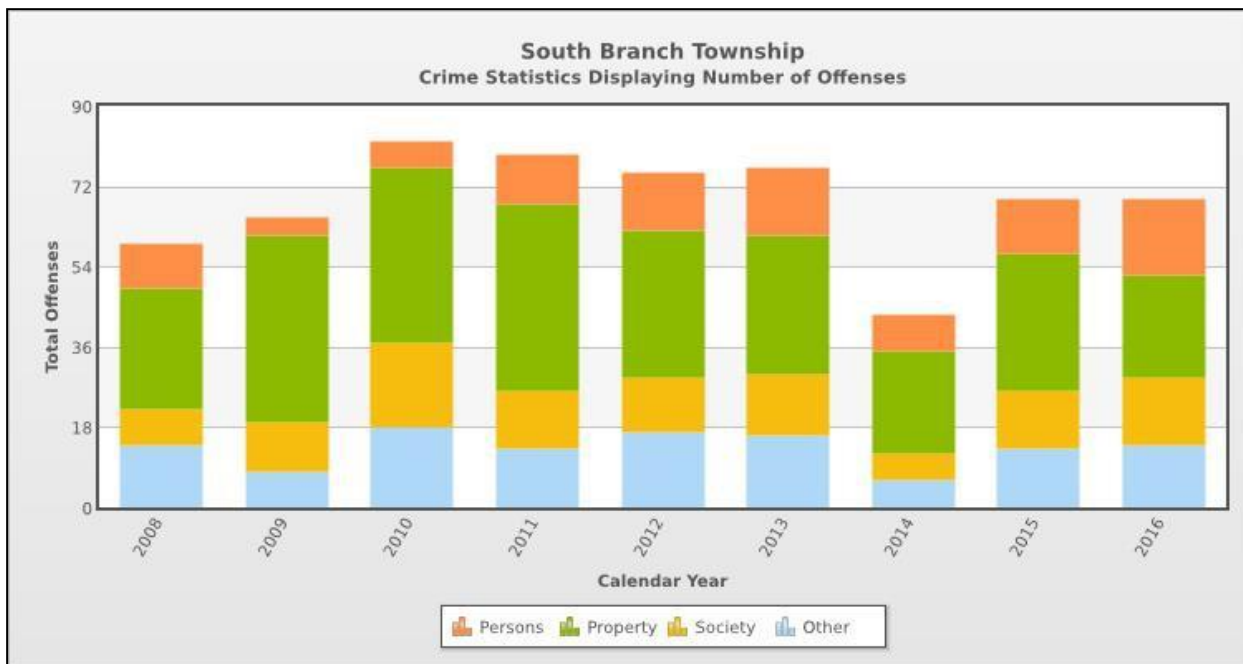


Figure 2-20: Crime Statistics

Chapter 3 - Community Facilities

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

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

Water and Sewage Disposal

South Branch Township does not provide public water or sewage disposal systems for township residents. The residents and business owners must rely upon on-site private wells for domestic drinking water needs and private on-site septic systems for wastewater disposal. District Health Department # 10 regulates and maintains a permitting system for private wells and septic systems.

Waste Disposal

Residents dispose of their garbage and recyclable materials at two township operated transfer stations. One refuse station is located on McMasters Bridge Road and the other is located on Pioneer Road. Township residents with improved properties pay a flat fee on their tax bill for disposal of solid waste. Non-residents may not use the township transfer stations. Businesses must contract with waste haulers to transport garbage to waste disposal facilities. Solid waste is disposed of in the USA Waste/Waste Management landfill facility located in Maple Forest Township in Crawford County. Current projected capacity of the landfill is 20 years. Single stream recycling is taken to a sorting facility.

Utility Services

The types of utility services vary depending upon the types of ownership and the density of development. A higher level of services such as natural gas and cable is provided to the more populated areas of the township. Due to the large amount of public land, utility services are lacking in some areas of the township. The costs of providing utilities to isolated residences can be costly. DTE Energy provides natural gas service and Consumer's Energy and Great Lakes Energy provide electricity to township residents. Various services are available for wireless and land telephone lines. Cable, satellite, and broadband are available in all parts of the township.

Postal Service

Residents of the township are served by two nearby U.S. Post Offices. They are located at 300 E. Michigan Ave. in Grayling and 281 Lake Street in Roscommon.

Transportation

The transportation network consists of state trunkline, county primary and secondary roads; seasonally maintained, unimproved public roads, and private roads. State trunkline route M-18 traverses the entire township.

State trunkline route M-72 traverses the northern part of South Branch Township, running east-west. Both M-18 and M-72 provide vital links bringing goods, services, and people to and from the region.

The county primary road network is made up of County Road 502, Chase Bridge Road, Pere Cheney Road, Old 144 and S. McMasters Bridge Road. The balance and majority of the transportation network are gravel, dirt and two-track roads including public and private roads.

The Crawford and Roscommon County Transportation Authorities each operate a county-wide dial-a-ride bus service. 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 and Flint Bishop Airport. International air service is available at 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.

Road Classification System:

The map of the roads in the township are shown in **Figure 3-1**.

- **Trunkline:** Consists of both state and federal highways and compromises the main highway corridors within the State as well as providing for connectivity with other states.
- **County Primary:** Consists of roads that are of greatest importance to an area and serve as a supplement to the trunkline system.
- **County Local:** Consists of year-round or seasonally open roads.

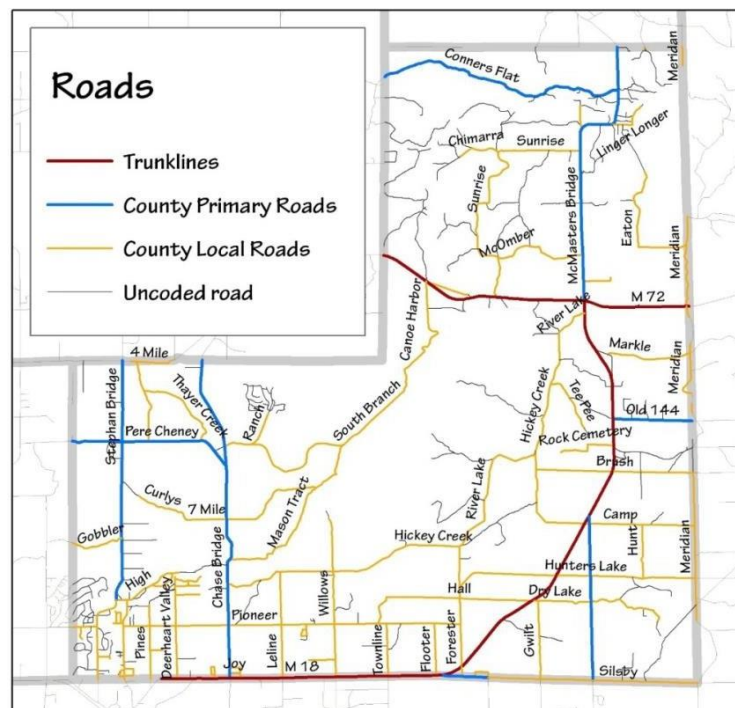


Figure 3-1: Road Classification System

Public Lands and Buildings

The location and amount of public land is a dominating force on land use patterns in South Branch Township. Seventy-one percent of the land area is publicly owned. The United States Forest Service (USFS) is the largest single owner covering 30,425 acres or 45% of the land area. The USFS lands cover much of the eastern side of the township. There are 17,718 acres owned by the State of Michigan (26%). Use of these public lands will continue to play significant roles in the character and future of the community. For example, Kirtland's warbler management areas and the Mason Tract have special management considerations that limit types of uses. **Figure 3-2** depicts land ownership in the township.

The township maintains two public buildings, the Township Hall and Township Fire Hall. Both located in the southwest quarter of the township.

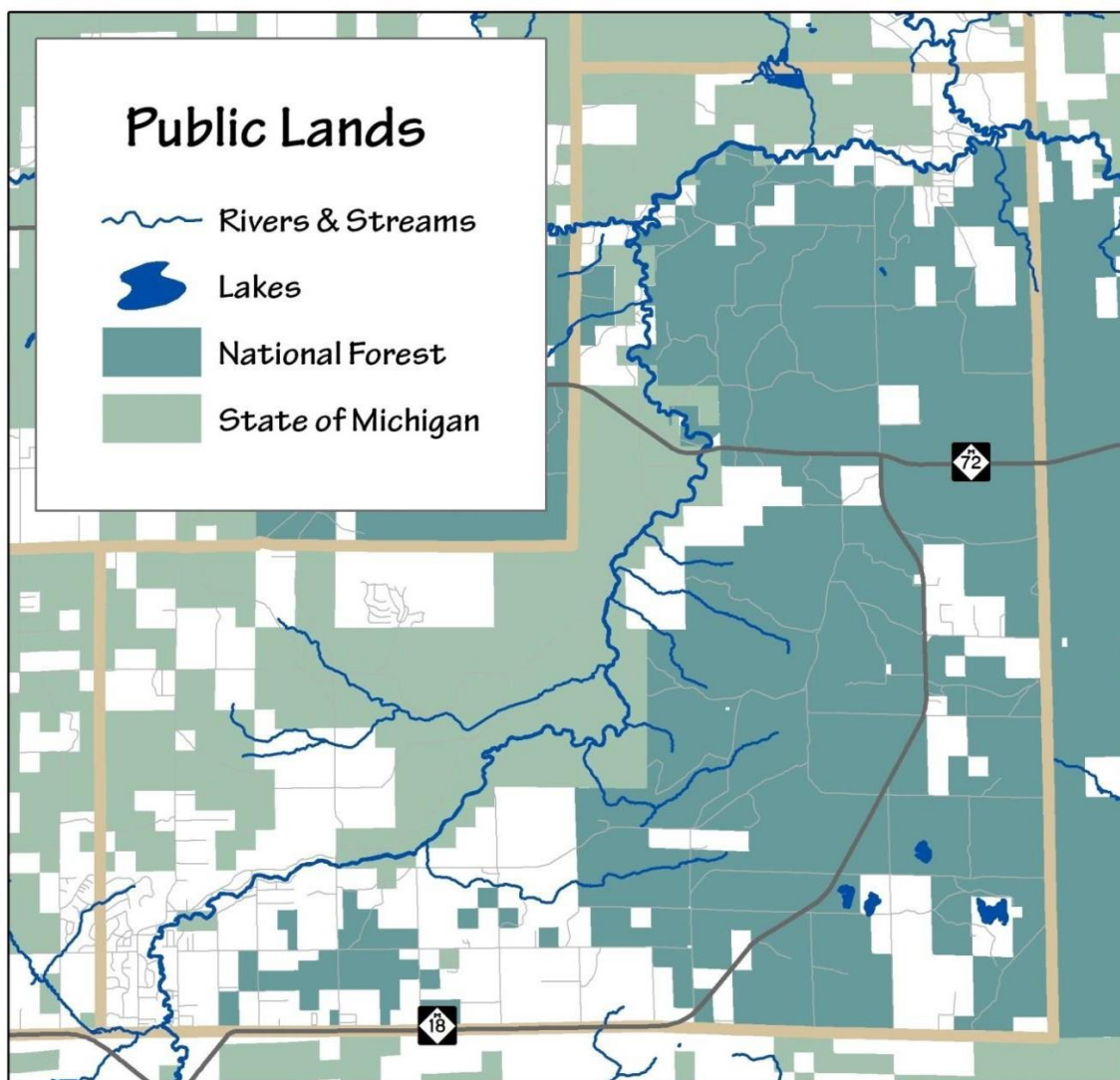


Figure 3-2: Public Lands

The Fisherman's Chapel is a publicly owned building located along the east bank of the South Branch of the Au Sable River within the Mason Tract. Construction of the building was funded by the estate of George W. Mason. Though regular church services are not offered at the chapel, the facility is used for weddings, baptisms and eulogies with a permit from the DNR. Anglers from around the world use the chapel for peaceful meditations.

The George Mason River Retreat, also known as the Mason Tract, is a 4,493-acre special management area along the Au Sable River that protects the area's fishing waters. The Mason Tract includes the Mason Tract Pathway, an 8.7-mile trail that is maintained with help from the Friends of the Mason Tract. In 1954, George Mason entrusted 1,500 acres to the State of Michigan with the hope that it would remain a permanent game preserve with no camping allowed. Since then, the Mason Tract has expanded to 4,493 acres and allows for fishing, hunting, cross-country skiing, and hiking. Camping is not permitted along the pathway; however, there is camping at Canoe Harbor Campground.

Schools Libraries and Museums

South Branch Township is located in the Roscommon Area Public School District. Students K-12th grade attend school in Roscommon or through schools of choice options. The Roscommon Area Public School District is part of the Crawford, Ogemaw, Oscoda and Roscommon (COOR) Intermediate School District (ISD). The ISD 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 and Mid Michigan Community College are two-year institutions serving the higher education needs of area residents. Kirtland is now based in Grayling with additional presence in Gaylord at the University Center. Limited vocational services are still offered at Kirtland in Roscommon. Mid Michigan Community College is located in Harrison. They both offer several certificate and degree programs, career and technical training.

