

SCHOOLCRAFT COUNTY MASTER PLAN

Adopted by Amendment to extend to 10 year review April 12, 2016

Previous adoption of Master Plan September 10, 2009

Next review of Master Plan 2019

Resolution # _____
Schoolcraft County Master Plan Adoption

Moved by: Board Member Ecclesine, Seconded by:
Grimm

WHEREAS, The Michigan Planning Enabling Act, PA 33 of 2008, provides that the Schoolcraft County Planning Commission make and approve a Master Plan for the physical development of the community; and

WHEREAS, The Schoolcraft County Planning Commission notified each municipality contiguous to the County, each public utility company and railroad company owning or operating a public utility or railroad within the County, for purposes of notification, of its intent to adopt a Master Plan; and

WHEREAS, The Planning Commission encouraged public participation through a various public input sessions, newspaper ads, and stakeholder meetings; and

WHEREAS, The proposed Master Plan was submitted to the Schoolcraft County Board, who authorized distribution of the proposed plan; and

WHEREAS, The proposed Master Plan was distributed to each municipality contiguous to the County, each public utility company and railroad company owning or operating a public utility or railroad within the County, for purposes of notification, for review and comment; and

WHEREAS, On September 10, 2009, after proper public notice, the Planning Commission held a public hearing on the proposed Master Plan, during which members of the public were given the opportunity to comment on the proposed Plan; and

WHEREAS, The Planning Commission approved the Master Plan for adoption at a meeting held September 10, 2009; and

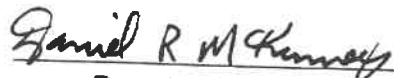
WHEREAS, The Schoolcraft County Board has determined that the draft of the Master Plan represents the long-range vision of Schoolcraft County.

THEREFORE BE IT RESOLVED, The Schoolcraft County Board hereby approves and adopts the Schoolcraft County Master Plan, as per the requirements of the Michigan Planning Enabling Act, PA 33 of 2008,

Yes: Ecclesine, Grimm, LaFoille, John Zellar, Gerald Zellar
No: None.

MOTION CARRIED.

I certify that the above is a true and complete copy of a resolution passed by the Schoolcraft County Board at a meeting on September 24, 2009.


Dan McKinney, Clerk


Jerry Zellar, Chairperson

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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 rests on the northern shores of Lake Michigan. Schoolcraft County is composed of nine local units of government, which includes eight townships and one city (see Base Map 1-1 and Orthophoto Map 1-2).

Schoolcraft County has a total area of approximately 1,884 square miles of which, 1,178 square miles is land and 706 square miles is water. 47 miles of Lake Michigan shoreline border the county to the south. The abundant timber growth, numerous lakes and streams and a variety of wildlife have made the county notable for its forest and recreational resources.

The first Europeans believed to have visited the area were members of French explorer Jean Nicolet's expedition. In the fall of 1670, Rene Robert de La Salle visited the area aboard the Griffin, the first sailing ship to ply the Great Lakes.

Early Native American residents, mainly members of the Ojibwa tribe, settled around Indian Lake and at the mouth of the Manistique River. In 1832, Fredric Baraga established a Catholic mission on the eastern shore of Indian Lake. During the same time period, Henry Rowe Schoolcraft, the county's namesake, was mapping the area and documenting the lives of tribal members and negotiating treaties. Schoolcraft County was officially organized in 1871, with the City of Manistique as the county seat.

Schoolcraft County was settled largely due to one tree species; the Eastern White Pine (*Pinus strobus*). Beginning in the early 1880s, logging companies began extracting lumber from the vast forests of white pine. Logging enterprises gave rise to two types of towns, lumber boomtowns and mill towns. Boomtowns served as recreation facilities for loggers. These towns appeared overnight and disappeared ten years later, after the pines were cut and the loggers had moved on. Seney, with its rail access to St. Ignace and Marquette, and a river route to Manistique became the center of the logging boom. During its peak, Seney boasted more than 20 saloons, 10 hotels, several stores and about 3,000 residents. Manistique was the largest mill town, its development fueled by the logs transported down the Manistique River. The power for the mills and the City's growth came from the same source, the Manistique River, harnessed by a large flume. Lumber was shipped east and south from the year-round harbor, providing the City with a foundation to become the City it is today.

