

SCHOOLCRAFT COUNTY MASTER PLAN

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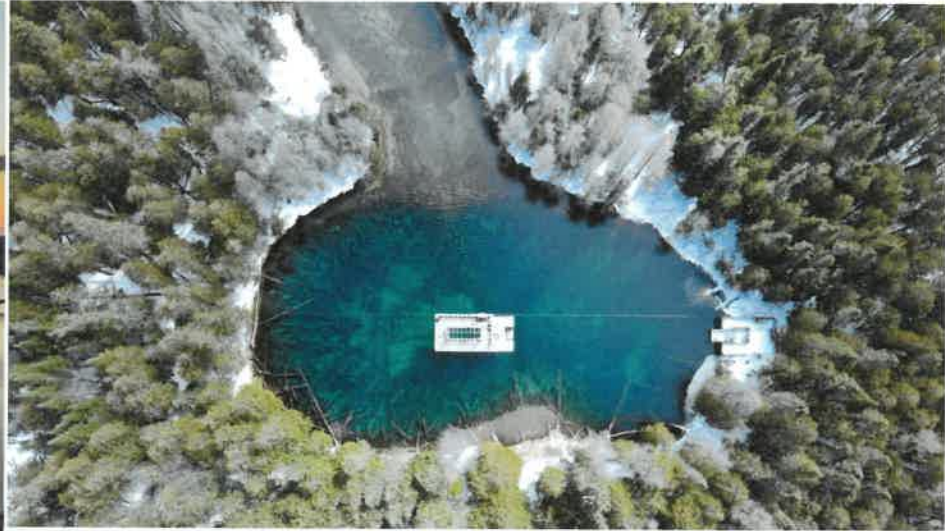


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Chapter 1.0 Overview and Brief Description

1.1 Historical Background

Schoolcraft County is located in the southeastern corner of the central Upper Peninsula of Michigan. The county is composed of nine local units of government which includes eight townships and the City of Manistique. The county has a total area of approximately 1,884 square miles including 1,178 square miles of land and 706 square miles of water. The county is bordered in the south by 47 miles of Lake Michigan shoreline (See Basemap in Appendix A).

Archaeological excavation along the shore of Indian Lake near Manistique has uncovered evidence of aboriginal habitation dating back to at least 300 BC. The first Europeans to visit the area were members of French explorer Jean Nicolet's expedition in 1634 and Rene Robert de la Salle's 1670 voyage of discovery aboard the Griffin, the first sailing ship to enter the Great Lakes. French Jesuit missionaries began visiting the area in 1832 when Fredric Baraga established a Catholic Mission on the eastern shore of Indian Lake.

Schoolcraft County was separated from Marquette County and established as a separate county in 1871. The county was named for Henry Rowe Schoolcraft, an early explorer and ethnologist. As superintendent of Indian affairs for Michigan (1836-41), Schoolcraft concluded a treaty with the Ojibwa (1836) in which the tribe ceded much of northern Michigan to the United States.

The original northern boundary of Schoolcraft County extended all the way to Lake Superior. In 1884, the land comprising present day Alger County was seceded from Schoolcraft County and the county seat was moved to Manistique.

Commercial fishing activities by the French and Native American peoples dominated early economic activity. The waters of Lake Michigan offered a rich harvest of lake trout and whitefish. As early as 1850, a large community of fisherman were summer visitors to Seul Croix where they cast their nets in the waters off the point. The A. Booth Fishery and the Coffey Fishing Company conducted fishing operations out of Manistique Harbor in the late nineteenth and early portion of the twentieth century.

Small scale lumbering activities were carried on near the mouth of the Manistique River as early as 1840. Port Huron lumberman James Haynes oversaw logging operations here in the early 1850's purchasing thousands of acres of virgin white pine timberland at the federal land office in Marquette. Arthur J. Spinney and David Boyd operated a small sawmill along the riverbank.

The establishment of the Chicago Lumbering Company in 1867, and its subsequent purchase in 1873 by a group of New York lumberman marked the beginning of large-scale lumbering operations in the county. Logging operations were commenced along the tributaries of the Indian and Manistique Rivers. The waterways were used to float the logs to three large sawmills in Manistique. Later, the lumber companies used railroads to transport timber from areas that were

inaccessible by water. Major lumbering centers were established at Manistique, South Manistique, Thompson, Steuben and Seney.

The construction of the Duluth, South Shore and Atlantic Railroad, the Soo Line and the Marquette & Northern railroads expanded the opportunities for the development of other industries. Iron ore was transported by rail from the Marquette iron range to the Weston Furnace Company, where pig iron was produced.

The White Marble Lime Company quarried dolomite limestone, building a six-kiln plant at Manistique in 1889 and another two-kiln plant at Marblehead in 1898. Dolomite limestone was burned to manufacture quick lime, which was used in the construction trade. The lime was shipped by rail across the country. The discovery of high calcium limestone was used in the production of paper and in the steel making process. In 1928, Inland Lime and Stone Company acquired the land surrounding the Calspar quarry and built a large plant and docks at Port Inland near Seul Choix for the shipment of crushed limestone to Green Bay, Indiana Harbor and other ports.

Most of the virgin white pine timber was logged off by 1910 which hastened development of other forest products. Soon Manistique was home to several industrial plants manufacturing a variety of goods derived from wood. Products included hardwood maple flooring; wooden running boards and dash boards which were sold to automobile manufacturers; a box factory; two chemical plants; a cooperage; a handle factory and finally a leather company which used hemlock bark in the tanning process.

The Manistique Pulp and Paper Company began operations in 1920 using pulpwood (balsam and spruce) to manufacture newsprint for the Minneapolis Tribune.

By the mid 1920's, many of Manistique's industrial plants had succumbed to declining market demand or had been destroyed by fires or flood waters. As the nation entered the uncertain days of the great depression, Franklin Roosevelt's New Deal programs, including the Civilian Conservation Corp and the Works Progress Administration, helped shape the future of the county's economy. Schoolcraft County, with its prevalence of national forests, was home to more CCC camps than any other county in Michigan. The CCC camps focused on reforestation, improvement of fish habitat, fire prevention and projects to enhance state and national forest campgrounds. CCC youth at Camp Germfask were employed in the creation of the Seney National Wildlife Refuge, using more heavy equipment than any other CCC camp in the state. Other CCC projects included the development of the Wyman Nursery in Manistique, the erection of the pavilion and other buildings at Indian Lake State Park and improvements to the raft, dock and parking lot at Palms Book State Park.

Much of the history of the county has been preserved in the form of photographs, unpublished manuscripts and historical artifacts that have been donated to the Schoolcraft County Historical Society. The Society is working toward making its entire collection available online and is also actively working toward the erection of a museum to educate the public about the county's history.

1.2 Planning Overview

This Master Plan is the result of extensive data collection and analysis providing a method to address issues throughout Schoolcraft County. Community input has played a critical role in the formation of this plan to ensure that it represents the needs of the residents. The initial sections of the plan present an analysis of the current conditions in Schoolcraft County, including demographic statistics, economic climate and the existing land use. A chapter focused on developing management strategies designed to preserve the unique natural resource features in the county will also be included. The remaining chapters of the plan are designed around the key issues highlighted by residents and community officials. Recommendations for Schoolcraft County addressing key issues are outlined in detail.

By analyzing the current condition of the area and factoring in desired outcomes, the plan provides a clear view and direction toward achieving the proposed goals. A future land use chapter will present the “predicted future” of how Schoolcraft County would like to grow and will include recommendations on how development will be carried out. The future land use discussion will also include a zoning plan, which will guide the implementation of a zoning ordinance revision for the County.

To summarize, this plan is intended for use as a guide by local officials during consideration of matters related to development and land use. Planning is a process that requires ongoing review and analysis. This plan will remain a work-in-progress and will require timely and thoughtful revision to be of the greatest benefit.

Chapter 2.0 Population

2.1 Introduction

Population change is a primary component in tracking a community's past growth as well as forecasting future population trends. Population characteristics relate directly to housing, educational, recreational, transportation, health care and future economic development needs of a community. The growth and characteristics of an area population are subject to changes in prevailing economic conditions.

Because communities do not exist in a vacuum, it is important to examine trends in the surrounding areas as well. Residents of one community may work in another community, send their children to school in a different place and travel to additional areas to purchase goods and services.

Demographics including age, income, gender, education, and occupation, including other related factors, shape the development of a community as well as its growth. Analysis of these trends and patterns are a useful tool to determine the needs and demands of the future population in Schoolcraft County. Included in this chapter is a thorough review of the current population, historic population trends, population projections and age distribution. Concluding each section of this chapter is a description and explanation of foreseen impacts of the analysis.

2.2 Area Population Trends

Table 2-1, Appendix B demonstrates population changes from 1970 to 2020 in the State of Michigan, Schoolcraft County and Schoolcraft County jurisdictions.

Population change is the result of a combination of natural increase and migration. Positive natural increase occurs when the number of births exceeds the number of deaths for a specified period of time. Large positive natural increases are found in areas that have a younger population, which in turn produces more births. Communities that have a large older population have a smaller natural increase. Although uncommon, negative natural increase occurs when the number of deaths exceeds the number of births.

Net migration is the difference between the number of people moving into and the number of people moving out of a specific community. Positive net migration occurs when more people move into than move out of an area. Negative net migration is the result of more people moving out of than moving into an area. Net migration is often linked to economic opportunities, or lack thereof, within a community.

Table 2-1, Appendix B shows the percentage increase or decrease for ten-year increments. Hiawatha, Inwood, Manistique, and Thompson townships all have experience growth which follows the trend set by State of Michigan. Hiawatha Township and Thompson Township have experienced the most growth 1970-2020. Alternatively, the City of Manistique has seen the greatest loss for the same period, followed by Seney Township and Germfask Township.

Schoolcraft County's population has fluctuated from 1970-2020. Although the population has experienced variation, Schoolcraft County has seen a net decrease of 179 persons since 1970.

The current census for the State of Michigan indicates the state has gained over one million residents from 1970-2020, despite the economic downturn of 2008-2013 when residents were migrating out of the state.

2.3 Population Estimates

The U.S. Census Bureau, in cooperation with the Michigan Department of Management and Budget, prepares population estimates for years between decennial censuses. These population estimates are calculated using formulas that incorporate the components of population change births, deaths, and migration. Local changes, such as major shifts in the employment market are also considered. The State of Michigan population estimates are available for 2025-2045 in 5-year increments (Table 2-2, Appendix B).

2.4 Age and Gender

The age structure of a community as well as the trend of the population (whether the community is getting younger, older, or staying about the same) can indicate what services and facilities a community may need. If a community's overall population is young, focus may need to be on schools, childcare facilities, parks, playgrounds, etc. If there is an aging population, community focus may be on health care facilities, elderly housing, public transportation and community programs (i.e. Meals on Wheels).

Table 2-3, Appendix B demonstrates that Schoolcraft County as a whole is an aging community. Schoolcraft County had a higher median age than the State of Michigan in 2000 and in 2022.

Examination of a community's age breakdown is crucial to a sound decision making process. Tables 2-4 and 2-5, Appendix B detail the age breakdown of Schoolcraft County's population for 2000, 2020, and 2022. This breakdown gives Schoolcraft County officials a sense of how the population's age is distributed for comparative and planning purposes.

Age distribution trends are indicating an aging population. In 2022, Schoolcraft County's school age population percentage, those under 19, was 3.6% below the state and Schoolcraft County's population percentage of those 65+ was higher than that of the state by 8.8%. The combination of a lower percentage of school age persons and a higher percent of senior citizens demonstrates that Schoolcraft County is an aging community.

2.5 Racial Composition

According to the 2020 US Census Quick Facts, the racial composition in Schoolcraft County traditionally has been and continues to be largely white. American Indian, Eskimo and Aleut is the largest no-white racial group in the County representing 9.3% of its population. Asians represent 0.3% of Schoolcraft County's population, Latinos 1.7% and African Americans 0.5%. The balance of the population is white at 86.0%

2.6 Educational Attainment

Table 2-7, Appendix B shows the educational attainment of persons aged 25 or older. 27.7% of Michigan's population has graduated high school. All jurisdictions within and including

Schoolcraft County have a higher percentage of high school graduates. In 2023 the Schoolcraft County graduation rate was 86% (www.publicschoolsreview.com).

2.7 Household Characteristics

Evaluation of changes in household characteristics in a community can often provide valuable insight about population trends. Household relationships reflect changing social values, economic conditions, and demographic changes such as increased life spans and the increasing mobility of our society.

The United States Bureau of Census defines a household as all persons who occupy a housing unit, for example a single family, one person living alone, two or more families living together, or any groups of related or unrelated persons sharing the same living quarters. A family consists of a householder and one or more persons living in the same household who are related by birth, marriage, or adoption. A non-family household can be a person living alone, or any combination of people not related by blood, marriage, or adoption. (Table 2-8 in Appendix B)

Table 2-8, Appendix B shows that from 2000-2022 there was a decrease in the number of total households in both the County and the State. Schoolcraft County saw approximately a 1,211 total household deduction while the State saw a deduction of approximately 1,061,604.

2.8 Population Density

Population density indicates how many persons live per square mile within a selected area. The City of Manistique has the highest population density at 884.1 persons per square mile in Schoolcraft County in 2022. The lowest population density is in Seney Township at 0.5 persons per square mile. (Table 2-9 in Appendix B)

2.9 Population Projections

Population projections are useful for governmental units for projecting future residential demands for public services. In-and out-migration, the major component of population change, is very difficult to predict. This data depends heavily on future economic trends of the locality and other areas. Fertility and mortality data, also components of population change, have a lesser impact on population change, particularly for smaller jurisdictions.

The Michigan Department of Management and Budget most recently prepared baseline population projections to the year 2045 for counties in 2020. The projections are based on a formula that utilizes the three main components of population change: birth, death, and migration. Historical population data and projections to 2045 are presented for selected areas in Table 2-10 in Appendix B.

The population forecast for Schoolcraft County is a 4.60% decline from 2020-2050. This is the lowest projected decline among the six central Upper Peninsula counties, except Marquette with a 7.10% projected growth rate. Alger, Delta and Dickinson counties are also expected to see a negative population change. Menominee County is expected to see a decline in population. Alger County has the largest projected decline at 16.3%. (Table 2-11 in Appendix B)

Updated population projections released by the U.S. Census Bureau for each state forecast that Michigan will grow 4.0% between 2020 and 2030, while the United States is projected to grow 15% for the same time period. Michigan's out-migration to other states has been considerably higher than the national average. These population projections do not take into consideration other factors that may contribute to a higher growth rate for Michigan, i.e., making cities more attractive to residents, improvements to the economic climate to help decrease the rate of out-migration. Michigan could experience an increase in return-migration. Michigan could benefit from an influx of Michigan natives looking to return to the area. Congestion and high housing costs may slow growth for some of the states predicted to go through rapid growth, leading more people to Michigan.

2.10 Issues and Opportunities

According to the 2022 Census Quick Facts, as of July 1, 2022, Schoolcraft County had a population of 8,188. Historically, this County's population has been stable since 1970.

Current estimates indicate the population decline for Schoolcraft County from 2025 to 2030 to be -1.2%. (Table 2-11 in Appendix B)

Schoolcraft County has a significantly higher median age (51.8 years) than the State (40.3) as well as a lower percentage of school age persons and a higher percentage of senior citizens, indicating an aging population. (Tables 2-3, 2-4 & 2-5 of Appendix B)

According to the July 2022 Census Bureau Quick Facts, 27.5% of persons in Schoolcraft County are 65 or older. This indicates that Schoolcraft County has an aging population.

Schoolcraft County also has a lower percentage of residents aged 20-44 than the State. This may be due to college aged students moving away to attend college and those who have graduated finding employment where opportunities are more plentiful. (Tables 2-5 & 2-7, Appendix B)

According to the 2020 US Census Quick Facts, racial composition in Schoolcraft County traditionally has been and continues to be largely white. The largest non-white racial group is identified as American Indian, Eskimo and Aleut.

Schoolcraft County boasts a significantly higher high school graduation rate (89%) than the State overall (86%) in 2023. Rates of those attaining a Bachelor's or Graduate/Professional degree remain lower for the County when compared to the State. (www.publicschools.com).

In 2000, Schoolcraft County had 4,996 households and in 2022 it has 3,785 households. (Table 2-8, Appendix B)

Schoolcraft County and its local units of government maintain a very low population density when compared to the State and surrounding municipalities. Low population densities are often very attractive to residents. (Table 2-9, Appendix B)

Chapter 3.0 Economic Base

3.1 Introduction

Central to a community's stability and growth is its economic base. Two major sectors make up an economy: a basic or export sector that provides goods and services for markets outside of the community, and a non-basic sector that provides goods and services for local consumption. Economic vitality and balance rely heavily on the creation and retention of local basic sector jobs.

The changes in population of an area are generally closely related to changes in the amount of economic activity in the area. The segment of the population that is most closely related to the economy is the labor force defined as those residents 16 years of age and older, residents that are either employed at one or more jobs or are actively seeking employment. The employed portion of the labor force provides the primary support of the total population.

The factors that affect the economic base in a community extend beyond its boundaries, increasingly so as the effects of the global economy are realized. Therefore, this chapter will not only include information that is specific to Schoolcraft County and its jurisdictions, but it will also include comparative data from the State.

3.2 Area Economy and Civilian Labor Force Characteristics

The civilian labor force consists of persons currently employed and those currently seeking employment, excluding persons in the armed forces and those under the age of 16 years. Shifts in the age and sex characteristics of residents, seasonal changes, and employment opportunities can all cause fluctuation in the number of persons in the labor force.

Charts 1-4 in Appendix C provides labor data for Schoolcraft County.

In 2022, the labor force participation rate for Schoolcraft County was 46.7%.

3.3 Employment by Industry Group

The compiled charts in Appendix C provide comparative data derived from the 2019 American Community Survey 5-year estimates Census using the Standard Industrial Classification (SIC) manual. This system allows for a classification of establishments by the type of industrial activity in which they were engaged. The census data used were collected from households rather than businesses, which may be less detailed in some categories.

As of 2022, the three leading employment sectors for Schoolcraft County are educational, health and social services (22.1%), arts, entertainment, recreation, accommodation, and food services (11.5%), and retail trade (13.2%). (Chart 2, Appendix C)

3.4 Employment by Place of Work

Census information indicating where Schoolcraft County residents are employed is shown in Appendix C, Table 3-4. Germfask Township has the highest percentage (59.0%) of residents who worked outside of Schoolcraft County, while Manistique Township has the lowest

percentage at 9.4%. Only 0.7% of Schoolcraft County residents have worked outside of Michigan, which is right in line with State's rate of 1.7%.

Commuting times for Schoolcraft County residents are presented in Appendix C, Table 3-5. 96.5% of County residents are employed outside of their home. 38.1% of these residents have a commute of less than 10 minutes from their residence. 20.7% of County residents have a commute of more than 30 minutes. Schoolcraft County had a lower percentage of residents who worked at home (3.5%) than Michigan (13.7%). (Table 3-4, Appendix C)

The workplace as we have come to know it has been greatly influenced by technological advancement and economic globalization. It has been predicted that one-third of the 21st Century workforce will be independent regarding location; telephone and internet services will be the only requirements. Due to the mobile workforce, areas that can offer quality living environments will be the locations of choice for these types of work arrangements.

3.5 Unemployment

County unemployment and labor force data are collected and analyzed by the Michigan Department of Labor and Economic Growth. Unemployment data is not available at the sub-county level. United States Bureau of the Census data was used prior to 1965 in the computation of unemployment figures.

Labor force and unemployment data from 2017 to 2022 is presented in Appendix C, Table 3-6 for selected areas. This data shows that for this selected timeframe, Schoolcraft County has higher unemployment rates than the Upper Peninsula and the entire State of Michigan.

Table 3-7 in Appendix C provides labor force and unemployment rates for fifteen Counties located in the Upper Peninsula for 2022. Schoolcraft County's unemployment rate was 7.9% in 2022. Schoolcraft County's unemployment rate of 7.9% shows it is typically higher than that of the State, which was 4.5% in 2022.

3.6 Major Employers

Health care services comprise two major employers in the County. Schoolcraft Memorial Hospital (324 employees) and Schoolcraft County Medical Facility (61 employees) are significant to the local economy. The Schoolcraft County Memorial Hospital (SMH) has been serving the residents of Schoolcraft County for over 60 years. SMH offers several services to the community including, but not limited to, educational programs, health care screenings, public speaking, support groups, specialized training, and telemedicine.

UP Paper LLC has been in service for almost 100 years. Built in 1914, it currently employs about 109 people. Although it has been bought and sold several times, it remains a leader in its trade. It was the first manufacturer of recycled content newsprint in North America and the first North American mills to be certified process chlorine free (PCF). Since 1984, they have had 100% recycled content.

The Kewadin Casino is located east of Manistique and offers a wide variety of gaming opportunities. These include several table games, slots, keno, and bingo. Kewadin Casino also

offers tournaments, weekly events and specials, promotions, and entertainment. The casino employs about 102.

The Manistique Area Schools currently employs 33 people. The Manistique Area Schools is comprised of the Middle and High School and Emerald Elementary. At the Middle and High School there is a wide variety of athletics offered: girls' and boys' basketball, football, golf, swim, wrestling, volleyball, cheer, track and field, and softball. Emerald Elementary has state of the art technology in each classroom. It connects computers, DVD players, VCR's and cameras to projectors and plasmas which can be controlled by a touch panel.

The Schoolcraft County Courthouse employs 79 people. The Courthouse houses the offices of several officials such as Schoolcraft County Sheriff, Clerk and Register of Deeds, Prosecuting Attorney, Schoolcraft County Treasurer, Building Code Administration, Zoning Ordinance Administration and Schoolcraft County Tax Equalization to name a few.

Carmeuse owns a limestone quarry located in Gulliver. The limestone products are used in a variety of ways such as aggregates in concrete and asphalt, in steelmaking, and as filler in papermaking. Western Lime, located at Port Inland produces high calcium pebble lime from limestone that is quarried on site by Carmeuse. Carmeuse currently has 23 employees at this location and Graymont Western Lime between 5 and 9.

3.7 Income

A comparison of State and local income averages and trends is helpful in determining wealth that is available locally for expenditures on goods and services. Income figures also reflect the wages and salaries paid to local workers.

Annual household income for Schoolcraft County and its jurisdictions are presented in Table 3-8 in Appendix C.

Further income analysis is provided in Table 3-9 in Appendix C, using per capita and median incomes. Per capital income is derived from the total income reported in each community divided by the total population. Household income is derived from all households including families.

Using State incomes as a standard of comparison, per capita and median household income have followed the same pattern for Schoolcraft County and its jurisdictions; they saw a gain. For the City of Manistique per capita income increased from \$14,986 in 1999 to \$ 31,643 in 2022; over a 50% gain. At the County level per capital income rose from \$17,137 in 1999 to \$33,805 in 2022, mimicking the same gain. (Table 3-9, Appendix C)

Also shown in Table 3-9, Appendix C, the median household income increased at the city level from \$24,295 in 1999 to \$36,588 in 2022, while it increased at the County level from \$31,140 in 1999 to \$55,071 in 2022.

3.8 Poverty

Poverty levels are determined by the United States Bureau of the Census based on a complex formula that indicates 48 different thresholds that vary by family size, number of children within the family and the age of the householder.

Table 3-10, Appendix C, provides poverty levels and rates in the State of Michigan, Schoolcraft County and Schoolcraft County jurisdictions. Poverty rates of individuals within and for Schoolcraft County ranged from 3.5% (Inwood Township) to 29.6% (Seney Township) compared to 13.4% for the State of Michigan. Poverty levels of persons aged 65 and older within and for Schoolcraft County ranged from 2.5% (Doyle Township) to 27.6% (City of Manistique) compared to 9.8% in Michigan.

3.9 Issues and Opportunities

Labor force participation by females experienced small increase from 35.9% to 36.0% in Schoolcraft County from 2020 to 2022. (Chart 4, Appendix C)

The top three employment sectors for Schoolcraft County are educational, health and social services (22.1%), Retail trade (13.2%), and Arts, entertainment, recreation, accommodation, and food services (11.5%). (Chart 2, Appendix C)

Nearly 83% of Schoolcraft County residents work within Schoolcraft County and only 0.7% of County residents worked outside of Michigan. (Table 3-4, Appendix C)

38.1% of residents who worked outside of their homes have a commute of less than 10 minutes from their residence. 20.7% of county residents have a commute of more than 30 minutes. (Table 3-5, Appendix C)

3.5% of the residents of Schoolcraft County work from home. With continued improvements to fiber optic lines and developing uninterrupted cell service, more County residents may be able to work from home. (Table 3-5, Appendix C).

Schoolcraft County traditionally has higher unemployment rates than the State. In 2022, the County's unemployment rate was 7.9% while the State's was 4.5%. (Table 3-6, Appendix C)

Health care services comprise two major employers in the County. Schoolcraft Memorial Hospital (324 employees) and Schoolcraft County Medical Facility (61 employees) are significant to the local economy.

The median household income for the County (\$55,071) is significantly less than the income reported for the State (\$66,986). This is offset some by the much lower cost of living in the Upper Peninsula, when compared to the Lower Peninsula. (Tables 3-8 and 3-9, in Appendix C)

Poverty rates for the County are generally higher than those of the State. (Table 3-10, Appendix C)

The remote location of portions of the County and infrastructure limitations may hamper the establishment of business and industry in Schoolcraft County. Many areas in the County are located at great distances from population centers, presenting issues for the transportation of goods.

With the large amounts of forest in the County, drawing in industry related to forest products is an excellent opportunity for the area. A marketing campaign to advertise the potential for a wood chipping plant or biofuel may help expand industrial potential.

Many residents in the County have expressed an interest in drawing light manufacturing to the area in an effort to create jobs.

The abundance of natural features in Schoolcraft County presents an opportunity for the marketing of ecotourism.

Chapter 4.0 Natural Features

4.1 Introduction

Natural features, including soils, geology, topography, water features, and other natural resources, not only enhance the aesthetic quality of the area but, they also have a profound effect on a community's development. These physical features directly or indirectly constrain or encourage growth; for example, soil types and geology often affect the ability of a community to provide high quality water and wastewater services. The natural resources, such as timber or minerals, which occur in certain areas are often a primary factor in the establishment and growth (or decline) of communities. For instance, many areas in the Upper Peninsula were settled because of logging or mining operations in the late 1800's, including Schoolcraft County, which was founded primarily because of Eastern White Pine (*Pinus strobus*).

These natural features are often interrelated, and disturbance in one area can potentially affect other areas. From a planning standpoint, it is important to understand these interrelationships, and the role that natural features play in determining a community's future development endeavors.

Map 4-1 in Appendix D shows the Bedrock Geology of Schoolcraft County.

4.2 Bedrock Geology

Among the primary factors which make geology important to a community's development is the ability to supply groundwater. The quality and quantity of groundwater are influenced by the types of bedrock in which it is found and influenced by the layers through which the water passes before it is extracted. Bedrock geology consists of solid rock formations found below the soil formed during the early periods of the earth's evolution. These formations have undergone extensive folding, uplifting, eroding, and weathering during the millions of years that have passed and are now overlain by surface geology and soil.

Certain types of bedrock increase the potential for groundwater contamination, particularly when the bedrock is close to the surface. When bedrock is close to the surface, the opportunity to filter out contaminants is diminished. This situation increases the potential for polluted runoff to enter the groundwater table. Bedrock at or near the surface also increases construction costs. Buildings must be constructed without basements and in some cases, blasting is required for utility and street construction or even for building site preparation.

Bedrock geology types for Schoolcraft County are listed below.

- Big Hill Dolomite
- Black River Group
- Burnt Bluff Hill
- Cabot Head Shale
- Collingwood Shale Member
- Engadine Group
- Manistique Group

- Prairie du Chien Group
- Queenston Shale
- Stonington Formation
- Trempealeau Formation
- Trenton Group
- Utica Shale Member

4.3 Surface Geology

Surface geology is also an important factor in terms of the ability to filter contaminants, the ability of the soil to support structures, roads, etc. and the suitability of a site for various uses. Glacial till for example, often includes gravel and boulders which can make building difficult and lower soil productivity. On the other hand, such gravel deposits are an important source of material for road constructions and other uses.

4.4 Soils

Soils is the surface layer of the land that was formed through the interaction of many factors, Physical, chemical, and mineral composition of the parent material combined with climate, plant and animal life on and in the soil are major factors. Other factors include time and relief or lay of the land.

Soil surveys contain information that affects land use planning in the survey area. They highlight soil limitations that affect various land uses and provide information about the properties of soils in the survey areas. Information noted in the Master Plan has been taken from the National Soil Cooperative Survey. The National Soil Cooperative Survey is a collaboration of the United States Department of Agriculture and other federal, state and local agencies.

Definitions of soil properties:

- I. **Restrictive features** identify the soil property that creates the limitation for the specified use. The extent to which the restrictive feature affects the interpretation provides the user severity of the restriction from the one property.
- II. **Drainage class (natural)**. Refers to the frequency and duration of periods of saturation or partial saturation during soil formation, as opposed to altered drainage, which is commonly the result of artificial drainage or irrigation but may be caused by the sudden deepening of channels or the blocking of drainage outlets. Seven classes of natural soil drainage are recognized:
 - a. **Excessively drained**. Water is removed from the soil very rapidly. Excessively drained soils are commonly very coarse textured, rocky, or shallow. Some are steep. All are free of the mottling related to wetness.
 - b. **Somewhat excessively drained**. Water is removed from the soil rapidly. Many somewhat excessively drained soils are sandy and rapidly pervious. Some are shallow. Some are so steep that much of the water they receive is lost as runoff. All are free of the mottling related to wetness.
 - i. **Soil Morphology**: Typically, excessively drained soils have bright matrix colors (high chroma and value) in the upper subsoil which gradually fades with depth to the un-weathered color of the underlying geologic material. Some excessively drained soils that have developed within recently

deposited sediments (flood plain deposits and coastal dunes) lack color development within the subsoil. Excessively drained soils are not mottled within the upper 5 feet. Soil textures are loamy fine sand or coarser below 10 inches.

- c. **Well drained.** Water is removed from the soil readily, but not rapidly. It is available to plants throughout most of the growing season, and wetness does not inhibit growth of roots for significant periods during most growing seasons. Well drained soils are commonly medium textured. They are mainly free of mottling.
 - i. **Soil Morphology:** Typically, well drained soils have bright matrix colors (high chroma with value) in the upper subsoil which gradually fades with depth to the un-weathered color of the underlying geologic material. Well drained soils that have developed within recently deposited sediments (floodplain deposits) lack color development. These soils are not mottled within the upper 40 inches. Soil mottling (few, faint and distinct mottles) may be present in some compact glacial till soils above the hardpan layer but are not present in the underlying substratum. Soil textures are typically very fine sand or finer in horizons between 10 to 40 inches.
- d. **Moderately well drained.** Water is removed from the soil somewhat slowly during some periods. Moderately well drained soils are wet for only a short time during the growing season, but periodically they are wet long enough that most mesophytic crops are affected. They commonly have a slowly pervious layer within or directly below the solum, or periodically receive high rainfall, or both.
 - i. **Soil Morphology:** Typically, moderately well drained soils have bright matrix colors (high chroma and value) in the upper subsoil. Moderately well drained soils have distinct or prominent mottles between a depth of 15 to 40 inches below the soil surface.
- e. **Somewhat poorly drained.** Water is removed slowly enough that the soil is wet for significant periods during the growing season. Wetness markedly restricts the growth of mesophytic crops unless artificial drainage is provided. Somewhat poorly drained soils commonly have a slowly pervious layer, a high-water table, additional water from seepage, nearly continuous rainfall, or a combination of these.
- f. **Poorly drained.** Water is removed so slowly that the soil is saturated periodically during the growing season or remains wet for long periods. Free water is commonly at or near the surface for long enough during the growing season that most mesophytic crops cannot be grown unless the soil is artificially drained. The soil is not continuously saturated in layers directly below plow depth. Poor drainage results from a high-water table, a slowly pervious layer within the profile, seepage nearly continuous rainfall, or a combination of these.
 - i. **Soil Morphology:** Typically, poorly drained soils are mottled directly below the A horizon. Depending upon soil profile development and soil textures, matrix colors may vary. Soils that exhibit pronounced spodic development have an albic horizon which has faint to prominent mottles and is underlain by an ortstein or a spodic horizon which is partially cemented or has iron nodules. The spodic horizon and material directly underlying the spodic have distinct and prominent mottles. Poorly drained

soils with very fine sand or finer textures have matrix colors with chroma of 2 or less within 20 inches of the surface. Poorly drained soils with loamy fine sand or coarser textures have matrix colors with chroma of 3 or less within 12 inches of the surface.

- g. **Very poorly drained.** Water is removed from the soil so slowly that free water remains at or on the surface during most of the growing season. Unless the soil is artificially drained, most mesophytic crops cannot be grown. Very poorly drained soils are commonly level or depressed and are frequently ponded. Yet, where rainfall is high and nearly continuous, they can have moderate or high slope gradients.
 - i. **Soil Morphology:** Typically, very poorly drained soils have organic soil materials that extend from the surface to a depth of 16 inches or more or either have a histic epipedon or an epipedon that has “n” value of greater than 0.7. These soils are generally gleyed directly below the surface layers.

The ten most abundant soil types occurring in the County are listed in Table 4-1 in Appendix D. These soil types are described below.

- **Markey Mucky Peat**

Elevation: 570 to 1,390 feet

Mean annual precipitation: 28 to 33 inches

Mean annual air temperature: 39 to 43 degrees F

Frost-free period: 90 to 155 days

Parent material: Herbaceous organic material over sand glaciofluvial deposits

Depth to restrictive feature: More than 80 inches

Drainage class: Very poorly drained

Capacity of the most limiting layer to transmit water: Moderately high to high

Frequency of flooding: None

- **Carbondale, Lupton and Tawas soils**

Elevation: 570 to 1,390 feet

Mean annual precipitation: 28 to 33 inches

Mean annual air temperature: 39 to 43 degrees F

Frost-free period: 90 to 155 days

Parent material: Woody organic material

Depth to restrictive feature: More than 80 inches

Drainage class: Very poorly drained

Capacity of the most limiting layer to transmit water: Moderately high to high

Frequency of flooding: None

- **Rubicon sand, 0 to 6 percent slopes**

Elevation: 570 to 1,390 feet

Mean annual precipitation: 28 to 33 inches

Mean annual air temperature: 39 to 43 degrees F

Frost-free period: 90 to 155 days

Parent material: Sandy glaciofluvial deposits
Depth to restrictive feature: More than 80 inches
Drainage class: Excessively drained
Capacity of the most limiting layer to transmit water: Very High
Frequency of flooding: None

- **Spot-Finch complex, 0 to 3 percent slopes**

Elevation: 570 to 1,390 feet
Mean annual precipitation: 28 to 33 inches
Mean annual air temperature: 39 to 43 degrees F
Frost-free period: 90 to 155 days
Parent material: Outwash
Depth to restrictive feature: 8 to 12 inches to ornstein
Drainage class: Poorly drained
Capacity of the most limiting layer to transmit water: Moderately high to high
Frequency of flooding: None

- **Cathro and Lupton soils**

Elevation: 570 to 1,390 feet
Mean annual precipitation: 28 to 33 inches
Mean annual air temperature: 39 to 43 degrees F
Frost-free period: 90 to 155 days
Parent material: Woody organic material
Depth to restrictive feature: More than 80 inches
Drainage class: Very poorly drained
Capacity of the most limiting layer to transmit water: Moderately high to high
Frequency of flooding: None

- **Kalkaska sand, 0 to 6 percent slopes**

Elevation: 570 to 1,390 feet
Mean annual precipitation: 28 to 33 inches
Mean air temperature: 39 to 43 degrees F
Frost-free period: 90 to 155 days
Parent material: Outwash
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water: High to very high
Frequency of flooding: None

- **Deford-Rubicon-Au Gres complex, 0 to 15 percent slopes**

Elevation: 570 to 1,390 feet
Mean annual precipitation: 28 to 33 inches
Mean annual air temperature: 39 to 43 degrees F
Frost-free period: 90 to 155 days
Parent material: Sandy glaciofluvial deposits
Depth to restrictive feature: More than 80 inches

Drainage Class: Poorly Drained

Capacity of the most limiting layer to transmit water: High to very high

Frequency to flooding: None

- **Garlic sand, 0 to 6 percent slopes**

Elevation: 570 to 1,390 feet

Mean annual precipitation: 28 to 33 inches

Mean annual air temperature: 39 to 43 degrees F

Frost-free period: 90 to 155 days

Parent material: Outwash

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Capacity of the most limiting layer to transmit water: High to very high

Frequency of flooding: None

- **Proper sand, 0 to 3 percent slopes**

Elevation: 570 to 1,390 feet

Mean annual precipitation: 28 to 33 inches

Mean annual air temperature: 39 to 43 degrees F

Frost-free period: 90 to 155 days

Parent material: Sandy glaciofluvial deposits

Depth to restrictive feature: More than 80 inches

Drainage class: Moderately well drained

Capacity of the most limiting layer to transmit water: Moderately high to high

Frequency of flooding: None

- **Kinross-Au Gres-Rubicon complex, 0 to 15 percent slopes**

Elevation: 570 to 1,390

Mean annual precipitation: 28 to 33 inches

Mean annual air temperature: 39 to 43 degrees F

Frost-free period: 90 to 155 days

Parent material: Outwash

Depth to restrictive feature: More than 80 inches

Drainage class: Poorly drained

Capacity of the most limiting layer to transmit water: High to very high

Frequency of flooding: None

4.5 Topography

The unique character of an area is derived from the physical features of its landscape. Topography describes this character in terms of elevation above mean sea level. This reveals the size and shape of watersheds and places to avoid with development because of grade in excess of recommended standards.