There are no libraries or museums located in South Branch Township. Library facilities are located in Roscommon and Grayling. Memberships in these allow access to online services. Residents can also access the library at Kirtland Community College in Grayling.

Cemeteries

There are three cemeteries in South Branch Township, Pioneer Cemetery located at East Pioneer and Pines Trail, Rock Cemetery located on Rock Cemetery Road, and Ball Cemetery located near Camp Road and Hunt Road, near the old CCC Camp.

Public Safety

Law enforcement protection for South Branch Township is the responsibility of the Crawford County Sheriff Department and the Michigan State Police. The Crawford County Sheriff Department is located in Grayling. State Police Posts are located in Gaylord and Houghton Lake. Advanced life support service is provided by Mobile Medical Response (MMR), based in Grayling and Beaver Creek Township. The countywide enhanced 911 emergency services, operated from Crawford County Central Dispatch, is available for all county residents.

Fire protection is provided by the South Branch Township Fire Department, which employs full and part-time staff. The department responds to 220 calls per year. At the present time the department has 22 members, 17 firefighters, one Michigan first responder, 10 EMT Basics, one EMT Paramedic, one instructor/coordinator and one state certified firefighter. The department equipment consists of two engines or pumpers, two water tenders, two 6X6 wildfire trucks, a water point truck, a Husqvarna Utility Vehicle 4X4 rescue vehicle, a command vehicle and two basic level ambulances. The department has mutual aid agreements with Beaver Creek Township, Lovells Township, Richfield Township, Higgins Township and Grayling Township. The department is also in the process of joining a new Mutual Aid Box Alarm System (MABAS) that is being formed in Roscommon County. The Department of Natural Resources operates fire stations for wildfire suppression in Mio, Grayling and Higgins Lake.

- Fire Department started in 1974
- EMS Rescue started in 1987
- EMS Ambulance started in 1991
- River Rescue started in 1999

Medical Facilities

There are no medical facilities located in South Branch Township. Clinics, doctor, and dentist offices are located in Roscommon, Houghton Lake, Gaylord, and Grayling. An urgent care facility and Northsport Rehabilitation are located in Roscommon. Residents travel to Munson Healthcare Grayling Hospital, Mid-Michigan Medical Facility in West Branch, Otsego Memorial Hospital in Gaylord, Munson Medical Center in Traverse City, or McLaren Northern Michigan in Petoskey for health care services which are not available in Roscommon.

District 10 Health Department is often able to fill health care needs of the community, which are not available or affordable elsewhere. The Health Department service area consists of 10 counties: Crawford, Kalkaska, Missaukee, Lake, Manistee, Newaygo, Mason, Mecosta, Oceana and Wexford Counties. Health care programs offered by the Health Department are in three categories: home, environmental and personal health care 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.

Recreational Facilities

Nearly all the outdoor recreational facilities, both public and private, focus on the Au Sable River, which is the center piece of the community. Below is a list of recreational facilities:

Publicly Owned Facilities

1. South Branch Township Ball Field (located adjacent to the Town Hall).
2. Meads Landing – State boat access site to South Branch Au Sable River, recreation passport required.
3. Steckert Bridge - State boat access site to South Branch Au Sable River, recreation passport required.
4. Chase Bridge - Public access to South Branch Au Sable River, recreation passport required.
5. Smith Bridge - Public access to South Branch Au Sable River, recreation passport required, includes horse access to water for Shore-to-Shore recreational trail.
6. McMasters Bridge - Public access to Main Branch of the Au Sable River, recreation passport required.
7. Conner's Flats Public Access – Public access to the Main Branch of the Au Sable River, recreation passport required.
8. Mason Tract Pathway – 8.7-mile groomed ski and hiking trail parallels the South Branch of the Au Sable River, recreation passport required.
9. Mason Tract – 4,493 acres of land and 11 miles of South Branch of the Au Sable River, recreation passport required.
10. White Pine Canoe Campground – Au Sable River, camping fees required, no vehicle access.
11. Canoe Harbor Campground – DNR operated on the South Branch of the Au Sable River, camping fees and recreation passport required.
12. Rainbow Bend State Forest Canoe Campground – Au Sable River, camping fees and recreation passport required.

Private Owned Facilities

1. Paddle Brave Campground and Canoe Livery
2. Whippoorwill Acres Campground
3. Forest Dunes Golf Club
4. Roscommon Zoo – Petting Zoo
5. Jeremy and Lois Jones Conservation Easement (160-acre property).

Chapter 4 - Natural Resources

The woodlands, open spaces, wildlife, water, and rolling hills are several key resource values that draw people to both recreate and live in the township. Abundant public lands provide access to thousands of acres of recreational lands for hunting, hiking, wildlife viewing and snowmobiling. Several small lakes and the Au Sable River provide opportunities for fishing, boating and water sports. The South and Main Branches of the Au Sable River are clearly center pieces of the township.

A rural landscape, abounding with views of forestlands and wetlands, typifies the community character of township. Recreational use and production of forest goods are important to the local economy. These renewable yet priceless resources warrant special considerations when planning for future growth.

The protection and wise use of these natural resources are central to maintaining a sustainable community. Along with planning for the infrastructure like roads and utilities, a community needs to plan for the green infrastructure, forests, wetlands, farmland and water. Development, without consideration of carrying capacity of the land, can have long term negative impacts on these resources. When planning for future growth, the community should identify environmental constraints, such as wetlands, steeply sloped areas, ecological corridors and ground water recharge zones. This chapter will analyze the physical environment to assist local officials in developing a desired future of the township. Natural resources addressed include climate, geology, topography, soils, mineral gas/oil, water, vegetation and wildlife.

Climate

Typical of northern Michigan, the distinct four seasons offer an ever-changing landscape. Long snowy, cold winters and moderately warm summers are separated by a cool, green spring and a cool, colorful fall. Located in the north central part of the northern Lower Peninsula, the township is 50 miles inland from Lake Michigan and 65 miles inland from Lake Huron. Given this geographic location, except for lake effect snowfall, the weather is not significantly influenced by the moderating effect of both Great Lakes.

According to the United States Department of Agriculture, USDA, Soil Survey of Crawford County, the average annual precipitation is 31.95 inches (includes water equivalent of snowfall). Precipitation is heaviest during the summer months with 62% of the annual precipitation from April through September. The average annual snowfall is 92.9 inches.

Records show a long-term average of 127 days (1/3 of the year) where there is at least one inch of snow on the ground, and the number of days varies greatly from year to year. The average daily temperature ranges from 67.5°F for the Month of July to 17.7°F during January. The average mid-afternoon relative humidity is 63 percent. Since humidity levels are highest at night, the average relative humidity at dawn is 85 percent.

Geology

The rolling hills, river valleys, swamps and lakes were created by glacial activity. 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.

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

Each advance and retreat of the continental glaciers took tens of thousands of years. This reoccurring process shaped and reshaped the land, obliterating and then creating hills, valleys, rivers and lakes, swamps and marshes. The last glacial period, called the Wisconsin era, created the landscape we know today. The glacier left behind boulders, rocks, cobble, sand, gravel, silt, clay and loam. In some areas the material was deposited in unsorted masses called till plains, ground moraines and end moraines. Water flowing from the melting glaciers also sorted materials, creating outwash channels, sand deltas, kames and eskers. Fine materials, captured in the fast-moving glacial meltwater, settled to the bottom of expansive glacial lakes creating lacustrine clay and silt plains. **Figure 4-1** shows the formation of glacial landforms.

According to the USDA Crawford County Soil Survey, South Branch Township consists of a near level to gently sloping plain that is interrupted by a series of high kame moraines. Much of the gently sloping plain is over washed with sand. The kame moraines have a general east-west orientation. Some of the highest elevations in the county and township are found on these moraines. There are two small post-glacial lake plains in the southern parts of the township.

During some periods, the continental glacier's advance and retreat stagnated as the ice at the face of the glacier melted as fast as it advanced south. The debris-laden, glacial ice then deposited large amounts of materials in one locale. Acting like a large conveyer belt, the materials piled up at the front of the glacier forming moraines or glacial hills.

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 west, are located in the glacial drainage ways. These areas are dominated by sands and organic muck soils.

As the continental glaciers melted, huge blocks of ice became separated from the retreating ice front. The ice blocks became embedded in the glacial debris deposited by the retreating glacier. The embedded ice blocks eventually melted and left depressions called kettle holes which are today's inland lakes, associated wetlands and bogs. Kellogg Lake, Hiscock Lake, West Lake, Hunters Lake, and Conner's Marsh were created by this process.

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 once covered the area. 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, the upper layer of bedrock is Coldwater shale. Other bedrock formations beneath the glacial overburden include the

Michigan Formation and Marshall Formation. Natural gas deposits have been discovered in the Michigan and Marshall formation.

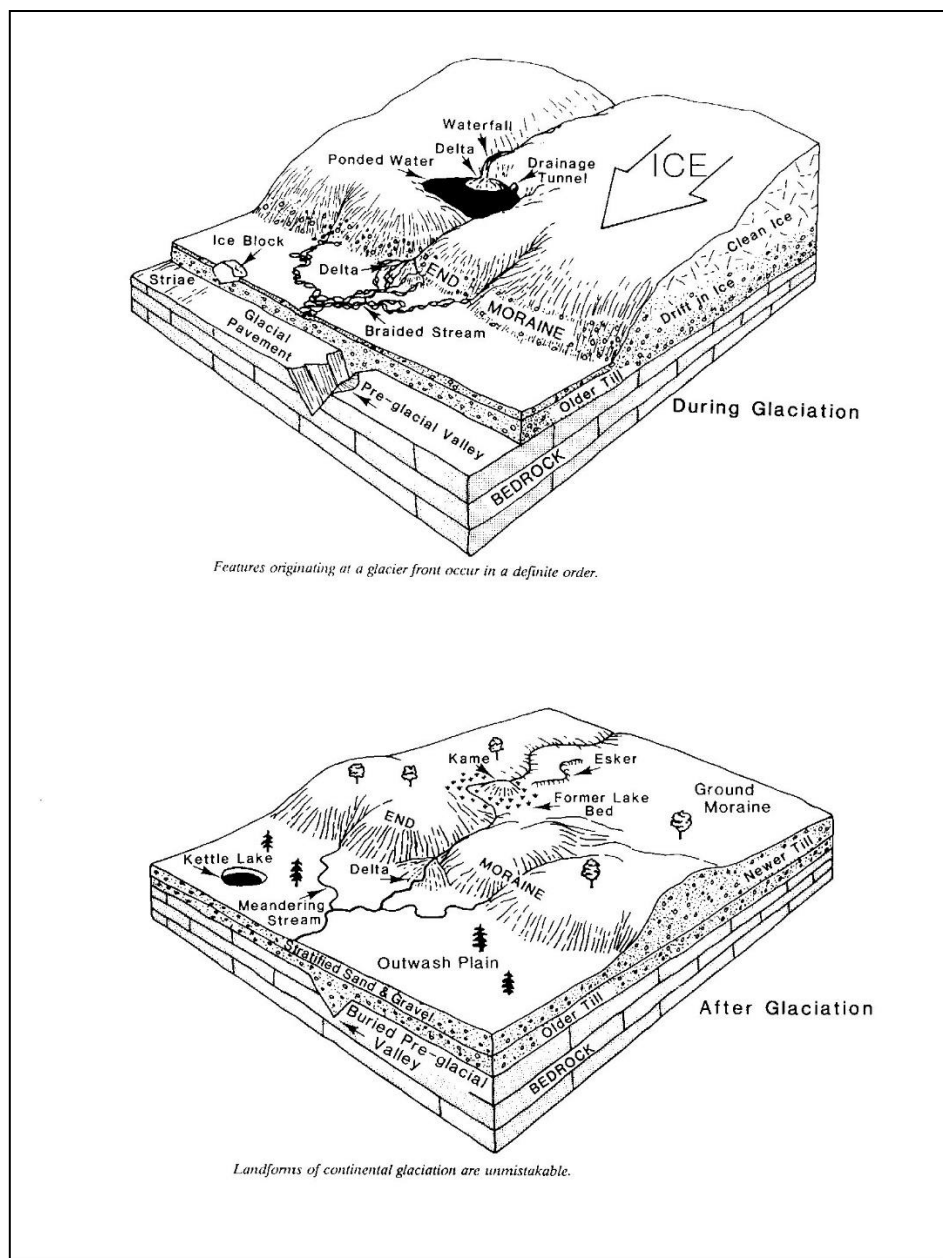


Figure 4-1: Formation of Glacial Landforms

Topography

South Branch Townships highest elevations are found at the tops of these kame moraines with elevations ranging from 1,300 to 1,480 feet above sea level. The highest point in the township is located southwest of West Lake Road with elevations in excess of 1,480 feet above sea level. The lowest elevation of 1,010 feet above sea level, noted on USGS quadrangle maps, is located in the northeastern corner of the township where the main branch of the Au Sable River flows eastward towards Mio. Land elevations are higher in the southern part of the township with a gradual northeasterly drop in elevation as evidence by the flow of water in the rivers.