The second phase of the County's history was also resource-oriented, but was a much less successful venture. Large areas of land were drained and sold to farmers, only to be abandoned after a few years due to lack of productivity. The few prosperous farms were located in the southern portion of the county, along a corridor down US-2. Farms existing today produce dairy, beef, small grains and beans. Much of the abandoned farmland and thousands of acres of logged and burned over land reverted back to the government due to delinquent taxes. These lands have been carefully managed and brought back to forest productivity by State and Federal agencies. Forested lands now comprise about two-thirds of the County. Hiawatha National Forest and Lake Superior State Forest are now productive forestlands, open to most forms of recreation. Seney National Wildlife Refuge is limited in the variety of recreation, due to its more specific function. Schoolcraft County possesses a variety of forests, fields and waters, providing a north woods habitat supporting 47 species of mammals and over 200 species of birds.

Even after the decline of the timber industry and difficulties in farming, many Schoolcraft County residents remained in the area. Pulpwood and paper manufacturing, and limestone milling and processing have developed into major industries. The area has long been a vacation haven and due to the increase in winter recreation, tourism has become a major economic growth factor.

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 "preferred 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 when considering 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 -- age, income, gender, education, and occupation, among 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 on 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 demonstrates population changes from 1960 to 2000 for the State of Michigan, Schoolcraft County, and Schoolcraft County jurisdictions.

**Table 2-1
Historic Population Trends**

	1960	1970	1980	1990	2000	Growth 1960-2000
Doyle Township	586	615	629	616	630	44
% Change	-	4.9%	2.8%	-2.1%	2.3%	7.5%
Germfask Township	650	529	607	542	491	-159
% Change	-	-18.6%	14.7%	-10.7%	-9.4%	-32.3%
Hiawatha Township	695	802	1,096	1,279	1,328	633
% Change	-	15.4%	36.7%	16.7%	3.8%	91.1%
Inwood Township	624	482	592	638	722	98
% Change	-	-22.8%	22.8%	7.8%	13.2%	15.7%
City of Manistique	4,875	4,324	3,962	3,456	3,583	-1292
% Change	-	-11.3%	-8.4%	-12.8%	3.7%	-26.5%
Manistique Township	645	716	862	916	1,053	408
% Change	-	11.0%	20.4%	6.3%	15.0%	63.3%
Mueller Township	331	263	255	206	245	-86
% Change	-	-20.5%	-3.0%	-19.2%	19.0%	-26.0%
Seney Township	236	178	174	185	180	-56
% Change	-	-24.6%	-2.2%	6.3%	-2.7%	-23.7%
Thompson Township	311	317	398	464	671	360
% Change	-	2.0%	25.6%	16.6%	44.6%	115.8%
Schoolcraft County	8,953	8,226	8,575	8,302	8,903	-50
% Change	-	-8.1%	4.2%	-3.2%	7.2%	-0.6%
State of Michigan	7,823,194	8,875,083	9,262,078	9,295,297	9,938,444	2,115,250
% Change	-	13.4%	4.4%	.4%	6.9%	27.0%

Source: U.S. Bureau of the Census for years cited.

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.

The above table shows the percentage increase or decrease for ten year increments. Doyle, Hiawatha, Inwood, Manistique and Thompson townships have all experienced growth which follows the trend set by State of Michigan. Hiawatha Township and Thompson Township have experienced the most growth from 1960-2000 by 91.1% and 115.8% respectively. Alternatively, Germfask Township has seen the greatest lost percentage-wise, for the same time period, at a growth of -32.3%, followed by City of Manistique (-26.5%), Mueller Township (-26.0%), and Seney Township (-23.7%).

Schoolcraft County's population has fluctuated from 1960-2000, with the greatest loss from 1960-1970 losing 727 persons and the greatest increase from 1990-2000 gaining 601 persons. Although the population has experienced variation from 1960-2000, Schoolcraft County has only had a net loss of 50 persons, a -0.6% population percentage loss.

Current estimates for the State of Michigan indicate that the state has lost nearly 10,000 people in 2006, 34,000 people in 2007 and 46,368 people in 2008. Should the state maintain its losses for another year, its population could fall below 10 million for the first time since 2000. Out-migration is driving the state's population decline. The state had a net loss of 109,257 people to domestic migration. Many movers left for economic reasons. Immigration from abroad has declined as well.

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. County population estimates are available for 2000-2007.