Step topography or slopes of 10 percent or greater (a rise in gradient of more than 10 feet in a horizontal distance of 100 feet) can be an esthetically attractive for residential development and some commercial establishments. However, the steep grade increases the likelihood of soil

movement or slides, and the weight of structures is an added force that encourages this movement. In addition, there is an added expense if development occurs on the sloping surface itself. Excavation of a hillside and/or construction of retaining walls can greatly increase building costs. There is also a problem of erosion as the water rushes down steep grades. Natural water courses provide the pathway for such water and should be maintained in this capacity. Soil disturbance of one or more acres or within 500 feet of a lake or stream generally requires a permit as authorized under Part 91 (Soil Erosion and Sedimentation Control) of the Natural Resources Environmental Protection Act.

The low point in Schoolcraft County is listed at 579 feet and the highest elevation is listed at 1,052 feet. Map 4-2 illustrates the surface topography for Schoolcraft County.

Map 4-3 illustrates Schoolcraft County's Depth to Water Table.

4.6 Water Features

Over 70 percent of the earth's surface is water. Water features, i.e. lakes, streams and rivers have important functions as natural resources. Among those important functions is the source of water for residential and commercial development. According to a 1999 Michigan Department of Environmental Quality publication, surface water serves as a drinking water source for approximately 50 percent of the state's population. Depth to water table is shown on Figure 7 in Appendix D. Sufficient amounts of surface water are necessary for many industries and for the generation of electricity. Surface water features are also important for recreation use and often add scenic beauty to an area.

Schoolcraft County lies almost entirely within the Manistique River Watershed. The Manistique River begins in Manistique Lake in Luce County and flows southwest across Schoolcraft County from Germfask to Manistique, where it empties into Lake Michigan. Most of the tributaries (Indian, Stutts, West Branch, Manistique, Creighton, Marsh Driggs and the Fox Rivers) flow southeastward across the County until they join the Manistique River.

There are over 286 lakes in Schoolcraft County, providing opportunities to residents and visitors for recreation, leisure, camping, and fishing. There are many lakes with some residential development. These lakes include: Indian Lake (west of Manistique), Gulliver Lake, McDonald Lake (Seul Choix Pointe area), Dodge Lake (Hiawatha area), Island Lake (Hiawatha area), Smith Lake, Driggs Lake, Thunder Lake, Lake Anne Louise (Blaney Park area), Murphy Lake (Steuben area), Tee Lake (Blaney Park area), Ford Lake (Germfask area), Chain of Lakes (Straits, Ostrander, Corner, Deep) Sand Lake (Shingleton area), Boot Lake (Shingleton area), and Carpenter Lake (NW Seney area). The Lake Michigan shoreline also has considerable residential development as well. Crooked Lake and Steuben Lake (both in the Steuben area) possess several cabins.

Major rivers include the Manistique River, the Stutts River, and the Indian River.

4.7 Floodplains and Wetlands

Floodplains and wetlands are important from a planning standpoint due to their potential limitations on future development. With floodplains, it is important to also consider their possible impact on existing development. These important storage areas affect the discharge characteristics

of streams. Loss of floodwater storage areas to development causes rainfall to run off more rapidly and increases the potential for flooding. A plain that may be submerged by flood waters defines a floodplain; areas between terrestrial and aquatic systems where the water table is at, near, or above the land surface for a significant part of most years define wetlands. A wetland area may be referred to as a swamp, bog or marsh and is normally characterized by the presence of water at a frequency and duration sufficient to support wetland vegetation and aquatic life. Wetland areas help to improve water quality by filtering pollutants and trapping sediments.

Schoolcraft County is dominated by wetlands. Schoolcraft County wetlands are shown on Map 5 in Appendix D.

4.8 Forests

Schoolcraft County boasts over 540,500 acres of forest. About three-quarters of the County is public land, much of it designate as national forest, state forest and wildlife refuge land. The County is home to the Hiawatha National Forest and Lake Superior State Forest. Much of the forest land in the County is sustainable managed forest.

- ***Hiawatha National Forest***

The Hiawatha National Forest is comprised of 880,000 acres and is administered by the National Forest Service. The forest is physically divided into two subunits, referred to as the east unit and west unit. In descending order of land, it lies in parts of Chippewa, Delta, Mackinac, Alger, Schoolcraft, and Marquette counties. Chippewa and Mackinac counties are in the Eastside, the rest of the counties in the west unit. The west unit contains about 56% of the forest's area. The forest headquarters are located in Escanaba.

By the 1930's much of the Upper Peninsula was devoid of timber. Most of the area's pine had been cut in the late 19th century and much of the hardwood was cut during the first decades of the 20th century. The Westside was designated as Hiawatha National Forest in 1931. It was extensively replanted by the Civilian Conservation Corps (CCC). In 1962 the Marquette National Forest (east unit) became part of the west unit.

Over time, the pines planted by the CCC became a valuable source of timber. The harvest of forest products continues in parts of the Hiawatha in accordance with new forestry practices that emphasize the creation and maintenance of healthy ecosystems.

The forest has over 100 miles of shoreline. Both east and west units have shoreline on both Lake Superior and Lake Michigan; the east unit also has shoreline on Lake Huron. The west unit borders Pictured Rocks National Lakeshore and Grand Island National Recreation Area. The Forest Service manages the Hiawatha by using a diverse range of management tools and techniques. Prescribed fire, clear-cutting, tree planting, seeding and natural regeneration are all methods utilized at times by the Forest Service. The Hiawatha National Forest has over 400 lakes and many rivers and streams. Hundreds of miles of trails are open to the public for hiking, mountain biking, cross country skiing and horseback riding.

- **Lake Superior State Forest**

The Lake Superior State Forest (LSSF) covers more than a million acres of land in the eastern Upper Peninsula and is operated by the Michigan Department of Natural Resources. The LSSF is divided into three forest units: Shingleton, Newberry and Naub-Sault. 72% of LSSF is considered forest, while 13% is wetlands and 8% is brush. The LSSF is also considered a managed forest. The Shingleton Management Unit administers roughly 380,000 acres of state-owned land in the Central Upper Peninsula, including the LSSF. The Shingleton Field Office, locally known as the Cusino Wildlife Research Station, serves as the Unit's primary operations center, and there are two satellite offices. One is in Manistique at the Wyman Nursery and the other is in Seney, which is staffed only for fire control and recreation.

Within the 540,500 acres of forest in Schoolcraft County, there are a variety of species of trees. The fifteen most abundant include.

- Cedar (*Thuja occidentalis*)
- Balsam Fir (*Abies balsmainfera*)
- Red Maple (*Acer rubrum*)
- Black Spruce (*Picea mariana*)
- Sugar Maple (*Acer saccharum*)
- Quaking Aspen (*Populus tremuloides*)
- Jack Pine (*Pinus banksiana*)
- Paper Birch (*Betula papyrifera*)
- Black Ash (*Fraxinus nigra*)
- Black Cherry (*Prunus serotina*)
- Red Pine (*Pinus resinosa*)
- White Pine (*Pinus strobus*)
- Beech (*Fagus grandifolia*)
- Tamarack (*Larix laricina*)
- White Spruce (*Picea glauca*)

Source: MSU Extension

4.9 Mineral Resources

Mining or extraction of materials such as gold, iron ore, oil, natural gas, and coal are the most thought of materials associated with the term mineral resources. Schoolcraft County does not possess mineral deposits of this type.

Nonmetallic mineral resources are mineral resources that do not contain metal and include building stone, gravel, sand, gypsum, phosphate and salt. Schoolcraft County has deposits of sand, gravel and limestone.

The Schoolcraft County Road Commission maintains a sand and gravel pit on Little Harbor Road. There is also a pit located on the River Road and a pit located north of Blaney on the west side of M-77. In addition, there are many sands and gravel pits located in the County that are utilized on an as needed basis.

Carneuse maintains a quarry and manufacturing facility at Port Inland. The quarry and port are located at the end of County Road 432, east of Gulliver.

The facility produces high calcium pebble lime from limestone that is quarried on site. The Port Inland rotary kiln produces 256,000 tons of Calcium Oxide annually. Lime from this plant is shipped by rail and truck throughout Canada and the U.S. under the brand name: Western High Cal Pebble Lime. The quarry's limestone products are used as aggregates in concrete and asphalt, in steelmaking, and as filler in papermaking.

4.10 Scenic Sites

An abundance of scenic sites is found within Schoolcraft County's forests, rivers and lakes. While determining scenic value is highly subjective, the natural environment and general rural nature of the area contribute significantly to the overall quality of life. A detailed description of the Seney National Wildlife Refuge is included in this section. Also included is a listing and brief description of the most prominent scenic sites in Schoolcraft County (a comprehensive inventory is included in Chapter 8-Recreation).

- ***Kitch-iti-Kipi***

Kitch-iti-Kipi is also known as the Big Spring, is located in Palms Book State Park, on M-149, 11 miles north of US-2 in Thompson Township. Kitch-iti-Kipi is noted as Michigan's largest natural spring. The spring is 200' in diameter, 45' deep and delivers 16,000 gallons of water per minute. The flow continues throughout the year at a constant 45-degree Fahrenheit. By means of a self-operated & tethered observation raft, visitors are guided to vantage points overlooking underwater features. Modern facilities, ample parking, picnic tables and stoves are provided at the park. The park also maintains a concession with souvenirs, snacks, film, and picnic supplies.

- ***Seney Wildlife Refuge***

The Seney Wildlife Refuge was established in 1935 by Franklin D. Roosevelt for the protection and production of migratory birds and other wildlife. It is located five miles south of Seney on M-77. The refuge was used to reclaim some of the land altered by lumbering operations.

Fires were often set by lumber companies to clear away debris. These fires often damaged organic soil quality and killing seeds that would have produced a new forest. After the fires, a land development company dug many miles of drainage ditches throughout Seney. This drainage acreage was sold on promises of agricultural productivity, which turned out to be unfounded. The farms were quickly abandoned, and the land reverted to state ownership. The Michigan Conservation Department recommended to the Federal Government that the Seney area be developed for wildlife in 1934. Physical development and restoration of the refuge land began soon after establishment.

The refuge was carved out of the Great Manistique Swamp by the Civilian Conservation Corps. An intricate system of dikes, water control structures, ditches and roads were built. Today the refuge is a mixture of marsh, swamp, bog, grassland and forest; with nearly two-thirds as wetlands. The system holds over 7,000 acres of open water in 25 major pools. The refuge now occupies 95,212 acres, including 25,150 wilderness acres.

Water levels on over 7,000 acres of refuge habitat are managed using a system of spillways, called water control structures and dikes. High water levels support fish populations during the winter, protect nesting birds from predation and regulate vegetation growth. Low water levels create mudflats for cranes and other birds, enhance feeding opportunities for migratory waterfowl and shorebirds and make fish more accessible to osprey and bald eagles. Prescribed burns, river and wetland restoration, mowing and forest management are used by the refuge to maintain healthy and diverse wildlife habitats.

Seney National Wildlife Refuge provides habitat for north woods wildlife including ducks, bald eagles, osprey, common loons, river otters, beavers, muskrats, mink, snapping and painted turtles, frogs, insects, black bears and trumpeter swans. The trumpeter swan is one of the refuge's success stories. In 1991 and 1992 captive-reared swans were released. Excellent habitat and food sources have allowed the swans to flourish and are a common sight on the refuge today.

The refuge employs a staff of six full time and three seasonal with over 45 volunteers annually and had a budget of \$882,680 for the FY 22/23. The refuge is a major tourist attraction in the Upper Peninsula and brings in over 88,000 visitors annually.

There are many opportunities for public use including: hiking and bicycling, hunting and fishing, environmental education and interpretation, wildlife observation and photography, a visitor center, skiing and snowshoeing and a 7-mile one way auto tour route. Three observation decks with viewing scopes are available along the auto tour route. The Manistique River flows through the Southern part of the refuge and provides an excellent opportunity for canoeing. Canoe outfitters are located in Germfask. No canoes are permitted on the refuge pools or marshes. The visitor center is open daily from May 15 to October 15, 9am to 5pm. Exhibits, an orientation slideshow, a bookstore and staff are available to assist visitors.

In 2022, Seney National Wildlife Refuge was the recipient of 13.4 million dollars via the Great American Outdoor Act. That same year, Seney was also awarded 400,000 dollars via the Bipartisan Infrastructure Law (BIL). This combined funding has enabled Seney to consolidate and modernize public use facilities and to improve recreational access.

Source: www.fws.gov/refuge/seney

- ***Manistique East Breakwater Lighthouse***

In 1916, the lighthouse tower was erected at the end of the East Breakwater. Shipped to the site in disassembled form, the tower was made of prefabricated steel plates which were bolted together and lagged to the foundation. Square in plan, the tower stood approximately 38 feet tall and was surmounted by a square gallery upon which a diagonal cast iron lantern housed an electrically powered fixed red Fourth Order Fresnel lens. Located at a focal plane of 50 feet, the 340-candlepower incandescent electric bulb within the lens would be visible for a distance of 13 miles in clear weather. Work on the new station was completed in August, and the light exhibited for the first time on the evening of August 17, 1916. In 1969, the Manistique lighthouse was automated, and the keeper's dwelling was sold into private ownership. In 2005, Manistique's East Breakwater Lighthouse was listed on the National Register of Historic Places. In 2012, it was made available for sale via GSA Auctions and on July 15, 2013 it was purchased by a private individual.

- ***Seul Choix Pointe Lighthouse***

Seul Choix Pointe Lighthouse is located on Lake Michigan, on County Rd 431 in Gulliver. The lighthouse is open Memorial Day through mid-October, 10am to 6pm, seven days a week and hosts over 20,000 visitors per year. The Seul Choix Pointe Lighthouse is a Michigan Historic Site and a Michigan Historic Site National Historic Landmark. It is operated by the Gulliver Historical Society in cooperation with the Department of Natural Resources.

Seul Choix (pronounced Sis-shwa) Pointe Light marks a small harbor on Lake Michigan located on the south shore of the Upper Peninsula. Some sixty miles west of the Straits, the name means “only choice”. Native Americans and French fur traders traveled in canoes across the rough waters of Lake Michigan. It was named by the French who found that it was the only harbor of refuge in this part of Lake Michigan. If boats were headed for the Straits of Mackinac, the only choice for safety was Seul Choix. During the mid-1800’s Seul Choix Pointe was the center of a thriving fishing community, but today only the lighthouse complex is still active.

- ***Rainey Wildlife Area***

The Rainey Wildlife area is located about seven miles northwest of Manistique in Hiawatha Township. There is a hiking trail that takes visitors over boardwalks and through wetlands, leading up to an elevated observation platform for viewing wildlife. The observation platform has a barrier-free ramp. The trail crosses Smith Creek, which flows through a patterned fen to Indian Lake. This site has no modern facilities. It is named after and has a memorial site dedicated to a fallen Vietnam veteran. The wildlife area is about 100 acres and is part of the state forest system.

4.11 Climate

The average minimum temperature in Schoolcraft County for January is 8° F. The average maximum temperature in January is 26° F. For July, the average low temperature is 54° F, with the average high being 76° F. The County averages about 3 days per year above 90° F and averages about 26 days below 0° F annually. Schoolcraft County receives about 32 inches of rainfall annually. Annual snowfall totals average about 71 inches. In comparison, Alger County receives an average of 148 inches of snow, due to the lake effect snowfall off Lake Superior. The growing season for Schoolcraft County averages about 116 days.

4.12 Issues and Opportunities

There are over 286 inland lakes in Schoolcraft County, providing opportunities to residents and visitors for recreation, leisure, camping, and fishing (Reference Chapter 8 for a complete listing). Many of the lakes are experiencing residential growth on their shores. Proper zoning regulations can guide new development.

Schoolcraft County boasts over 540,500 acres of forest. The forest land provides a source of income through timber harvest and presents many recreational opportunities such as hiking and hunting. Properly administering these forest lands via sustainable forest management is crucial to the County.

Mineral resources throughout the County include deposits of sand and gravel and limestone.

The Seney Wildlife Refuge, Kitch-iti-Kipi, Manistique East Breakwater, Rainey Wildlife Area and Seul Choix Lighthouse provide educational and recreational opportunities for residents and visitors. This presents an opportunity to market Schoolcraft County as a location for eco-tourism.

The climate of Schoolcraft County presents a variety of challenges. Examples include: the need for snow removal from streets and parking lots, building codes which provide adequate support for snow loads and a short growing season which limits the type of crops that can be grown. The local climate is attractive to a number of people and can be suitable for businesses or industries which specialize in certain types of goods or services.

The natural features of Schoolcraft County are important to the local quality of life. Scenic and natural areas have been identified throughout the County. These areas present many possibilities for outdoor recreation. Preservation of these natural areas will be crucial in order to maintain these opportunities.

The climate of Schoolcraft County presents a variety of recreational opportunities for its residents and its tourists. Examples include Manistique's two-mile boardwalk along Lake Michigan's coastline, picnics, miniature golf, golfing, boating, fishing, kayaking, canoeing, swimming, and fall color tours.

Chapter 5.0 Land Use

5.1 Introduction

Economic necessity and expediency have had the greatest influence on land uses. Trade routes were established along natural features, such as lakes and rivers to provide essential commercial linkages. Settlements were established at or near active points of commercial activity.

Natural features and cultural influences were also important determinants of how land was used. The presence of rugged terrain and swampland, for instance, was not conducive to establishing settlements. Cultural influences are revealed in the type of buildings constructed, local commercial practices and community activities.

5.2 Historical Land Use Patterns

Immigrants were drawn to Schoolcraft County by the economic opportunities which existed in the commercial fishing and lumbering industries, and to obtain land for farming.

Commercial fishing along the northern shore of Lake Michigan dates back to the 1850's. Seul Choix was home to a large fishing community, drawn to the area by rich harvests of lake trout and whitefish available nearby in the waters of Lake Michigan. A Booth & Sons and the Coffey Fishing Company conducted commercial fishing operations out of Manistique Harbor beginning in the 1880's and 90's which employed 75 to 100 people.

Jobs available in the lumbering industry were by far the largest draw for settlement to the area. Small scale lumbering activities near the mouth of the Manistique River were taking place as early as the 1840's. The white pine lumbering boom in Schoolcraft County lasted from the mid-1870's to about 1910. Logging operations took place along the streams which fed the Manistique and Indian Rivers. The cut timber was floated to large sawmills in Manistique and by rail to South Manistique and Thompson. Lumbering centers sprang up in Thompson, South Manistique, Manistique, Jamestown, Blaney, Seney and Steuben. Settlements also grew up along the railroads, including the Manistique and Lake Superior RR; the Duluth South Shore and Atlantic RR; and the Soo Line. In northern Schoolcraft County, lumbering settlements along the DSS&A included Walsh and Creighton. Stations along the M&LS included Scott's, Steuben, Hiawatha, Manistique River and Manistique along with numerous other logging camp sites that came and went.

The existence of dolomite limestone formations spurred quarry operations and settlement at Marblehead east of Manistique and at Calspar in Mueller Township.

Others were drawn to the area by the availability of land to homestead for farms. The Byer's settlement in Hiawatha Township was settled by homesteaders who farmed in the summertime while working in the lumbering industry in the winter. The early settlers in the Cooks and Germfask area were also attracted by land for farming.

The Schoolcraft County economy today revolves around forestry, tourism, and healthcare. The lakes and streams that were so important to lumbering now draw tourists eager to hunt and fish. The sheer beauty of the area, with its numerous parks and campgrounds draws visitors from

around the country. Today, vast areas of the county are designated National Forest land. The area's central location makes it a hub for tourists visiting Fayette, Kitch-iti-kipi, Pictured Rocks, the Seney Wildlife Refuge and even Tahquamenon Falls.

5.3 Factors Affecting Land Use

Land use is never a static process; change is always occurring. Decisions affecting land use can come from a variety of sources. Changes in land use have been the result of various decisions made by individuals, families, businesses, or governmental/public agencies. It is important to note that land use changes cannot be attributed to a single set of decisions made by one group or individual. Rather it is a combination of decisions made by a number of individuals, organizations, or public agencies.

Location tends to be the most important factor for home buyers and commercial interests. The availability of public and private services, accessibility, existing conditions of the area, and price are other important considerations. Speculators may purchase, hold, or sell property based on an anticipated future profit. Land developers also attempt to anticipate market conditions, i.e., supply and demand for housing, goods and services, or industrial needs. They strive to accurately assess the type, scope, and optimum time of development that will produce a profitable outcome.

Owners of businesses and industrial concerns decide to start, expand, or close their operations based on economic probability. Many factors may be considered in determining economic feasibility including supply and demand for the goods or services produced, cost and quality of transportation, and site availability. Local decisions have a bearing on these factors.

Generally, the immediate self-interest of the individual or organization making a land use decision supersedes what impact the use may have on the surrounding lands. Decisions determined in this fashion can potentially result in incongruous or incompatible development since the community's overall pattern of development is not necessarily among the factors considered. Laws and regulations have been enacted giving local units of government the means to deal with land use issues. These legal tools allow federal, state and local governments to address the overall compatibility and appropriateness of development and land use.

Federal legislative actions have created a number of loans and grant programs for community facilities, water and wastewater systems, housing, economic development, and planning. Drinking water standards, air quality and many other environmental factors are addressed in federal regulations. Although these laws, regulations and programs do not usually directly affect land use development, they have a major effect indirectly.

For example, a community that lacks sufficient sewage disposal capacity to serve industrial uses may be able to obtain federal funding to assist with expansion of a sewer treatment facility, which in turn, may lead to industrial development.

The traditional role of the state has been limited to providing the enabling legislation for local units of government to regulate growth and development through planning and zoning. However, the State of Michigan does regulate land use and development in regions of environmental concern including wetlands, floodplains, and coastal areas. This can have a direct effect on local

land use. The state also enforces standards for municipal water systems and wastewater systems that are at least as strict as federal standards. A community's ability to provide water and wastewater treatment systems is directly affected by these regulatory standards.

Local governments can exert the most effective influence on land use changes through zoning ordinances, subdivision regulations, building codes, and public investment in roads, water and sewer systems, parks, etc. Local planning efforts that seek to define the most desirable and appropriate uses for the various parts of a community, and anticipate and prepare for growth, can serve to guide future land use decision-making. Both the City and County utilize zoning ordinances to regulate land use.

Other factors affecting land use include the existing transportation system, taxation, land values, natural features, changing technology, and market conditions. Changes in lifestyles, family size, shopping preferences, and customer attitudes also affect land use decisions. Mobility is greater than at any previous time, families are smaller, and life expectancies have increased. These changes are reflected in employment patterns and housing and shopping preferences. From a land use standpoint, some pertinent issues are the preferences for larger homes situated on larger parcels, the apparent willingness to endure longer commuting distances to work, and the growing market for housing specifically designed for elderly residents, particularly those residing for only part of the year.

The transportation system that serves a community determines how quickly and easily raw materials and finished goods can be received and shipped. It also is directly related to product cost, a crucial factor for business. The expanding network of roadways in the U.S., together with the proliferation of private automobiles, has enabled residents of rural areas to commute to larger communities for employment and shopping, and has increased the accessibility of many areas to tourists.

This increased mobility has, in many cases, facilitated development of strip commercial areas, large shopping malls, and suburban residential development. Referred to as "urban sprawl" such development frequently converts open space and agricultural land to more intensive uses.

Taxation and land values play a part in many land use decisions. Families may move from urban areas because they feel they are willing to trade off lower taxes and/or user fees for the lack of municipal services and increased distance from employment, shopping, and schools. Land values in rural areas may also be lower, thus more attractive to residents. Commercial and industrial enterprises are generally less willing to forego municipal services such as water and sewer. They are also more likely to locate in areas of concentrations of population rather than in very rural areas. Tax rates and land values are important for businesses as well.

Changing technology, including computer networking, cellular telephones, facsimile machines, voice mail, teleconferencing, video conferencing, and electronic mail provide businesses with location options that were previously not practical. Often, the quality of life associated with these rural locations is an additional attraction.

The County contains over 780,000 acres of land and water surface within its boundaries. Map 5-1 gives an overview of Schoolcraft County's Land Cover and Map 5-2 provides an overview of Schoolcraft County's Land Use.

5.4 Current Use Inventory

The Michigan Resource Information System (MIRIS) provides comprehensive information on the use of land. Continuation of the inventory process is enabled through P.A. 204 of 1979 which calls for Michigan's landscape to be identified, classified, and mapped every five years. While the information has not been updated since being completed in 1989, it nonetheless provides good information for planning purposes. An accurate acreage for each category within the Schoolcraft County is contained in Table 5-1 in Appendix E.

Current land use patterns are described in twelve broad categories. Land uses were determined from aerial photographs, sufficiently detailed to identify the existing use of every 2.5 to 5.0 acres of land in the state. Field verifications supplemented the identification process as warranted.

Descriptions of each of the twelve broad land use categories are listed below.

Agricultural Lands: Defined as lands which are used for the production of food and fiber. Over 14,000 acres were identified in this classification. About 1.8 percent of the total land area in Schoolcraft County is considered agricultural lands.

Forest Land: Forest land is defined as having at least 10 percent stocked by forest trees of any size, or formerly having such tree cover, and not currently developed for non-forest use. Schoolcraft County is overwhelmingly comprised of forest land. Over 517,000 acres in Schoolcraft County were defined as forest land. This constitutes nearly 66 percent of the County

Urban and Built Up: Land areas used intensively and largely covered by structures are classified as urban and built up. This classification includes 3,269 acres or about 0.4 percent of the total County land area. Residential, commercial/business, and industrial land use is found in this classification. It is intensive land uses that have the greatest potential to impact the environment adversely.

Open Lands: These are open or range lands characterized by grasses and shrubs, but not including those lands showing obvious evidence of seeding, fertilizing, or other agricultural practices. Open lands included 880 acres of land, or about 0.11 percent. Non-forested lands inventoried included 44,931 acres covering 5.7 percent of the County's land area.

Water Bodies: Streams, ponds, reservoirs, and lakes are included in this classification. Areas where aquatic vegetation covers the water surface are found in the wetland classification. About 3.4 percent of the County was classified as predominately or persistently water covered.

Wetlands: Wetlands are defined as those areas between terrestrial and aquatic systems where the water table is at, near or above the land surface for a significant part of most years, and include marshes, mudflats, wooded swamps, bogs, and wet meadows. About 178,000 acres of wetlands were identified within the County, representing nearly 23 percent of the total land area.

Barren Land: Barren land includes bare exposed rock, beaches, riverbanks, and sand dunes. There were 1,020 acres identified within the County, less than one percent of the total land area.

5.5 Land Uses

Residential Land Use

Residential land use includes single family homes, multi-family homes and mobile homes. Residential areas are spread throughout the County. The Zoning maps located at the end of this master plan display current land uses throughout the County.

Commercial Land Use

Commercial land use in Schoolcraft County occurs mainly along the US-2 corridor through the City of Manistique and east and west of the city limits.

Thompson Township has a small commercial area along the US-2 corridor, including: a convenience/gas station store, a real estate office and church.

Industrial Land Use

There is land zoned for industrial use in Doyle Township along US-2 as well as in Seney Township and in the City of Manistique.

Forestry and Agricultural Land Use

Schoolcraft County is dominated by public land, over three-quarters of the County is classified as public land. The Hiawatha National Forest and Seney Wildlife Refuge make up much of the total. The sizeable amount of public land has a major effect on the tax base available for the County. The impact of these public lands is two-fold, because public lands are not available for residential, commercial, or industrial development, opportunities for expansion of those types of development are limited. On the other hand, the recreational opportunities provided attract people to the area and benefit residents and forest products from these areas benefit local industry. Pockets of successful agricultural ventures are growing with the county.

Public Land and Quasi Public Land Use

Public land uses in the County include the Township and City Halls, parks and recreation facilities, schools and other public buildings, discussed in more detail in Chapter 6.

Quasi-public land generally consists of churches and other privately owned facilities that are open to the public. These types of facilities contribute to the quality life in a community.

5.6 Townships

• *Doyle Township*

Doyle Township boasts McDonald Lake and Gulliver Lake, and both harbor a fair number of year-round residents. The largest pocket of residential development is located in Gulliver, along County Road 432 and around Gulliver Lake. Much of the land around Gulliver Lake has been subdivided for residential development. Most of Doyle Township is designated for timber production.

Gulliver has a limited amount of commercial development, including a grocery store, gas station/convenience store, an auto repair shop and several churches. Doyle Township has limited agricultural including several hobby farms and a chicken farm.

- ***Germfask Township***

Germfask Township is located along the eastern border of Schoolcraft County. Much of the Township's land is held within the Seney Wildlife Refuge. The Township has purchased the former elementary school and has redeveloped the building into a community center. Residential development is concentrated in Germfask and along M-77. Water system improvements and wireless internet access for residents are recent advances in Germfask.

Germfask's commercial enterprises are generally located along M-77. Zellar Logging, UP Feeds and the Seney Wildlife Refuge are the Township's main employers. The Township also has a few commercial ventures, Big Cedar Camp and Kayak and Northland Outfitters, a profitable and eco-friendly operation focusing on eco-friendly recreation opportunities. The Township does not currently have any industrial uses.

- ***Hiawatha Township***

Hiawatha Township extends from the northwest border of the County down to the City of Manistique Residential development is heavy along the north and south banks of the Indian River and along the east side of Indian Lake. Lakeshore and river development in the Township involves a large amount of "back lot" residences, some of the homes have access to the water, and some do not. There are also residences concentrated along County Roads 440 and 441. Pockets of residences, some seasonal, also exist in the Dodge Island, Sand and Boot Lake areas and along Graves Road and Clark Street bordering the City of Manistique.

There is no concentrated commercial or industrial development in Hiawatha Township.

- ***Inwood Township***

Cooks is the main concentration of population in Inwood Township, in the far western portion of the County, along the Schoolcraft/Delta County border. Cooks serves as a bedroom community to the City of Manistique.

The community of Cooks is primarily surrounded by forestry and agricultural uses. The ballfield to Thunder Lake Road is where the main concentration of agriculture is located. Current agricultural uses include beef cattle farming and several small specialty farms, including strawberries, blueberries, and raspberries.

The east side of Thunder Lake is very heavily developed for residential use. The west side of the lake is federal land. The west side of Murphy Lake is built up with residences as well as Straits Lake. Steuben has a small store and some year around residences.

There is a rail line that runs directly through Cooks, which could be used to attract commercial or industrial development to the area.

- ***City of Manistique***

The City of Manistique is the only city in the County. The city offers a mix of residential, commercial, and industrial land uses. Commercial uses have concentrated along the major traffic corridor of US-2 and along M-94, as well as in the downtown area. Retail businesses and tourist services make up much of the commercial area. Retail businesses and tourist services make up much of the commercial areas of the city. Continued commercial development may require the expansion of municipal services.

The city recently added a campground west of the City Marina.

East of the Manistique River, the primary residential areas are located east of Maple Street and north of US-2 and north of River Street. Residential development west of the river primarily follows major roads. In recent years, there has not been a great deal of new homes built. Some residential neighborhoods in the city do not currently have curbing and the streets are in need of repairs. Habitat for Humanity has been working in the city to rehabilitate a number of older homes in bad repair.

The city maintains an industrial park along the east side of the Manistique River. The most prominent industrial use in the city remains the Manistique Paper Mill, located along the Manistique River. Several additional small manufacturing firms are located in the city as well. Past industrial uses have left their mark on the city, long after they have been gone.

In January 2009, the city established an Industrial Development District, approximately 10 to 12 acres in size. The designation may provide for potential property owners to qualify for tax abatements.

- ***Manistique Township***

Manistique Township has benefited from city residents who are looking for larger lot sizes, yet wish to remain close to the city, moving east into the Township. As noted in other communities along the lakeshore, residential development has occurred on the lake front parcels. Several subdivisions have been constructed. Michibay Road is about 3-4 miles in length and has many homes, ranging from cottages to large new homes. There is a subdivision with paved roads and utilities near US-2 where it meets Tannery Road with lots available. At this time there are vacant lots available for development and the probability of a new subdivision being completed is unlikely until the current lots are sold.

Commercial development has been spread out along US-2 in the Township. Land designated for industrial use is located north of US-2, west of Tannery Road, again, much of the Township is classified as timber or resource production.

- ***Mueller Township***

Residential development in Mueller Township is somewhat sparse. Clusters of residential use are located in the Blaney Park area along M-77, near the intersection of Quarry Road and US-2, along the south side of McDonald Lake, and the Seul Choix Pointe area.

Blaney Park is in the Township on M-77, just north of US-2. Blaney Park is a former resort town now known as a stop for antiques. There are several antique shops along M-77 in Blaney Park as well as Celibeth House Bed and Breakfast, and recently, marijuana growing and provisioning businesses.

Industrial uses in the Township include Western Lime's operations at the east end of County Road 432 along Lake Michigan.

Mueller Township is also home to the Seul Choix Lighthouse, a historical property, that brings in many visitors.

- ***Seney Township***

Seney Township is situated along the northeast border of the County. Some of the Township's land falls into the Seney Wildlife Refuge. Much of the Township is designated for timber production. Residential areas are concentrated around Seney and the majority of residents have municipal water.

Commercial activity is located in Seney and includes two gas stations, a restaurant, bar and grocery store.

Seney Township also has land designated for industrial use located southwest of Seney, along the railroad tracks. Currently, portions of the land are used by the Schoolcraft County Road Commission garage and Superior Country Wood Truss.

- ***Thompson Township***

Thompson Township is in the western quarter of the County. The township is comprised of private, state and federal land with approximately 20 miles of shoreline along Lake Michigan. Thompson Township has a sizeable seasonal population increase during the summer and fall months. The Township is home to two state campgrounds and the Michigan Department of Natural Resources (DNR) owned and operated fish hatchery, Stony Point golf course and Michigan's largest spring, Kitch-iti-kipi.