Soils

When planning for types and intensity of future land uses, soil types and slopes are two important factors that determine the carrying capacity of land. The construction of roads, buildings and septic systems on steep sloped areas or areas with organic and hydric soils require special design considerations. In addition, costs for developing these sensitive areas are greater than in less constrained parts of the landscape. If developed improperly, the impacts to natural resources can be far reaching. The Natural Resource Conservation Service completed a detailed soil survey of Crawford County. A digital version of the soil survey maps was acquired from the Michigan Department of Natural Resources, Michigan Resource Information System, MIRIS program. Using information contained within the published soil survey book, a series of maps are presented that depict hydric soils, steep slopes, soils with building limitations and soils with septic system limitations.

Hydric Soils and Steep Sloped Areas

Soil types and slopes are two important factors that should be considered when planning for types and intensity of land uses. First, hydric soils are located adjacent to streams and creeks, and are classified as poorly drained and very poorly drained. The soils are drained by streams and creeks, which empty into the Au Sable River. This connectivity between riparian wetlands and surface water features can be seen throughout the landscape. During part of the growing season, these soils are saturated, flooded or ponded, which makes them poor soils for building site development and sanitary facilities since they will not support heavy equipment. Less than ten percent of the township's surface area is mapped as hydric soils with a high potential for wetlands (**Figure 4-2** in green). The largest concentrations of hydric soils are found in the central and northern portions of the community. Second, the Crawford County Soil Survey states that areas with slopes of 18 percent and greater are minimal. The greatest concern is soils on steep sloping hillsides adjacent to waterways (**Figure 4-2** in red).

Hills and steep rolling terrain may provide opportunities for spectacular views of the landscape. However, the cost to develop areas with hydric soils and steep slopes is greater than the cost of developing in less constrained areas since hydric soils and steep slopes have severe building constraints and special design considerations, such as erosion control measures, limitation on the size of disturbed areas, retaining natural vegetation, re-vegetation, slope stabilization, and on-site water retention. Areas with high water tables may be classified as wetlands and require a wetland permit for development.

Also, the maintenance costs for steep sloped terrain tend to be higher. If development is to occur in these areas, it should be low density and less intensive development.

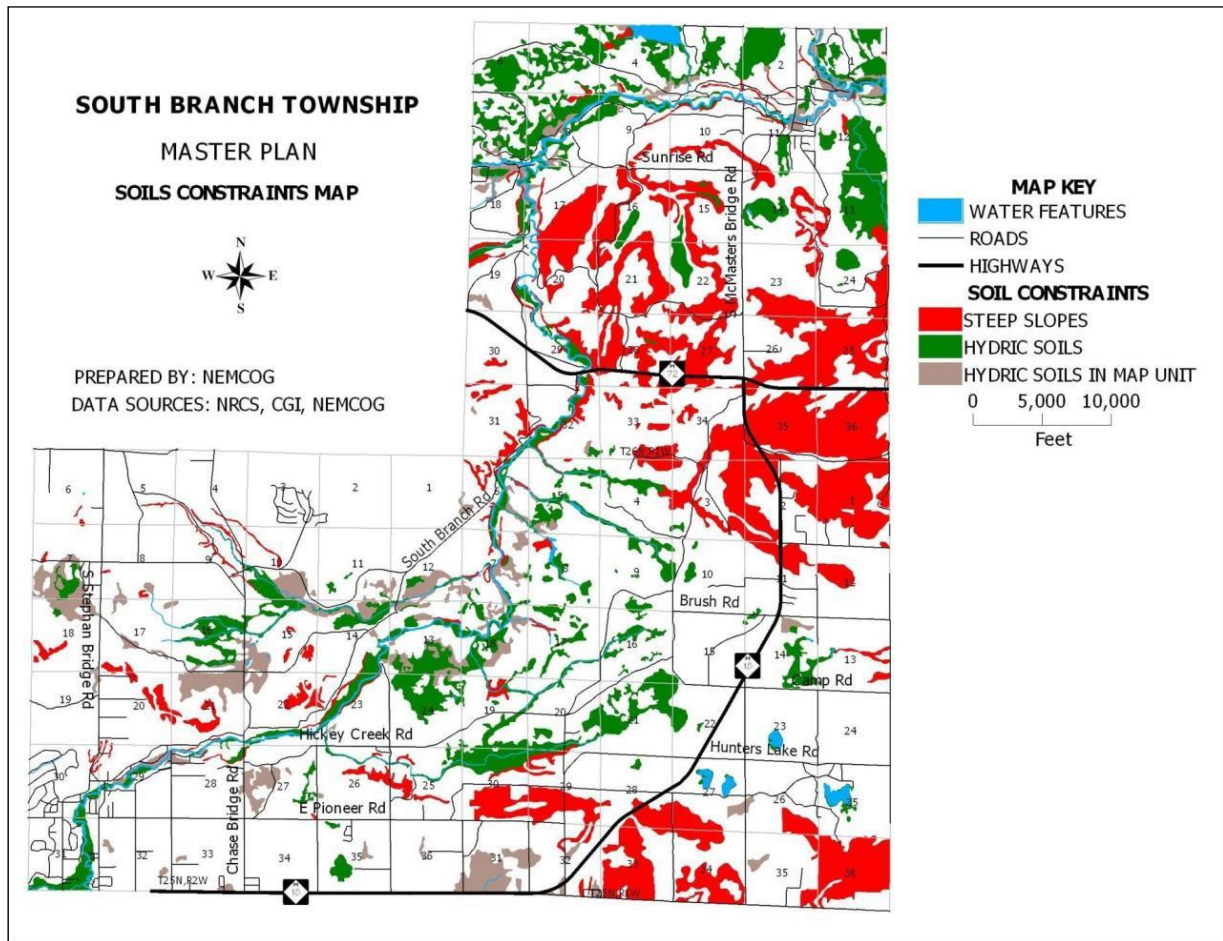


Figure 4-2: Soil Constraints Map

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 designates 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 4-3**. Areas with well-drained soils and slopes of less than 10% tend to have slight limitations for building development. Areas with steep slopes, high water tables and organic soils have severe limitations. Lands with severe constraints are scattered throughout the township but tend to be more prevalent near streams and in the northern half of the township. Due to the prevalence of sandy soils, large areas have slight to moderate limitations for buildings.

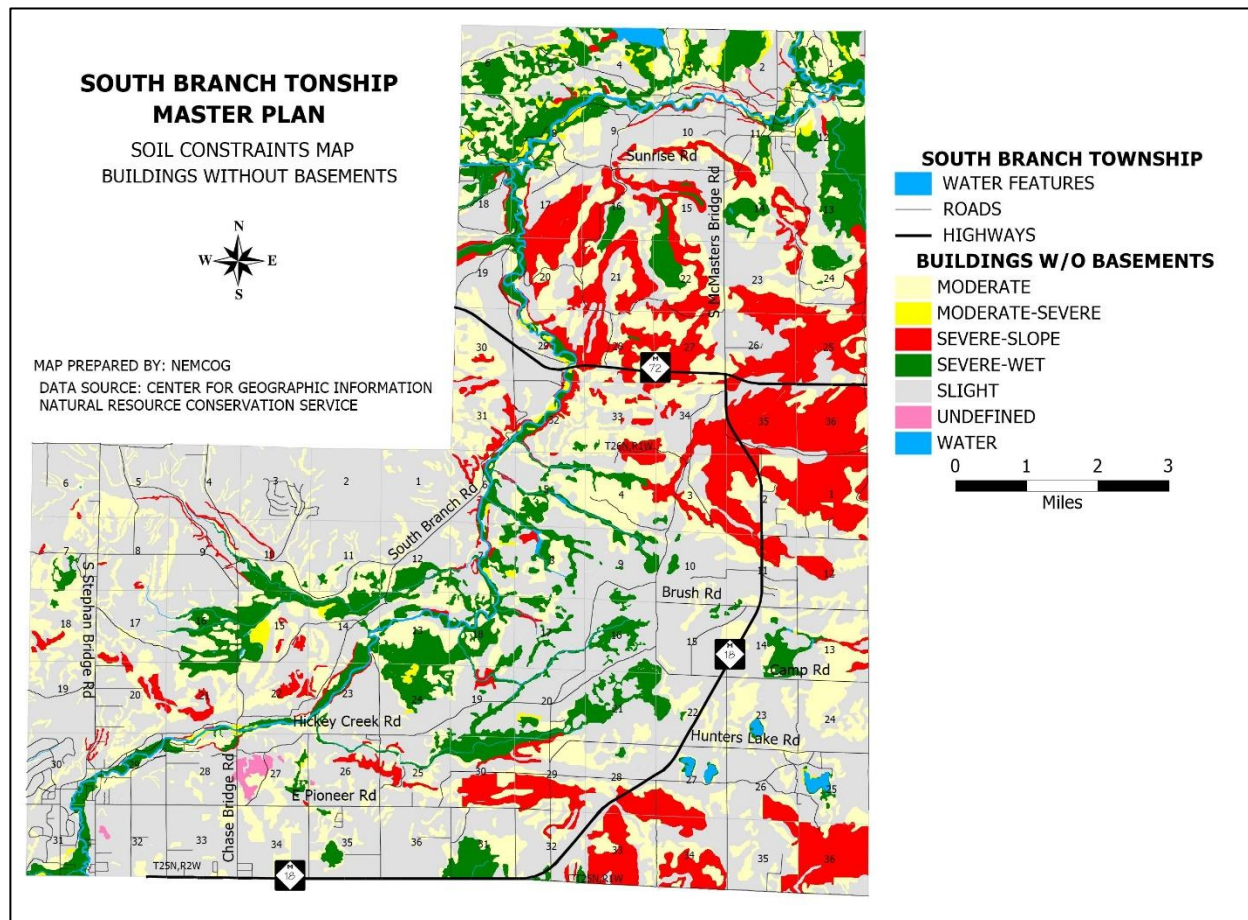


Figure 4-3: Soil Constraints Map – Buildings Without Basements

Septic Systems

Soils 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, filtering capacity and ability to perc water. **Figure 4-4** is a septic system limitations map. 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 the best options for protecting the groundwater resources in these areas. Other severe limiting factors include steep slopes.

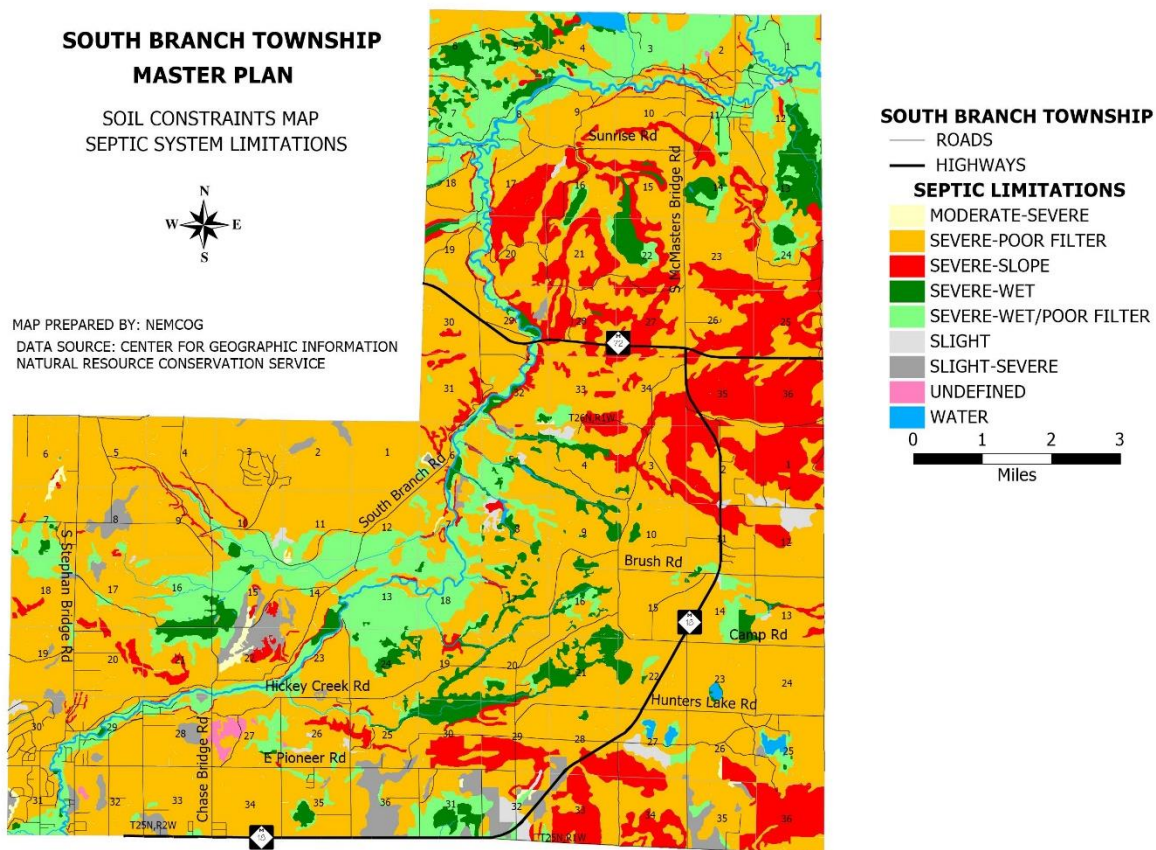


Figure 4-4: Soil Constraints Map – Septic System Limitations

Water Resources

The most valuable and sensitive natural resource in South Branch Township is water. Water resources in the township are shown in **Figure 4-5**. Maintaining high quality groundwater and surface water is vital to the long-term sustainability of the community. Residents of the township rely on individual wells for drinking water. Streams provide scenic values and recreational opportunities for residents and visitors. The water resources provide critical habitat components for a wide range of fish and wildlife species.