Table 2-2
Population Estimates, Selected Counties, 2000-2007

County	2000 Census	2001 Estimate	2002 Estimate	2003 Estimate	2004 Estimate	2005 Estimate	2006 Estimate	2007 Estimate	% Change
Alger	9,862	9,802	9,733	9,642	9,612	9,543	9,558	9,612	-2.5%
Delta	38,520	38,334	38,267	38,086	38,033	37,859	37,725	37,367	-3.0%
Dickinson	27,472	27,189	27,106	27,045	27,372	27,237	27,029	26,937	-1.9%
Marquette	64,634	64,639	64,792	64,676	65,138	65,122	65,222	65,216	.9%
Menominee	25,326	25,157	24,990	24,931	24,904	24,611	24,381	24,249	-4.3%
Schoolcraft	8,903	8,818	8,726	8,702	8,772	8,666	8,673	8,518	-4.3%

Source: U.S. Census Bureau T1. Population Estimates Dataset 2007-Population Estimates April 2000-July 2007

The percent change is calculated for the overall difference from 2000-2007, but estimated persons are given for each year. All counties have a change of less than -4.3%, except Marquette County which estimates a 0.9% increase.

2.4 Age and Gender

The age structure of a community as well as the trend of the population (community is getting younger, older or staying about the same) can indicate what services and facilities a community may be in need of. If a community's overall population is young, focus may need to be on schools, child care 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
Median Age, Selected Areas, 1990-2000

Unit of Government	1990	2000	% Change 1990-2000
Doyle Township	33.9	42.2	24.5%
Germfask Township	38.8	42.7	10.1%
Hiawatha Township	38.4	45.2	17.7%
Inwood Township	38.4	44.0	14.6%
City of Manistique	37.8	38.0	.5%
Manistique Township	34.9	39.0	11.7%
Mueller Township	45.6	51.4	12.7%
Seney Township	40.8	46.0	12.7%
Thompson Township	38.7	46.0	18.9%
Schoolcraft County	37.5	41.4	10.4%
State of Michigan	32.6	35.5	8.9%

Source: U.S. Census Bureau Selected Population and Housing Characteristics: 1990 and U.S. Census Bureau DP-1 Profile of General Demographic Characteristics: 2000 Dataset SF 1

Schoolcraft County, all townships and the City of Manistique have had a higher median age than the State of Michigan in 1990 and 2000. With the exception of the City of Manistique, all the townships and Schoolcraft County have experienced a higher percentage change than the State of Michigan at 8.9%. Mueller Township has had the highest median age in 1990 and 2000, 45.6 and 51.4 years respectively. While Doyle Township had the lowest

median age in 1990 at 33.9 years, the City of Manistique had the lowest median age in 2000 at 38.0 years. This table demonstrates that Schoolcraft County as a whole is an aging community.

Examination of a community's age breakdown is crucial to a sound decision making process. Tables 2-4 and 2-5 detail the age breakdown of Schoolcraft County's population for 1990 and 2000. This breakdown gives Schoolcraft County officials a sense of how the population's age is distributed for comparative and planning purposes.

**Table 2-4
Age Groups, 1990**

Age Group	Doyle Township		Germfask Township		Hiawatha Township		Inwood Township		Manistique City		Manistique Township	
	#	%	#	%	#	%	#	%	#	%	#	%
<5	53	8.6%	25	4.6%	74	5.8%	29	4.5%	225	6.5%	54	5.9%
5-9	61	9.9%	31	5.7%	98	7.7%	59	9.2%	240	6.9%	70	7.6%
10-14	45	7.3%	58	10.7%	102	8.0%	40	6.3%	240	6.9%	80	8.7%
15-19	37	6.0%	51	9.4%	78	6.1%	43	6.7%	204	5.9%	72	7.9%
20-24	27	4.4%	21	3.9%	40	3.1%	25	3.9%	183	5.3%	42	4.6%
25-34	97	15.7%	55	10.1%	183	14.3%	89	13.9%	497	14.4%	141	15.4%
35-44	85	13.8%	79	14.6%	196	15.3%	84	13.2%	443	12.8%	138	15.1%
45-54	64	10.4%	83	15.3%	135	10.6%	74	11.6%	297	8.6%	106	11.6%
55-59	24	3.9%	26	4.8%	73	5.7%	44	6.9%	171	4.9%	51	5.6%
60-64	36	5.8%	26	4.8%	70	5.5%	46	7.2%	194	5.6%	57	6.2%
65-74	56	9.1%	49	9.0%	148	11.6%	77	12.1%	370	10.7%	63	6.9%
75-84	26	4.2%	33	6.1%	65	5.1%	21	3.3%	280	8.1%	35	3.8%
85+	5	.8%	5	.9%	17	1.3%	7	1.1%	112	3.2%	7	.8%