Commercial, state and federal forest land accounts for the majority of the land in the township. Thompson Township west along US-2 to Manistique is rapidly becoming seasonal homes and year-round residences along the lakeshore. The area around Indian Lake has also become a pocket of residential use. Much of the lakeshore has been developed for residential uses. Thompson Township also has critical dune areas, which may limit certain types of development. Little Harbor Road is a pocket of development as well as the west side of Indian Lake, Steuben Lake and Crooked Lake, which includes more seasonal homes. Residential development has also occurred around the golf course.

5.7 Areas of Environmental Concern

The Michigan Department of Environment, Great Lakes and Energy (EGLE) maintains a listing of sites, as listed below, identified as containing contaminants. Environmental contamination means the release of a hazardous substance, in a quantity which is or may become injurious to the environment, public health, safety or welfare.

The presence of hazardous substances at these sites may restrict future development. Sites of environmental contamination in Schoolcraft County can be found at: <https://gis-egle.hub.arcgis.com>

Leaking underground storage tanks have resulted in more stringent requirements for the placement of storage tanks. Many aging fuel tanks that complied with the guidelines in place at the time of installation have deteriorated. Fuel may then be able to enter the surrounding soil. These sites are listed by EGLE in Schoolcraft County in Table 5-2 in Appendix E.

Active underground storage tanks in the County are listed in Table 5-3 in Appendix E.

5.8 Issues and Opportunities

According to <https://app.regrid.com/us/mi/schoolcraft>, the State and Federal Government own approximately 1,354 square miles of the land in Schoolcraft County or about 72%. The abundance of public land in the County presents an issue when considering the limits it places on available tax base. The public land offers an opportunity for residents and visitors to enjoy the land for recreation.

Zoning and supplementary ordinances can assist local units of government in guiding current and future development.

The availability of public and private services, accessibility existing conditions of the area, and price are other important considerations for residential development.

There are many areas available for residential development in the County. New subdivisions and expansion are unlikely until existing lots are developed.

Commercial land use is concentrated along US-2 corridor and in the City of Manistique's downtown area. Access management standards should be followed to alleviate traffic and safety concerns.

Sites are available in Schoolcraft County for industrial use. Expanding utility services to the City Industrial Park may help attract new businesses. Road improvements surrounding new industrial districts could increase access to industrial properties.

Cleanup of contaminate sites is beneficial to the environment, removing the source of the contamination and reducing the exposure potential now and into the future. Contamination that remains in the ground can infiltrate into structures and may travel offsite onto other properties. Any development near former mining sites will need to be thoroughly evaluated before proceeding.

Chapter 6.0 Community Facilities and Services

6.1 Introduction

Service and facilities provided by local government are often vital elements in the community's progress and well-being. Services include police and fire protection, municipal water and wastewater systems and solid waste disposal. Community facilities include local government buildings, libraries and maintenance and storage facilities.

6.2 County Community Facilities and Services

- ***County Courthouse***

The Schoolcraft County Courthouse is located at 300 Walnut Street, in the downtown area of the City of Manistique and was built in 1976. An addition to the building was completed in the late 1990's and houses the Department of Health and Human Services, Substance Abuse and Mental Health and the Secretary of State offices. The building consists of administrative offices (Clerk, Register of Deeds, Treasurer, Zoning Administration, Building Code Administrator, Electrical Inspector, Veterans Administration, and Equalization Department) and the County Circuit Court, the District Court, the Probate Court, the Probation and Parole office, and additional offices including the Friend of the Court. Public and employee parking are provided at the courthouse.

- ***Community Centers***

Schoolcraft County boasts several senior and community centers. The Manistique Senior Center is located at 101 Main Street in Manistique. The Center provides a wide range of services for seniors, including informational and referral, transportation, outreach services, homemaker aide services, educational classes and speakers, health related, loan closets, blood pressure clinics, foot care clinics, mobile food pantry, hearing aid service, noon meal nutrition program, home delivered meals, home injury control, form filing, bill paying assistance, and typing assistance. Seniors 60 years of age and over may be eligible for services. Seniors 55 and older can enjoy the Center and its social activities. The Center is funded by grants given to the Schoolcraft County Commission on Aging.

The Germfask Senior Service and Recreation Center is located at 8093 Pine Street and currently includes a day care center. The Hiawatha Township Community Center is located at 5094 M-94, about two miles north of Manistique.

- ***County Sheriff Department and Jail***

The Schoolcraft County Jail was constructed in 1956 and is located at 300 Main Street in the City of Manistique. This County facility houses both the County Sheriff Department and jail. A garage is also located on site. The jail has a total capacity of twenty-four inmates. The Sheriff Department is also responsible for providing search and rescue resources.

- ***911 System***

Emergency services in Schoolcraft County including fire, police, and ambulance services, are administered through the regional 911 dispatch at the Negaunee post of the Michigan State Police. The Schoolcraft County Sheriff and the Equalization Department are responsible for updating the 911 road maps.

- ***Schoolcraft County Airport***

The Schoolcraft County Airport is located at 5910 W US-2, just outside the City of Manistique. About 55 flights take off from the airport per week from May until October, and 35 per week from November until April, with about 50% being transient general aviation and 50% local general aviation. The airport currently maintains four paved asphalt runways and serves as a Life Flight Regional Center.

- ***Eva Burrell Animal Shelter***

The Eva Burrell Animal Shelter is located at 6091 W US-2 in Manistique. The animal shelter is open Tuesday thru Friday 12:30 p.m.-3:30 p.m. Special appointments may be set up by phone, if needed. It serves as temporary housing for dogs or cats that have been found, dropped off or injured along roadways. There is no established adoption period; the time frame varies with the animal and the situation. The shelter is supported by volunteers, donations, fundraisers, and some County Funds and volunteer activities.

- ***Schoolcraft County Fairgrounds***

The Schoolcraft County Fairgrounds are located at 125 North Lake Street in Manistique. The fairgrounds host the Schoolcraft County Fair in July or August annually.

- ***Schoolcraft County Road Commission***

Schoolcraft County Road Commission (SCRC) currently has two garage locations. SCRC's garages are in Manistique and Seney. Schoolcraft County Road Commission built a new 37,404 square foot facility in 2000 in Manistique, which includes office space, a mechanics shop, and truck storage bays. Seney operates in a facility that was purchased from MDOT in 1953; age of the building is unknown. In cooperation with the Michigan Department of Transportation (MDOT), Schoolcraft County Road Commission built a new salt storage facility in Seney in 2022.

Schoolcraft County Road Commission is responsible for maintaining primary and local roads in Schoolcraft County. SCRC maintains 222 miles of primary roads, 211 miles of local roads, and contracts with MDOT to maintain 286 lane miles of State Trunkline.

In addition to road surface maintenance, SCRC is responsible for maintaining the right-of-way, culverts, and signs and bridges. The right-of way consists of 66' in some instances and can be lesser in some subdivision plats. SCRC has approximately 603 culverts and 1,190 signs in its inventory to track and maintain. SCRC has 18 bridges.

Pursuant to Act 40 of 1956 Michigan Combined Law (MCL) 280.21 section 3, the Schoolcraft County Board of Commissioners abolished the Office of Drain and transferred the duties over to the Schoolcraft County Road Commission. The Drain Commissioner is responsible for oversight of five control structures in Schoolcraft County. The control structures maintain the lake levels of Indian Lake, Gulliver Lake, MacDonald Lake, and Manistique Lakes in Luce and Mackinac County.

Schoolcraft County Road Commission is funded primarily by the Michigan Transportation Fund (MTF). The MTF is funded through registration fees (41%), fuel tax (40%), redirected income

tax (17%), marijuana tax (1%), and misc./interest earnings (1%). As of 2023, SCRC is estimated to receive \$3.4 million in MTF funds. MTF is the main funding source for road commissions. The second primary funding source for Schoolcraft County Road Commission relies on is Rural Task Force (RTF) funding. The RTF is comprised of federal aid funds and state D funding. The funds are shared amongst the 12A RTF which is comprised of Marquette, Alger, and Schoolcraft Counties. Each County shares the allocated with the City, Transit Authority, and Road Commission in their respective County.

As of 2023, the estimated funds for Schoolcraft County are \$535,000 federal and \$70,773 state D to be shared amongst the City, Transit Authority, and Road Commission. SCRC takes every opportunity to apply for special grants to assist with road improvements.

- ***Law Enforcement***

Police protection in the County, in addition to the Sheriff Department, is provided by the City of Manistique Public Safety Department located at 300 North Maple Street. The City of Manistique's Public Safety Department is currently comprised of a Director of Public Safety, two sergeants and four officers. The department will provide police protection outside of its jurisdiction if there is a request from the Sheriff's Department. The City of Manistique maintains a Fire Department as well, with mutual aid agreements in place with most of the townships.

Police protection is also provided by the Michigan State Police. A Michigan State Police post is located in the City of Manistique on US-2. The Sault Tribe Police Department also provides police protection in the County.

- ***Emergency Medical Services***

The City of Manistique provides emergency medical services in conjunction with Schoolcraft Memorial Hospital. All the City Public Safety Officers are certified EMT's. There are volunteer EMT's in Schoolcraft County that also provide assistance. Four ambulances service the area. The County is equipped to receive assistance from air lifelines as well. Inwood Township is contracted with Tri-County Emergency Services for the northern part of the Township.

- ***Fire Protection***

All areas of the County are served by local fire departments. The Townships are served by volunteer firefighters. The City of Manistique and Seney Township are served by a mixture of career firefighters and those that are paid per call.

- Doyle Township
- Hiawatha Township
- Inwood Township
- Germfask Township
- Seney Township
- Thompson Township

- ***Health Care***

Schoolcraft Memorial Hospital (SMH) is a critical access hospital that has proudly served Schoolcraft County and the surrounding region with quality health and wellness services since

1950. In 2013, a new 12 bed state-of-the-art critical access hospital and rural health clinic were constructed on US Hwy 2 in Manistique, MI. The new facility is essential in maintaining quality medical professionals and recruiting additional medical staff and their families to our community. SMH delivers care and service with excellence, continually upgrading and adding services as needed as needs are identified, and viability is verified.

Schoolcraft Memorial Hospital wrapped up its Phase 2 building expansion and renovation project, with united care teams on the US Highway 2 campus. The expansion and renovation included state-of-the-art rehabilitation and aquatic therapy center, Specialty clinic, updated rural health clinic, infusion suites, and a new cornerstone administration building. All teams were moved into their new spaces in April 2022.

The range of services provided here belies the size of our hospital, with many services usually unavailable at Critical Access Hospitals.

The work of its permanent staff which includes nurses, physicians, nurse practitioners, physical assistants and specialists (orthopedic surgeons, surgical podiatrist, cardiologist, otolaryngologist (ENT), physical medicine and rehabilitation, psychiatry, and wound care is supplemented by visiting specialists in pediatrics, sleep medicine, oncology, neurology, audiology, physical medicine, vascular interventional radiology, urology, bariatrics and obstetrics who visit the area for regular appointments. For optimal efficiency, the rural health clinic is attached to the hospital.

Schoolcraft Memorial Hospital operates a Behavior Health Clinic offsite in downtown Manistique offering therapy services across the lifespan. A satellite clinic has been set up in Naubinway offering family practice appointments and walk-in health services.

Schoolcraft Medical Care Facility (SMCF) is an 85-bed licensed, skilled nursing facility located at 520 Main Street, Manistique, MI 49854. The facility was constructed in 1966. SMCF is the only skilled long term care facility in the County providing short term rehabilitation as well as long term care. Nursing staff provides 24-hour medical care and supervision to their residents.

Services provided here include:

- Physical, Occupational and Speech Therapy
- IV Therapy
- Wound Care
- Personal Care
- Social & Recreational Activities
- Medical Administration
- Social Services
- Behavior Health Services
- Dietary Services
- Church Services
- Restorative Therapy

Amenities include:

- Beauty/Barbershop
- Activities, both indoor and outdoor
- Frequent outings and special events throughout the year
- Musical guests
- Senior Companions

Staffing consists of a fulltime administrator, director of nursing, MDS coordinator, RN's, LPN's, CNA's, Maintenance, Business Office Staff, Housekeeping, and Dietary.

Future plans for SMCF include a new facility to continue to provide the best care possible to the residents in our community, while offering new services and opportunities for expansion.

- ***Luce/Mackinac/Alger/Schoolcraft (LMAS) Health Department***

LMAS Health Department provides services and resources for the physical, mental and environmental health for the citizens of Luce, Mackinac, Alger and Schoolcraft Counties. The Health Department places emphasis on education and information; maintenance or creation of environmental condition conducive to health; prevention of disease; early detection, treatment and rehabilitations of those afflicted; providing high quality home care services and providing pain relief and care to the terminally ill. Offices in Schoolcraft County are located at 300 Walnut Street, Room 155 in Manistique.

- ***Hospice Care***

SMH also provides Hospice services to Schoolcraft County as well as Senior Home Health Care. Schoolcraft Medical Care Facility is also a part of the County's health care system with a 56-bed skilled nursing facility nursing home. Services provided include RN, LPN, physical therapy, occupational therapy, dietary counseling, social work, aides, volunteers, bereavement and grief counseling for adults, teens and children and spiritual support.

- ***Home nursing***

Home health services in the County are provided by North Woods Home Nursing and Hospice and by Schoolcraft Memorial.

- ***Schoolcraft County Mental Health***

Hiawatha Behavioral Health is located at 125 N. Lake Street in Manistique and provides emergency services, outpatient (individual, family), psychiatric services, and case management. Eligibility criteria must be met to utilize services done through an evaluation. Hiawatha Behavioral is a merged mental health program for Schoolcraft, Mackinac, and Chippewa Counties.

- ***Township Hall and City Hall Facilities***

Each of Schoolcraft County's eight townships has at least one township owned building which serves as a focal point for local government and community activities. The City of Manistique utilizes City Hall as the main office.

- Doyle Township
- Germfask Township

- Hiawatha Township
- Inwood Township
- Manistique Township
- Mueller Township
- Seney Township
- Thompson Township

- **Education**

Most Schoolcraft County students attend schools administrated by the public school system, Manistique Area Schools (MAS). MAS enrolls about 738 students, PreK through 12. MAS administers a consolidated PreK-5th grade elementary school, a combined 6th -8th grade middle school and a 9th-12th grade high school. The district also sponsors the Jack Reque alternative high school which generally has about 17 to 25 students. In addition to a core curriculum, Manistique Area Schools provide students with advance placement courses. Further career preparation is incorporated into the classroom. Outside the classroom, students can participate in a full range of academic clubs, music programs and interscholastic sports. MAS directly employs 46 professional staff and 22 support staff. Additionally, there are 5 Intermediate School District Staff, and 30 contract staff associated with school operations.

Based on current enrollment in the primary grades, the projected number of high school graduations over the next 10 years are as follows:

- 2023-66
- 2024-49
- 2025-81
- 2026-75
- 2027-72
- 2028-49
- 2029-71
- 2030-59
- 2031-64
- 2032-43

Additionally, the Menominee-Delta Schoolcraft Community Action Agency administers the head start program. It is located on Chippewa Avenue in Manistique.

The Menominee ISD offers a GED program through Manistique High School.

Due to the geographic size of Schoolcraft County and the close proximity of some students to other schools, several students attend Tahquamenon Area Schools in Newberry (Luce County), Big Bay de Noc Schools located in Garden Township (Delta County) and Munising Public Schools in Munising (Alger County).

Manistique Area Schools and Big Bay de Noc School Districts receive special education and teacher professional development programming from the Delta-Schoolcraft ISD. The ISD's

career technical center offers courses to high school students in the fields of business, health, building trades, automotive and welding.

One hundred twenty families enroll their children into our non-public school system in Saint Frances de Sales (SFDS) Catholic School which is located in the City of Manistique. Depending on the year, student enrollment ranges between 150-180 students, PreK through 8th grade. SFDS is in one building with three separate wings and a junior high academy wing. Outside the classroom, students can participate in extracurricular activities, including various clubs, music programs and our students also participate in interscholastic sports.

SFDS directly employs 16 professional staff and 12 support staff. SFDS also participates with a strong, vivacious Parent Teacher Organization. Hundreds of volunteers' support SFDS in our fundraisers and activities.

Bethel Baptist Christian School (BBCS) is a ministry of Bethel Baptist Church. Pastor Allen started the school in 1976. BBCS currently enrolls 9 students, K-12. BBCS utilizes the Accelerated Christian Education (ACE) curriculum. ACE is an individualized curriculum that allows each student to progress at their own rate. The core curriculum uses phonics, encourages cursive writing, and uses traditional math concepts. The majority of students go on to attend college after graduation. BBCS is a member of the Superior Conference of Christian Schools with allows students to participate in a variety of sports and bible quizzing. Students also compete in fine Arts competition that encourages them to develop their talents in music, speech, dramatic arts, arts, photography, academics, woodworking, needlework and metalwork.

The ACE curriculum is designed as a one-room-schoolhouse concept. This allows for a small school setting and promotes the individual aspect of education. BBCS currently has a staff of two.

- ***Higher Education***

Manistique Area Schools offers night classes at the high school. Bay de Noc Community College, Northern Michigan University, Lake Superior State University and Michigan Technological University offers certificates and degrees in a diversity of fields, as well as administering training programs designed to meet the needs of area employers.

Bay de Noc Community College

Bay de Noc Community College is a two-year public college offering certificates, associate degrees and university transfer programs ranging from business to manufacturing technology. The college, also known as Bay College, has an enrollment of about 1,898 students. Also located on the college's 150-acre campus is the Michigan Technical Center. Opened in 2000, the M-TEC provides workforce training programs designed to meet the specific needs of area businesses.

(www.communitycollegereview.com; 2023).

Bay college also offers four-year degrees through articulation programs with Northern Michigan University, Franklin University, Lake Superior State University and Phoenix University.

Northern Michigan University

Northern Michigan University in Marquette is a public university that was founded in 1889. NMU annually enrolls approximately 6,970 students pursuing undergraduate and graduate degrees in more than 100 majors. The NCAA, Division II school fields the full spectrum of men's and women's athletics and its athletic facilities include the Superior Dome, the world's largest wooden dome (<https://nmu.edu>; 2022).

Michigan Technological University

Michigan Technological University, in Houghton, is one of the country's premier science and technology institutions. The university annually enrolls 7,000 students and has been included in the top 50 public universities in the country by U.S. News and World Report. Michigan Tech is a state-supported institution offering certificates, associate's, bachelor's, master's and doctoral degrees in over 60 majors (<https://mtu.edu>; 2022).

Lake Superior State University

Lake Superior State University, in Sault Ste. Marie, offers undergraduate degrees in 45 areas of study that attract students from every county in Michigan, more than a dozen states and provinces and nine nations. The 115-acre campus is situated on the site of the former U.S. Army's Fort Brady; fourteen of LSSU's buildings are listed on various historic registers, creating a unique campus environment. Total enrollment averages about 2,000 students with 63 full-time faculty (<https://lsu.edu>; 2022).

- ***Library Facilities***

The Manistique School & Public Library is a combination library that serves both the school and the public. The library is located in the Manistique Middle School & High School building at 100 Cedar Street, Manistique, with its own separate entrance for public use. It also has its own restroom. The library has been serving Schoolcraft County for 131 years. The library is currently funded by the school district, a county-wide millage, donations and grants. It is a great demonstration of how a school and a County can work together to provide a valuable service to its community.

The library has a website at <https://www.manistiquelibrary.org>. It also has social media sites. All are linked off the main library website.

The library circulates physical resources like books, books on CD, DVD's, cake pans, and non-current issues of magazines. The library also circulates a large collection of digital titles which include eBooks, audiobooks and magazines via <https://www.gldl.overdrive.com>. GLDL is the Great Lakes Digital Library, which the library subscribes to through the Upper Peninsula Region of Library Cooperative. The Libby App can be used to read and listen to books from the digital library. Another subscription service that the library subscribes to is Kanopy. With Kanopy thoughtful entertainment can be streamed to your preferred device with no fees and no commercials. Everyone from film scholars to casual viewers will discover remarkable and enriching films on Kanopy. The website for Kanopy is <https://www.kanopy.com>. To use any of these digital services you will need a library card number and pin.

One-on-one support as well as computer support is offered by appointment. This library has wireless internet and computer workstations with internet access. For your convenience, tax forms are available at the library, or they can be printed out by way of the library's computers.

Periodicals, current magazines and newspapers are available for use in this library. Their historical newspapers are digitized back to the late 1800s. They can be viewed online at <https://www.uplik.nmu.edu>, or they can be viewed in the library via a microfilm machine.

The library also has small and large meeting rooms that can be reserved, a makerspace with 3D printing and a smart screen. Throughout the year, this library offers a variety of programs and guest speakers for children and adults.

St. Francis de Sales Catholic School has a library within its school.

The Schoolcraft County Courthouse *has a law library that is open to the public.*

6.3 Municipal Services and Public Utilities

- ***Municipal water and wastewater systems***

The City of Manistique Water Plant is located on Intake Park Road on the Indian River. It is the City's source of municipal water. The city provides municipal water to all city residents, in addition to some customers in Hiawatha Township, located near the water plant. The plant was built in the 1950's, with upgrades occurring in the 1990's. The city completed a major upgrade in 2012, having received a low-interest grant/loan from the farm bill. The city was approved for \$6 million consisting of a \$1 million grant and \$5 million loan with 2.75% interest rate for 40 years for the additional upgrades. Upgrades were made to treatment plant pumps, valves and piping, and a new water UV light treatment was added to the water treatment process. The construction entailed new storage tanks, filter upgrades, a new spray-wash mechanism, replacement of the plant's roof, and replacement of the tank's 15-foot mixing mechanisms.

The City of Manistique Wastewater Treatment Plant is located on the Manistique River. The plant was upgraded in 2000 to increase capacity. The treatment plant currently uses aerobic bacteria to treat the wastewater. Previously, the plant utilized a lagoon treatment system.

Germfask drilled a new 820' well in 2009, utilizing a \$1.57 million U.S. Department of Agriculture Rural Development grant/loan. The project brought the Township into compliance with the Michigan Safe Drinking Water Act. The grant assisted in purchasing a second production well, a new 75,000-gallon ground-level accumulation storage tank, a centrifugal pump station, 4,500 feet of 12-inch water main, 4,000 feet of 8-inch water main and appurtenances, pumps, water meters, a standby generator and a second river crossing.

At the second river crossing, a mile of extension lines was installed, adding about 20 customers to the town's water system. The purchased generator system provides electricity to the Township in the case of power loss. To provide greater fire protection for the Township's inhabitants, 15 fire hydrants were added to the water system, and the 75,000-gallon ground level accumulation storage tank replaced the original 50,000-gallon tank. The water system serves about 100

households in Germfask. Currently there is no sewage treatment system. Each household utilizes a septic system.

Seney Township completed a new water system project in 2007. A Community Development Block Grant, the Environmental Protection Agency and the United States Department of Agriculture grant were used to help fund the project. Seney relies on two 578' wells for municipal water that currently serves about 116 annual and seasonal customers combined.

The new system uses a lagoon for natural sewage treatment, which discharges into the Fox River. A lagoon is a treatment method that utilizes a septic tank for primary treatment with the effluent from the tank being discharged into a lagoon where sunlight, temperature, and wind provide the final treatment. The size of the lagoon is calculated by using a formula that includes the estimated water usage, rainfall, and evaporation for each site. Seney is currently using a 5,000-gallon horizontal water tank for fresh water supply. All other Schoolcraft County residents rely on private wells and septic systems.

- ***Solid waste***

Zellar Sanitation services all the Townships and the City of Manistique for solid waste pickup. There is a limited amount of recycling, including: corrugated cardboard and metal. Delta Disposal, out of Escanaba, also picks up solid waste for some areas of the County.

Hiawatha Landfill, 3098 N CR 436 collects commercial and residential solid waste drop-off.

- ***Electrical service***

Electrical service in Schoolcraft County is provided by UP Power, Cloverland Electric Cooperative and Alger/Delta Electrical Cooperative. There are currently no power plants located within the County.

- ***Telephone and cable***

Telephone services are provided by Spectrum Communications, Bright Speed, AT&T and NMU.ean and Marq6. Fiber networks are expanding and Starlink is available for most of Schoolcraft County. Hiawatha Telephone Co. and Jamadots service the northern county areas. Cable services are provided by Spectrum Communications.

- ***Internet***

Spectrum Communications provides internet, but the service area is limited to the city and some surrounding areas. Brightspeed and NMU.ean also provide internet service. Other communities in the County rely on Satellite or cellular data for internet services.

- ***Cell service***

Cellular service is provided by most major cellular providers.

6.4 Other Public Facilities and Services State Offices:

State Offices:

- *The Department of Health and Human Services* is located in the Schoolcraft County Courthouse at 300 Walnut Street in the City of Manistique.

- *The Community Action Agency* is also located in the Schoolcraft County Courthouse.
- *A Secretary of State Office* (driver licensing and license plates) is located in the Schoolcraft County Courthouse.
- *Michigan Works!* is located in the Schoolcraft County Courthouse.
- *The Thompson State Fish Hatchery*, located on M129 in Thompson is operated by the Michigan Department of Natural Resources (MDNR). The Thompson State Fish Hatchery was established in 1922 for the production and rearing of trout using creek water. In 1977 the facility was renovated to use combinations of well water and a natural spring for both trout and salmon. The hatchery is a self-tour facility, open all year round. It normally always has fish rearing tanks or eggs in incubation. There is a small interpretive room with bathrooms and a video that explains the hatchery operation between how eggs get collected through how the fish get stocked. That room is only open during regular business hours (generally closed by 3:45 weekdays and 3:15 on weekends and holidays). The hatchery does provide large group tours when time/staff is available and scheduled in advance. Outdoors, there is a walking path with interpretive signs that explain the hatchery. Staff needed to operate the facility include 6 full-time employees and one seasonal employee.

A unique feature of Thompson State Fish Hatchery is two geothermal wells that are 2,000 feet deep. Instead of bringing up the normal 48-degree F water, they bring up 60-degree F water. The water gets mixed with spring and shallow well water for providing warmer fish rearing temperatures to help enhance growth for trout and salmon. In early 2021, an addition of a small building and a coolwater pond rearing complex was completed, roughly a half mile south of the main trout and salmon hatchery building. The new building near the ponds, is mostly used for incubating walleye eggs. The current use of the ponds is to raise walleye in early summer and then Muskellunge in late summer/fall. The ponds are drained to obtain all the fish. They currently remain empty all winter. Tours and public visitation are not available at the new coolwater pond complex area.

Production numbers from Thompson State Fish Hatchery as of 2023:

Coldwater species:

- Chinook Salmon=400,000 spring fingerlings (~3.3)
- Steelhead Trout=200,000 fall fingerlings (~3.2 plus 613,000 spring fingerlings (~7.5"))

Coolwater species:

- Muskellunge= variable each year but targeting near 20,000 at 9"
- Walleye=variable each year due to weather conditions but hope to target over 200,000 at a length near 1.5" in years that the weather allows.

Fish stocking:

- The release of TSFH trout, salmon and muskellunge occurs in public waters all over the state, but mostly in the Northern Lower Peninsula and the Upper

Peninsula. Walleye, however, mostly stay in public waters in the Upper Peninsula.

Chapter 7.0 Housing

7.1 Introduction

Housing is one of the key factors to consider when planning for a community's future. The location and type of housing available establishes where public infrastructure must be provided. The placement of a community's housing also determines the costs associated with public services. Furthermore, the location of new housing can be settled on in part by the availability of public infrastructure and services. Housing characteristics can also reveal information about a community's history and its economic and social situation.

The cost of housing and the type of housing available are typically determined by market factors. Outside of operating a housing authority or possibly serving as the developer of residential property, local units of government do not usually become directly involved with providing housing. Through zoning and other land use controls, the provision of infrastructure and services and efforts to attract new residents to a community, local governments can have a powerful impact on housing in a community.

In addition to migration, commuter trends, the cost of land and construction, and other housing related elements, there are several key non-housing factors that can influence an area's housing market. Public safety, or the lack of, can influence where people choose to buy a home and raise a family. Quality education is one of the primary locational factors for families with school-age children. Area access to employment, shopping, and other entertainment needs factor into the purchase of a home.

Information presented in this chapter will provide area officials with the most recent housing data available, including structure and occupancy characteristics. This information will help assess housing needs and determine the appropriate course of action to address housing needs in Schoolcraft County.

7.2 Housing Characteristics

According to the 2022 census, Schoolcraft County had 5,987 housing units. The City of Manistique had the most housing units of 1,616, followed by Hiawatha Township with 904 and 768 units in Thompson Township. This data is presented in Table 7-1b in Appendix F.

From 2000 to 2022 the number of housing units in Schoolcraft County increased from 5,700 to 5,987 units. This represents a slight increase. The State of Michigan experienced an increase in the number of housing units during the same time period. This data is presented in Table 7-1a and Table 7-1b, Appendix F.

Between 2000 and 2020, the housing stock nationwide was growing at a rate of 15.0%. (<https://statistica.com>)

Occupancy and Tenure

According to the 2022 Census, only 63.2% of the housing units in Schoolcraft County were occupied. This is much lower than the State's housing unit occupancy rate of 88.8%. The

townships occupancy rates generally were mixed increases and decreases from 2000 to 2022. A strong majority of the vacant units are designated as seasonal, recreational, or occasional use.

About 69.5% of the housing units in the City of Manistique were designated as being occupied by owners. This is much the same trend in the townships in which a majority of units were occupied by the owners.

The more densely populated urban areas have the needed infrastructure to support multi-family developments. The proximity to shopping, health care and other services may also be a factor in the location of multi-family housing.

Units in Structure

Table 7-2 in Appendix F shows the distribution of housing unit types between single-family units, multi-family units and mobile homes, boats and RV's. In 2022 87.5% of Schoolcraft County's housing units were single-family, 8.0% were multi-family and 5.9% were mobile homes, boats and RV's. Germfask Township, Inwood Township and Manistique Township saw an increase in single-family units from 2000 to 2022. The same is true of Schoolcraft County as a whole. The State of Michigan also saw an increase of single-family units.

Age of Housing

Table 7-3 in Appendix F demonstrates the distribution of housing units by the year a structure was built. Data such as this is indicative of when towns and townships were thriving and growing and can also show a relationship to nationwide housing trends.

Per Table 7-3 in Appendix F, 671 units in the City of Manistique were built prior to 1940, compared to 995 in the County and 665,574 in the State. The City of Manistique has experienced a slow decline since 1940 of new housing structures. Most of the townships experienced a growth from 1950-1999 and a decline since then, except for the City of Manistique.

While an older housing stock is not necessarily inadequate or of poorer quality than newer structures, it is more prone to deterioration if not properly maintained. Since a relatively large number of householders are over the age of 65 (Table 7-4 in Appendix F) maintenance may become increasingly difficult. Some of the City's housing stock may be vulnerable. Older housing units often lack the amenities desired by more affluent, younger households, such as multiple bathrooms, large bedrooms, family rooms and large garages. These older units often have narrow doorways, steep stairs and other features which make them difficult for older residents to enjoy, and increased maintenance demands may also make these home less desirable to an aging population.

Household Type

The United States Bureau of the Census categorizes households by types: family, non-family, and group quarters. As shown in Table 7-4 in Appendix F, 33.0% of the City's residents and 47.9% of the County's residents lived in family households, compared to 47.9% of the State's residents. A family household consists of a householder and one or more persons living in the same household who are related by birth, marriage or adoption.

Alternatively, 47.9% of the City's residents, 38.0% of the County's and 6.2% of the State's residents live in non-family households. The majority of non-family households represent persons living alone. (Table 7-4, Appendix F)

Information of household type and relationship was also presented in Table 2-8 in Appendix B. This data illustrates that the number of family households, especially married-couple families, has generally decreased significantly from 2000 to 2022. At the same time, the number of non-family households has also decreased.

The number of people living in a household, as well as the age and relationship of those people, all influence the type of housing needed in a community. The general trend across the country has been to build larger homes, often with multiple levels and on large lots. At the same time, the population is aging, and households are getting smaller.

Household Size

The number of persons in a household has been increasing in the United States over the past several decades, and Schoolcraft County is following this same pattern, as indicated in Table 7-5 in Appendix F.

Housing Values and Rent

Table 7-6 in Appendix F presents median housing values for 2000 to 2022. Housing values have increased during this time for all areas but especially so for the Seney Township jumping from \$45,000 to \$203,300. Several townships experience significant increases such as Thompson Township 55.1% and Mueller Township 42.1%, Inwood Township 40.5%, Manistique Township 51.8% and Hiawatha Township at 52.2%. Schoolcraft County experienced a 50.3% increase in housing values compared to the State of 48.9%.

Gross rent refers to the total cost of rent plus basic utilities. This is differentiated from contract rent, which represents only the actual cash rent paid or (in the case of vacant units) the rent asked for a unit. Gross rent in Schoolcraft County has increase from \$345 to \$572, whereas the State of Michigan's gross rent has increased from \$546 to \$1,101. (See Table 7-7 Appendix F).

7.3 Financial Characteristics

Not surprisingly, median household incomes in the Upper Peninsula are significantly lower than the statewide averages. While this can be offset somewhat by lower housing cost locally, the ability of local households to afford housing is impacted by these lower incomes. Table 7-8 in Appendix F indicates the changes in income from 1999 through 2022. Table 7-9 in Appendix F indicates owner costs as a percentage of income.

7.4 Selected Housing Characteristics

Substandard housing information is presented in Table 7-10 in Appendix F. Housing units lacking complete plumbing (hot and cold piped water, flush toilet and bathroom or shower) or complete kitchen facilities (an installed sink, range or other cooking appliance and refrigerator) are considered substandard. Also included in the table are housing units that lack telephone service. Schoolcraft County and Michigan both have less than 1% of substandard housing units

in 2022. Germfask, Doyle, Inwood and Seney Townships have the greatest percentage of substandard housing units.

The type of heating fuel utilized in occupied housing units is presented in Table 7-11 in Appendix F. The most common form of heat within the City of Manistique is utility gas, with 76.0% of housing units utilizing this method. The most common heating fuel source used for rural townships is LP Gas. Natural Gas lines have expanded into several of the more populated rural areas. Although there is some variation between the Townships as what the second, third and fourth most popular heating sources are, liquid propane gas is generally followed by wood, fuel oil, kerosene, etc. and finally electricity. Some units utilize other fuel sources and others have no fuel.

7.5 Private Housing Developments

New home construction for Schoolcraft County is presented in Table 7-12, Appendix F for the years 2017 to 2020. The values shown are derived from construction costs estimates provided by permit applicants.

7.6 Public Housing Developments

There are currently six publicly funded multi-family housing developments in Schoolcraft County. All are located in Manistique, except for Parkview Estates which is located in Germfask. These units offer barrier-free accommodations and rent subsidies that are determined by tenant income (See Table 7-13 Appendix F).

7.7 Housing Assistance

Schoolcraft County has a Habitat for Humanity Center, HiawathaLand Habitat for Humanity. The goal for Habitat for Humanity is to eliminate poverty housing and replace it by building adequate and basic housing for those in need. Eligible families must meet selection criteria. HiawathaLand Habitat for Humanity is currently located in the Blanchard Center at 401 Deer Street in Manistique. Habitat works in partnership with the school district building trades program, providing an educational opportunity for students.

7.8 Issues and Opportunities

As shown in Table 7-1b, Appendix F, only 63.2% of housing units in Schoolcraft County were occupied, much lower than the State's housing unit occupancy rate of 88.8%. A strong majority of the vacant units are designated as seasonal, recreational, or occasional use.

As shown in Table 7-2, Appendix F, in 2022, 87.5% of Schoolcraft County's housing units were single family, 8.0% were multi-family and 5.9% were mobile homes, boats, RV's, etc.

As shown in Table 7-3, Appendix F, 2,648 homes in Schoolcraft County were built before 1970. Older homes are prone to rapid deterioration if not maintained and may not be suitable for elderly residents or offer the amenities desired by young families.