Most importantly, these resources extend far beyond the township boundaries and impacts to these resources can have far reaching implications.

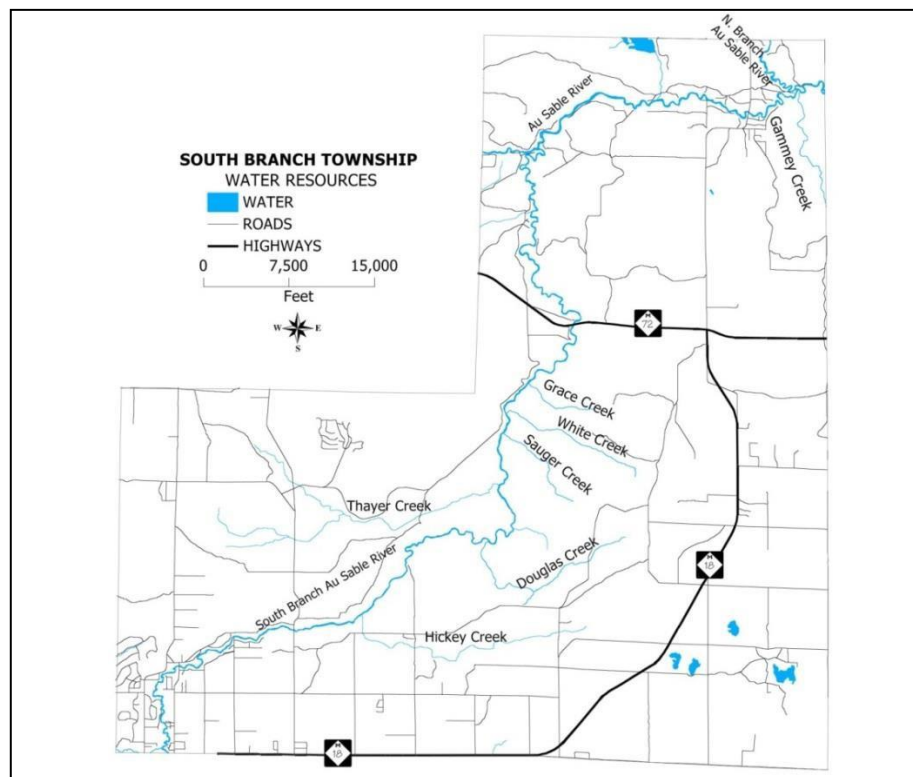


Figure 4-5: Water Resources

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, South Branch Township has good ground water quality. Small lots adjacent to bodies of water present additional problems related to siting on-site septic systems and on-site water wells.

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 South Branch 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

In the Great Lakes Region, rivers were the main thoroughfares of the pre-European inhabitants. The indigenous people used the Manistee and Au Sable Rivers for long distance trips and for transporting large cargoes. These same rivers brought timber appraisers and lumbermen from the Great Lakes coastal communities to the interior of expansive, uncut forests. These two water highways transported the raw materials to the coastal communities and sawmills eager for old growth pine logs. South Branch Township is located in the Au Sable River Watershed. The Au Sable River is the centerpiece and main source of revenue of the community. The South Branch of the Au Sable flows from the southwest corner in a north east direction, emptying into the Main Branch of the Au Sable. The mainstream of the Au Sable River flows in an easterly direction through the northern part of the township. The North Branch empties into the mainstream near Red Pine Drive.

Streams	Distance in Township
South Branch of Au Sable	20.0 miles
North Branch of Au Sable	1.8 miles
Main Stream of Au Sable	8.6 miles
Minor tributaries and intermittent	30.0 miles

The Au Sable River is a nationally recognized, blue-ribbon cold-water fishery that supports resident brook, rainbow and brown trout populations. The stretch of the South Branch that flows through the Mason Tract has special fishing restrictions. The streams are also prime recreational paddle sport waters, as evidenced by the numerous liveries. Lakes in the township are relatively small, ranging in size from 16 acres to 42 acres. Kellogg Lake, Hiscock Lake, West Lake, and Hunters Lake are kettle depression spring fed lakes with no inlets or outlets. The importance of protecting water quality in these lakes is extremely critical since, in the absence of inflow and outflow, there is no ability to flush nutrients or contaminants from the water bodies. All of the lakes support warm water fisheries of bass, pan fish, perch and northern pike.

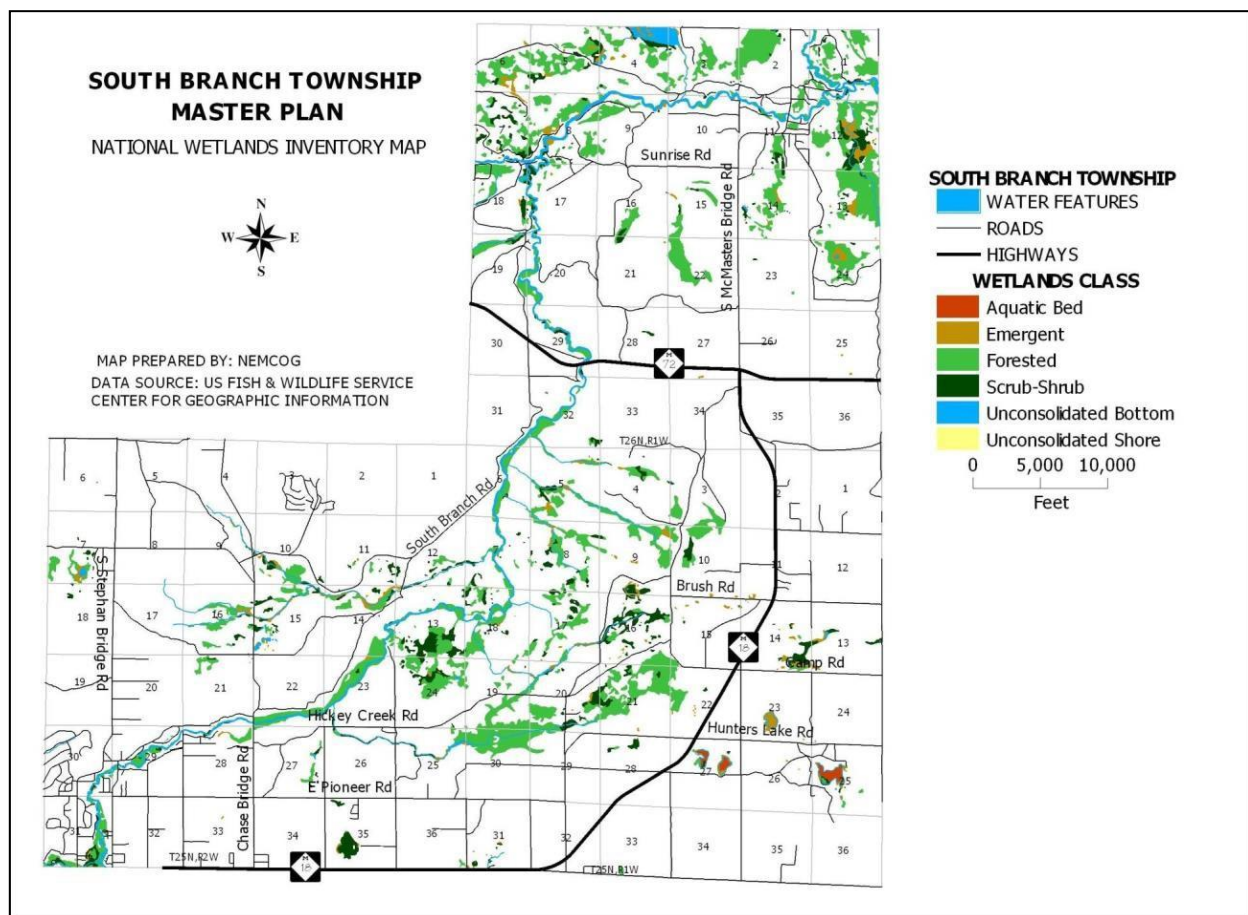


Figure 4-6: National Wetlands Inventory Map

Wetlands

Poorly drained, lowland areas support northern white cedar, tamarack, balsam fir, black spruce, eastern hemlock, white pine, balsam poplar, trembling aspen, paper birch, black ash, speckled alder and shrub willows. Northern white cedar dominates the wetland areas where there is good lateral water movement and the soils are high in organic content. Lowland forests are typically located adjacent to water features and function as riparian forests and water quality buffers. The network of lowland forests, associated with rivers and creeks, also function as wildlife corridors and are the backbone of large regional ecological corridors. Lowland forests adjacent to rivers and streams may be prone to flooding during the spring snow melt, particularly when combined with heavy spring rains. Forested and non-forested wetlands are a finite resource in the township. Land use planning activities should focus on protecting and preserving these limited, critical resources.

The U.S. Fish and Wildlife Service developed national wetlands inventory program in the 1980's. Through this effort a national wetlands inventory map was compiled for Crawford County. The digital data was acquired from the Center for Geographic Information, State of Michigan, and used to compile **Figure 4-6**. The map depicts forested and non-forested wetlands. The Michigan Department of Natural Resources has compiled vegetation maps circa 1800's of counties in Michigan. The maps were generated from information contained in the first government land survey notes in the 1800's along with information such as current vegetation, land forms and soils (**Figure 4-7**). The pre-settlement vegetation map of South Branch Township shows extensive areas were covered with pine and oak forests. This clearly shows a long history of wildfires in the area. The map delineates jack pine-red pine forest, white pine-red pine forest, pine barrens, pine-oak barrens and pine-oak forests, which combined, covered 83 percent of the land area. Jack pine forests were estimated to cover 70 percent of the township. In the late 1800's extensive logging and subsequent wildfires altered the forest make-up, yet still today as noted on the 1978 forest vegetation map, jack pine covers 38 percent of the township. **Figure 4-8** shows historical vegetation and interpolated fire observations from General Land Office Survey Notes. This map again supports that jack pine and wildfires have long been a part of life in this area of the state.