**Table 2-4 continued
Age Groups, 1990**

Age Group	Mueller Township		Seney Township		Thompson Township		Schoolcraft County		State of Michigan	
	#	%	#	%	#	%	#	%	#	%
<5	9	4.4%	12	6.5%	23	5.0%	504	6.1%	702,554	7.6%
5-9	9	4.4%	14	7.6%	38	8.2%	620	7.5%	692,247	7.4%
10-14	10	4.9%	7	3.8%	36	7.8%	518	6.2%	666,370	7.2%
15-19	20	9.7%	18	9.7%	38	8.2%	561	6.8%	696,803	7.5%
20-24	7	3.4%	10	5.4%	14	3.0%	369	4.4%	705,318	7.6%
25-34	24	11.7%	17	9.2%	57	12.3%	1,160	14.0%	1,574,553	16.9%
35-44	22	10.7%	27	14.6%	66	14.2%	1,140	13.7%	1,406,149	15.1%
45-54	33	16.0%	19	10.3%	51	11.0%	862	10.4%	948,119	10.2%
55-59	16	7.8%	9	4.9%	27	5.8%	441	5.3%	392,787	4.2%
60-64	13	6.3%	14	7.6%	35	7.5%	491	5.9%	401,936	4.3%
65-74	29	14.1%	24	13.0%	60	12.9%	873	10.5%	655,838	7.1%
75-84	10	4.9%	11	5.9%	18	3.9%	499	6.0%	345,716	3.7%
85+	4	1.9%	3	1.6%	4	.9%	164	1.8%	106,907	1.2%

Source: U.S. Census Bureau, DP-1 Profile of General Demographic Characteristics: 2000, Dataset SF 1 and U.S. Census Bureau PO11.AGE- Universe: Persons Dataset STF 1

**Table 2-5
Age Groups, 2000**

Age Group	Doyle Township		Germfask Township		Hiawatha Township		Inwood Township		Manistiquette City		Manistiquette Township	
	#	%	#	%	#	%	#	%	#	%	#	%
<5	25	4.0%	34	6.9%	74	5.6%	34	4.7%	222	6.2%	78	7.4%
5-9	30	4.8%	28	5.7%	98	7.4%	51	7.1%	237	6.6%	76	7.2%
10-14	46	7.3%	23	4.7%	102	7.7%	49	6.8%	242	6.8%	66	6.3%
15-19	57	9.0%	25	5.1%	78	5.9%	43	6.0%	235	6.6%	77	7.3%
20-24	15	2.4%	34	6.9%	40	3.0%	16	2.2%	216	6.0%	45	4.3%
25-34	63	10.0%	57	11.6%	183	13.8%	61	8.4%	489	13.6%	118	11.2%
35-44	112	17.8%	59	12.0%	196	14.8%	121	16.8%	521	14.5%	169	16.0%
45-54	103	16.3%	74	15.1%	135	10.2%	103	14.3%	408	11.4%	155	14.7%
55-59	28	4.4%	33	6.7%	73	5.5%	46	6.4%	145	4.0%	82	7.8%
60-64	45	7.1%	41	8.4%	70	5.3%	54	7.5%	156	4.4%	58	5.5%
65-74	71	11.3%	43	8.8%	148	11.1%	90	12.5%	303	8.5%	82	7.8%
75-84	25	4.0%	22	4.5%	65	4.9%	48	6.6%	296	8.3%	41	3.9%
85+	10	1.6%	18	3.7%	17	1.3%	6	.8%	113	3.2%	6	.6%

**Table 2-5 continued
Age Groups, 2000**

Age Group	Mueller Township		Seney Township		Thompson Township		Schoolcraft County		State of Michigan	
	#	%	#	%	#	%	#	%	#	%
<5	15	6.1%	13	7.2%	36	5.4%	500	5.6%	672,005	6.8%
5-9	8	3.3%	10	5.6%	37	5.5%	560	6.3%	745,181	7.5%
10-14	13	5.3%	10	5.6%	34	5.1%	570	6.4%	747,012	7.5%
15-19	10	4.1%	13	7.2%	38	5.7%	602	6.8%	719,867	7.2%
20-24	7	2.9%	2	1.1%	26	3.9%	397	4.5%	643,839	6.5%
25-34	21	8.6%	21	11.7%	69	10.3%	996	11.2%	1,362,171	13.7%
35-44	31	12.7%	18	10.0%	85	12.7%	1,325	14.9%	1,598,373	16.1%
45-54	38	15.5%	19	10.6%	129	19.2%	1,263	14.2%	1,367,939	13.8%
55-59	28	11.4%	14	7.8%	48	7.2%	504	5.7%	485,895	4.9%
60-64	17	6.9%	15	8.3%	52	7.7%	533	6.0%	377,144	3.8%
65-74	43	17.6%	25	13.9%	65	9.7%	865	9.7%	642,880	6.5%
75-84	13	5.3%	16	8.9%	45	6.7%	597	6.7%	433,678	4.4%
85+	1	.4%	4	2.2%	7	1.0%	191	2.1%	142,460	1.4%