According to Table 7-4, Appendix F, the US Census Bureau reported 3,657 households in the County. Married couples made up 47.9% with 1,755 households, followed by householder 65 years and over with 1,613 or 44.1%.

According to Table 7-5 Appendix F, the household size, in Schoolcraft County, has increased slightly from 2.36 person in 2000 to 2.62 persons in 2022.

There are relatively few housing units in Schoolcraft County that are substandard according to census criteria. Of these units, some may be seasonal dwellings that do not serve as primary residence. (Table 7-10, Appendix F)

In many cases, housing growth is occurring in areas not served by municipal water or sewer.

The County also provides six publicly funded housing developments and offers several housing options to the elderly. (Table 7-13 in Appendix F).

Chapter 8.0 Recreation

8.1 Introduction

Outdoor recreation opportunities abound in Schoolcraft County. Schoolcraft County is blessed with 47 miles of Lake Michigan shoreline, 286 inland lakes, 36 organized boat launches, ORV/Snowmobile trails, Equestrian trails, numerous campgrounds, cross country ski trails, hiking trails, numerous wildlife observation facilities, canoe/kayak rivers and streams, blue ribbon trout streams and an abundance of scenic beauty.

Information provided in this chapter is intended to provide current and comprehensive data to guide Schoolcraft County decision makers regarding future park development and/or acquisition. Existing parks and other recreational facilities and events are discussed in the context of location, features, and use. Much of this information was obtained from the Schoolcraft County-wide Multi-Jurisdictional Recreation Plan adopted in 2008. Public input for the recreation plan was collected at two meetings in each local unit of government represented by the multi-jurisdictional plan.

There is a diverse array of both private and public recreational facilities within Schoolcraft County. Recreation related to tourism is vital to area economics and is an expanding industry nationwide. Attractions and facilities located in the county present many opportunities for active and passive recreation. Schoolcraft County is rich in natural resources, which draw a growing number of visitors each year. Heritage based tourism and ecology-based tourism are becoming increasingly popular. Having adequate recreational facilities to meet the needs of visitors and as well as residents is vital to the community.

8.2 Recreation Administration

The Schoolcraft Recreation Board (SRB) was formed under Act 156 of 1917, section 123.51. There is a multi-jurisdictional board with appointments made by each Township, the City of Manistique, and the County of Schoolcraft. The Schoolcraft Recreation Board owns no land or facilities and therefore the maintenance and improvements of existing facilities are the responsibility of each local unit of government. The SRB became inactive shortly after 2008, leaving all decision making to each local unit of government.

Policy and funding decisions concerning parks and recreation in each township are the responsibility of the elected members of the township boards. Most hire seasonal workers to maintain recreation facilities.

The City Manager and City Council Members have the power to recommend, administer and update recreation facilities for the City of Manistique. The Department of Public Works and its staff are responsible for the maintenance and upkeep of the City's recreation facilities. The Schoolcraft County Board of Commissioners has the power to recommend, administer and update the recreation facilities the County owns. The Building and Grounds Department staff is responsible for the maintenance and upkeep of the Counties recreation facilities. Each political governing administrative body assigns a portion of its budget for recreation facilities and upkeep.

8.3 Recreation Inventory

The Schoolcraft Recreation Board members conducted a recreation inventory during the summer of 2007, while updating the County's 5-year recreation plan. Each board member completed an inventory, condition assessment and accessibility assessment within the boundaries of the local unit of government they represent.

8.4 Schoolcraft County

Schoolcraft County currently owns and maintains one historical park and two recreational facilities:

Bishop Baraga Shrine Park is a 10-acre historical park featuring an Indian wigwam, non-denominational church, Indian artifact display, Bishop Baraga wooden carved statue and an Indian cemetery. The site was purchased by the Manistique Knights of Columbus Council in 1958 and donated to the Diocese of Marquette in 1963. The Diocese of Marquette conveyed the site to the county in 1983 to be used for a historical park.

- Some of the facilities in the park meet accessibility guidelines.
- Service area: Residents of Schoolcraft County and tourists interested in the history of Bishop Baraga.

Lindsey Frenette Park/Pines Recreational Area is situated amongst a pine grove and used for large group gatherings. The Park has a pavilion, picnic facilities, vault toilets, a playground, basketball courts, horseshoe pits, volleyball area and an open game area. The local soccer association maintains an area used for soccer.

- These features were developed with a MDNR Recreation Grant, 26-01060-B in 1978.
- All the facilities, except for the restroom, meet accessibility guidelines.
- The pavilion collapsed and was subsequently rebuilt.
- All facilities are in good condition.
- Service area: Residents in Manistique and the surrounding areas.

Merwin Creek State Forest Campground is now under management of Schoolcraft County. This campground is located on the shore of the Manistique River in Schoolcraft County, nine miles northwest of Gulliver via US-2, County Road 438 and County Road 433. It has ten sites for tent and trailer use. All sites are available on a first-come, first-serve basis. No reservations are taken. The rustic campground provides vault toilets and a potable water well.

8.5 Doyle Township

Doyle Township owns and maintains three recreational facilities:

Doyle Township Sports Park is a 10-acre parcel of property immediately adjacent to and including Doyle Township Hall consisting of a ball field, tennis court, a playground and a pavilion for public use.

- The Doyle Township Sports Park is the recipient of a MDNR Recreation Grant, 26-01023-A2, in 1977. This grant helped construct a tennis court adjacent to the Township Hall.

- All of the facilities are in good condition.
- The entire park meets accessibility guidelines.
- Service area: Residents of Doyle Township.

Gulliver Lake Boat Landing is a 1.6-acre parcel of property on the Northwest corner of Gulliver Lake. It has a boat launch, picnic tables and grills, swings, and vault-toilet facilities.

- Some of the facilities at this park meet accessibility guidelines.
- Service area: Residents of Doyle Township, the adjacent area for tourists for fishing and boat access.

Gulliver Lake Park is a 37.5-acre parcel of land on the south end of Gulliver Lake. It has picnic areas with grills, vault toilet facilities, playground equipment and undeveloped property to the south and east of the lakefront.

- Most of the facilities in this park meet accessibility guidelines.
- Service area: Doyle Township and the surrounding area.
- This site has the potential for future development.

8.6 Germfask Township

Germfask Township owns and maintains three recreational facilities:

The Community Center Recreation Area and Little League Ball Field is a 4-acre parcel of land including the Germfask Township Community Center building that includes a playground and a little league baseball field.

- The entire park and community center meet accessibility guidelines.
- Service area: Germfask Township and the surrounding area.

Germfask Recreation Area is a 10-acre parcel of property that has a regulation size ball field, a playground area and picnic facilities with vault toilets.

- A MDNR Recreation Grant, 26-01060-D, was used in 1978 to acquire 10 acres of land and develop a softball field.
- Some of the facilities meet accessibility guidelines.
- Service area: Germfask Township and the surrounding area.

Germfask Township Recreation Area Phase II utilized a MDNR Recreation Grant, 26-01378, to construct a ball field, install bleachers, vault toilets and a softball fence.

- All the facilities are in good shape and used extensively every summer.
- Most of the facilities meet accessibility guidelines.
- Service area: Germfask Township and the surrounding area.

Germfask Township Park consists of 15.72 acres immediately adjacent to an additional 6 acres of Township property next to the Township Water Tower.

- This area is currently undeveloped.

8.7 Hiawatha Township

Hiawatha Township owns and maintains one recreational facility:

Hiawatha Township Community Center is a 5-acre parcel with the old Hiawatha School, purchased by the Township and used as a community center.

- The building contains gym facilities, a recreation hall and classrooms that can be used for a variety of recreational uses.
- The grounds of the Community Center have a ball field, volleyball court, tennis court, fitness course, playground, picnic area and an ice rink in the winter months.
- The Township is looking at improving the facilities for community use.
- The building meets accessibility guidelines
- Service area: Hiawatha Township and the surrounding area.

The Rainey Wildlife area is located about seven miles northwest of Manistique.

- There is a hiking trail that takes visitors over boardwalks and through wetlands, leading up to an elevated observation platform for viewing wildlife.
- The observation platform has a barrier-free ramp.
- The trail crosses Smith Creek, which flows through a patterned fen to Indian Lake.
- This site has no modern facilities.
- The wildlife area is about 100 acres and is part of the state forest system.

8.8 Inwood Township

Inwood Township owns and maintains one recreational facility:

Inwood Township Recreation Area is approximately a 15+ acre parcel including the Township Hall.

- It currently has an outdoor pavilion for public use and a little league ball field.
- The recently constructed Township Hall meets accessibility guidelines.
- The little league field meets some accessibility guidelines.

8.9 Manistique Township

Manistique Township owns and maintains four recreational areas:

Manistique Township Hall Playground is a ½ acre with the Township Hall and playground.

- The Township Hall meets accessibility guidelines.
- The playground meets some accessibility guidelines.
- Service area: Manistique Township and the surrounding area.

Pickle Pond Park is a 6.7-acre parcel with a ball field. There are no other facilities at this location.

- Some of the facilities meet accessibility guidelines.
- Service area: Manistique Township and the surrounding area.

Manistique Township Park is a 20-acre parcel located on Lake Michigan. It has a paved parking lot and a trail to the beach. There are portable toilets located on the site.

- Service area: Manistique Township and surrounding area, tourists to the area.
- This site is slated for additional improvements to protect the sensitive dune area the park is located in and to improve accessibility.

Environmental Lab is an 80-acre outdoor laboratory with a vault toilet, a trail-system throughout with various ecosystems and with interpretive signage.

- Some of the facilities meet accessibility guidelines.
- Service area: Manistique Township and the surrounding area.

8.10 Mueller Township

Mueller Township owns two recreational areas that are either maintained by the Township or other organizations:

Green School Ball Field and Playground is a several acre facility located adjacent to the Township Hall. The Township Board maintains this site.

- Some of this park meets accessibility guidelines
- Service area: Mueller Township and the surrounding area.

Seul Choix Lighthouse is an approximately 20-acre parcel owned by the State of Michigan with the restored Seul Choix Pointe Lighthouse. The Gulliver Historical Society maintains the site.

- The park consists of the restored Seul Choix Pointe Lighthouse, Lighthouse Keepers quarters, fog signal building and an interpretive center/gift shop. It also has a MDNR boat launch associated with the site.
- Most of the park meets accessibility guidelines.
- Service area: The local area and visitors from all over the U.S. and foreign countries.

8.11 Seney Township

Seney Township owns three recreational facilities that are maintained by the Township:

Francis Morrison Campground is a 15-acre parcel with 20 campsites, 15 electrical and five primitive sites on the Fox River. It has a flowing well, two sets of vault toilets, playground equipment, picnic tables and fire rings at each campsite and a primitive boat launch.

- Most of the park meets accessibility guidelines.
- This park serves people from all over. It is a very popular campground for trout fishermen and visitors to the area, as well as local citizens.

Seney Recreational Day Park is approximately 20 acres in size and has playground equipment, a tennis court, basketball court, sand volleyball court, horseshoe pits, barbeque pavilion and metal pole barn for summer functions and for an ice-skating rink in the winter. City water is provided to the pole barn and there are two vault toilets.

- Most of this park meets accessibility guidelines.
- Service area: Seney Township and the surrounding area.

Seney Ball fields and pavilion is a parcel with two softball fields with dugouts and bleachers and a large pavilion with two vault toilets.

8.12 Thompson Township

Thompson Township currently has one recreation facility that it owns and maintains:

Christmas Tree Historical Marker is a small park located on MDNR property in Thompson Township. This area is located on a small parcel on the waterfront. The only amenities are a footpath to the marker and a parking lot.

- Some of the site meets accessibility guidelines.

8.13 City of Manistique

The City of Manistique owns and maintains eleven recreational facilities within the city limits.

Fifth Street Park is a 3-acre fenced in Little League ball field.

Central Park is a 40-acre parcel that consists of a regulation baseball field, three regulation softball fields, a little league ball field, basketball court, tennis court, multipurpose open field, band shell, fair building, horse arena, community building and a multi-purpose building/ice arena.

- Fishing Platforms
- Quarry Lake Improvement
- Entrance Roads
- Parking
- Trails
- Archery Range
- Basketball & Tennis Courts
- Site Amenities
- Restrooms
- Skateboard Park
- Plaque

Lakeside Park is a 15-acre parcel that has picnic tables, grills, playground equipment, public restrooms, and water frontage.

- TF-93-199, Waterfront Park development, 1993
 - Access Road
 - Parking Area
 - Lighting
 - Picnic Area
 - Pier with Walkway
- The Lakeside Park facilities are in excellent condition.
- This park meets accessibility guidelines.

Intake Park is a 32-acre park along the Indian River that has water frontage, fishing site and an ORV/Snowmobile/Foot bridge across the Indian River that connects the Haywire Grade Trail.

- Amenities include a trailhead parking area that provides access to the Haywire Grade Trail and a picnic area with grills and picnic tables.

- This park meets accessibility guidelines.

Manistique River Mouth Public Access Site is a hard surface boat ramp that has water depth to accommodate most watercraft.

- Amenities include parking, public restrooms, and a fish cleaning station.
- This park meets accessibility guidelines.

Pioneer Park is a historical park centered on the historical Manistique Water Tower and Fire Engine Museum. This park is open for the summer season only.

- Amenities include picnic tables, play lot, water frontage on the Manistique River and two additional historical museum buildings. This park is maintained in partnership with the Schoolcraft County Historical Society.
- Most of this park meets accessibility guidelines.

Manistique City Marina is a boat mooring facility.

- Grant 26-00315, Manistique Mooring, Launching and Day Use Facility 1972 includes:
 - Boat Launch
 - Landscaping
 - Fencing
 - Restrooms
 - Roads & Parking
 - Lighting
 - Comfort Station
 - Service Pier with Pump Out
 - Dredging
 - Finger Piers
 - Service Building
- The facilities at the City Marina are in excellent condition
- Amenities include 22 boat slips, showers, fuel supply, sanitation pump out, and water and electrical hookups available to boaters. It also has complete restroom facilities, picnic tables and playground equipment.

Manistique Senior Citizen Center is a multi-purpose service and activity center. Open for any senior citizen activity. The building includes offices, dining room, kitchen facilities, storage, two activity rooms and restroom facilities.

- Most of this facility meets accessibility guidelines.

East Lake Front Park is a 3-acre parcel adjacent to the boardwalk.

- 2601060-C, Lakefront Park, 1978 grant
 - Vault Toilets
 - Picnic Equipment
 - Roads & Parking
 - Site Improvements
- Facilities in this park are in excellent condition.
- Amenities include picnic tables, grills, restroom facilities and Lake Michigan access.

- The facilities at this park meet accessibility guidelines.

Lighthouse Clubhouse is a unique playground for children with play structures, playground equipment and picnic tables.

- Some of the facilities meet accessibility guidelines.

Boardwalk is a picturesque walkway that is two miles long, beginning at the City Marina and continuing east along the Lake Michigan shoreline.

- Entire boardwalk meets accessibility guidelines.

Manistique Recreation Building is a multi-purpose building used for receptions, public functions, ice skating and the local hockey program.

- BF92-072, Manistique Recreation Building, 1972 grant
 - Subsoil Heating
 - Artificial Ice Piping
 - Skating Rink Floor Insulation
 - Skating Rink Floor Concrete
 - Perimeter Concrete
 - Brick Walls
 - Floor Plumbing
 - Hockey Rink Boards
- The Manistique Recreation Building facilities are in good condition.
- Amenities include a commercial kitchen, heated viewing area, restrooms, and a concession stand.
- The Manistique Recreation Building meets most accessibility guidelines.
- Manistique Lakeshore Campground at 320 Traders Point, is a 50 RV space campground with five tent sites. All sites are paved, it is ADA accessible and fairly new.

8.14 Other Recreational Facilities

Throughout Schoolcraft County there are numerous recreational opportunities offered by the federal and state governments. As mentioned in Chapter 5, a vast part of the County is in state and federal ownership. A listing below identifies opportunities at federal and state recreation facilities:

Hiawatha National Forest: 122,462.3 acres of forested land.

- Developed Campgrounds:
 - Indian River-11 sites,
 - Colwell Lake-34 sites, boat launch
 - Little Bass-12 sites, boat launch
 - Pete's Lake-42 sites, boat launch
- Primitive Campgrounds, all have a boat launch, 1-3 campsites, no water, some with outhouses:
 - Bass Lake
 - Crooked Lake
 - East Lake
 - Lake Nineteen

- Leg Lake
- Minerva Lake
- Steuben Lake
- Swan Lake
- Triangle Lake
- Trail Systems:
 - Haywire Grade ORV Trail
 - Pine Marten Run
 - Colwell Lake Trail
 - Thunder Bowl
 - Indian Lake Ski Trail
 - Ashford Lake Ski Trail

Seney National Wildlife Refuge: 95,145.5 acres.

- U.S. Fish and Wildlife Service ownership.
- Sanctuary for Brant Geese, Canada Geese, and other waterfowl.
- Hunting, fishing, and nature trails.

Lake Superior State Forest

- Campgrounds:
 - Ross Lake-10 campsites, boat launch, fishing, swimming.
 - Canoe Lake-6 campsites, fishing.
 - Stanley Lake-10 campsites, boat launch, fishing, ski trail.
 - Fox River-6 campsites, canoeing, fishing, ski trail.
 - East Branch of Fox River-16 campsites, fishing

Indian Lake State Park

- Campsites, interpretive center on Park Indian culture, swimming, fishing, hiking and picnic grounds.
- MDNR ownership

Palms Book State Park

- Day use only. Includes state's largest spring, Kitch-iti-ki-pi, and raft to view the spring, picnic facilities
- MDNR ownership

Rogers Roadside Park (Thompson)

- Picnic facilities
- MDOT ownership

Eichen Roadside Park (Germfask)

- Picnic facilities
- MDOT ownership

Green School Park (Gulliver)

- Picnic facilities

- MDOT ownership

Seney Stretch Rest Area (Seney)

- Picnic facilities
- MDOT ownership

Trail Systems

- Fox River Pathway
- Gemini Lake Pathway
- Indian Lake Pathway

In addition to the above facilities, there are 36 maintained boat launches on the inland lakes, Lake Michigan, and the streams and rivers of Schoolcraft County. These are owned and maintained by the State of Michigan and the U.S. Forest Service.

8.15 Historic Sites

Heritage tourism, or tourism oriented toward the cultural legacy of an area, is becoming increasingly popular. Heritage tourism involves visiting historical sites to gain an appreciation of the past. Special historical significance is recognized through listings of the State or National Register of Historic Places. Properties may receive designation from both. Identification and preservation of historical sites can enhance a community's awareness of its past. Area historical sites are listed below.

- *Bishop Baraga's First Church*

Bishop Baraga's First Church is located 2.5 miles north of Manistique on Leduc Road. Near this site on May 15, 1832, world famous missionary, the Right Reverend Frederic Baraga, established and blessed his first church.

This site was listed on the state register on April 2, 1957, and a site marker was erected on January 2, 1958.

- *The Manistique Pumping Station*

The Manistique Pumping Station is located at Deer Street in Manistique. The Manistique Pumping Station was constructed in 1922 as part of a new waterworks system and notes a characteristic of Michigan water towers (the design of a utilitarian structure as architecture). The site was listed on the state register on March 19, 1980, and on the national register on October 26, 1981.

- *Seul Choix Pointe Lighthouse*

The Seul Choix Pointe Lighthouse is located on County Road 431 at Seul Choix Pointe, near Gulliver. Seul Choix Pointe provided Great Lakes shipping with protected anchorage, but it remained a dangerous site until it was marked by a light.

The development of Seul Choix Pointe Lighthouse and other aids to navigation not only paralleled the growth in commerce on the Great Lakes but was a prerequisite for growth. The site was listed on the state register August 21, 1987, and on the national register July 9, 1984.

- *Ten Curves Road/Manistique River Bridge*

This historic site is located on the Ten Curves Road over the Manistique River in Germfask Township. The 90-foot span was constructed in 1923, and the bridge remains. The Germfask bridge is noteworthy as one of the earliest and longest remaining examples in Michigan of the Michigan State Highway Department designed, arched through the girder. The site was listed on the national register on December 17, 1999.

- *White Marble Lime Company Kilns*

The White Marble Line Company Kilns are located on Duck Inn Road, North of US-2, 4.5 miles east of Manistique. The kilns are two square towers constructed with uncut fieldstone. The towers have not been used since the White Marble Lime Company ceased operation in 1933. The site was listed on the state register on November 13, 1964, and a marker was erected on October 2, 1968.

8.16 Issues and Opportunities

Natural features throughout Schoolcraft County provide a variety of year-round active and passive recreational opportunities for residents and visitors.

Green infrastructure crosses community boundaries and the development of a trail system can be accomplished effectively through joint planning.

All current and future recreation sites should be developed to achieve maximum benefits for all users, including compliance with The American with Disabilities Act. This could include the upgrade of play areas, removal of uneven surfaces and sidewalk obstructions, and procurement of additional wheel-chair accessible picnic tables. Creation of new recreation areas to address the interests of the younger and senior generations and those with special needs is necessary.

Schoolcraft County possesses numerous historical sites, several recognized by the State Historical Registers. Grant funding could be pursued to restore and preserve these pieces of cultural history. With the increasing popularity of heritage tourism, promotion of cultural attractions could bring a boost to tourism and to visits from residents.

Environmentally safe recreation via responsible behavior should be promoted throughout the County, in order to preserve recreation and natural areas.

Schoolcraft County and its abundance of natural and recreation areas could become a popular destination for eco-tourism with proper promotion.

A map of Schoolcraft County, City and Township recreation facilities locations, is located in Appendix G.

Chapter 9.0 Transportation

9.1 Introduction

Communities depend on the effective movement of people and goods to sustain a functioning economy. Broadly speaking, a transportation system can be defined as any means used to move people and/or products. A major goal of transportation system is to move goods and people through and within local, regional, national, and international economies safely and efficiently. Transportation efficiency is a key factor in decisions affecting land use and development.

A region's employment base and quality of life is closely linked to the effectiveness of the transportation system. A compilation of needs, goals and policies is necessary to guide the future development of various modes of transportation including highways, local roads, public transportation, railroads, airports, marinas, and non-motorized trail systems. Transportation services and facilities must be maintained and developed to achieve a community's overall vision.

Roads and other transportation systems have been largely influenced by the physical barriers present, such as rivers, lakes, swamps, and rugged terrain. Transportation routes were established along areas presenting the least physical resistance.

An inventory of the existing transportation facilities in Schoolcraft County, along with a discussion of future transportation needs and concerns is presented in this chapter. Descriptions of the various elements of the road system, port facilities, airport and air service, railroad facilities, public transit service, and inter-community transit service are included. Identification and prioritization of vital traffic corridors has become an increasingly important part of regional commerce enhancement.

9.2 Road System

One of the most important elements in the physical structure of a community is its road system. The basic objective of a road system is to accommodate vehicular movement safely and efficiently. Michigan Public Act 51 of 1951 requires that all counties and incorporated cities and villages establish and maintain road systems under their jurisdiction, as distinct from state jurisdiction.

Public Act 51 established the Michigan Transportation Fund (MTF) which provides the use and allocation of funds for transportation purposes. The balance of the Michigan Transportation Fund, after deduction of appropriations in other subdivisions of transportation is split between the state trunkline (39.1%), county road commissions (39.1%), and cities and villages (21.8%).

Map 9-1, in Appendix I depicts roads according to Act 51 classifications.

State Trunkline Highway

The state trunkline system includes state and federal highways which connect communities to other areas within the county, state, and out-of-state locations. These roadways provide the highest level of traffic mobility for the traveling public. More than half of the total statewide traffic is carried on the highway system, which comprises only 8% of the Michigan roadway

network length. State highways are designated with the prefix “M”, federal highways with “U.S”.

Portions of US Highway 2 (US-2) pass through the southern portion of Schoolcraft County, along the Lake Michigan shoreline. US-2 travels through the County in an east/west direction for 38.085 miles. US-2 passes through Inwood Township, Thompson Township, the City of Manistique, Manistique Township, Doyle Township and Mueller Township. There are 286 lane miles of state trunkline within Schoolcraft County.

There are several state highways that pass-through Schoolcraft County. M-149 passes through Thompson Township and Inwood Township and generally runs in a north/south direction. Portions of M-28 run east/west and pass through the northern portion of Schoolcraft County in Hiawatha Township and Seney Township. Portions of M-77 are located in Mueller Township, Germfask Township and Seney Township and runs north/south. M-94 runs north/south through Hiawatha Township, Inwood Township, Thompson Township, and the City of Manistique.

Act 51 requires the state transportation department to bear all maintenance costs consistent with department standards and specifications for all state highways including those within incorporated cities and villages. Since the City of Manistique has a population of less than 25,000, cost sharing requirements for construction and reconstruction associated with opening, widening or other state highway improvements are not applicable.

There are 4,275 miles of state highway that compose the Priority Commercial Network (PCN). State highways given this designation are recognized for their importance to agriculture, forestry, wholesale trade, manufacturing, and tourism. Highway US-2 is included in the Priority Commercial Network.

County Road System (Primary and Local)

Act 51 requires that all roads, streets, and highways included in the county primary road system are known as county primary roads and all roads, streets and highways included in the county local road system be known as county local roads. The mileage of each road system is used as the basis of computation of road funding.

Primary roads are considered those of the greatest general importance to the County. The primary road system consists of 221.87 miles of road and the local road system consists of 210.8 miles of road.

Major Street Systems

A system of major streets in each incorporated city or village is approved by the State Transportation Commission, pursuant to Act 51. Major streets are selected by the city or village governing body based on greatest general importance to the city or village. Streets may be added or deleted from the system subject to approval of the State Transportation Commissioner (Act 51 of 1951 as amended section 247.657).

The City of Manistique's 7.74 miles of designated major streets include portions of the following:

- S. Cedar St
- County Road 440
- County Rd 442
- South Maple Street
- River Street
- Tannery Road
- North 1st Street
- North 2nd Street
- North 3rd Street
- North 4th Street
- 7th Street
- 8th Street
- Access Road
- Alger Avenue
- Badger Street
- Bear Street
- Caribou Street
- Center Street
- Cherry Street
- Garden Ave
- Gero Avenue
- H Street
- Iron Street
- M-94
- Mackinac Road
- Michigan Avenue
- Walnut Street

The City of Manistique's 15.617 miles of minor city street include portions of the following:

- Arbutus Avenue
- North Cedar Street
- Chippewa Avenue
- County Road 440
- County Road 442
- West Elk Street
- Lake Street
- Mackinac Avenue
- Main Street
- South Maple Street
- Oak Street
- Pine Street

- Range Street
- River Street
- Traders Point Drive

Local Street System

Those city or village roads, exclusive of state trunklines, county roads and those included in the major street system constitute the local street system. The process of approval, additions and deletions is the same as with other road system designations (Act 51 of 1951 as amended section 247.657).

9.3 Private Roads

All new roads are required to be built to Schoolcraft County Road Commission specifications. Where private roads do exist in the County, it is important to assess the capability to accommodate fire and emergency vehicles. Private roads exist throughout the Townships. Maintenance is the responsibility of the landowners along the private road.

9.4 National Function Classification

The National Functional Classification (NFC) is a planning tool that the Federal Highway Administration (FHWA) uses to determine eligibility for federal funds and is utilized by federal, state, and local transportation agencies. Under this system, streets and roads are classified according to their function along a continuum that indicates the greatest mobility/greatest access to property. Roads that provide the greatest mobility are classified as principal arterials. Minor arterials, major collectors, and minor collectors follow in this continuum. Roads classified as local provide the greatest access to property. (See Map 9-2 in Appendix I, the National Functional Class (NFC) Roads)

The major difference between the functional classification scheme and the one established by Act 51 is that the functional classification breaks down a county road system into more categories. All roads in the functional road classification that are arterials (principal or minor) and collectors (major and minor) are considered either state trunklines or primary roads in a county road system under Act 51. The main reason for breaking a county road system in functional classifications is to provide a more useful tool for planning purposes. (See Map 9-1 in Appendix I, the ACT 51 Roads)

Principal Arterial

The main function of a principal arterial road is to move traffic over medium distances quickly, safely, and efficiently. Often arterials are used for long uninterrupted travel between regions or major economic centers. US-2 and M-28 throughout the County would be included in this class of roadway.

Minor Arterial

Roads meeting this classification move traffic over medium distances within a community or region in a moderate to quick manner. They distribute traffic between collector roads and principal arterials. Rural minor arterial roads include portions of: FF-13, M-77, M-94, and South Maple Street.

Collector Road

A collector road provides access between residential neighborhoods and commercial/industrial areas. Its function is to provide a more general service, i.e., area-to-area rather than point-to-point. A collector usually serves medium trip lengths between neighborhoods on moderate to low traffic routes at moderate speeds and distributes traffic between local and arterial roads. Usually, this involves from home to places of work, worship, education and where business and commerce are conducted. Major rural collectors include portions of: County Road 440, County Road 454, Fox River Road, M-149 and County Road 433. Minor rural collectors include portions of: County Road 445, County Road 431, and County Road 434.

Rural Local Road

The predominant function of this classification of a road is to provide direct access to adjacent land uses. A local road serves as the end for most trips within a community. All streets that are not classified as arterials or collectors are classified as local roads. Examples of rural local roads in the County include Davidson Road, Fragale Road, Rivers Bend Road, Krummich Road and East Edge Road.

9.5 Condition of Roads

Roads under the jurisdiction of the Michigan Department of Transportation are evaluated using standard criteria such as pavement condition, ride quality, friction, and rutting. Surface conditions are determined by the amount of deterioration such as cracking, faulting, wheel tracking, patching, etc. Determining ride quality is subjective but is based on the degree of comfort experienced by drivers and passengers.

Road condition evaluations are completed using Pavement Management System (PASER) ratings. PASER uses visual inspection to evaluate pavement surface conditions. Deterioration of road surfaces has two general causes: environmental, due to weathering and aging and structural, caused by repeated traffic loadings. Roads are rated on a scale of 1-10; 1-4 (Poor), 5-7 (Fair), 8-10 (Good). Current road ratings can be obtained by visiting the TAMC dashboards at <https://www.mcgi.state.mi.us/mitrp/tamcDashboards/reports/pavement>.

9.6 Financing

Public Act 51 of 1951 governs state appropriations for most Michigan transportation programs, including state and local highway programs and state and local public transportation programs. There are primarily two sources of state-generated transportation revenue: motor fuel taxes and vehicle registration taxes. These two revenue sources generated approximately \$3.2 billion dollars in FY 2021. Act 51 creates the Michigan Transportation Fund (MTF) as the primary collection and distribution fund for this revenue.

Act 51 directs MTF revenue to other transportation funds, to special program accounts, and to local units of government.

Michigan Transportation Fund (MTF)

Michigan Transportation Fund revenues distributed to the City of Manistique for the year 2021, totaled \$464,595.62. Townships do not directly receive Michigan Transportation Fund revenues. The Schoolcraft County Road Commission received \$3,394,525.51 in 2021. The funds are then

divided amongst two primary road funds and two local road funds and used when needed (www.house.mi.gov Fiscal Brief).

Michigan Transportation Economic Development Fund

Enacted in 1987, the Michigan Transportation Economic Development Fund (TEDF) was created to assist in the funding of highway, road, and street projects necessary to support economic growth. The TEDF is governed by the mission “to enhance the ability of the state to compete in an international economy, to serve as a catalyst for economic growth of the state, and to improve the quality of life in the state.” MDOT, county road commissions and all city and villages are eligible to apply for funds. Several types of projects appropriate for funding, include:

- Category A: target industry development and redevelopment
- Category C: reduction of traffic congestion in urban counties road
- Category D: improvement in rural counties to create an all-season road network
- Category E: construction or reconstruction of roads essential to the development of commercial forests
- Category F: road and street improvements in cities in rural counties

Other

Federal funding for state highways is supported mainly through motor fuel taxes. Construction and repair costs associated with state trunkline systems are generated from these taxes. The authorization of the SAFETEA Act of 2005 provided Michigan with increased funding than received previously under TEA-21.

Ten percent of each state’s Surface Transportation Program (STP) funding is set aside for transportation enhancement activities. Enhancement activities are meant to be such things as landscaping bicycle paths, historic preservation, stormwater runoff mitigation and other quality-of-life type projects. A formal process of application has been established by the Michigan Department of Transportation to afford local and state jurisdictions an opportunity to obtain this funding.

9.7 Traffic Volume

Nationwide, the rate of growth in travel remains well above the rate of growth in roadway capacity. Two car households have been increasing dramatically, from 10 million in 1960 to 40.5 million in 2000, to 46.9 million in 2020. 27.9 million households in 2020 had three or more vehicles. This trend leads to increased congestion and travel times, according to the Federal Highway Administration.

Traffic counting devices are used by the Traffic Monitor Data Systems (TMDS) to track volumes at set points along state trunklines, and the Non-Trunkline Federal and Road Program (NTFA) to track volumes for non-trunkline roads for federal aid programs.

9.8 Access Management

Location is a critical factor when it comes to the success of a commercial venture. If development is not sufficiently monitored, it may disrupt the movement of traffic and heighten congestion and safety issues. Significant commercial development has occurred along the US-2

corridor to take advantage of high traffic volumes. Continued development along US-2 will further increase traffic volumes and introduce additional conflict points which could erode traffic operations and increase potential for traffic crashes.

Communities along the US-2 corridor could incorporate an Access Management Plan into the County Zoning Ordinance. Among those recommendations were the creation of an overlay zone along these highways within Schoolcraft County and the adoption of uniform access management standards by all the jurisdictions along the US-2 corridor which are based on the Michigan Department of Transportation access management standards and the Michigan Access Management Guidebook.

The Access Management Plan would be intended to promote safe and efficient travel on state highways within Schoolcraft County; improve safety and reduce the potential for crashes; minimize disruptive and potentially hazardous traffic conflicts; ensure safe access by emergency vehicles; protect the substantial public investment in the highway and street system by preserving capacity and avoiding the need for unnecessary and costly reconstruction which disrupts business and traffic flow; separate traffic conflict areas by reducing the number of driveways; provide safe spacing standards between driveways and between driveways and intersections; provide for shared access between abutting properties; ensure reasonable access to properties although not always by the most direct access; and to coordinate access decisions with the Michigan Department of Transportation, the Schoolcraft County Road Commission, and adjoining jurisdictions as applicable.

9.9 Public Transportation

Public transportation in Schoolcraft County is provided by Schoolcraft County Transit Authority (SCTA). Countywide public transit services were initiated on September 15, 1980. According to the Transit Manager, senior citizens and persons with disabilities comprise 52% of the annual ridership. SCTA is available Monday through Thursday 7:30 a.m.-6:00 p.m. Friday 7:30 a.m. to 2:00 a.m. and Saturday 10 a.m. to 2:00 a.m. and closed Sunday. SCTA has a total of ten vehicles, four of which are lift equipped. SCTA currently employs 17 people. In the 2022 F/Y, SCTA logged 242,240 miles and carried 36,191 passengers. SCTA also provides non-emergency medical transportation out of the area to individuals or agencies.

Specialized medical transport services are also available in Schoolcraft County.

9.10 Private Transportation

Intercity bus service is provided in Schoolcraft County by Greyhound Lines. The BP Gas Station located at 1038W US-2, in Manistique is the on/off site. The casino shuttle also provides transportation from the casino to hotels.

9.11 Rail Service

Schoolcraft County currently does not have a passenger rail service. Canadian National Line and Grand Elk Railroad own the rail system used for freight rail service (www.michigan.gov/-/media/Project/Website/MDOT).

9.12 Air Transportation

The Schoolcraft County Airport is located at 5910W US-2, just outside of Manistique. According to the Manager, 55 flights on average take off per week from the airport May-October and 35 on average take off per week November-April. About 50% being transient general aviation and 50% local general aviation. The airport currently maintains four paved asphalt runways.