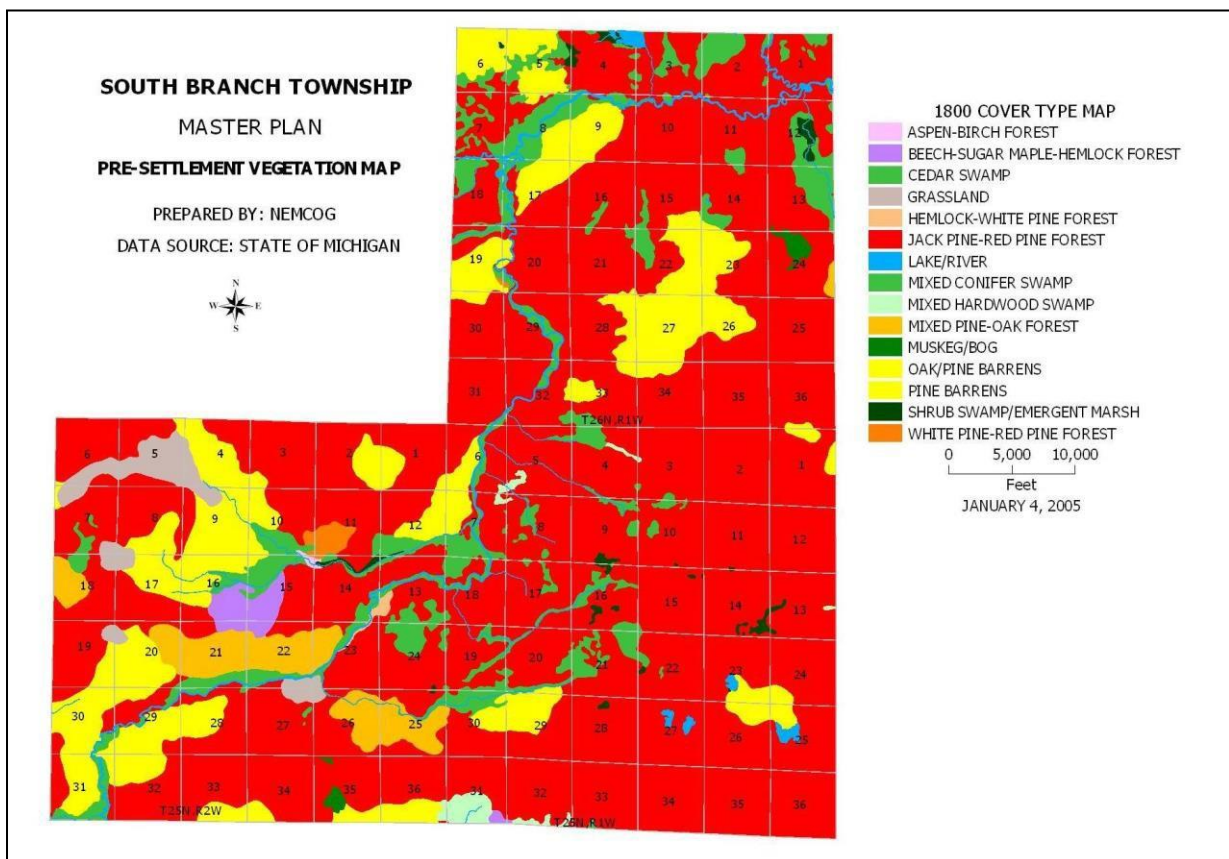


Figure 4-7: Pre-Settlement Vegetation Map

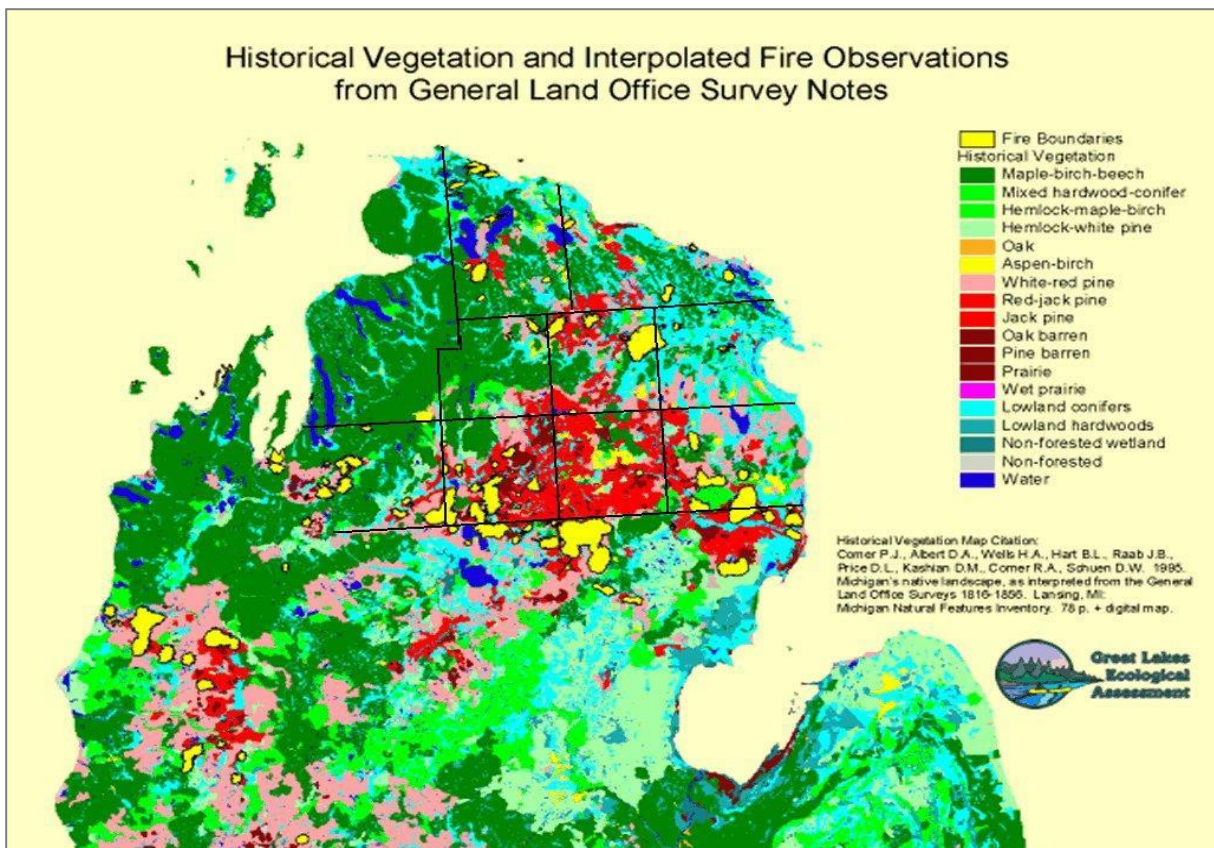


Figure 4-8: Historical Vegetation and Interpolated Fire Observations

Forests

Ninety-two percent (92%) of the township is covered with forests. Tree species vary depending upon the soils, moisture, and past activities such as logging, wildfires 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 Warbler. Pine and oak forests are the dominant plant communities found in South Branch Township. According to the MIRIS Land Cover/Use Inventory, the most prevalent forest type is jack pine, which covers over 41 percent of the forestland followed by oak forests covering 26 percent of the forested areas, and red pine accounting for 11 percent of the forestland. In summary, 78 percent of the land is covered by pine and oak forests. **Figure 4-9** shows the forests in South Branch Township.

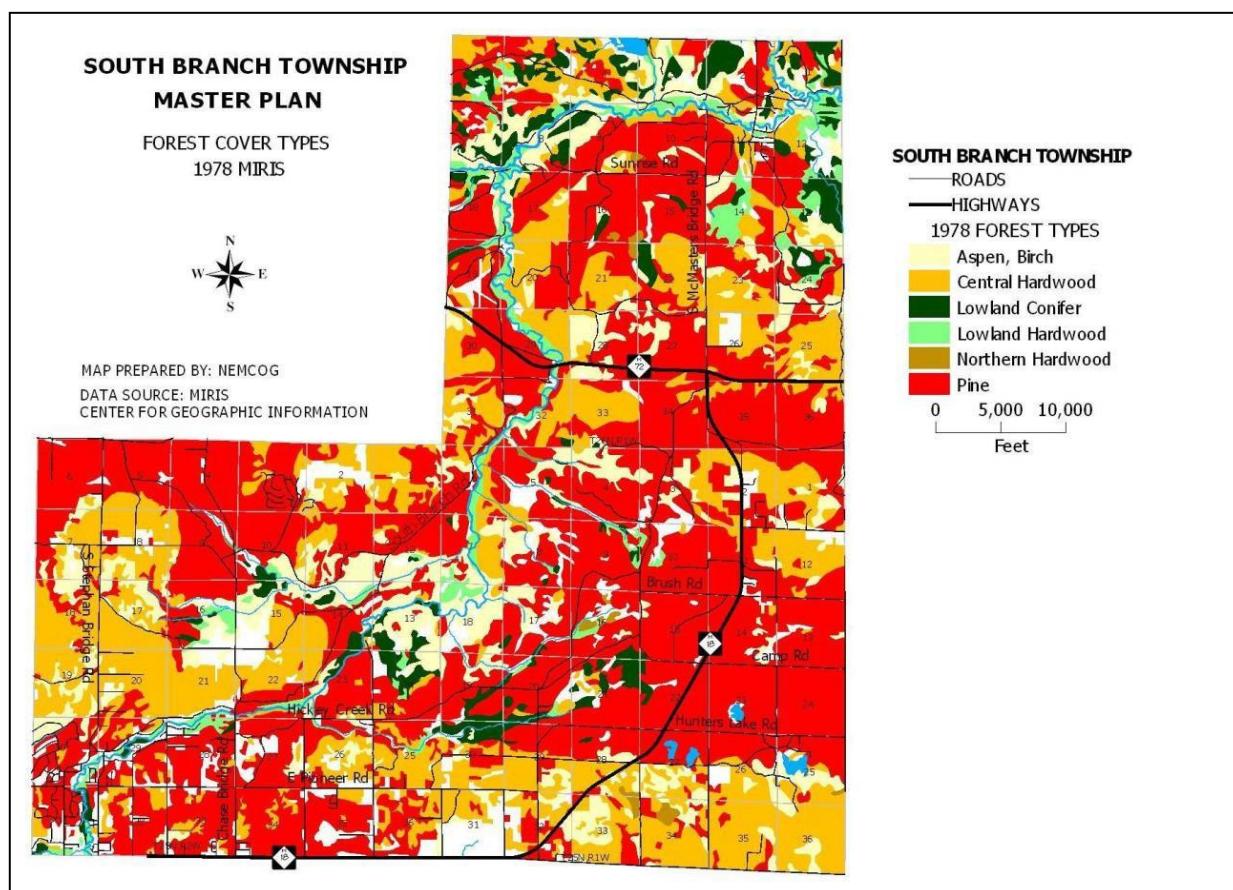


Figure 4-9: Forest Cover Types

Forest fires have been identified as the number one natural hazard in the Crawford County Hazard Mitigation Plan. Under dry spring conditions forest fires can occur in any forests type. However, some forest types have higher risks. Jack and red pine forests have a high risk for wildfires. Oak and white pine forests have a moderate risk for wildfires. Droughty, low fertility sandy soils found in outwash plains and channels supported pine forests that for thousands of years were perpetuated by wildfires. According to the cover type map circa 1800's pine forests covered 80 percent of the land area in South Branch Township. Logging, wildfires, and land clearing converted some of these areas to forests dominated by oak and aspen-birch forests. Residential development has occurred within these same wildfire prone areas.

In 2019, South Branch Township approved and signed the Crawford County Community Wildfire Protection Plan. The purpose of the plan is to protect residents and reduce property loss from wildland fires. The plan determines existing conditions, identifies and prioritizes Wildland/Urban Interface Areas, and recommends strategies for hazardous fuels reduction treatments and Firewise strategies for local planning and zoning.

Wildlife Habitat

Within the township, there are a variety of wildlife habitats, ranging from upland forests to flowing cold water streams bordered by marshes, lowland brush and floodplain forests. The significance of these resources extends beyond South Branch Township. The predominance of upland pine and hardwood forests provide extensive natural areas for wildlife. Habitat for wildlife that require wetlands, such as marshes and cedar swamps, is limited. Natural openings or pine barrens, once more common during pre-settlement times, are limited in today's landscape. Protecting these finite resources is a consideration of land use planning.

Conifers provide important winter thermal cover for wildlife, particularly, when located next to winter food sources. In particular, lowland conifers (northern white cedar, balsam fir and black spruce) provide important winter thermal cover for many wildlife species. There tends to be less snow on the ground, more protection from the cold winds and often a higher nighttime temperature than other cover types.

The Kirtland's warbler resides in a very limited area of the state. Their summer nesting range includes ten counties in the northern Lower Peninsula, four counties in the Upper Peninsula, and areas in Wisconsin and Ontario, Canada. The core breeding range for 85% of the population is in Alcona, Crawford, Oscoda, Ogemaw, and Iosco Counties. 150,000 acres are managed for the species. Many birdwatchers come to this area in order to view the bird. A "Kirtland's Warbler Festival" is held annually in Roscommon as a tribute. This weekend festival includes many activities for individuals and families designed for better environmental awareness and appreciation.

According to the US Fish and Wildlife Service, this species builds nests on the ground among grass or other plants like blueberries and under limbs of jack pine 5 to 16 feet tall. As jack pine trees mature, upper branches block the sun and the lower branches die and warblers cease to use the area. The jack pine habitat used by Kirtland's warbler is also used by a number of other bird species including spruce grouse, Nashville warbler, yellow-rumped warbler, eastern towhee, eastern bluebird, northern flicker, and brown thrasher. Larger openings in jack pine-dominated ecosystems are inhabited by upland sandpiper, American kestrel, and wild turkey.

There were 2,400 singing male Kirtland's warblers counted during the last full census in 2015, which prompted the U.S. Fish and Wildlife Service to delist the Kirtland warbler from the endangered species list in 2019. However, the Kirtland warbler is a conservation-reliant species and is dependent on annual habitat management, population monitoring, and cowbird monitoring. The Kirtland's Warbler Conservation Team is a partnership between state and federal agencies, non-profit organizations, researchers, and interested community members dedicated to the conservation of this species into the future.

South Branch Township also attracts wildlife photographers, viewers, and hunters. The township has large tracts of forest lands that provide habitat for an abundance of deer, grouse, woodcock, rabbit, bear, turkey, and coyote populations. In October and November, the township brings in hunters for small game, bear, and deer seasons.

Riparian forests adjacent to streams and lakes provide critical habitat for many species of wildlife and reptiles. The land and water interface is a long narrow, sometimes meandering, edge habitat. In South Branch Township and throughout Michigan, natural, undeveloped waterfront habitat is one of the most endangered habitats.

Ecological Corridors

Prior to logging and land clearing during the late 1800's, this area was covered with pine 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. The north, south and main branches of the Au Sable River and their many feeder creeks are key ecological corridors within the Au Sable River Watershed. Associated wetlands and riparian forests are a link in a long green chain or ecological corridor that centers on the Au Sable River, which is connected to other 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, is “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 the sites listed in **Table 4-1**.

Table 4-1: Part 201 and 213 Sites		
Facility Name	Address	Type
The Whistle Stop	5499 E Michigan Hwy (formerly North M-18)	Part 213
Shepan Fuel Oil Spill	106 Jonassen, Roscommon	Part 201
Superior Metal Recycling	2023 and 2051 North M-18, Roscommon	Part 201
<i>Source: Michigan Department of Environmental Quality</i>		

Oil and Gas Wells

There is considerable oil and gas well development in Northern Michigan. **Figure 4-10** shows oil and gas well development across the state (each well is represented by a black dot) with South Branch Township highlighted in yellow. While the heaviest oil and gas well development occurs in the counties north of Crawford, the number of oil and gas wells in the township is still significant enough to include in this plan. **Figure 4-11** shows the well types present in South Branch Township.