Source: U.S. Census Bureau, DP-1 Profile of General Demographic Characteristics: 2000 Dataset SF 1 and U.S. Census Bureau PO11.AGE-Universe: Persons Dataset STF 1

Age distribution trends are generally the same in 1990 and 2000. Schoolcraft County's school age population percentage, those under 19, is roughly 1-2% below the state. The percentage is also lower for those in the age groups 20-24, 25-34, and 35-44 than that of the state. However, Schoolcraft County's population percentage of those aged 60+ is higher than that of the state. The combination of a lower percent of school age persons and a higher percent of senior citizens demonstrates that Schoolcraft County is an aging community. This is due in part to an aging baby boomer population. Schoolcraft County also has a lower percent of those aged 20-44. This is probably due to college aged students moving to attend college and those who have graduated finding employment where opportunities are more plentiful.

2.5 Racial Composition

Racial composition in Schoolcraft County traditionally has been and continues to be largely white. The largest non-white racial group across the County is identified as American Indian, Eskimo, & Aleut. The largest black population is in the City of Manistique, 3.7%. The groups Asian & Pacific Islander and other races do not register higher than 1.6%.

Table 2-6**Number of Person by Race, 1990-2000**

One-Race Only	Doyle Township				Germfask Township				Hiawatha Township			
	1990		2000		1990		2000		1990		2000	
	#	%	#	%	#	%	#	%	#	%	#	%
White	563	91.4%	576	91.4%	523	96.5%	449	91.4%	1,214	94.9%	1,248	94.0%
Black	0	0.0%	3	.5%	0	0.0%	4	.8%	1	.08%	1	.08%
American Indian, Eskimo, & Aleut	51	8.3%	33	5.2%	19	3.5%	30	6.1%	60	4.7%	52	3.9%
Asian & Pacific Islander	2	.3%	0	0.0%	0	0.0%	1	.2%	2	.2%	5	.4%
Other Races	0	0.0%	0	0.0%	0	0.0%	0	0.0%	2	.2%	1	.08%
Total	616	100.0%	612	97.1%	542	100.0%	484	98.6%	1,279	100.0%	1,307	98.4%

Table 2-6 continued**Number of Person by Race, 1990-2000**

One-Race Only	Inwood Township				City of Manistique				Manistique Township			
	1990		2000		1990		2000		1990		2000	
	#	%	#	%	#	%	#	%	#	%	#	%
White	593	92.9%	651	90.2%	3,250	94.0%	3,118	87.0%	825	90.1%	874	83.0%
Black	3	.5%	0	0.0%	0	0.0%	134	3.7%	2	.2%	1	.09%
American Indian, Eskimo, & Aleut	39	6.1%	38	5.3%	198	5.7%	185	5.2%	85	9.3%	122	11.6%
Asian & Pacific Islander	1	.2%	4	.6%	4	.1%	26	.7%	4	.4%	0	0.0%
Other Races	2	.3%	4	.6%	4	.1%	10	.3%	0	0.0%	11	1.0%
Total	638	100.0%	697	96.5%	3,456	100.0%	3,473	97.0%	916	100.0%	1,008	95.7%

**Table 2-6 continued
Number of Person by Race, 1990-2000**

One-Race Only	Mueller Township				Seney Township				Thompson Township			
	1990		2000		1990		2000		1990		2000	
	#	%	#	%	#	%	#	%	#	%	#	%
White	184	89.3%	218	89.0%	184	99.5%	170	94.4%	419	90.3%	590	87.9%
Black	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	.2%	2	.3%
American Indian, Eskimo, & Aleut	22	10.7%	20	8.2%	1	.5%	1	.6%	44	9.5%	64	9.5%
Asian & Pacific Islander	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	.1%
Other Races	0	0.0%	4	1.6%	0	0.0%	1	.6%	0	0.0%	2	.3%
Total	206	100.0%	242	98.8%	185	100.0%	172	95.6%	464	100.0%	659	98.2%