The Delta County Airport is located at 300 Airport Road in Escanaba. It is a class “E,” category-4 airport that offers commercial and general aviation services, two year-round all-weather runways with full ILS, and convenient access to truck, rail, and port connections. The airport also hosts several charter airlines that serve various companies based in the area.

9.13 Non-motorized Transportation

Non-motorized transportation facilities have become a priority for Schoolcraft County. Alternate modes of transportation are encouraged and made safer by constructing bike lanes, paths, and trails. As discussed in detail in Chapter 8, various communities throughout the County have plans to expand and enhance non-motorized transportation options. Grant opportunities are being pursued to fund trail enhancement.

9.14 Safe Routes to School

Michigan’s Safe Routes to School program is managed by the Michigan Department of Transportation (MDOT), with training, logistical, administrative, and technical support from the Governor’s Council on Physical Fitness, Health, and Sports/Michigan Fitness Foundation. The purpose of a Safe Route to School is:

- To make bicycling and walking to school a safer and more appealing transportation alternative, for all students, including those with disabilities, therefore encouraging a healthy and active lifestyle from an early age.
- To facilitate the planning, development, and implementation of projects and activities that will improve safety and reduce traffic, fuel consumption and air pollution in the vicinity of elementary schools.

A Federal Safe Routes to School program was authorized as part of the surface transportation bill signed into law in August 2005. As a result, every state now has dedicated dollars to help with infrastructure improvements (e.g., new sidewalks and traffic calming projects) and non-infrastructure activities to encourage and enable students to walk and bicycle to school.

9.15 Issue and Opportunities

While a few specific roads in the County are in good condition, a significant proportion of the roads need repair. Funding through the state for road improvements has been becoming increasingly limited due to the state’s budget shortfalls.

Schoolcraft County currently has a limited county-wide transit system. Michigan’s population is aging; older residents and residents with disabilities will increasingly depend on transit services.

There may be a need to expand or enhance transit services available to seniors and residents with disabilities.

The natural setting of Schoolcraft County provides an opportunity to expand non-motorized transportation facilities. Grant opportunities could be pursued to fund trail enhancement.

The City of Manistique, in partnership with the school system, local law enforcement and the local road authority, can continue to increase the number of children able to safely walk and bike to school by pursuing the Safe Routes to School program.

Chapter 10 Coastal Zone Management Strategies

10.1 Introduction

In 2006, Michigan Natural Features Inventory (MNFI) conducted an analysis to identify and prioritize sites along the Great Lakes shoreline, which support concentrations of threatened and endangered species as well as high quality natural species. As a result of this analysis, the Schoolcraft County shoreline was ranked second in the State of Michigan as an area of high biodiversity.

The Schoolcraft County shoreline is rich in natural features and stands out as one of the most significant areas in the state that is still intact and functioning, much in the same way it did historically. Balancing the needs of residential and economic growth with the protection of these unique natural treasures presents many challenges as well as opportunities. Much of the land in question is privately held and in fact was subdivided years ago. This chapter will focus on this need for balance.

The intent of these strategies is in large part, to create owner awareness of unique natural features located within their boundaries and to provide site development strategies which minimize impact on coastal ecosystems. These strategies are derived primarily from the need of the community, suggestions from the Coastal Management Program and based on data compiled by the MNFI.

10.2 Coastal Zone Management Strategies

As required by the Michigan Zoning Enabling Act, PA 110 of 2006, Sec. 203 (1), zoning must be based on a plan. The Zoning Ordinance prepared by the Planning Commission is a reflection of the Master Plan.

The zoning ordinance should supplement but not take the place of existing state and federal laws. The zoning ordinance may identify elements that are unique to Schoolcraft County and may consider certain measures of protection. Examples of ecologically significant elements may include:

- Lake Michigan shoreline
- Open dunes
- Wetlands (particularly those near the Lake Michigan shoreline)
- Rivers/streams
- Lakes
- Floodplains
- Federal or state listed species (i.e. an animal or plant that is endangered or threatened)
- High quality and/or rare natural communities
- Large intact forests

It is important to conserve natural features and assets in a manner that does not place undue restrictions on property owners or create unnecessary delay or prohibition on developments which are key components in our economic future. This may be accomplished through a variety of channels including:

- 1) Identification of existing development regulations
- 2) Preparation of a comprehensive site plan by the developer.
- 3) Site plans sign off subsequent to zoning approval by regulatory agencies such as: Schoolcraft County Building Department, Road Commission (driveways), Luce-Mackinac-Alger-Schoolcraft (LMAS) District Health Department (sewage and water supply), Michigan Department of Environment, Great Lakes and Energy (EGLE) (wetlands and sand dunes), Schoolcraft County Soil Conservation District (Soil and Sedimentation Act).

10.3 Key Zoning Ordinance Elements

To meet the two main conservation goals established in the MNFI report of enhancing and maintaining shoreline natural communities and to maintain and enhance the integrity of adjacent forested areas, the current Schoolcraft County Zoning Ordinance may be enhanced through revisions and amendments.

MNFI assembled a list of key elements of effective ordinances, which will be discussed below.

- 1) One technique used to maintain valuable shoreline communities is through the regulation of density and the patterns of development. It is important to note here that much of the shoreline density has already been established by previous property development and division. The normal sized lot in these areas is 100 feet or more and current minimum zoning requirements also calls for lots with 100 feet of width or larger.
- 2) The maintenance and restoration of shoreline buffers is a practice that may be employed to protect shoreline communities:
 - a) Setbacks from the high-water mark currently at 585 (+/-) feet above mean sea level by EGLE, can be reviewed with changes to historic water levels.
 - b) Natural vegetation buffers can be considered and encourage. This is a useful tool when used for soil erosion and sedimentation control. Best practices for soil and sedimentation control should be encouraged in environmentally sensitive areas. An example of this would be the use of a boardwalk over sensitive areas between a residence and a lake or stream.
 - c) Incentive programs could be used to encourage buffer maintenance/restoration.
 - d) Cluster developments are a required allowance by State statute in all districts where residential development is permitted and as such, is already a part of the County Zoning Ordinance. Their use on certain larger parcels can allow effective development to take place on property which might otherwise be marginalized due to extensive wetland or other environmental issues.

The County also allows Planned Unit Developments (PUDs) with conditions, in districts within the Zoning Ordinance. PUDs permit great flexibility in the use and design of structures and land in situations where modifications of specific provisions in the Zoning Ordinance will not be contrary to the intent and purpose of the Ordinance or significantly inconsistent with the planning on which it is based. PUDs focus on infrastructure reduction and often allow compatible commercial development (e.g., convenience stores, offices, etc.) to be included in the overall development. A Planning Commission working with a developer on a PUD may seek to limit development on environmentally sensitive areas while steering development to more appropriate sites.

10.4 Conclusion

The Schoolcraft County shoreline is rich in natural features and stands out as one of the most significant areas in the state. Balancing the needs of residential and economic growth with the wish to maintain some of these unique natural treasures presents many challenges as well as opportunities.

While regulations may be an effective tool in protecting the sensitive natural features of Schoolcraft County, public involvement and education may be more effective in the long run.

Chapter 11.0 Goals, Strategies and Implementation

11.1 Introduction

Current and historical information is detailed in the ten previous chapters. This information is helpful in gaining an understanding of the forces that have shaped county growth and development over time.

Prior to the modern regulatory environment, there was no defined pattern to community growth and development. Random development without a plan can result in inefficiencies that inhibit community growth. For example, the costs of providing and maintaining critical infrastructure may prevent initial installation or maintenance of existing facilities. Either situation is not attractive to potential entrepreneurs looking to settle in the area.

Planning to encourage desirable development can be accomplished by establishing goals that reflect desired future conditions. Goals are stated in broad terms and consider the circumstances and conditions that are discussed in earlier chapters. The actions and means by which goal attainment is possible are detailed as strategies.

Following a period of review and comment by neighboring governmental units and private entities and a public hearing to formally adopt the plan, implementation can get underway. It is vitally important that the plan be flexible enough to respond to changing needs and conditions, while it retains the authority to guide future development.

To assist in understanding the nature of goals and strategies, the following definitions are presented:

Goal: Broad statements of desired future conditions, the generalized end toward which all efforts are directed. Goals are often stated in terms of fulfilling broad public needs or alleviating major problems. They are often difficult to measure and tend to be idealistic.

Strategies: Statements that set forth specific means or functions related to goal attainment. A strategy can be a task, step or action that supports achieving the stated goal.

Implementation: See implementation schedule in Appendix H.

11.2 Population

Schoolcraft County's population has fluctuated from 1970-2022 experiencing a slight decrease of 179 residents over the 52-year period. The County has a significantly higher median age (51.8 years) than the State (40.3), as well as a lower percentage of school age persons and a higher percentage of senior citizens, indicating an aging population. (Table 2-3, Appendix B). Racial composition in Schoolcraft County traditionally has been and continues to be largely white. Schoolcraft County and its local units of government maintain a very low population density when compared to the State and surrounding municipalities. The Department of Management

and Budget predicts a very slight population decrease for Schoolcraft County from 2025 to 2045 (Table 2-2, Appendix B). (See Chapter 2.0 Population).

Goal:

Achieve a population growth rate that is manageable, demographically balanced and optimally utilizes the private and public facilities and services available in the County.

Strategies:

- Encourage communities, neighborhoods, businesses, and public entities to maintain or improve structures and grounds and offer services sufficient to meet existing and future residential and commercial growth requirements.
- Market advantages of small community living, such as housing and living costs, lower crime rates, smaller schools, proximity to large tracts of public land and strength of communities.

11.3 Economic Base

The US-2 corridor from Thompson through the City of Manistique into Manistique Township is a commercial center in Schoolcraft County. The leading employment sectors in Schoolcraft County are educational, health and social services (22.1%), retail trade (13.2%), and arts, entertainment, recreation, accommodation, and food services (11.5%). About 83% of Schoolcraft County residents worked in the County; 38.1% of workers had a commute time of less than 10 minutes to work. Schoolcraft County traditionally has higher unemployment rates than the Upper Peninsula. The abundance of natural features in Schoolcraft County presents an opportunity for the marketing of ecotourism. (See Chapter 3.0 Economic Base).

Goal:

Strengthen, expand, and diversify employment and business opportunities throughout the County that are compatible with its character and natural environment.

Strategies:

- Continue to promote positive, proactive relations with the business community through economic development efforts. Fully coordinate economic development activities with local government units.
- Encourage the use of local, state and federal programs that provide grants, loans, tax relief or business counseling services for existing, expanding or new businesses.
- Seek to build, expand, improve and maintain all infrastructure including communications systems to support economic activity at all levels and in all sectors.
- Seek to improve the optical lines that carry phone, cell phone and internet to increase redundancy and geographic area expansion. With increasing energy costs, more and more business will need to be done as e-business; therefore, the County needs sufficient bandwidth to enable working with the outside world.

- Encourage development of the industrial park and find ways to provide water, sewer, roads, power, and internet to attract businesses.
- Encourage reuse of industrial and commercial sites whenever practical.
- Encourage existing businesses to remain, improve and grow.
- Encourage additional forest products processing capacities within the County.
- Continue to promote natural and scenic resources that can support increased tourism, recreation, agricultural production, and cottage industries.
- Continue to promote a lifestyle that allows residents to work at home and encourage home occupations and telecommuting with sensible standards that prevent neighborhood disruption.
- Focus on diversifying the County's business and industry base to provide jobs for County residents.
- Direct new commercial uses to reuse vacant buildings in Manistique's downtown.

11.4 Natural Features

Schoolcraft County boasts over 540,000 acres of forest. The forest land provides a source of income through timber harvest and presents many recreational opportunities, such as hiking and hunting. Wetland areas, which cover about 22% of the County, present natural development limitations. Mineral resources throughout the County include deposits of sand and gravel and limestone. The Seney Wildlife Refuge, Kitch-iti-Kipi, Manistique East Breakwater, Rainey Wildlife Area and Seul Choix Lighthouse provide educational and recreational opportunities for residents and visitors. The major water features, Lake Michigan and the Manistique River, serve important commercial, residential and recreational purposes. (See Chapter 4.0 Natural Features).

Goal:

Conserve and enhance the natural environment of Schoolcraft County through land use practices that are environmentally appropriate and compatible.

Strategies:

- Review, evaluate and comment on the impact of proposed revision or formulation of regulations that impact the environment and/or land use whenever possible.
- Encourage watershed management and protection activities.

- Encourage protection of ground and surface water.
- Encourage development in areas where environmental degradation can be avoided.
- Encourage expanded wastewater collection systems and improved treatment capabilities.
- Review the current Schoolcraft County Zoning Ordinance to ensure that sensitive land areas are protected.
- Encourage forest management practices that will produce a sustainable yield and provide environmental, wildlife and recreational benefits.
- Encourage and promote responsible eco-tourism throughout the County.

11.5 Land Use

About 75% of Schoolcraft County is designated as public land. The abundance of public land in the County presents an issue when considering the limit it places on available tax base. The public land offers an opportunity for residents and visitors to enjoy the land for recreation. Zoning and supplementary ordinances can assist local units of government in guiding current and future development. The availability of public and private services, accessibility, existing conditions of the area, and price are other important considerations for residential development. There are many areas available for residential development in the County. Commercial land use is concentrated along the US-2 corridor and in the City of Manistique's downtown area. Sites are available in Schoolcraft County for industrial use. (See Chapter 5.0 Land Use).

Goal:

Foster land uses that minimize conflict, while allowing commercial, industrial and residential growth where adequate facilities exist or can be reasonably provided.

Strategies:

- Review, evaluate and comment on the impact of proposed revision or formulation of regulations that impact land use whenever possible.
- Encourage safe, well-designed access to trunklines and other roadways embodied in established access management guidelines.
- Promote a compatibility of land uses that will conserve prime agricultural land and open space.
- Encourage development that is consistent with site characteristics and infrastructure availability.

- Encourage development in the outlying areas of the County to occur in such a way as to conserve open space and the rural character of the County, and to provide adequate space for private wells and septic systems.
- Encourage enforcement of blight removal by the City and by the Townships. Encourage the enforcement of building codes to remove and prevent deteriorated buildings, accumulations of junk, etc.
- Keep abreast of changing technologies which may provide for development of areas currently not suited for certain types or densities of development.
- Separate incompatible waterfront uses whenever possible, while recognizing that as concentrated waterfront residential use develops, some commercial uses may be appropriate under conditions.
- Cooperate with the City and Townships to promote industrial sites.
- Encourage development of commercial and residential clusters, particularly along the waterfronts.
- Encourage cleanup of existing contaminated sites throughout the County.

11.6 Community Facilities and Services

Schoolcraft County provides services and facilities to meet County-wide needs. Examples include law enforcement, courts, building and zoning inspections, Schoolcraft County Airport and community centers. Other levels of government, such as townships, cities and the state also provide public and community facilities and services. Schoolcraft County's influence over services not directly provided by the County is limited, but those facilities and services are often vital to establishing and maintaining development. (See Chapter 6.0 Community Facilities and Services).

Goal:

Provide, maintain and continuously improve the efficiency and quality of necessary County services and facilities to advance the best interests of residents.

Strategies:

- Maintain a multi-year capital improvement plan to address facility and equipment maintenance, repair and replacement in accordance with priorities identified through public discussion.
- Make certain that existing County structures, infrastructure and equipment are kept in good repair and provide for the greatest measure of public safety.

- Coordinate County services and procedures to achieve the greatest level of service at the lowest possible cost to taxpayers.
- Seek reuse of valuable public facilities, such as schools, when vacated.
- Promote public participation in community events and facility care.
- Support facility and service improvements and expansion in all jurisdictions.
- Whenever practical, augment local resources with federal and state grant and loan programs to achieve facility and service improvements.

11.7 Housing

About 93% of residential housing units in the County were classified as single-family dwellings or mobile homes. Only 63% of the housing units in the County are occupied. A significant percentage of the vacant units are designated as seasonal, recreational, or occasional use. Most of the occupied units in the Townships were occupied by their owners. 34% of the homes in Schoolcraft County were built before 1970. (See Chapter 7.0 Housing).

Goal:

Develop, maintain, and improve housing stock that meets the needs, preferences and financial capabilities of County residents.

Strategies:

- Maintain building permit and inspection programs that ensure compliance with all building codes.
- Ensure cooperation and support of county zoning requirements as applicable.
- Encourage residential development on existing vacant lots.
- Promote awareness of rehabilitation programs designed to upgrade existing housing units.
- Promote citizen interaction that fosters good neighborhoods and community pride.
- Encourage community and neighborhood beautification efforts.

- Encourage owners and/or occupants to maintain dwelling and yards appropriately to avoid blighted or unsafe conditions.
- Encourage the development of additional residential housing that is appropriate for the elderly and persons with special needs.

11.8 Recreation

Schoolcraft County owns and maintains two recreational facilities. The County does not currently provide active recreational programming. Outdoor recreation is one of the strengths in Schoolcraft County. Many more facilities, owned and managed by the City and the Townships, and those owned by private entities are open to public use. Many recreational choices are available in the County, many free of charge. The availability of quality recreational facilities is important to residents as well as visitors. (See Chapter 8.0 Recreation).

Goal:

Conserve outdoor resources and provide for the responsible use by the citizens of Schoolcraft County and visitors.

Strategies:

- Create and continue to maintain a current recreation plan that is prepared in conformance with standards set forth by the Michigan Department of Natural Resources.
- Develop a Recreation Plan to maximize available public resources while simultaneously protecting neighborhood environment.
- To the maximum extent possible, recreation facilities should be accessible to users of all ages and maintained for safety and cleanliness.
- Promote public participation in the provision of recreational activities and facility upkeep.
- Encourage public participation in recreation planning.
- Coordinate with other providers of recreational facilities to avoid costly duplication of services whenever feasible.

11.9 Transportation

The people and businesses of Schoolcraft County rely on an extensive network of roads to move about. Traffic volumes have been steadily increasing across the state, a trend that will likely intensify. At the same time, funding is limited to repair existing roads and to build new roads in the County. The County has a deep-water port in Manistique that is in need of continual maintenance to remain useful to the Community. Residents have indicated an interest in the development of non-motorized trails. (See Chapter 9.0 Transportation).

Goal:

Provide a safe, well-maintained, and efficient multi-modal transportation network.

Strategies:

- Review road construction, repair and maintenance projects for relevance with anticipated future land uses.
- Support road construction, repair and maintenance projects that optimize safe and efficient traffic movement within and through the County.
- Cooperate with road officials at all levels to eliminate or mitigate known traffic hazards.
- Support continuation and expansion of service at the Schoolcraft County airport as appropriate.
- Continue to pursue opportunities for dredging of the Manistique River where it discharges into Lake Michigan in Manistique.

Chapter 12.0 Future Use

12.1 Introduction

The previous chapters of the Master Plan provide an overview of the existing conditions in Schoolcraft County. A future land use plan is representative of the “preferred future” of how the community would like to grow and includes recommendations of how development may be carried out. It is based on analyses of environmental opportunities and constraints, existing trends and conditions and projected future land use needs. Future land use planning establishes the desired amounts and locations of residential, commercial, and industrial development; public facilities; open space; environmental conservation and recreation areas; and changes or improvements to the local traffic circulation systems. While this chapter also presents the Zoning Plan, which along with the rest of the relevant parts of this Future Land Use Plan, is intended to guide the implementation of and future changes to the County’s Zoning Ordinance, it does not control the future use of land and should not be confused with the zoning ordinance.

The Michigan Zoning Enabling Act (MZEA) requires in Sec. 203 (1) that zoning be based on a plan. Similarly, Sec. 7 (2) of the Michigan Planning Enabling Act (MPEA) sets forth the purposes for which a master plan must be created. For a master plan to serve as the basis for zoning, it should promote the purposes in the MZEA and MPEA. The zoning plan identifies the zoning districts and their purposes, as well as the basic standards proposed for each district. Current zoning districts utilized in the County’s Zoning Ordinance and any potential modifications to the districts will also be discussed in this chapter.

Appendix J-Schoolcraft County Future Land Use Map 12-1 reflects the assumption that land use patterns in Schoolcraft County will continue to be heavily influenced by transportation corridors, particularly along US-2. Other major considerations which helped shape the future land use map are a desire to establish appropriate uses along the shoreline and to develop a more consistent land use pattern throughout the County.

Based upon the public input sessions held in the County in Fall 2019-2020 regarding the Master Plan update and through stakeholder interviews conducted during the process it has become apparent that Schoolcraft County residents are seeking a sustainable land use plan that will provide the guiding vision and policy basis for determining the appropriateness of development and redevelopment over the next 20 years.

12.2 Zoning Districts and Zoning Plan

Currently Schoolcraft County is divided into fourteen distinct zoning districts. The intent and general purpose will be depicted for each district. A schedule of regulations will also be included. The City of Manistique administers its own zoning regulations and the City’s zoning districts will not be included in this discussion. At this time, Schoolcraft County is not planning on amending the number or type of zoning districts listed in the Zoning Ordinance. The current zoning districts uses and regulations will be reviewed.

- ***R-1 Residential 1 District***

The intent of the R-1 District is to establish and maintain quiet, single and two-family home neighborhoods in which each structure is located on an individual lot or premises adequate in

size and shape to provide for safe water supply and disposal facilities, to minimize hazards of spreading fires, and to require setback from the public thoroughfare to facilitate safe exit from an entrance to the premises. The district shall be free from other uses except those which are both compatible with and convenient to the residents of such a district. Because of the nature of existing residential uses in this district, special dwelling standards will be enforced. These standards are designed to assure the dwellings in the district are comparable in size, appearance, and quality.

- ***R-2 Residential 2 District***

The intent of the R-2 district is to establish and maintain neighborhoods for single-family dwellings and two-family dwellings; and to make provision for mobile homes in mobile home parks not subdivided into individual lots, in an appropriate, safe, sanitary, and attractive environment.

- ***Rural Residential District***

The intent of the Rural Residential district is to establish and maintain an alternative residential environment in accessible rural areas at low densities, free from other uses except those which are both compatible with and convenient to the residents of such a district.

- ***Lakeshore and River 1 District***

The intent of the Lakeshore and River 1 district is to establish and maintain for residential and recreational use, those areas with frontage on inland lakes and rivers and the Lake Michigan shoreline which because of their natural characteristics and accessibility, are suitable for development and to maintain the visual appearance and accessibility of the water area but still permit development along the shoreline. The lot requirements are intended, among other things, to provide adequate conditions for safety in water supplies and in sewage disposal, and to reduce the spread of fire in the event of conflagration. Because of the nature of existing residential uses in this district, special dwelling standards will be enforced. These standards are designed to assure that dwellings in this district are comparable in size, appearance, and quality.

- ***Lakeshore and River 2 District***

The intent of the Lakeshore and River 2 district is to establish and maintain for residential and recreational use, those areas with frontage on inland lakes and rivers and the Lake Michigan shoreline which because of their natural characteristics and accessibility, are suitable for development. The lot requirements are intended, among other things, to provide adequate conditions for safety in water supplies and in sewage disposal, and to reduce the spread of fire in the event of conflagrations. Because of the nature of existing residential uses in this district, special dwelling standards will be enforced. These standards are designed to assure that dwellings in this district are comparable in size, appearance, and quality.

- ***Lakeshore and River 3 District***

The intent of the Lakeshore and River 3 district is to establish and maintain for residential and recreational use, those areas with frontage on inland lakes and rivers and the Lake Michigan shoreline which because of their natural characteristics and accessibility, are suitable for development. The lot requirements are intended, among other things, to provide adequate conditions for safety in water supplies and in sewage disposal, and to reduce the spread of fire in

the event of conflagrations. Because of the nature of existing residential uses in this district, special dwelling standards will be enforced. These standards are designed to assure that dwellings in this district are comparable in size, appearance, and quality.

- ***Resource Production District***

The intent of the Resource Production district is to establish and maintain for low intensity use those areas which because of their location, accessibility, and natural characteristics are suitable for a wide range of recreation, forestry, and agricultural uses.

- ***Agricultural District***

The intent of the Agricultural District is to ensure that land areas which are uniquely suited for agricultural production are retained for that use, unimpeded by the establishment of incompatible uses of land which would hinder agricultural practices and irretrievably deplete essential agricultural lands and productivity.

- ***Timber Production District***

The intent of the Timber Production District is to maintain for timber production purposes those lands which because of their soil, drainage, and other characteristics, are especially productive timber lands.

- ***Public Land District***

The intent of the Public Land District is to establish and maintain areas for certain public purposes.

- ***Commercial District***

The intent of the Commercial District is to establish and maintain general commercial areas.

- ***Industrial District***

The intent of the Industrial District is to establish and maintain areas for industrial and related uses of such a nature that they do not create serious problems of compatibility with other kinds of uses, and to make provision for certain kinds of commercial use which are most appropriately located as neighbors of industrial uses.

- ***Town District***

The intent of the Town District is to establish and maintain a town district for single-family homes and for retail and commercial uses that are compatible with a small-town setting and serve the residents and tourists. The district is designed for small unincorporated town areas where a mix of residential and retail commercial is in accord with established patterns of use and needs of nearby residents.

- ***(Fox River) Natural River Plan District***

The purpose of the (Fox River) Natural River Plan district is to maintain, protect and enhance the Fox River environment and to keep it a natural state for the use and enjoyment of the populace. The "Fox River Natural River Plan" was incorporated into the Schoolcraft Zoning Ordinance in 1988.

Schedule of Regulations

Source: Section 6.05 Placement Regulations, Schoolcraft County Zoning Ordinance

Updated: October 18, 2024

Section 6.05 Placement Regulations

Except as otherwise specifically provided in this Ordinance, no structure shall be erected or maintained between any lot line and the pertinent setback distance listed below. Where there is no rear lot line as otherwise defined herein, the required rear setback distance shall be measured from a line through the point on the lot most distant from any front lot line of the same lot, through the point to the closest point on any front lot line. If there is more than one such line, the rear setback shall be maintained from any one of them at the option of the owner. Where a lot fronts on two streets within 30 degrees of being parallel but not of their intersection, no rear setback is required. The side setback requirement applies to a side lot line and also to any lot line which is neither a front, rear, or side lot line. All distances are measured in feet.

District	Minimum Setbacks			Minimum Lot Size	Minimum Lot Width	Maximum Lot Depth
	Front	Side	Rear			
Residential 1	25G	7	15	20,000 sq. ft. A	100 ft.	B
Residential 2	25G	7	15	30,000 sq. ft. A	150 ft.	B
Rural Residential	25G	7	15	60,000 sq. ft. B	200 ft.	B
Resource Production	25G	7	15	10 acres I	300 ft.	
Timber Production	25G	7	15	40 acres	300 ft.	
Public Land	25G	7	15	None		
Lakeshore and River 1	25G	7	15	30,000 sq. ft.	100 ft.	EF
Lakeshore and River 2	25G	7	15	45,000 sq. ft.	150 ft.	EF
Lakeshore and River 3	25G	7	15	60,000 sq. ft.	200 ft.	EF
Agricultural	25G	7	15	20 acres I	300 ft.	
Commercial	25G	5	15	40,000 sq. ft.	150 ft.	
Industrial	25G	5	15	40,000 sq. ft.	150 ft.	
Town District	25G	7	15	20,000 sq. ft. A	100 ft.	
Natural River Plan	100DG	30	5	5 acres	300 ft.	

- A. 5,000 square feet where lot is served by public water and sewer.
- B. Lot width shall be measured along roadway. Lot widths shall be measured along a designated federal, state, county, or township road or along a private road which is 22 feet wide, has a 66-foot-wide easement, and a minimum six inch gravel base.
- C. For waterfront lots, see subsection (4), below.
- D. The front setback is measured from the ordinary High-Water Mark.
- E. The closest lot line opposite subject body of water.

- F. Minimum lot width measured along high water mark. A parcel located entirely within a Lakeshore and River 1, 2, and 3 zoning districts cannot be divided without the water frontage required in this section (see above) in each of these districts unless said parcel has no water frontage. In that event, the water frontage requirement is waived in favor of an equivalent amount of both acreage and road frontage.
 - G. For building purposes, front setbacks shall be a distance of 25' from the right of way line of all public roads, private roads, and road easements, but shall not exceed 60' from the centerline of an existing road or easement. No right of way shall be built upon.
 - H. Property lines adjoining designated alleys and walkways, shall be deemed to be "rear lot lines" and not as front lot lines such as those adjoining a road.
 - I. Single-family dwellings and mobile homes may be located in the Resource Production and Agricultural Districts on minimum lots sizes of 2-5 acres providing they meet all of the requirements (See Section 4.06 G. & H.)
2. In all districts, the minimum lot size and lot width regulations do not apply to any nonconforming parcel of land shown as a lot in a recorded plat or described in a deed or land contract executed and delivered prior to the effective date of this Ordinance.
3. Any portion of a lot or portion of a parcel, which, through a lease agreement exceeding 90 days in length, is separated from a larger parcel of land, will for zoning purposes, be considered a land division. As such, all lot line setbacks must be met, all lot line depth requirements must be met, and all square foot requirements set forth in this section.
4. **Waterfront lots** are subject to the following requirements (also see Section 12.05):
- (a) Any building or structures within Districts Residential 1, Residential 2, Rural Residential, Resource Production, Timber Production, Public Land, Agricultural, Commercial, Industrial, and Town abutting any body of water, including, but not limited to, inland lakes, rivers, streams, creeks, impoundments, and Lake Michigan, shall maintain a minimum setback of 50 feet from ordinary high-water mark. All uses shall be subject to this setback except marinas, boat liveries, bathing facilities, fishing piers, commercial fishing docks, recreational docks, and associated facilities when located and designed so as not to unreasonably interfere with, degrade or decrease the enjoyment of existing uses and water resources.
 - (b) Any building or structure within Districts Lakeshore and River 1, Lakeshore and River 2, or Lakeshore and River 3 abutting any body of water, including, but not limited to, inland lakes, rivers, streams, creeks, impoundments, and Lake Michigan, shall maintain a minimum setback from the ordinary high-water mark as follows:
 - Lakeshore and River 1 50 feet
 - Lakeshore and River 2 50 feet
 - Lakeshore and River 3 50 feet for parcel in a recorded subdivision
 - Lakeshore and River 3 75 feet for parcel not in a recorded subdivision

Property in the Lakeshore and River 1, 2, & 3 Zoning Districts and the Residential 1 & 2 Zoning Districts are not subject to these setback requirements along non-navigable creeks and streams unless said creek or stream is a “designated trout stream.”

All uses shall be subject to this setback except marinas, boat liveries, fishing piers, commercial fishing docks, recreational docks, when located and designed so as not to unreasonably interfere with, degrade or decrease the enjoyment of existing uses and water resources.

(c) In the Natural River Plan District only, any building must be located at least 100 feet from the Ordinary High-Water mark, and all structures must be set back at least 50 feet from the top of the bluff. A 100-foot vegetation strip must be maintained on both sides of the river, pursuant to the Fox River Natural River Plan.

12.3 Zoning Ordinance Updates

With increasing energy costs, there has been a growing interest in utilizing alternative energy resources. Regulations regarding alternative energy sources will continue to be reviewed by the County and incorporated into the zoning ordinance as appropriate. In the Schoolcraft County Zoning Ordinance, uses are permitted by right only if specifically listed as permitted use within the various zoning districts.

Wind energy and solar are an emerging technology that required the County to update the zoning ordinance. Regulations needed to be considered for both small- and large-scale systems. Small systems generally serve private homes, farms, or small businesses. Zoning definitions were added and updated. The types of systems may differ by use, height, or capacity. The zoning districts in which systems will be hosted were determined and appropriate development standards were adopted for each type of energy facility. Site plan review requirements were created.

The rental section (6.21) was recently amended to allow short term vacation rental facilities, that were previously prohibited. The facilities are allowed with standards by conditional use in specific districts. An annual permit requirement to assist in compliance enforcement was included.

The County Zoning Department may also review standards regarding outdoor wood burners to incorporate into the zoning ordinance. Should the County begin to draft an ordinance regarding wood burners, engineering modifications, that may be made, could be addressed regarding the addition of stack height to chimneys to alleviate issues with smoke. Outdoor wood burners could be designated as conditional uses in the appropriate districts.

In 2018 the ordinance was amended to allow and regulate medical marijuana facilities in the Town District.

12.4 Future Land Use

- ***Commercial***

Currently the County has several areas with potential for commercial development. Much of the current commercial development is located within the City of Manistique and along the US-2 corridor into Manistique Township. Commercial development could be extended further west along US-2 into Thompson Township. Commercial development along US-2 can be considered auto-dependent. Many businesses that are located along the corridor will require larger lots and may include chain stores and drive-through facilities.

There is also a quantity of land along Lake Michigan shoreline near the City of Manistique that is currently public land. Large areas of undeveloped lakefront property have become somewhat scarce in the County and there is potential for some of the lakefront land near the City to be utilized for commercial properties, possibly for a hotel. Most of the lakefront property is privately held and much of it is being developed for residential uses. A lakeshore development proposal offering a mixture of land uses along the Lake Michigan shoreline is a possibility. Any commercial development along the lakeshore should be carefully engineered to protect sensitive habitats.

There is also river frontage property available along the Manistique River as well as property owned by The Paper Company with potential for commercial development. There is quite a bit of land available that could possibly be used for commercial functions, but much is in a floodplain and subject to state and federal regulations. Several contaminated sites in the city have the potential for commercial use but are in need of clean up.

The potential for commercial development in the County is dependent on the amount of lender/investor funds available. The lack of infrastructure, utilities and population in the area impedes larger scale commercial development.

In accordance with the suggestions made in Chapter 10 Coastal Zone Management Strategies, setbacks for future commercial development along lakeshores and rivers can be increased to provide an expanded buffer.

- ***Residential***

In the Townships, most of the land designated for residential use is zoned as Residential 2 or Rural Residential. The Residential 2 District provides for single and two-family dwellings as well mobile homes. The Rural Residential District provides for an alternative residential environmental in accessible areas at low densities. In many of these areas the provision of public sewer and water is highly unlikely and low-density development is preferred. In low-density areas that are served by public sewer and water, cluster development can be considered to maintain unique natural features of the land.

Much of the recent residential development has occurred in the Lakeshore/River Districts throughout the County. A great deal of waterfront property has already been utilized for residential expansion. Small parcels are still available in Mueller Township. There has not been a great deal of new residential construction in the city. There is potential in rehabilitating older homes in the city or demolishing some of the older homes on very small lots and combining two

or more lots to achieve the desired larger lot sizes. Room for residential construction exists along the Lake Michigan bluff; however, cost may be a limiting factor. As discussed in Chapter 5-Land Use, there are subdivisions with numerous lots for sale. Additional residential development is unlikely to occur until the available lots are sold.

In accordance with the suggestions made in Chapter 10-Coastal Management Strategies, setbacks for future residential development along lakeshores and rivers could be increased to provide an expanded buffer.

- ***Industrial***

Future industrial development is likely to occur in the City of Manistique, within the Industrial Park. Isolation of the outlying communities is a major reason that industrial development is not occurring outside the city. There is potential for industrial development in Seney Township, in close proximity to the rail line, or along US-2. The County does have some degree of infrastructure in place in these areas that could potentially support some industry.

12.5 Conclusion

Planning is intended to guide the forces of change in ways that ensure desirable outcomes while striking an appropriate balance with development and preservation. Priorities will likely require periodic review and further study as unforeseen circumstances bring about new challenges. The Planning Commission will be responsible for the review of this plan every five years.

Patience, resolve, and flexibility are necessary to achieve the goals set forth in this Plan. The Master Plan is one of the tools that Schoolcraft County may utilize to encourage better land use decisions. A current future land use map is located in Appendix J, Map 12.1.