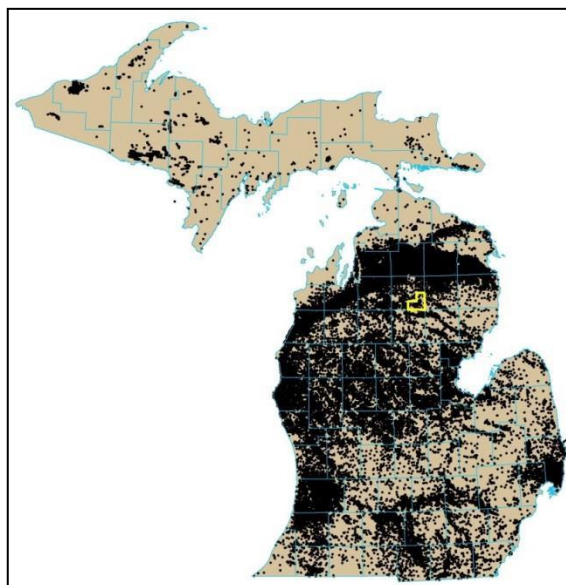


Figure 4-10: Oil and Gas Well Development

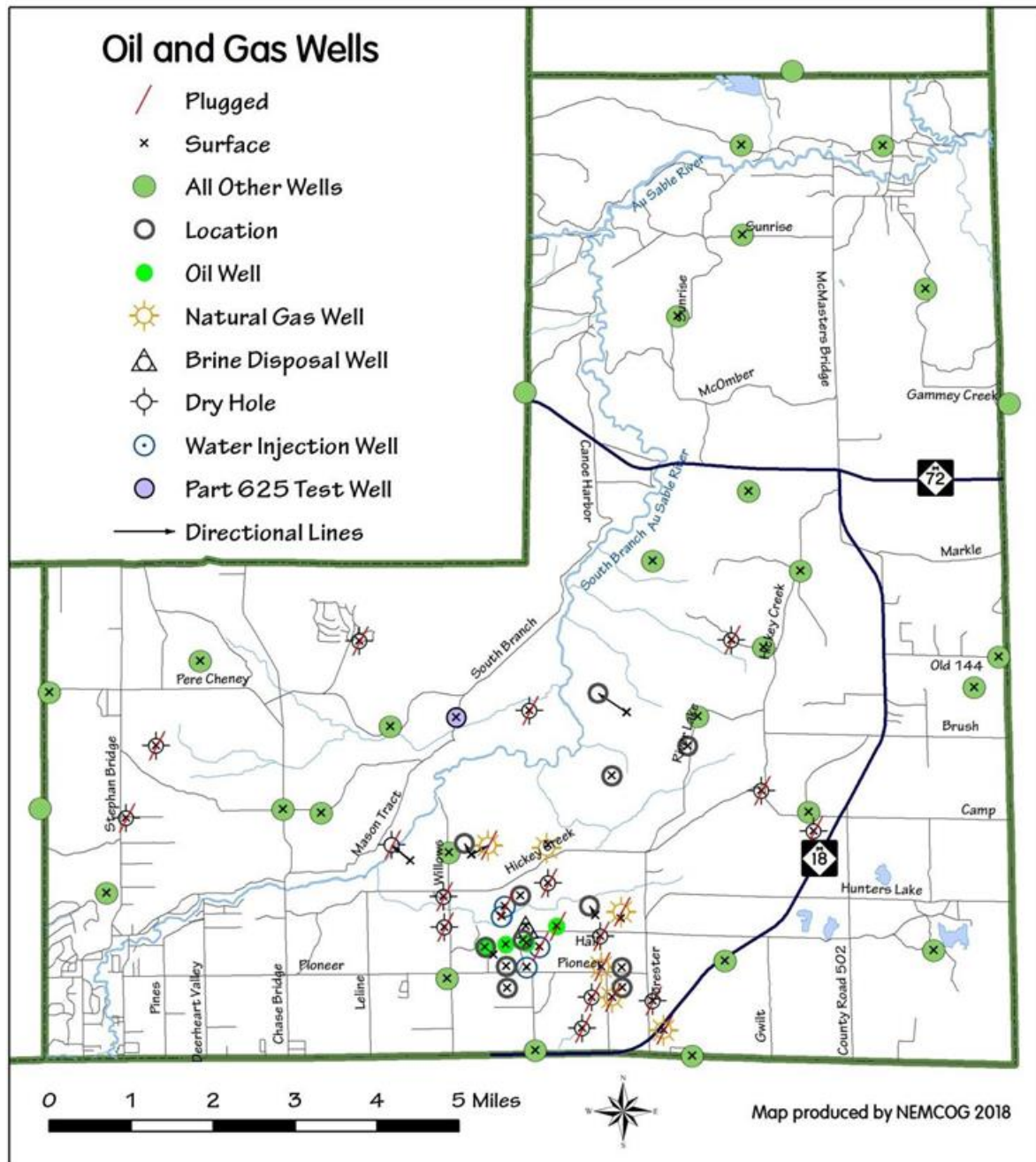


Figure 4-11: Oil and Gas Wells

Chapter 5 - Existing Land Use

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

Land Division Patterns

As development occurs, larger tracts of land are broken down into smaller parcels. Therefore, studying the existing pattern of land divisions is one way to analyze the status of land use and development. Land division patterns for South Branch Township are discussed below.

Seventy-one percent of the land area is publicly owned (**Figure 3-2**). The USFS is the largest single owner covering 45% of the land area. The USFS lands cover much of the northeastern and southeastern portions of the township. The State of Michigan owns 26% of the land area, including the Mason Tract, and public lands east of the South Branch and north of the Main Branch of the Au Sable River. Most of the private ownership is in tracts that are 10 acres and smaller. Large tracts of private ownership, some of which are hunt/fish clubs, are scattered throughout the township with the highest concentration of private ownership located the southernmost section of the township.

Additionally, this part of the township is characterized by a number of platted subdivisions, groups of small tracts and a predominance of parcels 10 acres and smaller. Subdivisions and small tracts are clustered along the South Branch of the Au Sable and M-18. Forest Dunes Golf Course and associated residential development are located in the southern portion of the township. Smaller tracts of private ownership are found around several lakes in the southeastern corner and within the community of El Dorado. Small tracts of private lands as well as subdivisions are located along the Au Sable River.

Existing Cover/Land Use Characteristics

The existing cover/land use was mapped in 2018. The map of existing land use, shown as **Figure 5-1**, illustrates the distribution of land cover/uses throughout the township. Michigan Resource Information Systems (MIRIS) land cover/use classification categories were used to map the existing land use. The map represents an update of the 2005 land cover/use map. In addition to use of recent 2014 and 2016 aerial photos, ancillary digital map data including parcels, ownership information, soils, national wetlands inventory, structures, color infrared aerial photos, and gas wells were used to complete the update. Updated information was digitized to produce the existing land cover/use map and statistics. **Table 5-1** presents the land uses, showing the number of acres and percent of the township in each of the land use categories.

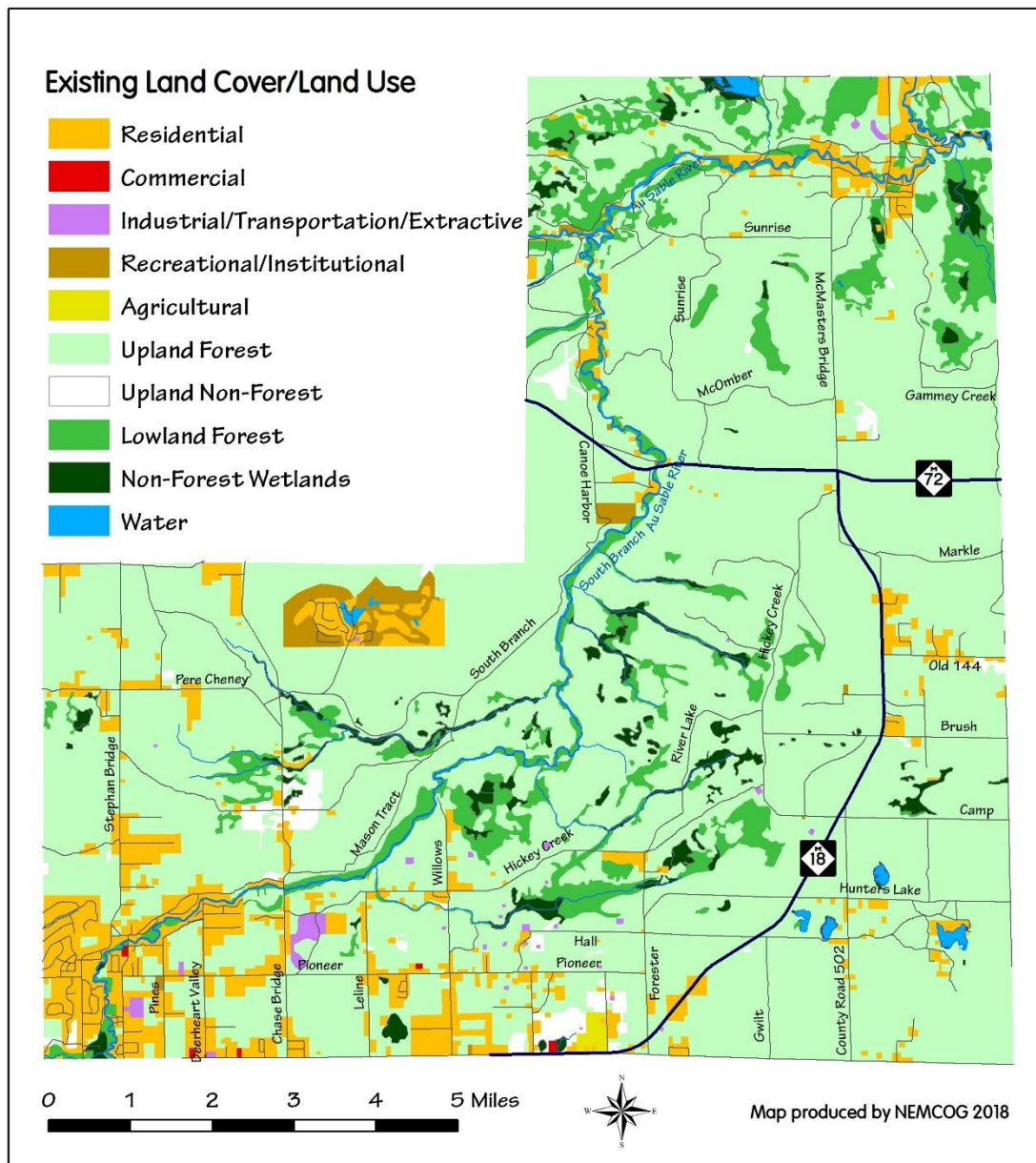


Figure 5-1: Existing Land Cover / Land Use

Table 5-1: Existing Land Use Statistics		
Land Use Category	Number of Acres	% of Township
Residential	6,021	8.9%
Commercial	32	Less than 0.1%
Industrial/Extractive/Utilities	211	0.3%
Institutional/Recreational	610	0.9%
Agricultural	91	0.1%
Non-forested Uplands	875	1.3%
Upland Forests	52,354	77.7%
Lowland Forests	5,388	8.0%
Non-Forest Wetlands	1,576	2.3%
Water	257	0.4%
TOTAL	67,415	100.0%
<i>Source: Michigan Resource Inventory System and NEMCOG photo interpretation, field verification and map updating.</i>		

Residential

As can be seen in **Figure 5-1** and **Table 5-1**, residential use ranks second in the amount of land under a particular land use, occupying nearly 9% (6,021 acres) of the land in the township. Residential development is concentrated in the southwestern part of the township, within the Forest Dunes Golf Resort, and along waterways, major roads, and lakes. Single family residential accounts for all of the residential development in the township.

Commercial

The limited commercial land use is located on M-18 toward the western portion of the township's southern border. Lands used for commercial purposes comprise less than one tenth of one percent of the township's area.

Industrial/Transportation/Extractive

Extractive land covers 0.3% or 211 acres of the township. This category includes gas wells and processing facilities, community solid waste transfer station, and several sand and gravel pits.

Recreational/Institutional

This category includes recreational uses such as parks, campgrounds, and golf courses. Cemeteries and churches are also included in this category. Canoe Harbor State Forest Campground, White Pine Campground, Rainbow Bend State Forest Campground, as well as the Forest Dunes Golf Course were mapped as part of this category. The category accounts for less than one percent of the township.

As noted earlier, 71 percent of South Branch 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. The land is being converted to a less

intensive use of open lands rather than to subdivisions and commercial uses. 91 acres of land continue to be used for agricultural purposes.