**Table 2-6
Number of Person by Race, 1990-2000**

One-Race Only	Schoolcraft County				State of Michigan			
	1990		2000		1990		2000	
	#	%	#	%	#	%	#	%
White	7,755	93.4%	7,894	88.7%	7,756,086	83.4%	7,966,053	80.2%
Black	7	.08%	145	1.6%	1,291,706	13.9%	1,412,742	14.2%
American Indian, Eskimo, & Aleut	519	6.3%	545	6.1%	55,638	.6%	58,479	.6%
Asian & Pacific Islander	13	.2%	37	.4%	104,983	1.1%	179,202	1.8%
Other Races	8	.1%	33	.4%	86,884	.9%	129,552	1.3%
Total	8,302	100.0%	8,654	97.2%	9,295,297	100.0%	9,746,028	98.1%

Source U.S. Census Bureau P.006.RACE - Universe: Persons 1990 Dataset STF 1 and DP-1 Profile of General Demographic Characteristics: 2000 Dataset SF 1

2.6 Educational Attainment

Table 2-7 shows the educational attainment of persons aged 25 or older. 31.3% of Michigan's population has graduated high school. All jurisdictions within and including Schoolcraft County have a higher high school graduate rate, except Seney Township in which only 26.7% of the population has graduated high school. Collegiate degree percentages (Associate, Bachelor's, Graduate or Professional) in Schoolcraft County and jurisdictions are lower than the State of Michigan. The only exception to this is the Associate Degree. Michigan's Associate Degree attainment rate is 7.0%, but is higher in Hiawatha Township—7.2%, Manistique Township—7.3% and Thompson Township—10.6%.

Table 2-7 Educational Attainment of Persons Aged 25 or Older, 2000												
Educational Attainment	Doyle Twp.		Germfask Twp.		Hiawatha Twp.		Inwood Twp.		Manistique City		Manistique Twp.	
	#	%	#	%	#	%	#	%	#	%	#	%
Less than 9 th Grade	15	3.1%	32	9.0%	30	3.2%	22	4.0%	172	7.0%	42	6.1%
9 th -12 th Grade, No Diploma	86	18.8%	79	22.3%	95	10.0%	68	12.4%	336	13.7%	105	15.1%
High School Graduate	223	46.8%	158	44.5%	393	41.5%	264	48.0%	1,164	47.4%	273	39.3%
Some College, No Degree	75	15.7%	54	51.2%	202	21.3%	91	16.5%	494	20.1%	114	16.4%
Associate Degree	21	4.4%	18	5.1%	68	7.2%	31	5.6%	101	4.1%	51	7.3%
Bachelor's Degree	34	7.1%	12	3.4%	111	11.7%	41	7.5%	161	6.6%	81	11.7%
Graduate or Professional Degree	23	4.8%	2	0.6%	48	5.1%	33	6.0%	27	1.1%	28	4.0%

Table 2-7 continued Educational Attainment of Persons Aged 25 or Older, 2000										
Educational Attainment	Mueller Twp.		Seney Twp.		Thompson Twp.		Schoolcraft Co.		Michigan	
	#	%	#	%	#	%	#	%	#	%
Less than 9 th Grade	11	6.1%	3	2.6%	30	6.0%	357	5.7%	299,014	4.7%
9 th -12 th Grade, No Diploma	43	24.0%	44	37.9%	78	15.6%	934	14.9%	765,119	11.9%
High School Graduate	79	44.1%	31	26.7%	169	33.9%	2754	43.9%	2,010,861	31.3%
Some College, No Degree	24	13.4%	17	14.7%	90	18.0%	1161	18.5%	1,496,576	23.3%
Associate Degree	7	3.9%	6	5.2%	53	10.6%	356	5.7%	448,112	7.0%
Bachelor's Degree	12	6.7%	15	12.9%	47	9.4%	514	8.2%	878,680	13.7%
Graduate or Professional Degree	3	1.7%	0	0.0%	32	6.4%	196	3.1%	517,579	8.1%

Source: U.S. Census Bureau DP-2 Profile of Selected Social Characteristics: 2000 Dataset: SF 3

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 the Census defines a household as all persons who occupy a housing unit, i.e. 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 one person living alone, or any combination of people not related by blood, marriage or adoption.