Appendix B Table 2-1 Historic Population Trends

	1970	1980	1990	2010	2020	Growth 1970-2020
<i>Doyle Township</i>	615	629	616	624	563	-52
<i>Germfask Township</i>	529	607	542	486	469	-60
<i>Hiawatha Township</i>	802	1,096	1,279	1,302	1,305	503
<i>Inwood Township</i>	482	592	638	733	652	170
<i>Manistique Township</i>	716	862	916	1,095	1,045	329
<i>Mueller Township</i>	263	255	206	234	260	-3
<i>Seney Township</i>	178	174	185	119	115	-63
<i>Thompson Township</i>	317	398	464	795	808	491
<i>City of Manistique</i>	4,324	3,962	3,456	3,097	2,828	-1,496
<i>Schoolcraft County</i>	8,226	8,575	8,302	8,485	8,047	-179
<i>State of Michigan</i>	8,875,083	9,262,078	9,295,297	9,952,687	10,077,331	1,202,248

Source: <https://data.census.gov/table?q=Doyle%20Township%20Schoolcraft%20County%20MI&t=Populations%20and%20People&g=050XX00US26153&v=2022>

Appendix B Table 2-2 Projected Population, State of Michigan

Age	2025	2030	2035	2040	2045
Total	10,112,318	10,221,764	10,263,350	10,216,995	10,054,200
0-4	522,093	513,963	493,687	463,111	430,113
5-9	570,582	543,083	535,307	514,200	479,589
10-14	592,433	584,504	557,295	548,752	524,481
15-19	631,904	599,734	591,994	564,212	553,178
20-24	656,175	623,862	591,250	582,793	551,717
25-29	671,455	650,419	618,385	584,329	568,283
30-34	680,003	688,417	668,199	634,920	594,520
35-39	641,938	694,471	703,481	682,365	644,421
40-44	613,553	650,346	702,968	711,273	686,829
45-49	578,991	611,009	647,854	699,379	704,850
50-54	592,972	576,726	608,710	644,769	693,142
55-59	625,249	579,968	565,086	596,229	629,361
60-64	672,723	600,671	558,229	544,467	572,754
65-69	649,068	635,088	568,870	529,371	515,204
70-74	542,470	595,032	584,451	524,908	487,928
75-79	406,063	473,676	522,576	515,429	463,917
80-84	246,399	328,893	386,672	429,397	425,576
85+	218,248	271,902	358,336	447,092	528,336

Source: <https://milmi.org/datasearch/popproj>

Appendix B Table 2-3 Median Age Selected Areas, 2000-2022

	2000	2022
<i>Doyle Township</i>	41.7	56.9
<i>Germfask Township</i>	45.8	33.4
<i>Hiawatha Township</i>	44.3	57.8
<i>Inwood Township</i>	41.2	51.6
<i>Manistique Township</i>	39.9	54.4
<i>Mueller Township</i>	55.0	57.1
<i>Seney Township</i>	38.0	61.6
<i>Thompson Township</i>	48.4	61.0
<i>City of Manistique</i>	37.4	50.6
<i>Schoolcraft County</i>	41.1	51.8
<i>State of Michigan</i>	35.5	40.3

Source: <https://data.census.gov/table?q=Doyle%20Township%20Schoolcraft%20County%20MI&t=Populations%20and%20People&g=050XX00US26153&y=2022>

Appendix B Table 2-4 Age Groups 2000

	<5	<18	<65	>65
<i>Doyle Township</i>	4.0%	21.1%	58.0%	16.9%
<i>Germfask Township</i>	6.9%	15.5%	60.7%	17.0%
<i>Hiawatha Township</i>	5.6%	21.0%	52.6%	17.3%
<i>Inwood Township</i>	4.7%	19.9%	55.6%	19.9%
<i>Manistique Township</i>	7.4%	20.8%	59.5%	12.3%
<i>Mueller Township</i>	6.1%	12.7%	58.0%	23.3%
<i>Seney Township</i>	7.2%	18.4%	49.5%	25.0%
<i>Thompson Township</i>	5.4%	16.3%	61.0%	17.4%
<i>City of Manistique</i>	6.2%	20.0%	53.9%	20.0%
<i>Schoolcraft County</i>	5.6%	19.5%	56.5%	18.5%
<i>State of Michigan</i>	6.8%	22.2%	58.8%	12.3%

Appendix B Table 2-5 Age Groups 2020

	<5	<18	<65	>65
<i>Doyle Township</i>	2.1%	17.0%	51.5%	29.4%
<i>Germfask Township</i>	4.2%	31.0%	50.2%	17.6%
<i>Hiawatha Township</i>	4.2%	17.6%	46.0%	32.2%
<i>Inwood Township</i>	4.0%	18.9%	57.2%	19.9%
<i>Manistique Township</i>	1.6%	17.8%	58.3%	22.3%
<i>Mueller Township</i>	2.6%	4.6%	48.9%	43.9%
<i>Seney Township</i>	0.0%	0.00%	51.0%	49.0%
<i>Thompson Township</i>	3.7%	11.9%	44.6%	39.8%
<i>City of Manistique</i>	5.3%	15.5%	56.3%	22.9%
<i>Schoolcraft County</i>	4.0%	17.0%	54.7%	27.3%
<i>State of Michigan</i>	6.0%	22.0%	55.4%	16.6%

Appendix B Table 2-5 Age Groups 2022

	<5	<18	<65	>65
<i>Doyle Township</i>	2.9%	20.8%	44.5%	30.8%
<i>Germfask Township</i>	8.8%	29.8%	43.3%	18.1%
<i>Hiawatha Township</i>	5.2%	16.0%	47.4%	31.4%
<i>Inwood Township</i>	3.7%	21.7%	45.0%	29.6%
<i>Manistique Township</i>	4.3%	20.5%	48.6%	26.6%
<i>Mueller Township</i>	6.1%	15.2%	41.4%	37.3%
<i>Seney Township</i>	0.0%	6.5%	58.3%	35.2%
<i>Thompson Township</i>	3.9%	13.5%	42.2%	40.4%
<i>City of Manistique</i>	3.6%	14.7%	60.2%	21.5%
<i>Schoolcraft County</i>	4.3%	17.4%	50.8%	27.5%
<i>State of Michigan</i>	5.3%	21.0%	55.0%	18.7%

Source:<https://data.census.gov/table/ACSST5Y2022.S0101?q=Doyle%20Township%20Schoolcraft%20County%20MI&t=Populations%20and%20People&g=050XX00US26153&v=2022>

Appendix B Table 2-7 Education Attainment

	High School	Some College	Associate's degree	Bachelor's Degree	Grad Degree
<i>Doyle Township</i>	40.6%	13.9%	15.4%	11.0%	11.3%
<i>Germfask Township</i>	37.0%	27.6%	5.3%	9.3%	10.2%
<i>Hiawatha Township</i>	41.3%	20.1%	10.0%	16.7%	8.7%
<i>Inwood Township</i>	39.5%	22.1%	12.2%	7.9%	9.8%
<i>Manistique Township</i>	38.0%	16.6%	10.3%	10.6%	10.6%
<i>Mueller Township</i>	44.5%	21.1%	9.2%	7.8%	9.6%
<i>Seney Township</i>	39.8%	34.7%	4.1%	9.2%	1.0%
<i>Thompson Township</i>	28.8%	12.7%	13.8%	24.5%	8.7%
<i>City of Manistique</i>	38.8%	22.6%	9.3%	11.2%	2.8%
Schoolcraft County	38.3%	20.2%	10.4%	13.0%	7.1%
<i>State of Michigan</i>	27.7%	22.0%	9.7%	19.9%	12.8%

Source: <https://data.census.gov/table/ACSDP5Y2022.DP02?q=Schoolcraft%20County,%20Michigan&t=Educational%20Attainment&g=060XX00US2615322960,2615331940,2615337940,2615340840,2615350760,2615350780,2615356060,2615372500,2615379580>

Appendix B Table 2-8 Housing Characteristics 2000-2022

Household Type					
	Married-Couple Family	Male Householder	Female Householder	Family Households	Total Households
Schoolcraft County					
2000	2,078	127	293	2,498	4,996
2021	1,856	235	234	2,325	3,607
2022	1,813	223	208	2,244	3,785
State of Michigan					
2000	1,947,710	154,187	473,802	2,575,699	5,151,398
2021	1,875,558	202,365	471,619	2,549,542	4,051,798
2022	1,868,821	200,271	479,468	2,548,560	4,089,794

Source: <https://data.census.gov/table/ACSST1Y2023.S1101?g=040XX00US26>

Appendix B Table 2-9 Population Densities 2000

	Land Area in Square Miles	Population	Persons/Square Mile
Doyle Township	147.37	563	3.8
Germfask Township	67.76	469	6.9
Hiawatha Township	278.46	1,305	4.7
Inwood Township	120.3	772	6.4
Manistique Township	150.28	1,045	7
Mueller Township	83.89	260	3.1
Seney Township	213.91	115	0.5
Thompson Township	112.95	808	6.8
City of Manistique	3.19	2,828	886.5
Schoolcraft County	1,178.11	8,047	6.8

Appendix B Table 2-9 Population Densities 2022

	Land Area in Square Miles	Population	Persons/Square Mile
Doyle Township	146.12	509	3.5
Germfask Township	66.43	524	7.9
Hiawatha Township	277.39	1,281	4.6
Inwood Township	120.21	705	5.9
Manistique Township	149.88	979	6.5
Mueller Township	83.61	263	3.1
Seney Township	212.64	108	0.5
Thompson Township	112.38	855	7.6
City of Manistique	3.21	2,838	884.1
Schoolcraft County	1171.88	8,062	6.9

Source: <https://data.census.gov/table/ACSDP5Y2022.DP05?q=population&g=050XX00US26153>
AND
<https://data.census.gov/table/GEOINFO2023.GEOINFO?q=population&g=050XX00US26153>

Appendix B Table 2-10 Historical Population Data and Projections, Selected Areas

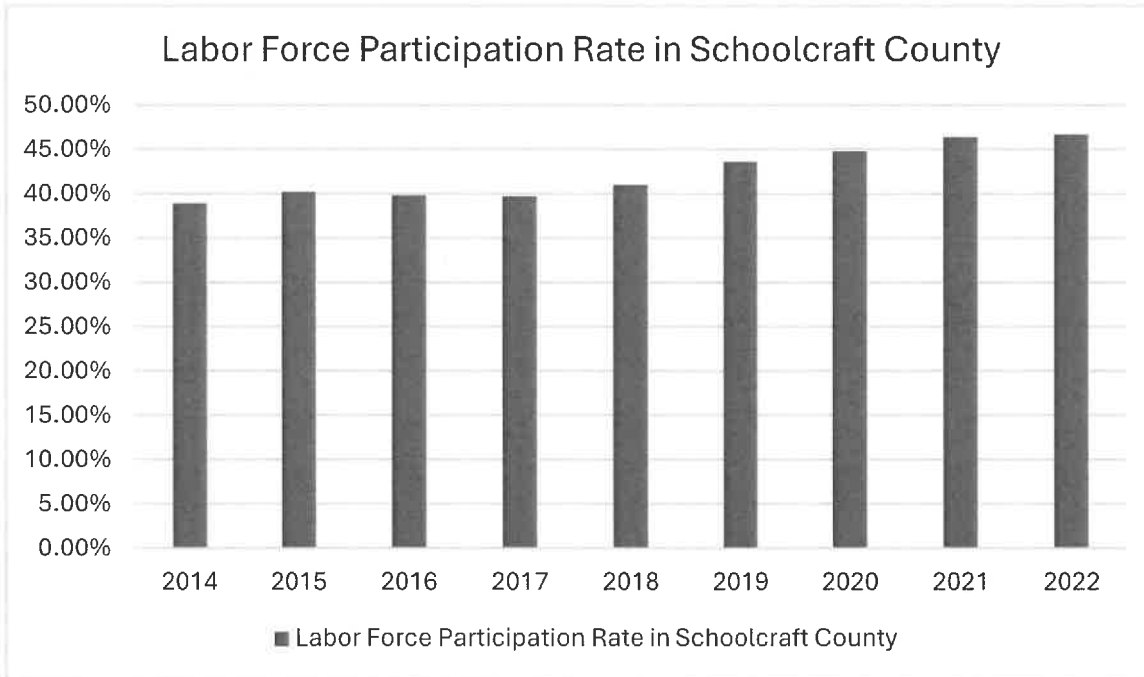
	2020	2025	2030	2035	2040	2045
Alger County	8,972	8,661	8,444	8,172	7,850	7,072
Delta County	35,412	34,761	34,328	33,620	32,635	31,184
Dickinson County	24,974	24,578	24,416	24,098	23,675	22,931
Marquette County	66,554	67,245	68,536	69,630	70,400	70,512
Menominee County	22,627	22,207	21,947	21,378	20,536	19,244
Schoolcraft County	7,968	7,969	8,055	8,035	7,920	7,602

Appendix B Table 2-11 Historical Population Data and Projections, Percent Change

	2020-2025	2025-2030	2030-2035	2035-2040	2040-2045	2045-2050
Alger County	-3.00%	-0.30%	-3.30%	-4.00%	-5.00%	-16.30%
Delta County	-2.00%	-0.10%	-2.00%	-3.00%	-4.50%	-12.00%
Dickinson County	-1.05%	-0.07%	-1.00%	-1.80%	-3.20%	-8.20%
Marquette County	2.50%	-3.10%	1.60%	1.20%	-2.00%	7.10%
Menominee County	-2.00%	2.00%	-2.30%	-4.00%	-2.30%	-15.00%
Schoolcraft County	-	-1.20%	-	-1.50%	-4.10%	-4.60%

Source: Department of Management and Budget, Population to Year 2045 in Michigan, United States Bureau of Census, 2020

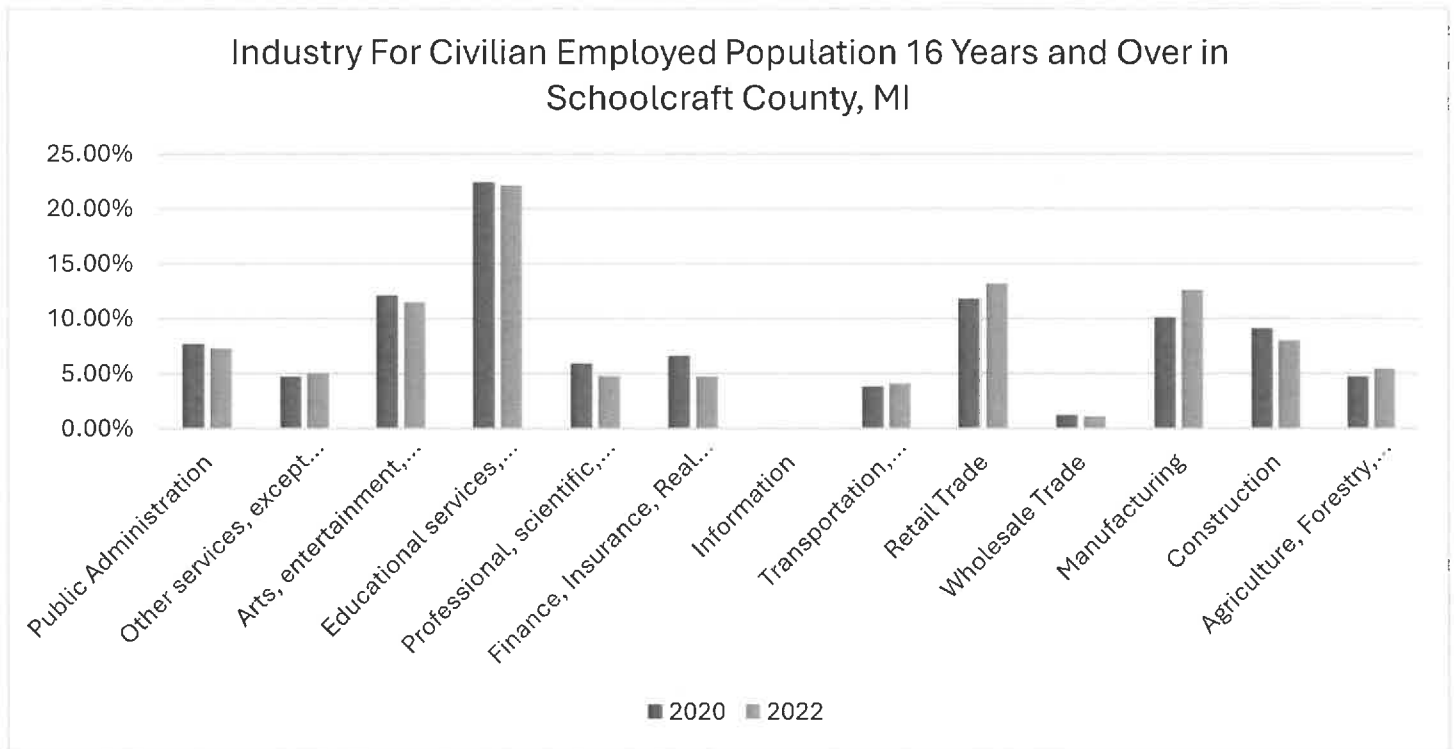
Chart 1 Appendix C



Year	Percentage
2014	38.9%
2015	40.2%
2016	39.8%
2017	39.7%
2018	41.0%
2019	43.6%
2020	44.8%
2021	46.4%
2022	46.7%

Source:<https://data.census.gov/table/ACSDP5Y2022.DP03?q=Schoolcraft%20County,%20Michigan&t=Employment%20and%20Labor%20Force%20Status&y=2022>

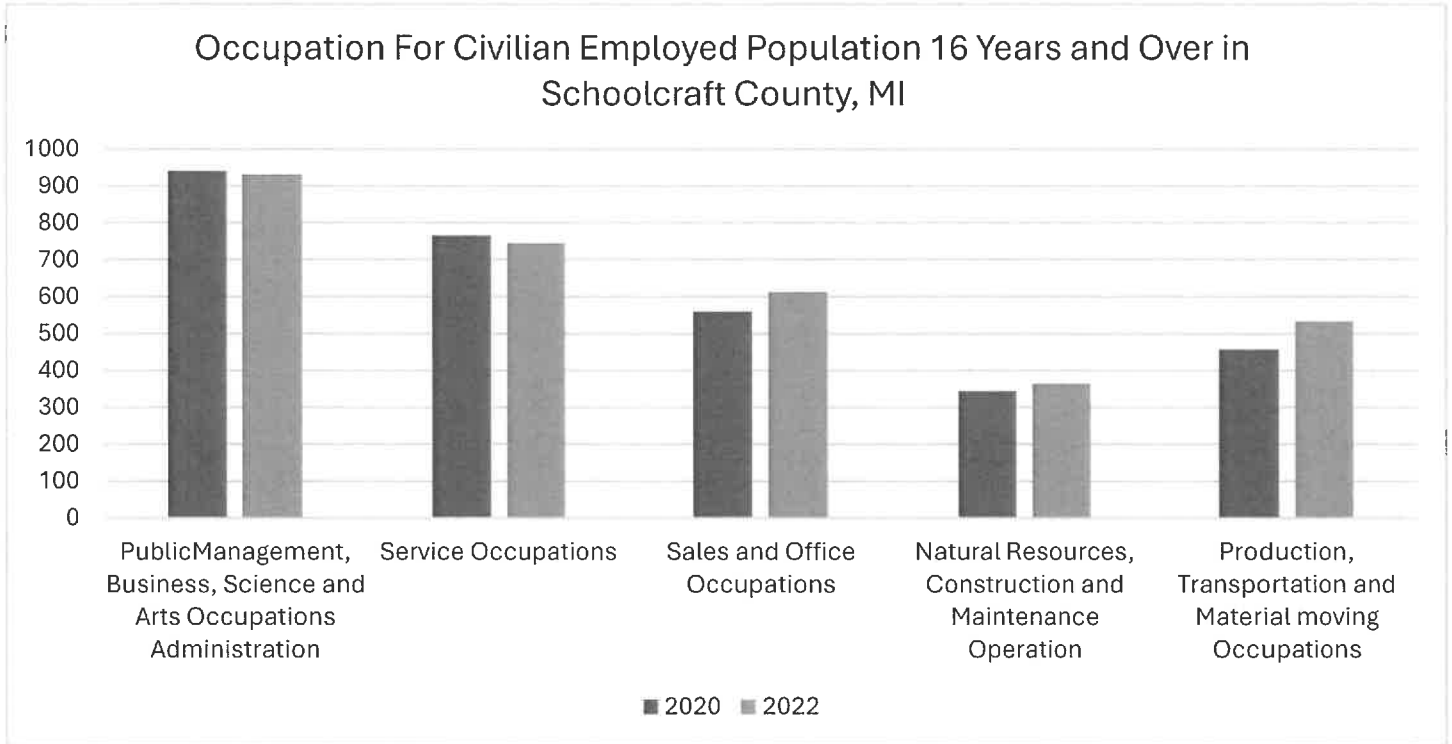
Chart 2 Appendix C



2020		2022	
Industry	Percentage	Industry	Percentage
Public Administration	7.7%	Public Administration	7.3%
Other services, except public...	4.7%	Other services, except public...	5.1%
Arts, entertainment, recreation and...	12.1%	Arts, entertainment, recreation and...	11.5%
Educational services, health care and...	22.4%	Educational services, health care and...	22.1%
Professional, scientific, management...	5.9%	Professional, scientific, management...	4.8%
Finance, Insurance, Real estate and...	6.6%	Finance, Insurance, Real estate and...	4.7%
Information	0.0%	Information	0.1%
Transportation, warehousing and...	3.8%	Transportation, warehousing and...	4.1%
Retail Trade	11.8%	Retail Trade	13.2%
Wholesale Trade	1.2%	Wholesale Trade	1.1%
Manufacturing	10.1%	Manufacturing	12.6%
Construction	9.1%	Construction	8.0%
Agriculture, Forestry, Fishing, Hunting...	4.7%	Agriculture, Forestry, Fishing, Hunting...	5.4%

Source: <https://data.census.gov/table?q=Schoolcraft%20County,%20Michigan&t=Employment%20and%20Labor%20Force%20Status&y=2022>

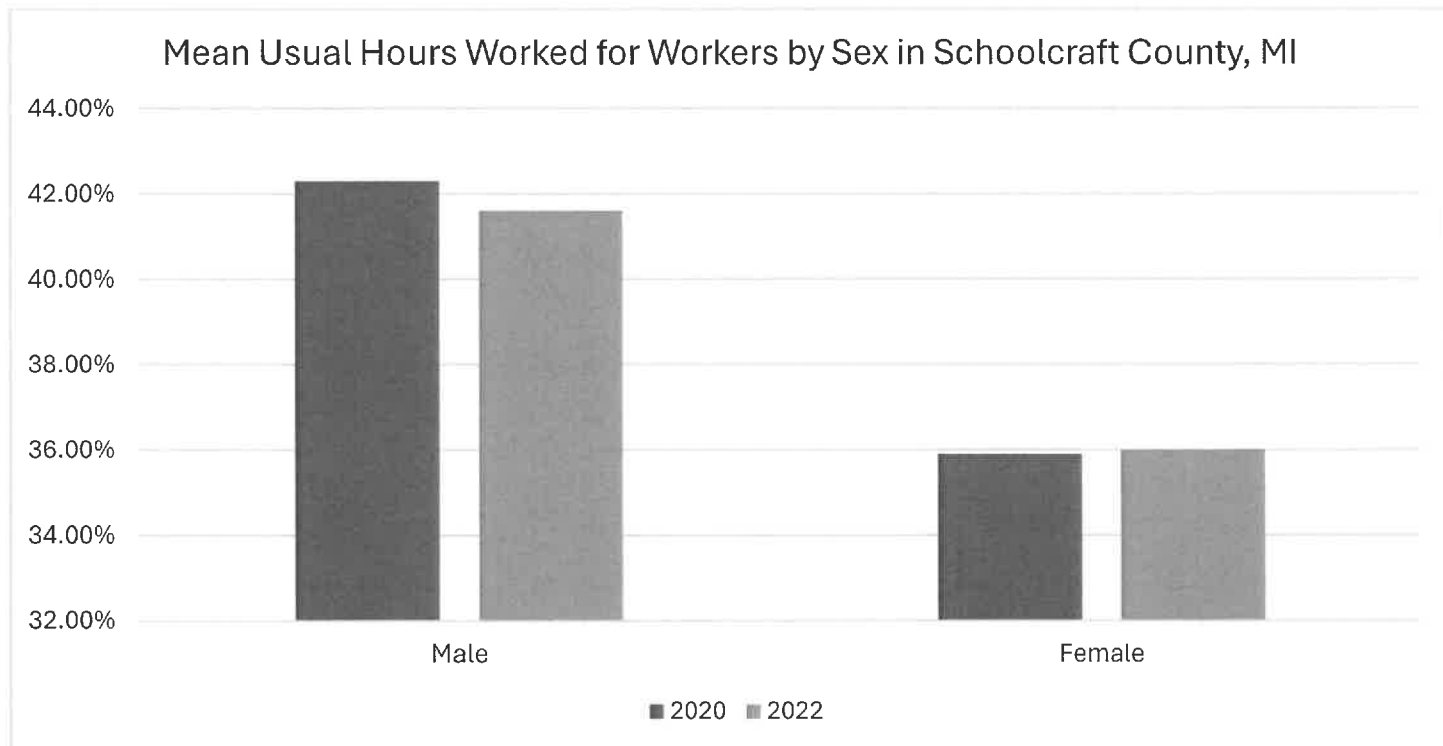
Chart 3 Appendix C



2020		2022	
Industry	Population	Industry	Population
Management, Business, Science and Arts Occupations	940	Management, Business, Science and Arts Occupations	931
Service Occupations	766	Service Occupations	745
Sales and Office Occupations	560	Sales and Office Occupations	613
Natural Resources, Construction and Maintenance Operation	344	Natural Resources, Construction and Maintenance Operation	364
Production, Transportation and Material moving Occupations	457	Production, Transportation and Material moving Occupations	533

Source: <https://data.census.gov/table?q=Schoolcraft%20County,%20Michigan&t=Employment%20and%20Labor%20Force%20Status&v=2022>

Chart 4 Appendix C



2020		2022	
Sex	Hours Worked	Sex	Hours Worked
Male	42.3%	Male	41.6%
Female	35.9%	Female	36.0%

Source: <https://data.census.gov/table/ACSDT5Y2022.B23020?q=Part%20or%20Full-Time&t=Employment:Employment%20and%20Labor%20Force%20Status&g=050XX00US26153&v=2022>

Appendix C Table 3-4 Workers Aged 16 and Over, Place of Work, 2022

Characteristics:	Total Residents Employed		Worked in County of Residence		Worked outside County of Residence		Worked in Michigan		Worked outside of Michigan	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Doyle Township	165	100%	144	87.3%	21	12.7%	165	100%	0	0.0%
Germfask Township	188	100%	76	39.9%	112	59.0%	186	98.9%	2	1.1%
Hiawatha Township	525	100%	458	87.2%	63	12.0%	521	99.2%	4	0.8%
Inwood Township	269	100%	185	68.8%	82	30.5%	267	99.3%	2	0.7%
Manistique Township	329	100%	297	90.3%	31	9.4%	328	99.7%	1	0.3%
Mueller Township	78	100%	59	75.6%	17	21.8%	76	97.4%	2	2.6%
Seney Township	21	100%	17	81.0%	3	14.3%	20	95.2%	1	4.8%
Thompson Township	295	100%	252	85.4%	33	11.2%	285	96.6%	10	3.4%
City of Manistique	1,285	100%	1,131	88.0%	154	12.0%	1,285	100%	0	0.0%
Schoolcraft County	3,155	100%	2,619	83.0%	514	16.3%	3,133	99.3%	22	0.7%
State of Michigan	4,737,965	100%	3,401,859	71.8%	1,255,561	26.5%	4,657,420	98.3%	80,545	1.7%

Source: <https://data.census.gov/table/ACSST5Y2022.S0801?q=Schoolcraft%20County,%20Michigan&t=Employment&g=060XX00US2615322960,2615331940,2615337940,2615340840,2615350760,2615350780,2615356060,2615372500,2615379580>

Appendix C Table 3-5 Travel Time to Work, Residents Aged 16 and Older 2022

	Doyle Twp		Germfask Twp		Hiawatha Twp		Inwood Twp		Manistique Twp		Mueller Twp		Seney Twp		Thompson Twp		City of Manistique	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Total Workers 16+	165	100%	188	100%	525	100%	269	100%	329	100%	78	100%	21	100%	295	100%	1,285	100%
Work Away from Home	151	91.5	184	97.8	506	96.3	252	93.6	329	100	72	92.3	19	90.4	281	95.2	1,252	97.4
Less than 10 min.	31	18.7	20	10.6	204	38.8	1	0.3	106	32.2	12	15.3	12	57.1	116	39.3	702	54.6
10 to 14 min.	15	9.1	2	1.1	82	15.6	22	8.1	60	18.2	21	26.9	2	9.5	18	6.1	170	13.2
15 to 19 min.	48	29.1	20	10.6	78	14.8	79	29.3	53	16.1	6	7.6	0	0.0	100	33.8	95	7.3
20 to 24 min.	17	10.3	8	4.2	34	6.4	69	25.6	61	18.5	12	15.3	0	0.0	12	4.1	13	1.0
25 to 29 min.	0	0.0	2	1.1	13	2.4	2	0.7	4	1.2	11	14.1	0	0.0	6	2.0	52	4.0
30 to 34 min.	7	4.2	4	2.1	12	2.2	19	7.0	2	0.6	2	2.5	3	14.2	1	0.3	23	1.7
35 to 44 min.	0	0.0	78	41.4	14	2.6	20	7.4	2	0.6	4	5.1	0	0.0	5	1.6	61	4.7
45 to 59 min.	7	4.2	21	11.2	47	8.9	22	8.1	11	3.3	0	0.0	1	4.7	12	4.1	53	4.1
60 or more min.	26	15.7	29	15.4	22	4.1	18	6.6	30	9.1	4	5.1	1	4.7	11	3.7	83	6.4
Worked from home	14	8.4	4	2.1	19	3.6	17	6.3	0	0.0	6	7.6	2	9.5	14	4.7	33	2.6

	Schoolcraft County		State of Michigan	
	#	%	#	%
Total Workers 16+	3,155	100%	4,159,103	100%
Work Away from Home	3,046	96.5	3,589,306	86.3%
Less than 10 min.	1,204	38.1	603,070	14.5%
10 to 14 min.	392	12.4	603,070	14.5%
15 to 19 min.	479	15.2	669,616	16.1%
20 to 24 min.	226	7.1	623,865	15.0%
25 to 29 min.	90	2.8	320,251	7.7%
30 to 34 min.	73	2.3	515,729	12.4%
35 to 44 min.	184	5.8	291,137	7.0%
45 to 59 min.	174	5.5	286,978	6.9%
60 or more min.	224	7.1	245,387	5.9%
Worked from home	109	3.5	569,797	13.7%

<https://data.census.gov/table/ACSDT5Y2022.B08303?q=Travel%20Time%20to%20work%20Schoolcraft%20County,%20Michigan&g=050XX00US26153&v=2022>

AND

<https://data.census.gov/table?t=Commuting&g=040XX00US26&v=2022>

AND

https://data.census.gov/table/ACSDT5Y2022.B99084?q=Travel%20Time%20to%20work%20Schoolcraft%20County,%20Michigan&g=050XX00US26153_060XX00US2615322960,2615331940,2615337940,2615340840,2615350760,2615350780,2615356060,2615372500,2615379580&v=2022

Appendix C Table 3-6 Labor Force and Unemployment, 2022

	Schoolcraft County Labor Force			Unemployment Rates (%)			
	Total Labor Force	Employed	Unemployed	Schoolcraft County	Upper Peninsula	State of Michigan	United States
2017	3,337	3,035	302	9.1%	4.1%	4.2%	4.3%
2018	3,296	3,041	255	7.7%	5.5%	4.7%	3.7%
2019	3,246	3,009	237	7.3%	5.5%	3.6%	3.5%
2020	3,118	2,833	285	9.1%	9.0%	9.7%	7.9%
2021	3,450	3,154	296	8.6%	-	6.9%	6.3%
2022	3,460	3,186	274	7.9%	-	4.5%	4.3%

Source: <https://data.census.gov/table?t=Employment%20and%20Labor%20Force%20Status&g=050XX00US26153&y=2021>

Appendix C Table 3-7 Labor Force and Unemployment, Upper Peninsula Counties, 2022

County	Total Labor Force	Employed	Unemployed	Unemployment Rates
Alger	3,071	2,915	156	5.1%
Baraga	3,150	2,995	155	4.9%
Chippewa	17,021	15,711	1,310	7.7%
Delta	15,917	15,097	820	5.2%
Dickinson	12,348	11,876	472	3.8%
Gogebic	6,469	6,081	388	6.0%
Houghton	17,897	16,793	1,104	6.2%
Iron	4,724	4,506	218	4.6%
Keweenaw	835	796	39	4.7%
Luce	1,591	1,459	132	8.3%
Mackinac	4,839	4,349	490	10.1%
Marquette	32,991	31,580	1,411	4.3%
Menominee	11,237	10,729	508	4.5%
Ontonagon	2,156	2,020	136	6.3%
Schoolcraft	3,460	3,186	274	7.9%

Source: <https://data.census.gov/table?q=schoolcraft%20County,%20Michigan&t=Employment%20and%20Labor%20Force%20Status>

*United States Census Bureau
American Community Survey
DP03 Selected Economic Characteristics*

Appendix C Table 3-8 Households by Annual Household Income 2022

	Doyle Twp		Germfask Twp		Hiawatha Twp		Inwood Twp		Manistique Twp		Mueller Twp	
	#	%	#	%	#	%	#	%	#	%	#	%
Households	222	100%	202	100%	572	100%	299	100%	461	100%	126	100%
Less than \$10,000	7	3.2%	6	3.0%	15	2.6%	11	3.7%	13	2.8%	7	5.6%
\$10,000-\$14,999	4	1.8%	11	5.4%	13	2.3%	0	0.0%	35	7.6%	4	3.2%
\$15,000-\$24,999	25	11.3%	34	16.8%	20	3.5%	12	4.0%	22	4.8%	8	6.3%
\$25,000-\$34,999	16	7.2%	26	12.9%	60	10.5%	26	8.7%	39	8.5%	16	12.7%
\$35,000-\$49,999	22	9.9%	39	19.3%	53	9.3%	54	18.1%	118	25.6%	6	4.8%
\$50,000-\$74,999	71	32.0%	19	9.4%	142	24.8%	75	25.1%	95	20.6%	41	32.5%
\$75,000-\$99,999	26	11.7%	14	6.9%	115	20.1%	48	16.1%	74	16.1%	11	8.7%
\$100,000-\$149,999	24	10.8%	47	23.3%	98	17.1%	56	18.7%	38	8.2%	18	14.3%
\$150,000-\$199,000	18	8.1%	4	2.0%	23	4.0%	10	3.3%	18	3.9%	15	11.9%
\$200,000 or more	9	4.1%	2	1.0%	33	5.8%	7	2.3%	9	2.0%	0	0.0%
Median Household Income (Dollars)	58,676		\$41,667		\$73,482		\$65,074		\$51,094		\$61,250	

	Seney Twp		Thompson Twp		City of Manistique		Schoolcraft County	
	#	%	#	%	#	%	#	%
Households	43	100%	416	100%	1,444	100%	3,785	100%
Less than \$10,000	5	11.6%	20	4.8%	76	5.3%	160	4.2%
\$10,000-\$14,999	4	9.3%	13	3.1%	182	12.6%	266	7.0%
\$15,000-\$24,999	1	2.3%	22	5.3%	283	19.6%	427	11.3%
\$25,000-\$34,999	2	4.7%	20	4.8%	127	8.8%	332	8.8%
\$35,000-\$49,999	22	51.2%	53	12.7%	206	14.3%	573	15.1%
\$50,000-\$74,999	2	4.7%	91	21.9%	239	16.6%	775	20.5%
\$75,000-\$99,999	1	2.3%	83	20.0%	86	6.0%	458	12.1%
\$100,000-\$149,999	6	14.0%	86	20.7%	152	10.5%	525	13.9%
\$150,000-\$199,000	0	0.0%	9	2.2%	43	3.0%	140	3.7%
\$200,000 or more	0	0.0%	19	4.6%	50	3.5%	129	3.4%
Median Household Income (Dollars)	\$48,438		\$68,125		\$36,588		\$55,071	