Non-Forested Uplands

The non-forested land category is the 5th most prominent land cover type in the township. This category consists of herbaceous open and shrub land. There are 875 acres or 1.3 percent of the township that are in the non-forested category. A majority of the non-forest areas are old farm fields. Information sources on vegetation cover types circa 1800's show non-forest openings were more prevalent prior to reforestation efforts and wildfire suppression. However, as evidenced by more recent large wildfires in the eastern part of the township, temporary non-forested openings can still be created over large areas. The vegetation cover type maps circa 1800's, prepared by the Michigan Department of Natural Resources, surmised nearly 11,000 acres were in grassland, pine barrens and pine/oak barrens. These cover types were created by frequent occurring natural wildfires or other severe disturbances.

Upland Forests

The upland forested lands are the most predominant land cover in the township and accounts for 78 percent or 52,354 acres of the township. Of the forested lands, the most prevalent forest type is jack pine. 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 USFS and DNR, though wildfires still play a role in perpetuating the jack pine forest. Mixed oak, aspen-birch, and northern hardwoods make up the other forest cover. Additional information on 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, 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 Use Map, the major wetland areas are adjacent to rivers and creeks (**Figure 5-1**). The network of wetlands receives surface water and subsurface water discharge, creating the many streams and creeks which in turn flow into the river. 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 account for 1,576 acres or 2.3 percent of the township.

Lowland forests grow on hydric 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 5,388 acres or eight percent of the township area.

Surface Water

Open water accounts for 0.4 percent of South Branch Township and includes the South, North, and Main Branches of the Au Sable River, as well as 4 small lakes. Parts of lakes dominated by emergent and aquatic vegetation were mapped as non-forested wetlands.

Chapter 6 - Goals and Objectives

To reflect the natural characteristics of the land, the goals and objectives presented will guide future growth and development. In developing community goals and objectives, it is important to analyze existing community characteristics such as social and economic conditions, services and facilities, environmental conditions, and existing land use as described in previous chapters. In addition, the input of community stakeholders is very valuable in setting achievable and desirable goals.

Community Input

To ensure that the Township's Master Plan reflects the goals of the community, a survey was prepared to gather input from residents. Between November 2018 and February 2019, South Branch Township posted a community survey on their website and printed copies at Township Hall. A notice containing the survey link was provided with the tax bills. Input was requested on several major issues including Housing, Land Use, Government Services, Transportation, Recreation, Zoning, and General Community Development. A total of 207 surveys were completed, 11 percent of the township population.

General Respondent Profile

- Of the surveyed households, 40% are full-time residents, 27% are part-time residents and 33% own property but do not live in the township.
- 60% of persons who completed the survey were retired.
- 52% of the survey group were age 60 years and older.
- 13% of respondents worked in health care and 12.5% in manufacturing sectors.
- More than 69% of the households have owned property in South Branch Township for over 10 years while 23% have owned property in the township for 5 years or less.
- 73% plan to own their property for more than 10 years.
- 67% of households are two-person households.
- The survey requested that respondents enter the number of people in their household by age categories. 199 people answered the question identifying 272 household occupants of the households that participated in the survey.

Survey Analysis

Responses clearly show residents have a high level of appreciation for where they live and own property. A question was asked to identify what makes South Branch Township a great place to live. Common responses included "peace and quiet", "the Au Sable River and other water features", "natural resources such as forests, wildlife, wetlands and water", "public access to recreation and waterways", "friendly people", "safe and low crime rates", and "rural small-town atmosphere".

Those areas in need of improvement include access to technology, zoning issues, roads and vehicle use, refuse collection, taxes, access to shopping, and timber management.

Given the above reasons for living in the township, the survey revealed most people feel South Branch Township should preserve or protect natural resources. Votes for the listed resources were:

- Lakes and rivers (83%)
- Groundwater (78%)
- Forest lands (77%)
- Wildlife habitat (76%)
- Wetlands (68%)
- Develop more recreation areas (64.5%)

When asked what types of recreational facilities they would like to have available; 72% of the respondents selected hiking trails and walking paths, 53% selected bike paths, 34% chose wide paved shoulders, and 32% chose ORV trails.

When asked if the township has adequate emergency services, 33% of the respondents chose yes. A majority (54%) chose “don’t know/neutral.”

Renewable Energy

On-site wind turbines used to generate power to the property (which the current Zoning Ordinance currently allows) were favored by 42% of the survey responses. Twenty nine percent did not favor them. For larger, utility scale wind turbines, 42% of those surveyed do not want them, 33.5% support them.

Solar panel installations on residences and businesses enjoyed more support of the survey respondents (86%). Larger utility scale solar energy facilities (solar farms) were supported by 51.5% of the respondents with 29% in opposition.

Development

Expansion of commercial development was not supported by respondents in the township (67%). Allowing more attached housing (e.g.. townhomes, apartments, attached condominiums) was not supported by 40% of the respondents, 30% supported, and 30% were neutral. Short-term rentals received mixed opinions with 42% against and 34% in favor.

When asked if the township should allow more accessory dwelling units (granny flats, garage apartments), around 37% were in support of this housing option, while 31% were against accessory dwellings, and 32% were neutral.

The current minimum dwelling unit size is 750 square feet in South Branch Township. The survey asked if the township should allow tiny homes. Twenty-seven percent chose yes (any size tiny home), while 18% chose yes (but no smaller than 400 square feet). Thirty-eight percent of the responses did not favor lowering the minimum dwelling unit size and 17% were neutral.

To provide guidance on future land use decisions if the township were to allow construction of tiny homes, the survey provided several development options. Twenty-three percent felt tiny homes should be allowed as accessory dwelling units along with a principal residence, while 49% said tiny homes could be a principal residence on a lot and 10% felt they should be temporary dwelling units (movable).

Another 19% chose “other” and listed a range of ideas such as “all of the options” and “neutral.”

Community Goals and Objectives

After reviewing the community survey and considering the existing conditions background information, the Planning Commission established goals and objectives. These goals and objectives will provide guidance to the South Branch Township Planning Commission and the Township Board.

Community Goals are intended to provide the general direction, are ambitious, and may not be entirely achievable. The Objectives are more specific, achievable, and measurable.

Goal 1: Good Governance

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

Objectives

1. Ensure a responsible fiscal policy and budget process to finance the township government.
2. Promote intergovernmental and regional cooperation on issues of mutual concern.
3. Improve information dissemination with residents through newsletters or website.
4. Set annual capital outlay goals with the available balanced budget.
5. Review goals and objectives annually to set and review priorities, and encourage public participation.
6. Explore options for refuse service and recycling in the township.

Goal 2: Fire, Emergency Services

Provide exemplary and timely fire and emergency services to the residents, businesses and properties in South Branch Township.

Objectives

1. Provide 24/7 coverage for fire and emergency services in the township.
2. Utilize a scheduling software to improve communication amongst staff.
3. Maintain a fleet of emergency service equipment that meets the needs of our citizens and all the NFPA requirements.
4. Provide, at a minimum, all required training for staff.

Goal 3: Land Use

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. Ensure consistency between South Branch Township ordinances and County, State and Federal regulations.
2. Preserve the important natural, cultural and agricultural resources in South Branch Township.
3. Balance the environmental, social and economic values in the Community.
4. Address the needs of the township residents, businesses and organizations through sound, consistent ordinances.
5. Provide effective guidance and enforcement of ordinances, such as blight.

Goal 4: Recreation

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

Objectives

1. Determine best use of the township property.
2. Develop recreation uses and infrastructure that can be flexible to adapt to emerging trends.
3. Preserve and enhance existing recreation in the township thorough collaboration with the DNR and USFS.
4. Collaborate with the DNR and USFS to improve accessibility and facilities, e.g. restrooms along the river.

Goal 5: Housing

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

Objectives

1. Explore alternate forms of housing to meet community needs.
2. Encourage open space in property design and housing placement.
3. Ensure the priority of growth is preservation of open space and uses low impact development methods.

Goal 6: Technology and Infrastructure

Improve the Township's broadband access, renewable energy, community facilities, and public utilities to accommodate the needs of residents and visitors.

Objectives

1. Work with network providers to increase accessibility of cellular service and broadband internet.
2. Explore and develop renewable energy infrastructure to meet community and individual needs.
3. Evaluate universal accessibility in township properties and assure accessibility in future design and improvements.
4. Explore the development of natural gas infrastructure to residential areas.

Goal 7: Roads

Improve the Township's road infrastructure to meet the needs of all residents, of all abilities and needs.

Objectives

1. Collaborate with the Crawford County Road Commission and neighboring counties and townships when planning improvements to roads.
2. Collaborate with the Crawford County Road Commission to maintain and repair county and township roads within South Branch Township.
3. Widen road shoulders when possible to accommodate bicyclists and people walking.

Chapter 7 - Future Land Use

According to the US Census Bureau, over the last decade South Branch Township experienced a 3.2% growth rate, adding an estimated 58 persons to its year-round population since 2000. However, the American Community Survey 5-Year Estimates from the US Census Bureau shows a shrinking population between 2011 and 2018. According to the current land use inventory, 89.4% of the land area was classified as forest, farmland, non-forest open space, and wetlands. The township's land used for urban related purposes, including extractive, commercial, industrial, utilities, institutional/recreational and residential development was 10.1%.

The next step in developing a Master Plan is to determine the types, location and intensities of development that will occur over the next twenty years. With the establishment of a Future Land Use Plan, South Branch Township intends to ensure that:

1. Existing land uses such as residential, commercial and industrial can continue.
2. Irreplaceable resource such as water, wetlands and forestlands and farmlands will be protected.
3. Reasonable and limited growth can be accommodated with minimal land use conflicts or negative environmental impacts.

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

Future Land Use Planning Areas

The community has identified seven categories of land use needed to serve future development needs. These categories are listed below. **Figure 7-1** is the Future Land Use Map of the South Branch Township, which 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.

Future Land Use Planning Areas

- Resource Conservation
- Stream Corridors
- Forest Recreation
- Rural Residential
- General Residential
- Commercial
- Light Industrial

Resource Conservation

Location and Purpose: South Branch Township recognizes extensive areas of forests and wetlands contribute significantly to the quality of life and the rural character, which are valued by township residents and visitors. This Master Plan recognizes that the forests, wetlands, and all-natural resources are the primary land use which must be protected and most highly valued of the land uses in the township. The township recognizes that these resources define our township. The recreational assets which are dependent on these natural resources must be protected in order for the Township to thrive. The Resource Conservation category includes all of the U.S Forest Service and Michigan Department of Natural Resources lands, and privately owned lands (larger tracts, isolated parcels, and large wetland complexes). This category covers 65 percent of the township. Extensive jack pine forests provide critical Kirtland's Warbler nesting habitat. The Mason Tract, some 4,700 acres of land adjacent to the South Branch of the Au Sable River, provides high quality recreation and fishing opportunities. Large areas of the Resource Conservation planning areas are only accessible by seasonally maintained county roads. Locations recommended for this category are shown on the future land use map, **Figure 7-1**.

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

Other Development Considerations: To protect sensitive areas and maintain larger tracts available for other uses, clustering based on density equivalents (one house per twenty acres) should be encouraged. Additionally, gravel pits with site reclamation plans would be allowed, provided the activity is compatible with surrounding neighborhoods.

Stream Corridors

Location and Purpose: Public input confirms the importance of the Au Sable River system to the health and well-being of the community. The waterways played a pivotal role in the history of the community. Today, the river system is still the economic foundation and a key community asset. The stream corridor planning area borders all rivers and creeks in the township. The purpose of the stream corridor is to preserve, protect and enhance the river environment in a natural state for the use and enjoyment of present and future generations. The Natural Rivers Act regulates activities including zoning and development along the Main Branch, North Branch and South Branch of the Au Sable Rivers; Beaver Creek, Douglas Creek; and Thayer Creek. It is the intention of the Township to support and administer Natural Rivers Act zoning for designated waterways.

Uses: The Natural Rivers Act regulates uses along designated rivers and tributaries. In addition, the stream corridor planning area includes all non-designated streams in the township. Residential uses are considered compatible with the stream corridor planning area. This category supports the continuation

of recreational based commercial operations such as canoe liveries, campgrounds and rental cabins. Industrial facilities and oil and gas extraction should not be located within the stream corridor areas.

Development Density: The Natural Rivers Act regulates development densities (minimum lot sizes) along designated rivers and tributaries. This plan recommends the same development density standards for non-designated tributaries as the Natural Rivers designated tributaries.

Other Development Considerations: The Natural Rivers Act regulates development standards such as waterfront setbacks, greenbelts, and lot widths along designated rivers and tributaries. This plan recommends the same development standards for non-designated tributaries as the Natural Rivers designated tributaries.

Forest Recreation

Location and Purpose: The Forest Recreation category is the second most extensive future land use category, covering 14 percent of the township. The land cover is a mix of upland forests, lowland forests and old farm fields. Both seasonal and year-round homes are located in this area. Locations recommended for this category are shown on the future land use map, **Figure 7-1**. This category encourages the continuation of resource management and wildlands recreation activities. South Branch Township recognizes the presence of farmland as well as old farm fields contribute to the scenic and rural character valued by the township residents. This land use designation is intended to encourage the continued existence of limited farming in the township.