**Table 2-8
Household Characteristics, 1990-2000**

Household Type	Doyle Township				Germfask Township				Hiawatha Township			
	1990		2000		1990		2000		1990		2000	
	#	%	#	%	#	%	#	%	#	%	#	%
Family Households	180	84.5	193	75.4	139	72.0	143	72.2	389	78.0	404	71.8
Married-Couple Family	172	80.8	179	69.9	124	64.2	126	63.6	349	69.9	365	64.8
Female Householder	5	2.3	8	3.1	11	5.7	11	5.6	23	4.6	22	3.9
Male Householder	3	1.4	6	2.3	4	2.1	6	3.0	17	3.4	17	3.0
Non-family Households	33	15.5	63	24.6	54	28.0	55	27.8	110	22.0	159	28.2
Householder Living Alone	30	14.1	51	19.9	49	25.4	46	23.2	97	19.4	148	26.3
Householder 65 or Older	12	5.6	20	7.8	28	14.5	21	10.6	43	8.6	67	11.9
Total Households	213	100.0	256	100.0	193	100.0	198	100.0	499	100.0	563	100.0
Average Household Size	2.89		2.46		2.81		2.44		2.56		2.36	

**Table 2-8 continued
Household Characteristics, 1990-2000**

Household Type	Inwood Township				City of Manistique				Manistique Township			
	1990		2000		1990		2000		1990		2000	
	#	%	#	%	#	%	#	%	#	%	#	%
Family Households	201	83.4	235	80.2	942	64.2	865	59.7	267	78.3	310	75.4
Married-Couple Family	175	72.6	211	72.0	721	49.1	628	43.3	231	67.8	257	62.5
Female Householder	17	7.1	14	4.8	170	11.6	187	12.9	29	8.5	29	7.1
Male Householder	9	3.7	10	3.4	51	3.5	50	3.5	7	2.1	24	5.8
Non-family Households	40	16.6	58	19.8	526	35.8	584	40.3	74	21.7	101	24.6
Householder Living Alone	36	14.9	55	18.8	476	32.4	535	36.9	60	17.6	82	20.0
Householder 65 or Older	16	6.6	27	9.2	276	18.8	260	17.9	30	8.8	33	8.0
Total Households	241	100.0	293	100.0	1,468	100.0	1,449	100.0	341	100.0	411	100.0
Average Household Size	2.65		2.46		2.3		2.24		2.69		2.56	

**Table 2-8 continued
Household Characteristics, 1990-2000**

Household Type	Mueller Township				Seney Township				Thompson Township			
	1990		2000		1990		2000		1990		2000	
	#	%	#	%	#	%	#	%	#	%	#	%
Family Households	63	76.0	84	82.4	46	62.2	45	80.4	147	81.0	219	78.8
Married-Couple Family	57	68.7	77	75.5	37	50.0	35	62.5	130	71.4	200	71.9
Female Householder	4	4.8	4	3.9	6	8.1	8	14.3	13	7.1	10	3.6
Male Householder	2	2.4	3	2.9	3	4.1	2	3.6	4	2.2	9	3.2
Non-family Households	20	24.1	18	17.6	28	37.8	11	19.6	35	19.2	59	21.2
Householder Living Alone	18	21.7	15	14.7	25	33.8	10	17.9	26	14.3	47	16.9
Householder 65 or Older	10	12.0	12	11.8	12	16.2	6	10.7	15	8.2	23	8.3
Total Households	83	100.0	102	100.0	74	100.0	56	100.0	182	100.0	278	100.0
Average Household Size	2.48		2.4		2.5		2.66		2.55		2.41	

Table 2-8 continued Household Characteristics, 1990-2000								
Household Type	Schoolcraft County				State of Michigan			
	1990		2000		1990		2000	
	#	%	#	%	#	%	#	%
Family Households	2,374	72.1	2,498	69.3	2,439,171	71.3	2,575,699	68.0
Married-Couple Family	1,996	60.6	2,078	57.6	1,883,143	55.1	1,947,710	51.4
Female Householder	278	8.4	293	8.1	442,239	12.9	473,802	12.5
Male Householder	100	3.0	127	3.5	113,789	3.3	154,187	4.1
Non-family Households	920	28.0	1,108	30.7	980,160	28.7	1,209,962	32.0
Householder Living Alone	817	24.8	989	27.4	809,449	23.7	993,607	26.2
Householder 65 or Older	442	13.4	469	13.0	317,659	9.3	355,414	9.4
Total Households	3,294	100.0	3,606	100.0	3,419,331	100.0	3,785,661	100.0
Average Household Size	2.5		2.36		2.66		2.56	

Sources: U.S. Census Bureau DP-1 Profile of General Demographic Characteristics: 2000 Dataset SF 1; DP-1 General Population and Housing Characteristics: 1990 Dataset STF 1; P003 Households-Universe: Households Dataset STF 1

From 1990-2000, slight decreases in the number of total households occurred in the City of Manistique (-19) and Seney Township (-18). All other areas saw increases which follow the lead of the State. All jurisdictions, except Seney Township, also followed the state trend of a decreasing average family size from 1990-2000. The decrease in average family size ranged from -0.06 to -0.43. While the number of female households increased at both the county and state levels, the percentage rate of the county remained much lower than the State of Michigan. The number of male-led households followed this as well. The number of male-led households increased at the county and state levels, but the county percent rate remained slightly lower than that of the state. The number of non-family households has increased across the board, but the City of Manistique is the only area which has a higher rate at 40.3% than the state at 32.0%.