Source: <https://data.census.gov/table?q=Schoolcraft%20County,%20Michigan&t=Employment%20and%20Labor%20Force%20Status&g=060XX00US2615322960,2615331940,2615337940,2615340840,2615350760,2615350780,2615356060,2615372500,2615379580>

Appendix C Table 3-9 Income Levels

	Per Capita Income		Median Household Income	
	1999	2022	1999	2022
Doyle Twp	\$18,740	\$36,447	\$36,250	\$58,676
Germfask Twp	\$14,648	\$24,054	\$27,625	\$41,667
Hiawatha Twp	\$20,385	\$40,479	\$40,146	\$73,482
Inwood Twp	\$15,386	\$33,277	\$32,500	\$65,074
Manistique Twp	\$18,127	\$29,426	\$40,000	\$51,094
Mueller Twp	\$18,507	\$34,816	\$33,571	\$61,250
Seney Twp	\$10,855	\$21,436	\$30,625	\$48,438
Thompson Twp	\$24,045	\$42,082	\$38,750	\$68,125
City of Manistique	\$14,986	\$31,643	\$24,295	\$36,588
Schoolcraft County	\$17,137	\$33,805	\$31,140	\$55,071
State of Michigan	\$22,162	\$38,151	\$44,667	\$66,986

***Source:**<https://data.census.gov/table?q=Schoolcraft%20County,%20Michigan&t=Employment%20and%20Labor%20Force%20Status&g=060XX00US2615322960,2615331940,2615337940,2615340840,2615350760,2615350780,2615356060,2615372500,2615379580>*

Appendix C Table 3-10 Poverty Rates and Percentage Below Poverty Level +/- 10%

	Percentage by Age			Percentage Below Poverty Level
	<18	18-64	>65	
Doyle Twp	31.3%	13.0%	2.5%	13.2%
Germfask Twp	53.4%	23.1%	6.3%	28.7%
Hiawatha Twp	14.6%	5.8%	4.5%	6.8%
Inwood Twp	1.3%	3.2%	5.7%	3.5%
Manistique Twp	27.4%	16.4%	8.5%	16.5%
Mueller Twp	0.0%	9.6%	9.2%	8.0%
Seney Twp	42.9%	31.7%	23.7%	29.6%
Thompson Twp	39.1%	20.8%	3.2%	16.1%
City of Manistique	21.5%	19.8%	27.6%	21.6%
Schoolcraft County	24.2%	15.7%	11.3%	16%
State of Michigan	18.2%	12.8%	9.8%	13.4%

Source: <https://data.census.gov/table/ACSST5Y2022.S1701?q=Schoolcraft%20County,%20Michigan&t=Income%20and%20Poverty&g=060XX00US2615322960,2615331940,2615337940,2615340840,2615350760,2615350780,2615356060,2615372500,2615379580>

Appendix D Table 4-1 Ten Most Abundant Soil Types and Amount (including water)

Soil Type	Acres in County	Percentage of Total Acres
<i>Markey Mucky Peat, 0-1 percent slopes</i>	97,610.1	12.5%
<i>Carbondale, Lupton and Tawas mucks, 0-1 percent slopes</i>	79,537.2	10.2%
<i>Rubicon Sand, 0-6 percent slopes</i>	46,071.4	5.9%
<i>Loxley, Dawson, and Greenwood peats, 0-1 percent slopes</i>	30,963.4	4.0%
<i>Water</i>	29,972.4	3.8%
<i>Spot-Finch Complex, 0-3 percent slopes</i>	29,000.5	3.7%
<i>Kaskaska Sand, 0-6 percent slopes</i>	24,916.1	3.2%
<i>Deford and Leafriver soils, 0-2 percent slopes</i>	24,030.8	3.1%
<i>Cathro and Lupton mucks, 0-1 percent slopes</i>	22,735.3	2.9%
<i>Ausable, Deford, and Tawas mucks, frequently flooded</i>	17,209.9	2.2%

Source: Web Soil Survey, National Custom Soil Survey provided by USDA-National Resources Conservation Service

Appendix E Table 5-1 Land Use/Cover, Schoolcraft County

Category	Schoolcraft County Acreage	Percentage of Total Acreage
<i>Residential</i>	2,537	0.32%
<i>Commercial/Business</i>	416	0.05%
<i>Industrial</i>	316	0.04%
<i>Transportation</i>	559	0.07%
<i>Extractive</i>	1,588	0.20%
<i>Open Lands</i>	880	0.11%
<i>Agricultural</i>	14,124	1.79%
<i>Non-Forested</i>	44,931	5.70%
<i>Forested</i>	517,012	65.55%
<i>Water</i>	27,159	3.44%
<i>Wetlands</i>	178,138	22.59%
<i>Barren Lands</i>	1,020	0.13%
Total	788,680	100.00%

Source: MIRIS, Michigan DNR

Appendix E Table 5-2 Leaking Underground Storage Tanks

Address	City	ZIP Code	SiteID	Name	Last Updated
301 N Maple St	Manistique	49854	268	DPW- Public Safety	04/25/2024
1710 M-28	Seney	49883	1589	Seney Party Store	07/07/2024
813 E Lakeshore Dr	Manistique	49854	1941	Bayview Shell	12/03/2023
8083 State Highway M77	Germfask	49836	2001	Lumbert & Bales Inc.	07/14/2024
1545 M-28	Seney	49883	2054	Mater's Stop N Go	07/07/2024
430 Deer St	Manistique	49854	2751	Linderoth Sales & Service	12/03/2023
216 Deer St	Manistique	49854	2752	Manistique Oil	04/25/2024
5910 W US-2	Manistique	49854	6738	Schoolcraft County Airport	07/09/2024
US-2	Gulliver	49840	7828	Don's Automotive	12/03/2023
10 N M-149	Cooks	49817	9236	Dekeyser Enterprises Inc.	07/09/2024
Cedar & Main Sts	Manistique	49854	9858	Manistique Area Schools	12/03/2023
201 Deer St	Manistique	49854	10611	Emerald City Car Wash	12/03/2023
115 River St	Manistique	49854	12672	Holiday Stationstore #202	12/03/2023
234 Deer St	Manistique	49854	13276	Nelson's Standard	12/03/2023
415 Chippewa Ave	Manistique	49854	14287	Manistique Rentals Inc.	12/03/2023
135 Chippewa Ave	Manistique	49854	14395	Robert V. Wood	04/25/2024
335 Chippewa Ave	Manistique	49854	14639	Cloverland Electric Cooperative	04/25/2024
2804 W US-2	Gulliver	49840	15434	Z Corner Gas & Conv. Store	04/25/2024
103 River St	Manistique	49854	15702	Heman Strasler	12/03/2023
192 River St	Manistique	49854	17327	Fannin Oil Co.	12/03/2023
100 Chippewa Ave	Manistique	49854	19363	PB Fuel Inc.	04/25/2024
RR 2 Box 2555	Manistique	49854	20160	Thompson State Fish Hatchery	04/25/2024
244 Arbutus & Maple	Manistique	49854	21844	Curran Chevy/Pontiac/Olds/Buick	12/03/2023
HC Box 3290	Manistique	49854	33622	Camper's Market	12/03/2023
County Road 432	Gulliver	49840	34090	Pfizer Specialty Minerals Inc.	12/03/2023
1674 Refuge Entrance Rd	Seney	49883	34484	Seney National Wildlife Refuge	12/03/2023
425 E Lakeshore Dr	Manistique	49854	35500	Krist Food Mart #24	06/26/2023
1001 W Lakeshore Dr	Manistique	49854	36817	Bill's Automotive	12/03/2023
PO Box 87	Gulliver	49840	37215	Gulliver Village Store Inc.	12/03/2023
M-28	Seney	49883	37672	Seney Village Supply	04/25/2024
5350 North M-94	Manistique	49854	37763	Jack Pine Lodge	12/03/2023
Intake Park Rd	Manistique	49854	38551	Manistique Water Plant	04/25/2024
Harborview Dr M-29	Manistique	49854	38723	Wastewater Treatment Plant	04/25/2024
1 S Cedar St	Manistique	49854	38966	Manistique Marina	04/25/2024
5590 US-2	Manistique	49854	39045	Robert W Davis Sr.	04/25/2024
718 Deer St	Manistique	49854	10000376	Apple Barrel	07/23/2024
323 S Maple St	Manistique	49854	10000587	Team Chevrolet Buick	04/25/2024
US-2	Manistique	49854	50001489	MDOT	02/01/2022
RR 1 Box 152	Gulliver	49840	50001636	Res Well- Mueller Twp	01/30/2024
310 Arbutus Ave	Manistique	49854	50001765	Nifty 50's	04/25/2024
M-77	Germfask	49836	50002396	Lawrences'	04/25/2024
M-77	Germfask	49836	50002397	Jack's	04/25/2024
HC 1	Manistique	49854	50002407	Don Kokesh- Big Spring Inn	04/25/2024

Source: https://experience.arcgis.com/experience/caac24695429449bbf6cc6d89c111d3b/page/Mappper/?views=Buffer%2CBuffer-All-Site-Types%2CView-Legend#data_s=id%3AdataSource_2-1884f65facf-layer-24-18d7fe1e33d-layer-35%3A15990%2Cid%3Awidget_486_output_config_11%3A0

Appendix E Table 5-3 Active Underground Storage Tanks

Address	City	ZIP Code	SiteID	Name	Last Updated
1710 M-28	Seney	49883	1589	Seney Party Store	07/07/2024
8083 State Highway M77	Germfask	49836	2001	Lumbert & Bales Inc.	07/14/2024
1545 M-28	Seney	49883	2054	Mater's Stop N Go	07/07/2024
430 Deer St	Manistique	49854	2751	Linderoth Sales & Service	12/03/2023
216 Deer St	Manistique	49854	2752	Manistique Oil	04/25/2024
7445 NF-13	Wetmore	49895	5477	Townline Lake Inc.	07/09/2024
5910 W US-2	Manistique	49854	6738	Schoolcraft County Airport	07/09/2024
8895 US-2	Thompson	49854	8607	Woody's Outpost	07/30/2024
10 N M-149	Cooks	49817	9236	Dekeyser Enterprises Inc.	07/09/2024
330 Oak St.	Manistique	49854	9285	St. Francis De Sales Parish	12/03/2023
6124 W US-2	Manistique	49854	13162	Lawrence Gas & Leasing Co.	06/26/2023
335 Chippewa Ave	Manistique	49854	14639	Cloverland Electric Cooperative	04/25/2024
2804 W US-2	Gulliver	49840	15434	Z Corner Gas & Conv. Store	04/25/2024
1038 W Lakeshore Dr	Manistique	49854	16893	Lotter's Lakeshore	07/21/2024
100 Chippewa Ave	Manistique	49854	19363	PB Fuel Inc.	04/25/2024
6810 US-2	Manistique	49854	34872	Lotter's Bayview BP	07/28/2024
425 E Lakeshore Dr	Manistique	49854	35500	Krist Food Mart #24	06/26/2023
8891 N Boot Lake Rd	Manistique	49854	37563	Boot Lake Bar & Grill	12/03/2023
5350 North M-94	Manistique	49854	37763	Jack Pine Lodge	12/03/2023
5609 N Camel Rider Dr	Wetmore	49895	37764	Camel Rider's Restaurant & Resort	12/03/2023
1223 US-2	Manistique	49854	40705	Blaney Park BP	07/29/2024
718 Deer St	Manistique	49854	10000376	Apple Barrel	07/23/2024
310 Arbutus Ave	Manistique	49854	50001765	Nifty 50's	04/25/2024

Source: https://experience.arcgis.com/experience/caac24695429449bbf6cc6d89c111d3b/#data_s=id%3AdataSource_2-1884f65facf-layer-24-18d7fe1e33d-layer-35%3A15990

Appendix F Table 7-1a Total Housing Units, Occupancy and Tenure, 2000

	Doyle Twp		Germfask Twp		Hiawatha Twp		Inwood Twp		Manistique Twp		Mueller Twp		Seney Twp	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Total Units	524	100%	308	100%	932	100%	623	100%	608	100%	295	100%	189	100%
Occupied	265	50.6%	199	64.6%	560	60.1%	297	47.7%	415	68.3%	96	32.5%	47	24.9%
Renter	22	4.2%	14	4.5%	38	4.1%	31	5.0%	57	9.4%	7	2.4%	4	2.2%
Owner	243	46.4%	185	60.1%	522	56.0%	266	42.7%	358	58.9%	89	30.2%	43	22.8%
Vacant	259	49.4%	109	35.4%	372	39.9%	326	52.3%	193	31.7%	199	67.5%	142	78.9%
For Rent	4	0.8%	2	0.6%	10	1.1%	0	0.0%	10	1.6%	0	0.0%	2	1.1%
For Sale	4	0.8%	4	1.3%	12	1.3%	1	0.2%	5	0.8%	10	3.4%	0	0.0%
Rented or Sold Not Occupied	0	0.0%	0	0.0%	4	0.4%	2	0.3%	4	0.7%	4	1.4%	3	1.7%
Seasonal, Recreational or Occasional Use	235	44.8%	96	31.2%	332	35.6%	315	50.6%	140	23.0%	181	61.4%	131	72.8%
For Migrant Workers	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Other Vacant	16	3.1%	7	2.3%	14	1.5%	8	1.3%	34	5.6%	4	1.4%	6	3.3%

	Thompson Twp		City of Manistique		Schoolcraft County		State of Michigan	
	#	%	#	%	#	%	#	%
Total Units	610	100%	1,611	100%	5,700	100%	4,234,279	100%
Occupied	282	26.2%	1,445	89.7%	3,606	63.3%	3,785,661	89.4%
Renter	17	2.8%	468	29.1%	658	11.5%	992,315	23.4%
Owner	265	43.4%	977	60.6%	2,948	51.7%	2,793,346	66.0%
Vacant	328	53.8%	166	10.3%	2,094	36.7%	448,618	10.6%
For Rent	3	0.5%	45	2.8%	76	1.3%	74,799	1.8%
For Sale	5	0.8%	21	1.3%	62	1.1%	51,894	1.2%
Rented or Sold Not Occupied	0	0.0%	12	0.7%	29	0.5%	31,319	0.7%
Seasonal, Recreational or Occasional Use	302	49.5%	34	2.1%	1,766	31.0%	242,919	5.7%
For Migrant Workers	0	0.0%	0	0.0%	0	0.0%	1,533	0.03%
Other Vacant	18	3.0%	54	3.4%	161	2.8%	46,154	1.1%

Source: <https://data.census.gov/table/ACSDP5Y2022.DP04?q=Schoolcraft%20County,%20Michigan&t=Occupancy%20Characteristics&g=060XX00US2615322960,2615331940,2615337940,2615340840,2615350760,2615350780,2615356060,2615372500,2615379580>

Appendix F Table 7-1b Total Housing Units, Occupancy and Tenure, 2022

	Doyle Twp		Germfask Twp		Hiawatha Twp		Inwood Twp		Manistique Twp		Mueller Twp		Seney Twp	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Total Units	504	100%	359	100%	904	100%	620	100%	713	100%	290	100%	213	100%
Occupied	222	44.0%	202	56.3%	572	63.3%	299	48.2%	461	64.7%	126	43.4%	43	20.2%
Renter	3	1.4%	35	17.3%	20	3.5%	17	5.7%	63	13.7%	9	7.1%	5	11.6%
Owner	219	98.6%	167	82.7%	552	96.5%	282	94.3%	398	86.3%	117	92.9%	38	88.4%
Vacant	282	56.0%	157	43.7%	332	36.7%	321	51.8%	252	35.3%	164	56.6%	170	79.8%
For Rent	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
For Sale	5	0.9%	0	0.0%	18	1.9%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Rented or Sold Not Occupied	0	0.0%	0	0.0%	0	0.0%	0	0.0%	11	1.5%	4	1.3%	0	0.0%
Seasonal, Recreational or Occasional Use	259	51.3%	138	15.2%	283	31.3%	292	47.0%	187	26.2%	133	45.8%	170	79.8%
For Migrant Workers	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Other Vacant	18	3.5%	19	5.2%	31	3.4%	29	4.6%	54	7.5%	27	9.3%	0	0.0%

	Thompson Twp		City of Manistique		Schoolcraft County		State of Michigan	
	#	%	#	%	#	%	#	%
Total Units	768	100%	1,616	100%	5,987	100%	4,605,363	100%
Occupied	416	54.2%	1,444	89.4%	3,785	63.2%	4,089,794	88.8%
Renter	3	0.7%	440	30.5%	595	15.7%	1,098,109	23.8%
Owner	413	99.3%	1,004	69.5%	3,190	84.3%	2,991,685	64.9%
Vacant	352	45.8%	172	10.6%	2,202	36.8%	515,569	11.2%
For Rent	4	0.5%	41	2.5%	45	0.7%	56,496	1.2%
For Sale	0	0.0%	25	1.5%	48	0.8%	25,138	0.5%
Rented or Sold Not Occupied	0	0.0%	0	0.0%	15	0.2%	35,827	0.7%
Seasonal, Recreational or Occasional Use	306	39.8%	26	1.6%	1,794	29.9%	233,617	5.1%
For Migrant Workers	0	0.0%	0	0.0%	0	0.0%	1,117	0.02%
Other Vacant	42	5.4%	80	4.9%	300	5.0%	163,374	3.5%

Source:

<https://data.census.gov/table/ACSDP5Y2022.DP04?q=Schoolcraft%20County,%20Michigan&t=Occupancy%20Characteristics&g=060XX00US2615322960.2615331940.2615337940.2615340840.2615350760.2615350780.2615356060.2615372500.2615379580>

AND

<https://data.census.gov/table/ACSDT5Y2022.B25004?q=Schoolcraft%20County,%20Michigan&t=Vacancy&g=060XX00US2615322960.2615331940.2615337940.2615340840.2615350760.2615350780.2615356060.2615372500.2615379580>

Appendix F Table 7-2 Percent Historic and Current Housing Types by Unit 1990-2022

Unit of Government	1990			2000			% Change 1990-2000		
	Single Family	Multi-Family	Mobile Homes, Boats & RV	Single Family	Multi-Family	Mobile Homes, Boats & RV	Single Family	Multi-Family	Mobile Homes, Boats & RV
<i>Doyle Twp</i>	81.0%	0.0%	19.0%	86.1%	0.0%	13.9%	5.0%	0.0%	-5.1%
<i>Germfask Twp</i>	82.4%	5.4%	12.2%	84.4%	2.6%	13.0%	2.0%	-2.8%	0.8%
<i>Hiawatha Twp</i>	83.6%	0.8%	15.6%	92.2%	0.9%	6.8%	8.6%	0.1%	-8.8%
<i>Inwood Twp</i>	85.5%	0.3%	14.2%	87.8%	0.8%	11.4%	2.2%	0.5%	-2.8%
<i>Manistique Twp</i>	87.7%	0.8%	11.5%	82.3%	1.6%	16.1%	-5.4%	0.8%	4.6%
<i>Mueller Twp</i>	83.0%	0.0%	17.0%	92.9%	0.0%	7.1%	9.9%	0.0%	-9.9%
<i>Seney Twp</i>	85.6%	0.0%	14.4%	86.8%	1.1%	12.2%	1.2%	1.1%	-2.2%
<i>Thompson Twp</i>	82.7%	0.0%	17.3%	83.6%	0.0%	16.4%	0.9%	0.0%	-0.9%
<i>City of Manistique</i>	71.9%	24.5%	3.6%	75.2%	21.8%	3.0%	3.3%	-2.7%	-0.6%
Schoolcraft County	80.4%	7.8%	11.8%	83.9%	6.6%	9.5%	3.5%	-1.2%	-2.3%
<i>State of Michigan</i>	72.8%	19.8%	7.4%	74.5%	18.8%	6.7%	1.7%	-1.0%	-0.7%

Unit of Government	2020			2022			% Change 2000-2022		
	Single Family	Multi-Family	Mobile Homes, Boats & RV	Single Family	Multi-Family	Mobile Homes, Boats & RV	Single Family	Multi-Family	Mobile Homes, Boats & RV
<i>Doyle Twp</i>	92.0%	5.0%	13.0%	91.9%	0.8%	8.1%	-0.1%	-4.2%	-4.9%
<i>Germfask Twp</i>	87.0%	1.0%	10.0%	89.5%	5.9%	5.3%	2.5%	4.9%	-4.7%
<i>Hiawatha Twp</i>	96.0%	0.0%	4.0%	94.8%	0.0%	5.2%	-1.2%	0.0%	1.2%
<i>Inwood Twp</i>	91.0%	2.0%	6.0%	95.0%	0.0%	5.0%	4.0%	-2.0%	-1.0%
<i>Manistique Twp</i>	89.0%	1.0%	11.0%	94.4%	0.0%	5.6%	5.4%	-1.0%	-5.4%
<i>Mueller Twp</i>	95.0%	0.0%	5.0%	91.7%	0.3%	7.9%	-3.3%	0.3%	2.9%
<i>Seney Twp</i>	93.0%	0.0%	7.0%	92.0%	0.0%	8.0%	-1.0%	0.0%	1.0%
<i>Thompson Twp</i>	90.0%	1.0%	9.0%	89.6%	0.3%	10.2%	-0.4%	-0.7%	1.2%
<i>City of Manistique</i>	75.0%	3.0%	4.0%	73.0%	23.4%	3.6%	-2.0%	20.4%	-0.4%
Schoolcraft County	87.0%	1.0%	7.0%	87.5%	8.0%	5.9%	0.5%	7.0%	-1.1%
<i>State of Michigan</i>	72.0%	5.0%	5.0%	76.6%	18.2%	5.3%	4.6%	13.2%	0.3%

Source:

<https://data.census.gov/table/ACSDP5Y2022.DP04?q=Schoolcraft%20County,%20Michigan&t=Housing%20Units&g=060XX00US2615322960,2615331940,2615337940,2615340840,2615350760,2615350780,2615356060,2615372500,2615379580>

AND

U.S Census Bureau, Table DP-4 Profile of Selected Housing Characteristics: 2000 Dataset SF 3 and Table H020 Units in Structure- 1990 Dataset SF 3

Appendix F Table 7-3 Housing Units by Year Structure was Built

Unit of Government	1939 or earlier	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	2010-2019	2020 or later
<i>Doyle Twp</i>	52	22	45	41	68	80	144	36	16	0
<i>Germfask Twp</i>	43	6	38	44	59	41	81	36	11	0
<i>Hiawatha Twp</i>	56	56	134	107	160	117	143	89	39	3
<i>Inwood Twp</i>	40	38	51	78	125	87	73	105	21	2
<i>Manistique Twp</i>	21	36	84	61	107	96	177	98	31	2
<i>Mueller Twp</i>	50	19	31	37	35	12	59	41	6	0
<i>Seney Twp</i>	5	2	25	38	13	36	78	8	8	0
<i>Thompson Twp</i>	57	23	70	20	73	58	173	243	51	0
<i>City of Manistique</i>	671	180	229	138	59	149	159	31	0	0
Schoolcraft County	995	382	707	564	699	676	1,087	687	183	7
<i>State of Michigan</i>	665,574	317,725	643,440	520,521	690,178	448,938	549,961	474,688	252,682	41,656

Source: <https://data.census.gov/table/ACSDT5Y2022.B25034?q=Schoolcraft%20County,%20Michigan&t=Year%20Structure%20Built&g=060XX00US2615322960,2615331940,2615337940,2615340840,2615350760,2615350780,2615356060,2615372500,2615379580>

Appendix F Table 7-4 Households by Type

	Doyle Twp		Germfask Twp		Hiawatha Twp		Inwood Twp		Manistique Twp		Mueller Twp		Seney Twp	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Total Households	261	100%	194	100%	587	100%	319	100%	465	100%	118	100%	48	100%
Married Couples	135	51.7	95	48.9	341	58.1	197	61.7	248	53.3	63	53.3	24	50.0
-With own children under 18 years	22	8.4	27	13.9	64	10.9	36	11.2	58	12.4	14	11.8	2	4.1
Co-Habiting Couples	16	6.1	19	9.8	44	7.4	16	5.0	48	10.3	6	5.0	5	10.4
-With own children under 18 years	6	2.3	7	3.6	10	1.7	4	1.2	21	4.5	4	3.3	2	4.1
Female Householder	53	20.3	35	18.0	92	15.7	48	15.0	89	19.1	17	14.4	10	20.8
-With own children under 18 years	8	3.1	2	1.0	5	0.8	6	1.8	13	2.7	1	0.8	2	4.1
Non-family Households	89	34.1	77	39.7	202	34.4	93	29.1	149	32.0	43	36.4	12	25.0
Householder living Alone	77	29.5	64	32.9	163	27.7	77	24.1	123	26.4	36	30.5	10	20.8
Householder 65 Years and Over	131	50.2	77	39.7	288	49.0	163	51.0	198	42.5	57	48.3	19	39.5

	Thompson Twp		City of Manistique		Schoolcraft County		State of Michigan	
	#	%	#	%	#	%	#	%
Total Households	361	100%	1,304	100%	3,657	100%	3,872,508	100%
Married Couples	220	60.9	432	33.1	1,755	47.9	1,857,127	47.9
-With own children under 18 years	47	13.0	120	9.2	390	10.6	730,892	18.8
Co-Habiting Couples	29	8.0	120	9.2	303	8.2	696,946	17.9
-With own children under 18 years	12	3.3	51	3.9	117	3.1	-	-
Female Householder	42	11.6	478	36.6	864	23.6	511,583	13.2
-With own children under 18 years	14	3.8	72	5.5	116	3.1	284,562	7.3
Non-family Households	80	22.1	625	47.9	1,392	38.0	238,757	6.2
Householder living Alone	102	28.2	538	41.2	1,168	31.9	1,079,678	27.8
Householder 65 Years and Over	164	45.4	516	39.5	1,613	44.1	1,294,461	33.4

Source: <https://data.census.gov/table/DECENNIALDHC2020.P20?q=Schoolcraft%20County,%20Michigan&t=Selected%20Household%20Characteristics&q=060XX00US2615322960,2615331940,2615337940,2615340840,2615350760,2615350780,2615356060,2615372500,2615379580>

AND

<https://data.census.gov/table/DECENNIALDHC2020.P19?q=Schoolcraft%20County,%20Michigan&t=Selected%20Household%20Characteristics&q=060XX00US2615322960,2615331940,2615337940,2615340840,2615350760,2615350780,2615356060,2615372500,2615379580>

Appendix F Table 7-5 Persons per Household

Unit of Government	Persons Per Household	
	2000	2022
<i>Doyle Twp</i>	2.46	2.58
<i>Germfask Twp</i>	2.44	2.97
<i>Hiawatha Twp</i>	2.36	2.67
<i>Inwood Twp</i>	2.46	2.64
<i>Manistique Twp</i>	2.40	2.70
<i>Mueller Twp</i>	2.40	2.19
<i>Seney Twp</i>	2.66	2.22
<i>Thompson Twp</i>	2.41	2.28
<i>City of Manistique</i>	2.56	2.70
Schoolcraft County	2.36	2.62
<i>State of Michigan</i>	2.56	3.05

***Source: US Census Bureau Table DP-1 Profile of General Demographic Characteristics 2000 SF 1
Table DP-1 General Population and Household Characteristics 2020 Dataset STF 1***

Appendix F Table 7-6 Median Housing Values

Unit of Government	2000	2022	% Increase from 2000-2022
<i>Doyle Twp</i>	\$104,000	\$182,600	56.9%
<i>Germfask Twp</i>	\$52,500	\$106,100	49.5%
<i>Hiawatha Twp</i>	\$95,200	\$182,400	52.2%
<i>Inwood Twp</i>	\$80,900	\$200,000	40.5%
<i>(Manistique Twp</i>	\$84,800	\$163,600	51.8%
<i>Mueller Twp</i>	\$70,000	\$166,300	42.1%
<i>Seney Twp</i>	\$45,000	\$203,300	22.1%
<i>Thompson Twp</i>	\$103,900	\$188,400	55.1%
<i>City of Manistique</i>	\$46,500	\$71,800	64.8%
Schoolcraft County	\$64,900	\$129,100	50.3%
<i>State of Michigan</i>	\$115,600	\$236,100	48.9%

Source: <https://data.census.gov/table/ACSDT5Y2022.B25077?q=Schoolcraft%20County,%20Michigan&t=Financial%20Characteristics&g=060XX00US2615322960,2615331940,2615337940,2615340840,2615350760,2615350780,2615356060,2615372500,2615379580>

AND

<https://data.census.gov/table?q=Schoolcraft%20County,%20Michigan&t=Financial%20Characteristics&g=060XX00US2615322960,2615331940,2615337940,2615340840,2615350760,2615350780,2615356060,2615372500,2615379580&y=2000>

Appendix F Table 7-7 Median Gross Rent

Unit of Government	2000	2020	2022
<i>Doyle Twp</i>	\$340	\$733	-
<i>Germfask Twp</i>	\$306	\$283	\$669
<i>Hiawatha Twp</i>	\$410	\$644	-
<i>Inwood Twp</i>	\$313	\$606	\$775
<i>Manistique Twp</i>	\$377	\$1,446	\$492
<i>Mueller Twp</i>	\$275	\$644	-
<i>Seney Twp</i>	\$275	\$446	-
<i>Thompson Twp</i>	\$450	\$743	-
<i>City of Manistique</i>	\$343	\$533	\$564
Schoolcraft County	\$345	\$541	\$572
<i>State of Michigan</i>	\$546	\$838	\$1,101

Source: <https://data.census.gov/table?q=Schoolcraft%20County,%20Michigan&t=Financial%20Characteristics&g=060XX00US2615322960,2615331940,2615337940,2615340840,2615350760,2615350780,2615356060,2615372500,2615379580&v=2022>

AND

<https://data.census.gov/table?q=Schoolcraft%20County,%20Michigan&t=Financial%20Characteristics&g=060XX00US2615322960,2615331940,2615337940,2615340840,2615350760,2615350780,2615356060,2615372500,2615379580&v=2000>

Appendix F Table 7-8 Income Levels

	Doyle Twp		Germfask Twp		Hiawatha Twp		Inwood Twp		Manistique Twp		Mueller Twp	
	1999	2022	1999	2022	1999	2022	1999	2022	1999	2022	1999	2022
Per Capita Income	\$18,740	\$35,464	\$14,648	\$16,899	\$20,385	\$33,199	\$15,386	\$28,737	\$18,127	\$26,622	\$18,507	\$35,144
Median Household Income	\$36,250	\$58,676	\$27,625	\$38,947	\$40,156	\$64,948	\$32,500	\$54,107	\$40,000	\$54,917	\$33,571	\$50,000
Median Family Income	\$39,018	\$66,500	\$29,375	\$42,212	\$46,406	\$70,400	\$35,147	\$61,000	\$46,667	\$66,750	\$34,643	\$80,000

	Seney Twp		Thompson Twp		City of Manistique		Schoolcraft County		State of Michigan	
	1999	2022	1999	2022	1999	2022	1999	2022	1999	2022
Per Capita Income	\$10,855	\$19,888	\$24,045	\$33,145	\$14,986	\$24,925	\$17,137	\$27,936	\$22,168	\$88,499
Median Household Income	\$30,625	\$43,512	\$38,750	\$62,500	\$24,295	\$32,027	\$31,140	\$48,443	\$44,667	\$69,183
Median Family Income	\$31,875	\$44,048	\$41,731	\$82,930	\$31,979	\$54,885	\$36,810	\$61,420	\$53,457	\$38,952

Source: [https://data.census.gov/table/ACSDPIY2023.DP03?t=Financial%20Characteristics:Income%20\(Households,%20Families,%20Individuals\)&g=040XX00US26](https://data.census.gov/table/ACSDPIY2023.DP03?t=Financial%20Characteristics:Income%20(Households,%20Families,%20Individuals)&g=040XX00US26)

AND

[https://data.census.gov/table/ACSST5Y2022.S1901?q=Schoolcraft%20County,%20Michigan&t=Income%20\(Households,%20Families,%20Individuals\)&g=060XX00US2615322960,2615331940,2615337940,2615340840,2615350760,2615350780,2615356060,2615372500,2615379580&y=2022](https://data.census.gov/table/ACSST5Y2022.S1901?q=Schoolcraft%20County,%20Michigan&t=Income%20(Households,%20Families,%20Individuals)&g=060XX00US2615322960,2615331940,2615337940,2615340840,2615350760,2615350780,2615356060,2615372500,2615379580&y=2022)

Appendix F Table 7-9 Monthly Owner Costs as a Percentage of Household Income

	Doyle Twp	Germfask Twp	Hiawatha Twp	Inwood Twp	Manistique Twp	Mueller Twp	Seney Twp	Thompson Twp	City of Manistique	Schoolcraft County	State of Michigan
Less than 20.0%	53	37	162	76	64	17	1	77	334	821	904,307
20.0 – 24.9%	14	17	42	35	37	4	0	19	30	198	244,413
25.0 – 29.9%	6	0	21	7	9	4	0	18	27	92	159,110
30.0 – 34.9%	9	3	8	16	4	0	0	21	0	61	105,378
35.0% or more	14	27	26	37	45	2	2	31	124	308	309,982
Not computed	0	0	0	0	3	0	0	0	13	16	9,282

Source:https://data.census.gov/table?q=DP04:%20Selected%20Housing%20Characteristics&q=040XX00US26_050XX00US26153_060XX00US2615322960,2615331940,2615337940,2615340840,2615350760,2615350780,2615356060,2615372500,2615379580

Appendix F Table 7-10 Conditions of Housing Units

Unit of Government	Lacking Complete Plumbing Facilities				Lacking Complete Kitchen Facilities				No Telephone Service			
	2000		2022		2000		2022		2000		2022	
	#	%	#	%	#	%	#	%	#	%	#	%
Doyle Twp	2	0.8%	0	0.0%	2	0.8%	0	0.0%	0	0.0%	5	2.3%
Germfask Twp	6	3.0%	2	1.0%	2	1.0%	3	1.5%	14	7.0%	0	0.0%
Hiawatha Twp	6	1.1%	0	0.0%	2	0.4%	0	0.0%	5	0.9%	0	0.0%
Inwood Twp	3	1.0%	5	1.7%	3	1.0%	0	0.0%	2	0.7%	2	0.7%
Manistique Twp	2	0.5%	1	0.2%	2	0.5%	0	0.0%	17	4.1%	0	0.0%
Mueller Twp	4	4.2%	0	0.0%	2	2.1%	0	0.0%	0	0.0%	4	3.2%
Seney Twp	0	0.0%	4	9.3%	2	4.3%	2	4.7%	0	0.0%	0	0.0%
Thompson Twp	0	0.0%	0	0.0%	0	0.0%	0	0.0%	8	2.8%	2	0.5%
City of Manistique	2	0.1%	0	0.0%	2	0.1%	0	0.0%	75	5.2%	38	2.6%
Schoolcraft County	25	0.7%	12	0.3%	17	0.1%	5	0.1%	121	14.0%	51	1.3%
State of Michigan	16,941	0.4%	16,061	0.4%	17,844	0.5%	29,446	0.7%	99,747	0.3%	32,291	0.8%

Source: <https://data.census.gov/table?q=DP04:%20Selected%20Housing%20Characteristics&g=050XX00US26153060XX00US2615322960,2615331940,2615337940,2615340840,2615350760,2615350780,2615356060,2615372500,2615379580>