Uses: Along with low density residential uses, farming, 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, 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. To protect sensitive areas and maintain larger tracts available for other uses, clustering based on density equivalents (one house per five acres) should be encouraged.

Other Development Considerations: Gravel pits with site reclamation plans would be allowed, provided the activity is compatible with surrounding neighborhoods. 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 Recreation 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.

Rural Residential

Location and Setting: The Rural Residential future land use area is located near the southern border of the township and functions as a transition from medium density residential to undeveloped natural resource areas. Current land cover is forest, old farm fields and active farmland, along with low density residential development. The large residential lots provide privacy from neighbors and/or other development.

Uses: The Rural Residential development category is designed to accommodate single family dwellings. Existing farming and forestry activities are considered compatible. Special uses may be allowed if they are designed to be compatible with the residential setting. Special uses to be considered include home occupations contained within the dwelling; cottage industries/home-based businesses, bed and breakfast facility; churches and associated structures; parks and playgrounds; schools, childcare facilities, libraries; community buildings and publicly owned buildings; public utility buildings; publicly owned and operated parks; and farms.

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

Other Development Considerations: Additional provisions are recommended to be incorporated into the Zoning Ordinance to allow for a cluster development pattern to avoid or minimize development impacts on environmentally sensitive areas, forests or farmland. No municipal water or sewer service will be available.

General Residential

Location and Setting: The General Residential category is intended to preserve existing residential development where land has already been subdivided into smaller lots and to expand specific areas for future residential growth. These areas are concentrated in the southwest corner of the township. Forest Dunes residential/golf course development is also included in the category.

Uses: Principal uses include single family dwellings and two-family dwellings. Where compatible with residential uses, other uses to be considered include multi-family dwellings, home occupations contained within the dwelling, neighborhood services, churches, schools and libraries, group homes per state law, utilities, bed and breakfast facilities, parks and playgrounds, community buildings and publicly owned buildings, public utility buildings, golf courses and publicly owned and operated parks. The townships should require site plan review and special approval for all uses other than individual single and two family homes.

Development Density: The General Residential development category is primarily designed to accommodate single-family dwellings on lots with a typical size of 15,000 sq. feet to two acres. Older platted subdivision areas contain lots created prior to implementation of the zoning ordinance. These lots-of-record are 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 apartments, townhouses, condominiums, mobile home parks, convalescent or nursing homes and manufactured home developments should be restricted. 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.

Additionally, a manufactured home development would be compatible with the multiple-family portion of the residential area. However, given the soil limitations for septic system drain field operation, compact mobile home parks could not be accommodated unless adequately engineered wastewater disposal systems are included as part of the design.

Commercial

Location and Setting: At the present time commercial development is ~~very~~ limited in the township. Existing business areas are located along M-18. The community has identified two areas to direct future commercial development. The commercial node located at the intersection of M-18 and M-72 includes publicly owned lands. This plan supports transfer of ownership of public lands adjacent to the intersection. This plan supports very limited growth and only adjacent to or redevelopment of existing commercial uses.

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

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

Light Industrial

Location and Setting: The communities have identified the need to improve employment opportunities and expand the local tax base. Industrial future land use areas are located at nodes along M-18. Much of the identified areas are publicly owned lands and it is the intention to pursue land exchange or purchase to accommodate future development. The township acknowledges there are industrial sites and industrial parks in adjacent neighboring communities such as Roscommon and Grayling. In the short term and for some types of industrial uses, development should be guided into those existing facilities.

Uses: The light industrial future land use category is designed to provide sites for wholesale activities, warehouses, major repair operations, retail operations that require large outside storage areas, and light manufacturing. These more intense uses require site plans and, in some cases, a special use permit. Operations are subject to performance standards relative to impacts on the community. This district is compatible with a business district, but not compatible with residential districts without a required buffer.

Development Density: Recommended minimum lots sizes would be two acres.

Other Development Considerations: Developments should consider access management, buffering, signs, stormwater management, groundwater protection and landscaping to maintain traffic safety and minimize any negative visual impacts of development along the main roads. Larger scale development often needs municipal water and sewer or may need a satellite water or sewer system. Manufacturing and warehousing development should be located on all-season roads. State law grants the authority to regulate billboards along state and federal highways to townships, cities and villages, and counties. South Branch Township has adopted a billboard ordinance to regulate billboards along M-18 and M-72.

Special Issue Areas

Roads

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

Open Space Development

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

Methods communities have employed to help protect and preserve privately held forest and farmlands while protecting a landowner's economic investment include the Purchase of Development Rights (PDR), conservation open space development standards, clustering requirements for residential uses, and tax breaks or incentives for continuing forestry and farming use. The conservation open space residential

and commercial development design standards are effective means to preserve scenic views, rural character, farmland, meadows, woodlands, steep slopes and wetlands with a target of preserving at least 50 percent of the land within a development. It is recommended that these alternatives be investigated for application in South Branch Township as a way to balance economic rights with wildlands preservation goals. Incorporating open space requirements into Planned Unit Development zoning is a means of achieving this goal. The township should consider incorporating Planned Unit Development options as special uses in residential, commercial and industrial zoning districts.

Community Facilities

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

Resource Protection and Management

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

Wetlands are a limited resource in the township. The protection and preservation of these plant communities is encouraged. Wetlands can be preserved through use of conservation cluster residential development, conservation easements or fee simple purchase by local and state government. A minimum 50 feet natural vegetation buffer should be maintained around all wetlands. Foot trails used for recreation would be acceptable in this buffer area. Other types of development such as roads, parking lots, buildings, septic systems, stormwater detention facilities and lawns are not considered acceptable uses within the wetlands or associated buffer areas.

Hazard Mitigation

In 2018, South Branch Township actively participated in the update of the Crawford County Community Wildfire Protection Plan, which was adopted in 2019. The Community Wildfire Protection Plan protects human life and reduces property loss from wildfires through the identification and prioritization of Wildland-Urban Interface areas within Crawford County, recommendation of strategies for hazardous fuels reduction treatments, recommendation of local community planning and zoning Firewise strategies, and outlines Firewise measures to reduce wildfire impacts to structures throughout Crawford County.

With the predominance of jack pine forests in South Branch Township, the community is at risk for wildfires. Timber management to reduce fuel buildup at the urban-wildlands interface should be encouraged. The plan continues to incorporate a community wide Firewise program. This includes the

use of supplemental development standards and site plan review through zoning regulations and a landowner education program. Information can be found in the Crawford County Community Wildfire Protection Plan at <https://www.crawfordco.org/wp-content/uploads/2019/09/2019-Crawford-County-Community-Wildfire-Protection-Plan.pdf>.

Additionally, the Crawford County Emergency Management Office actively updates and maintains the Crawford County Hazard Mitigation Plan. This plan is designed to assist communities in reducing or eliminating the impacts that hazards have on the population, economy, and natural environment in an effort to create resilient communities that protect public safety and facilities, removes structures from hazard-prone areas, accelerates recovery time after disasters, increases hazard education and awareness, and develops partnerships. The plan identifies and inventories the potential hazards in the county, assesses the risk and vulnerabilities from the hazards, and develops mitigation strategies. The FEMA-approved hazard mitigation plan allows local governments to receive certain types of non-emergency disaster assistance.

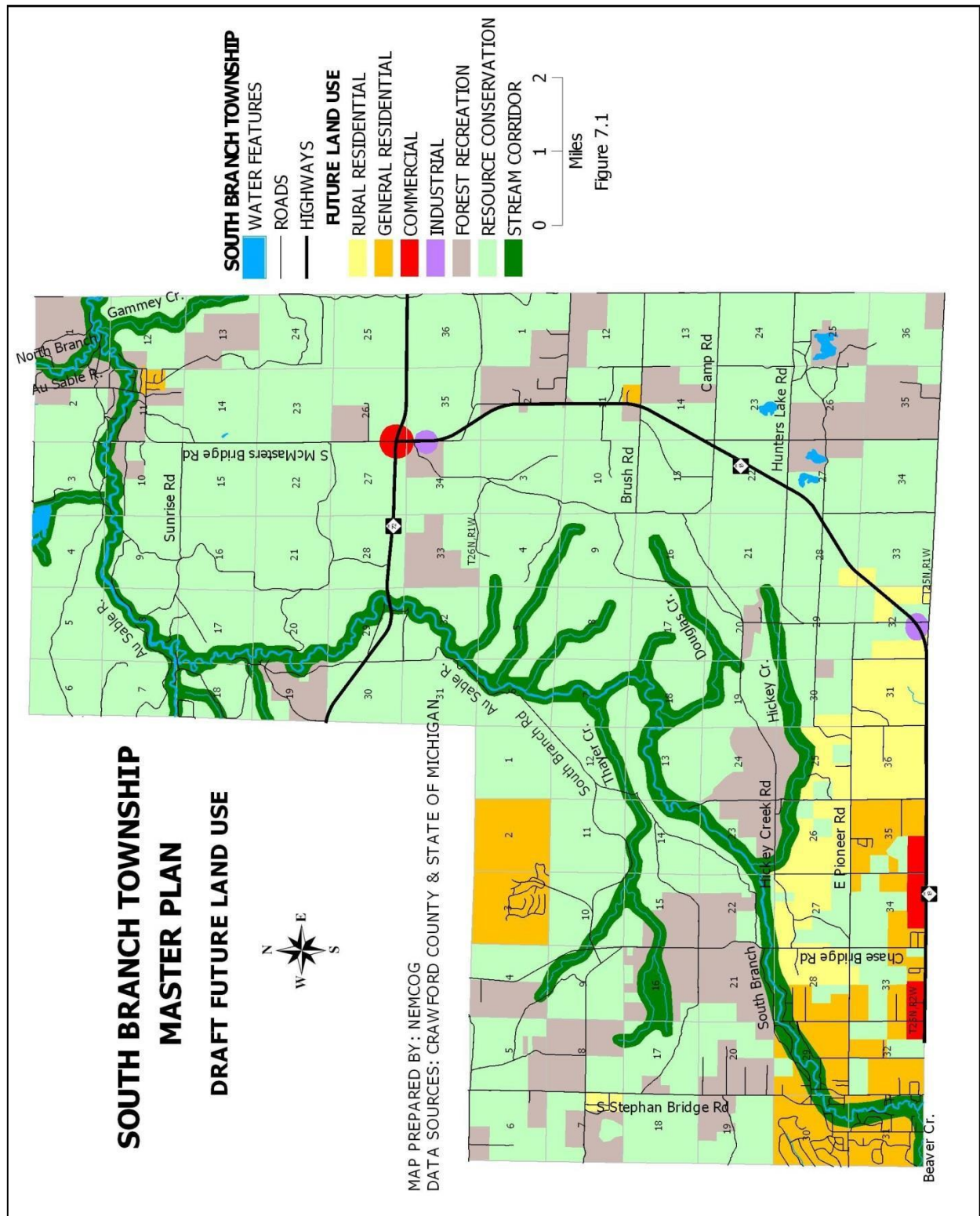


Figure 7-1: Future Use Map

Chapter 8 - Implementation and Adoption

Plan Coordination and Review

As required by the Michigan Planning Enabling Act (PA 33 of 2008), as amended, notification of intent to develop the South Branch Township Master Plan was sent to all adjacent communities and other relevant entities to request cooperation and comment.

After the draft plan was completed by the South Branch Township Planning Commission, a draft was transmitted to the Township Board for approval to distribute the plan for review and comment. The draft plan was transmitted to the entities notified at the initiation of the plan update. After the required comment period, public hearing, and plan adoption, the final plan was transmitted to all required entities.

Public Hearing

A public hearing on the proposed Master Plan for South Branch Township, as required by the Michigan Planning Enabling Act (PA 33 of 2008) as amended, was held on September 3, 2020. The purpose of the public hearing was to present the proposed master plan and to accept comments from the public.

Section 43(1) of the Act requires 15 days notice of the public hearing be given in a publication of general circulation in the municipality. A notice of the public hearing was published in the Crawford County Avalanche on **INSERT DATE**. During the review period, the draft plan was available for review on the Township's website or by contacting the Township office.

Plan Adoption

The South Branch Township Planning Commission formally adopted the Master Plan on **INSERT DATE**. The South Branch Township Board passed a resolution of adoption of the Master Plan on **INSERT DATE**.

Plan Implementation

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

Zoning Plan

Section 33 of the Michigan Planning Enabling Act, PA 33 of 2008, as amended, calls for a plan to include a zoning plan for the control of height, area, bulk, location and use of buildings and premises in the township. The zoning plan identifies the current zoning districts and their purposes, as well as how the land use categories on the future land use map relate to the districts on the zoning map. The Zoning Ordinance is the authority to implement the master plan and regulate the private use of land.

According to the Michigan Zoning Enabling Act, Public Act 110 of 2006, as amended, comprehensive planning is the foundation of a zoning ordinance. Section 203 (1) of the Act states:

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

Grants and Capital Improvement Plan

The Master Plan will 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 (e.g. infrastructure improvements, park improvements, etc.). A Capital Improvements Program (CIP) typically looks six 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 each project. It can therefore serve as a budgetary and policy document to aid in the implementation of a community's master plan.