Appendix F Table 7-11 Occupied Housing Units Heating Fuel

Source	Doyle Twp		Germfask Twp		Hiawatha Twp		Inwood Twp		Manistique Twp		Mueller Twp		Seney Twp	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Total units	222	100	202	100	572	100	299	100	461	100	126	100	43	100
Utility Gas	1	0.4	0	0.0	243	42.4	13	4.3	120	26.0	1	0.7	3	6.9
Bottled, Tank or LP Gas	137	61.7	125	12.3	162	28.3	154	51.5	185	40.1	76	60.3	7	16.2
Electricity	48	21.6	28	13.8	89	15.5	39	13.0	42	9.1	22	17.4	0	0.0
Fuel Oil, Kerosene, Etc.	4	1.8	0	0.0	6	1.0	12	4.0	5	1.0	5	3.9	0	0.0
Coal or Coke	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Wood	25	11.2	47	23.2	66	11.5	76	25.4	106	22.9	20	15.8	30	69.7
Solar Energy	0	0.0	2	0.9	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Other Fuel	7	3.1	0	0.0	6	1.0	5	1.6	3	0.6	2	1.5	3	6.9
No Fuel	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

	Thompson Twp		City of Manistique		Schoolcraft County		State of Michigan	
	#	%	#	%	#	%	#	%
Total units	416	100	1,444	100	3,785	100	4,107,809	100
Utility Gas	43	10.3	1,098	76.0	1,522	40.2	3,039,167	74.0
Bottled, Tank or LP Gas	245	58.8	0	0.0	1,091	28.8	372,796	9.1
Electricity	35	8.4	310	21.4	613	16.1	523,137	12.7
Fuel Oil, Kerosene, Etc.	14	3.3	27	1.8	73	1.9	32,099	0.8
Coal or Coke	0	0.0	0	0.0	0	0.0	1,733	0.0
Wood	75	18.0	0	0.0	445	11.7	88,484	2.2
Solar Energy	0	0.0	0	0.0	2	0.05	1,302	0.0
Other Fuel	3	0.7	0	0.0	29	0.7	28,300	0.7
No Fuel	1	0.2	9	0.6	10	0.2	20,791	0.5

Source: <https://data.census.gov/table?q=DP04:%20Selected%20Housing%20Characteristics&g=050XX00US26153060XX00US2615322960,2615331940,2615337940,2615340840,2615350760,2615350780,2615356060,2615372500,2615379580>

Appendix F Table 7-12 Schoolcraft County Residential Dwelling Permits Issued 2017-2020

Year	Number of New Residential Dwelling Permits Issued	Construction Cost
2017	123	\$3,292,000
2018	113	\$5,380,000
2019	105	\$3,926,000
2020	130	\$3,162,000

Source: Schoolcraft County Building Codes

Appendix F Table 7-13 Subsidized Housing, Schoolcraft County

Development Name	Address	Administration	Units	Year Built	Type
Parkview Estates	8066 Cornell Road, Germfask	Public Housing	16	1982	18+, One Story Low Rise
Harborview Towers	400 East Lakeshore Drive, Manistique	Public Housing	35	1969	18+, Three Story Low Rise
Heritage House	900 Steuben Avenue, Manistique	Public Housing	48	1982	18+, Three Story Low Rise
Manistique Lakeview Apartments	701 Park Avenue, Manistique	Public Housing	40	1992	Family, Low Rise
Maple Square Family Units	Elm St., Quarry Lane, N. Maple St., Manistique	Public Housing	25	1969	18+, Duplex and Single Stand-Alone Units
Whispering Wind Apartments	600 Cherry Hill Road, Manistique	Rural Housing	32	-	Elderly and Family Low-Rise

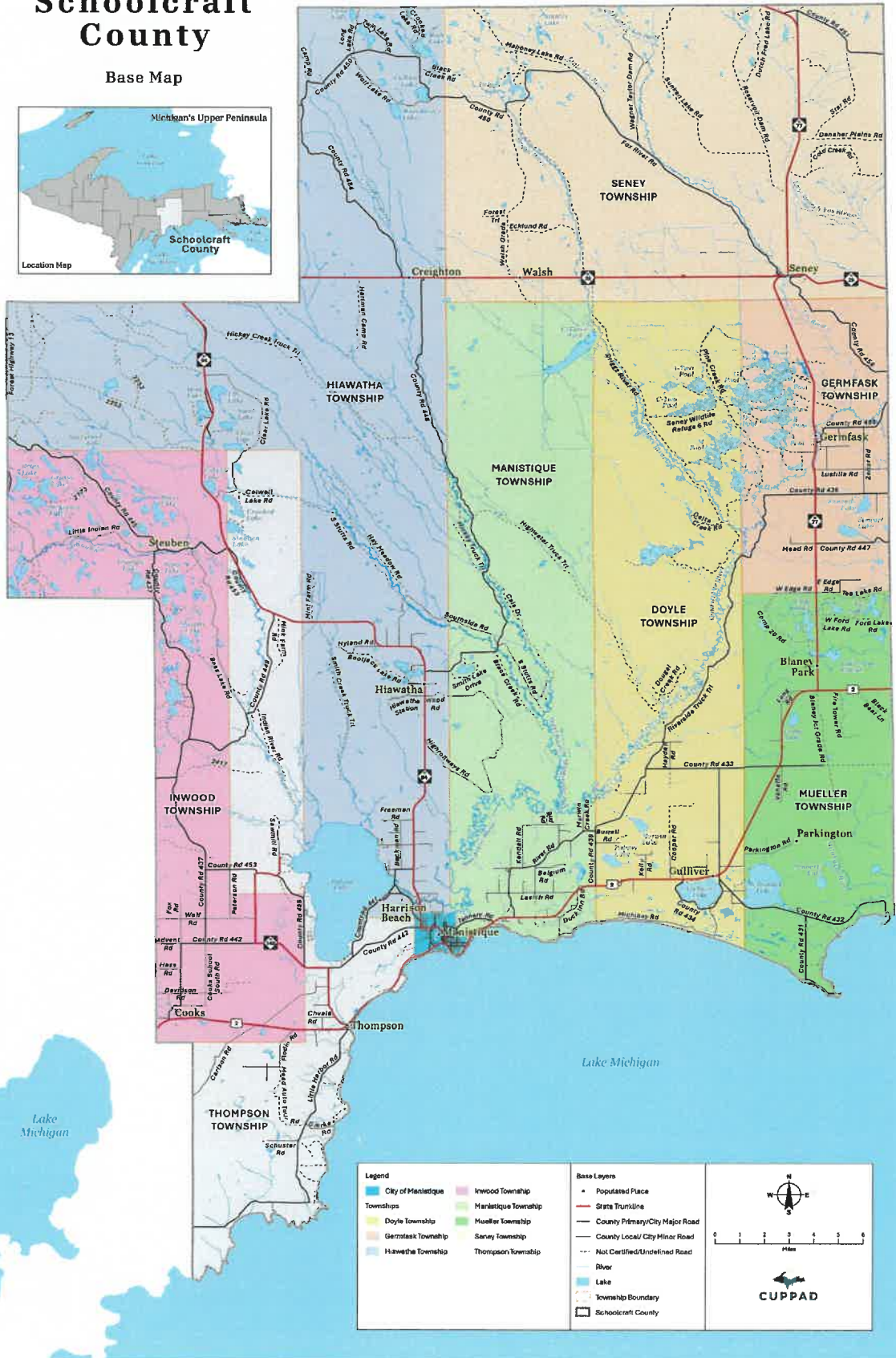
Source: <https://housing.state.mi.us/arhd/>

AND

Information provided by:
Manistique Housing Commission
400 East Lakeshore Drive
Manistique, MI 49854
906-341-5451
mhousingdirector@gmail.com

Schoolcraft County

Base Map



<p>Legend</p> <ul style="list-style-type: none"> ■ City of Manistique ■ Inwood Township ■ Hiawatha Township ■ Manistique Township ■ Doyle Township ■ Germfask Township ■ Seney Township ■ Mueller Township ■ Thompson Township 	<p>Base Layers</p> <ul style="list-style-type: none"> ● Populated Place — State Trunkline — County Primary/City Major Road — County Local/City Minor Road --- Not Certified/Unlined Road — River — Lake — Township Boundary Schoolcraft County 	<div style="text-align: center;"> <p>0 1 2 3 4 5 Miles</p> </div>
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Schoolcraft County

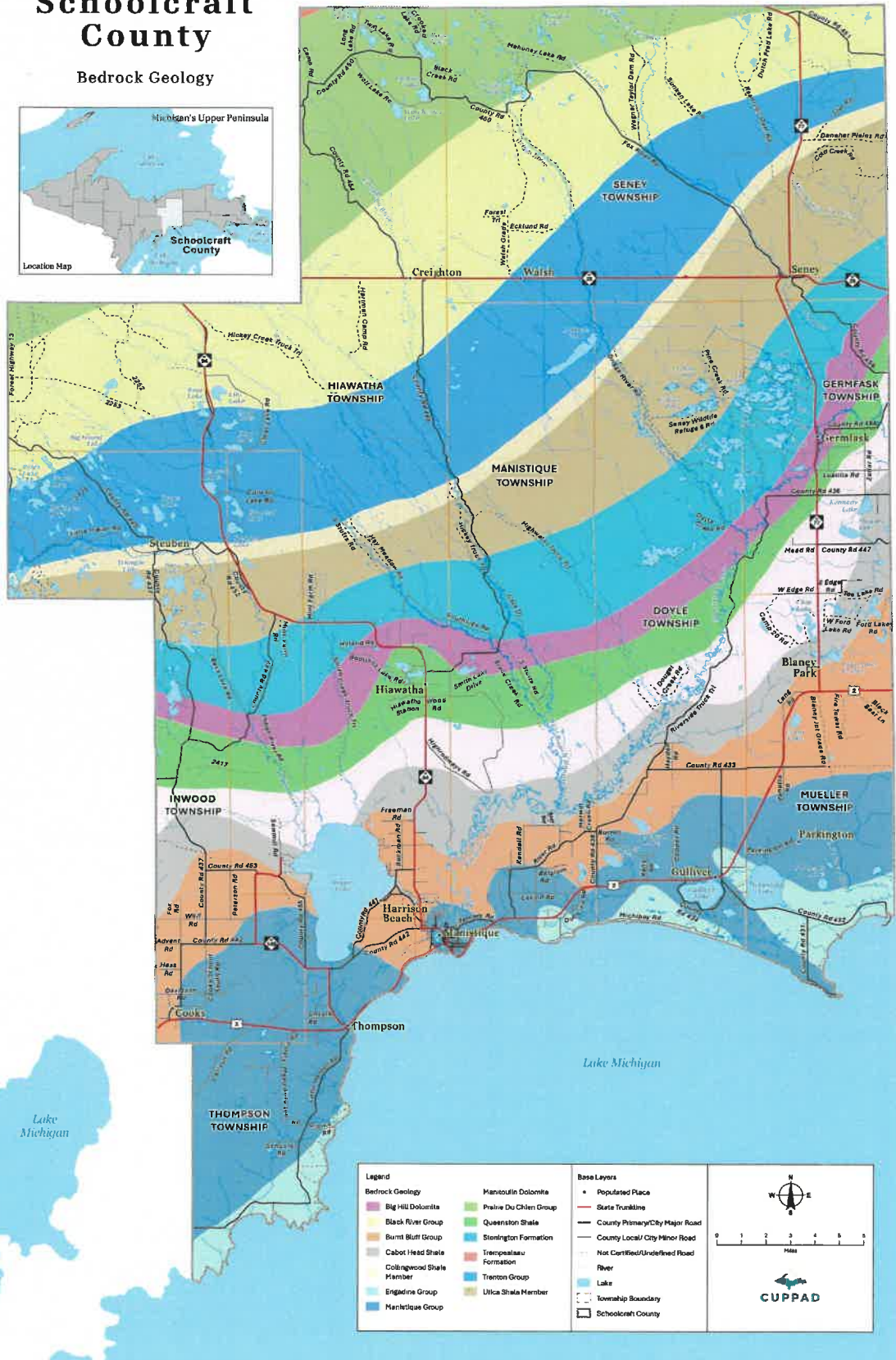
Orthophoto



<p>Legend</p> <ul style="list-style-type: none"> World Imagery (ESRI) - 1m Accuracy 	<p>Base Layers</p> <ul style="list-style-type: none"> Populated Place State Trunkline County Primary/City Major Road County Local/City Minor Road Not Certified/Undefined Road River Lake Township Boundary Schoolcraft County 	<p>0 1 2 3 4 Miles</p> <p>CUPPAD</p>
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Schoolcraft County

Bedrock Geology



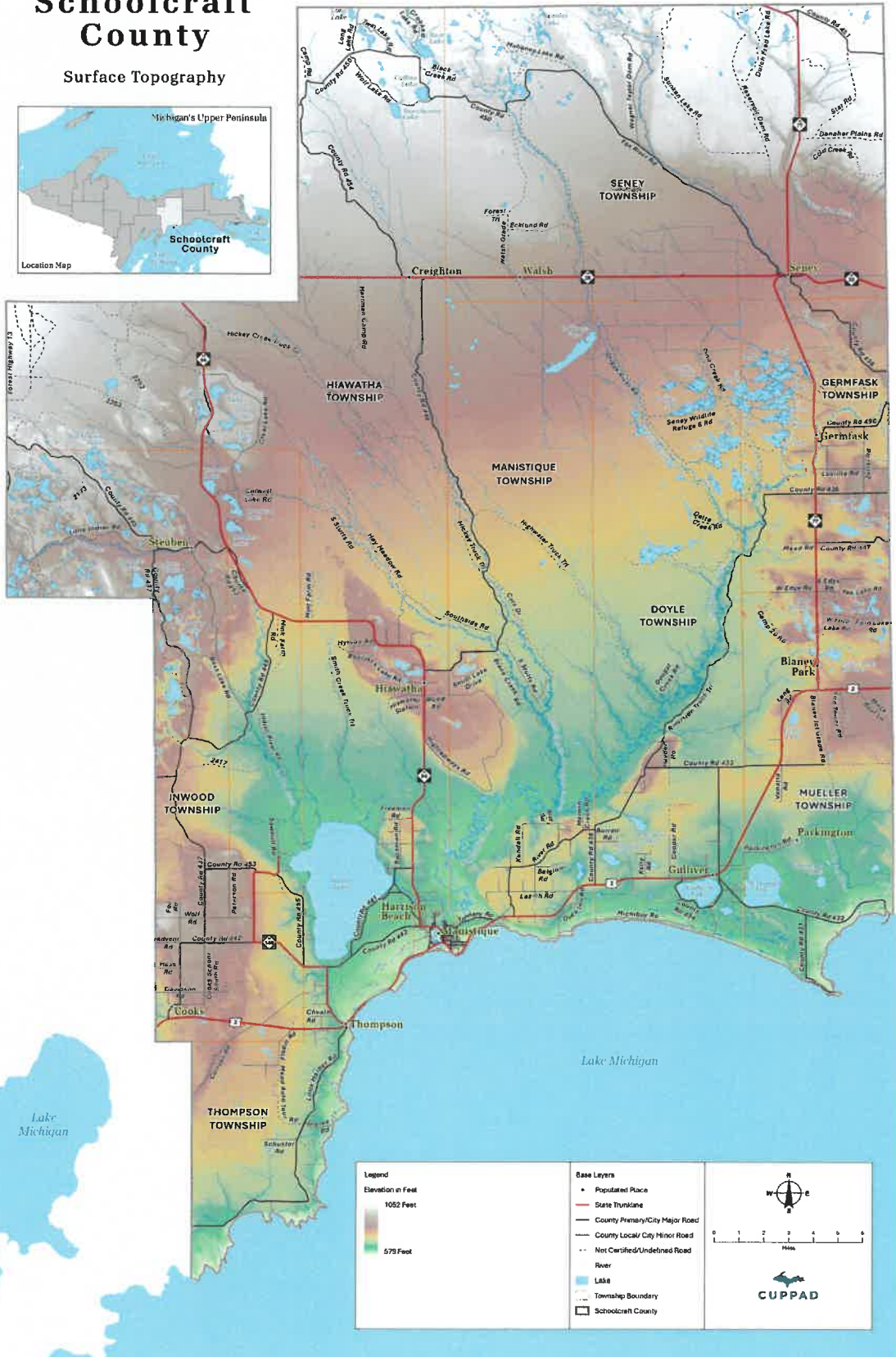
Legend		Base Layers	
Bedrock Geology	Manistquin Dolomite	Populated Place	State Trunkline
Big Hill Dolomite	Prairie Du Chien Group	County Primary/City Major Road	County Local/ City Minor Road
Black River Group	Queenston Shale	Not Cartlined/Underlined Road	River
Burnt Bluff Group	Stonington Formation	Lake	Township Boundary
Cabot Head Shale Member	Trempealeau Formation	Schoolcraft County	
Collingwood Shale Member	Tremont Group		
Engadine Group	Utica Shale Member		
Manistique Group			

Scale: 0 1 2 3 4 5 Miles

CUPPAD

Schoolcraft County

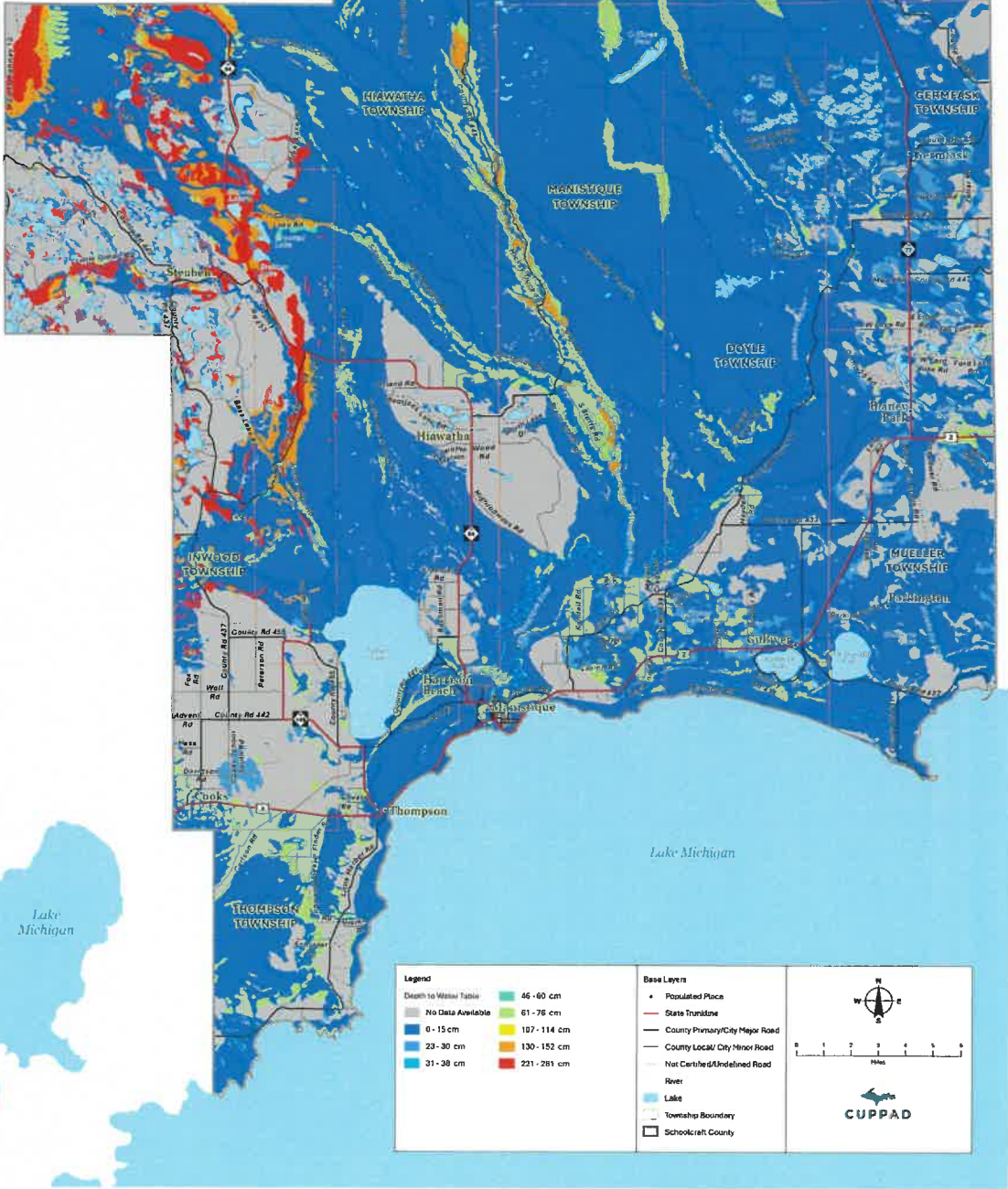
Surface Topography



<p>Legend</p> <p>Elevation in Feet</p> <p>1052 Feet</p> <p>579 Feet</p>	<p>Base Layers</p> <ul style="list-style-type: none"> Populated Place State Trunkline County Primary/City Major Road County Local/City Minor Road Not Certified/Undefined Road River Lake Township Boundary Schoolcraft County 	<p>0 1 2 3 4 5 6 Miles</p> <p>CUPPAD</p>
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Schoolcraft County

Depth to Water Table



Legend Depth to Water Table No Data Available 0 - 15 cm 23 - 30 cm 31 - 38 cm 46 - 60 cm 61 - 76 cm 107 - 114 cm 130 - 152 cm 221 - 281 cm		Base Layers Populated Place State Trunkline County Primary/City Major Road County Local/City Minor Road Not Centered/Undefined Road River Lake Township Boundary Schoolcraft County	 W N E S 0 1 2 3 4 5 Miles
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Schoolcraft County

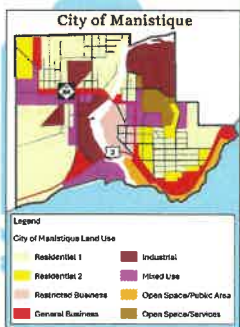
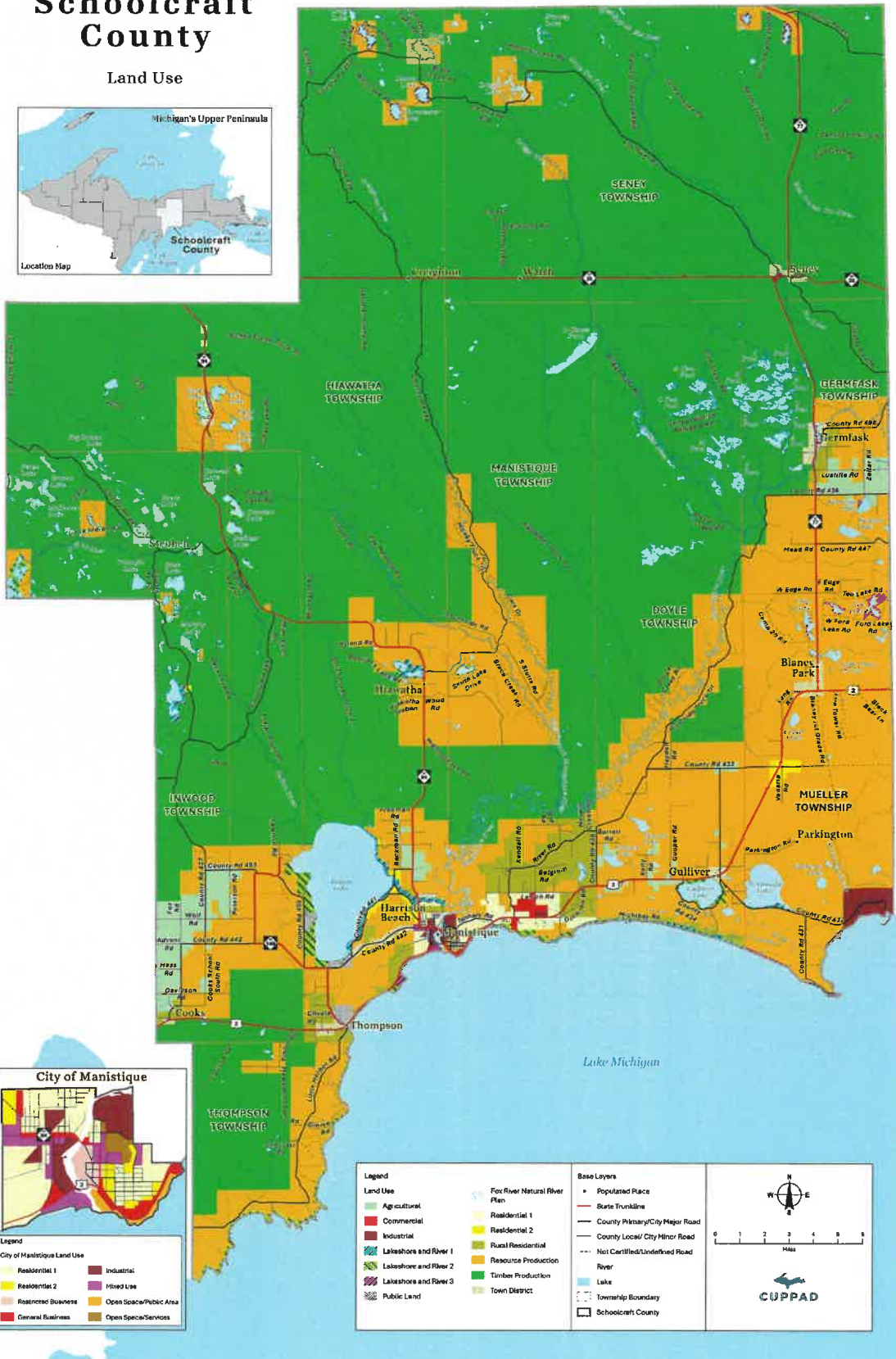
Land Cover



Legend		Base Layers
Open Water	Deciduous Forest	Populated Place
Developed, Open Space	Evergreen Forest	State Trunkline
Developed, Low Intensity	Mixed Forest	County Primary/City Major Road
Developed, Medium Intensity	Shrub/Scrub	County/Local/ City Minor Road
Developed, High Intensity	Herbaceous	Not Certified/Undefined Road
Barren Land	Hay/Pasture	River
	Cultivated Crops	Lake
	Woody Wetlands	Township Boundary
	Emergent Herbaceous Wetlands	Schoolcraft County

Schoolcraft County

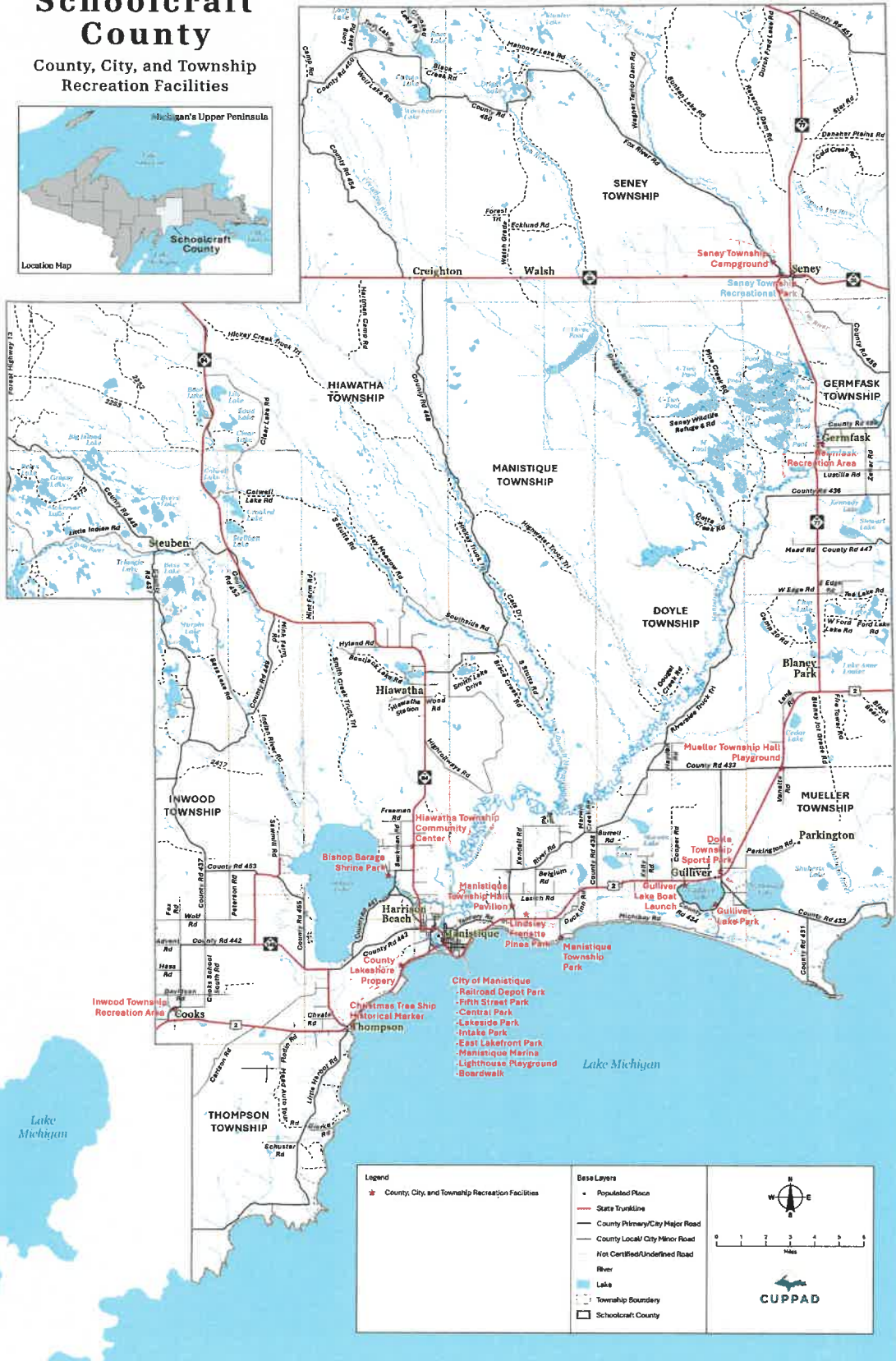
Land Use



<p>Legend</p> <p>Land Use</p> <ul style="list-style-type: none"> Agricultural Commercial Industrial Lakeshore and River 1 Lakeshore and River 2 Lakeshore and River 3 Public Land Residential 1 Residential 2 Rural Residential Resource Production Timber Production Town District 	<p>Base Layers</p> <ul style="list-style-type: none"> Populated Place State Thunkline County Primary/City Major Road County Local/City Minor Road Not Certified/Underfunded Road River Lake Township Boundary Schoolcraft County 	<p>CUPPAD</p>
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Schoolcraft County

County, City, and Township Recreation Facilities



<p>Legend</p> <ul style="list-style-type: none"> ★ County, City, and Township Recreation Facilities 	<p>Base Layers</p> <ul style="list-style-type: none"> • Populated Place — State Trunkline — County Primary/City Major Road — County Local/City Minor Road — Not Certified/Undefined Road — River — Lake — Township Boundary — Schoolcraft County 	<p>CUPPAD</p>
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Schoolcraft County

Act 51 Roads



<p>Legend</p> <ul style="list-style-type: none"> Act 51 Roads State Trunkline County Primary/City Major Road County Local/City Minor Road Not Certified/Undefined Road 	<p>Base Layers</p> <ul style="list-style-type: none"> Populated Place River Lake Township Boundary Schoolcraft County 	

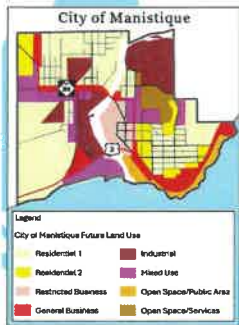
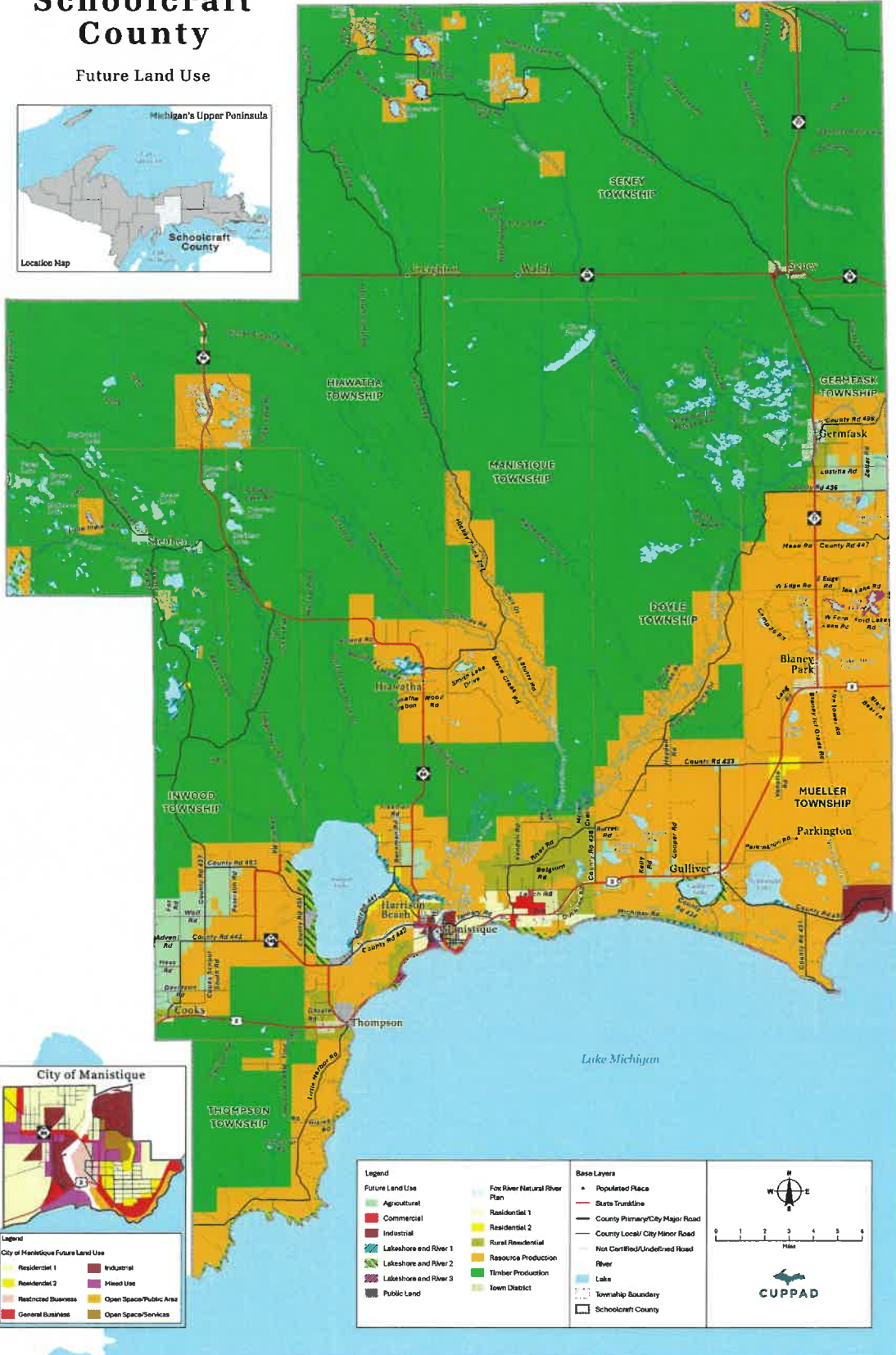
Schoolcraft County

National Functional Class (NFC) Roads



Schoolcraft County

Future Land Use



Legend		Base Layers	
Future Land Use	For River Natural River Plan	Populated Place	State Trunkline
Agricultural	Residential 1	County Primary/City Major Road	County Local/City Minor Road
Commercial	Residential 2	Not Certified/Undefined Road	River
Industrial	Rural Residential	Lake	Township Boundary
Lakeshore and River 1	Resource Production	Schoolcraft County	
Lakeshore and River 2	Timber Production		
Lakeshore and River 3	Town District		
Public Land			