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 1,124.3 persons per square mile in Schoolcraft County. The lowest population density is in Seney Township at 0.8 persons per square mile. As evidenced in Table 2-9, townships in the Upper Peninsula have a much lower population density than the surrounding cities.

Table 2-9
Population Densities, 2000

	Land Area in Square Miles	Population	Persons/Square Mile
Doyle Township	147.37	630	4.3
Germfask Township	67.76	491	7.2
Hiawatha Township	278.46	1,328	4.8
Inwood Township	120.30	722	6.0
City of Manistique	3.19	3,583	1,124.0
Manistique Township	150.28	1,053	7.0
Mueller Township	83.89	245	2.9
Seney Township	213.91	180	0.8
Thompson Township	112.95	671	5.9
Schoolcraft County	1,178.11	8,903	7.6
State of Michigan	56,803.82	9,938,444	175.0
City of Escanaba	11.7	13,140	1,123.1
City of Gladstone	4.5	5,032	1,118.2
City of Iron Mountain	7.2	8,154	1,132.5
City of Ishpeming	8.7	6,686	768.5
City of Kingsford	4.3	5,549	1,290.5
City of Marquette	11.4	19,661	1,724.6
City of Menominee	5.0	9,131	1,826.2
City of Munising	5.4	2,539	470.2
City of Negaunee	13.8	4,576	331.6
City of Norway	8.8	2,959	336.3

Source: U.S. Census Bureau GCT-PH1 Population, Housing Units, Area, and Density: 2000 Dataset SF 1

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 2020 for counties in 1996. 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 2020 are presented for selected areas in Table 2-10.

**Table 2-10
Historical Population Data and Projections, Selected Areas 1990-2020**

Area	1990	1995	2000	2005	2010	2015	2020
Dickinson County	26,831	27,161	27,472	27,589	27,746	27,942	28,096
Alger County	8,972	9,847	9,862	9,647	10,114	10,192	10,205
Delta County	37,780	35,582	38,520	38,189	39,004	39,244	39,400
Marquette County	70,887	65,427	64,634	64,677	68,393	67,016	66,661
Menominee County	24,920	24,537	25,326	24,892	21,497	20,565	19,581
Schoolcraft County	8,302	8,706	8,903	8,779	8,926	8,970	8,929
State of Michigan	9,290,215	9,556,063	9,956,689	10,100,833	10,121,298	10,284,960	10,454,737
United States	248,709,873	262,073,000	281,421,906	287,082,000	299,194,000	311,833,000	324,668,000

Source: Department of Management and Budget, Population to Year 2020 in Michigan, 1996 and United States Bureau of the Census 1990, 2000.

**Table 2-11
Historical Population Data and Projections, Percent Change, Selected Areas 1990-2020**

Area	1990-1995	1995-2000	2000-2005	2005-2010	2010-2015	2015-2020	1990-2020
Dickinson County	1.23	1.15	0.43	0.57	0.71	0.55	4.71
Alger County	9.75	0.15	-2.18	4.84	0.77	0.13	13.74
Delta County	2.12	7.61	-0.86	2.13	0.46	0.40	4.29
Marquette County	-7.70	-0.01	0.07	5.75	-1.14	-1.41	-5.96
Menominee County	-1.54	3.21	-1.71	-13.6	-4.34	-4.78	-21.42
Schoolcraft County	4.87	2.26	-1.39	0.49	0.49	-0.46	7.55
State of Michigan	2.86	4.19	1.45	1.62	1.62	1.65	12.53
United States	5.37	7.38	4.22	4.12	4.22	4.12	30.54

Source: Department of Management and Budget, Population to Year 2020 in Michigan, 1996 and United States Bureau of the Census 1990, 2000.

The population forecast for Schoolcraft County is a 7.55% growth from 1990 to 2020. This is the second highest projected growth rate among the six central Upper Peninsula counties, but is far less than the projected growth for the State of Michigan and the United States as a whole. Alger, Delta and Dickinson counties are also expected to see a positive population change. Marquette and Menominee counties are expected to see declines in population. Menominee County has the largest projected decline at -21.42%, just over 1/5 of the total population.

Updated population projections released by the U.S. Census Bureau for each state forecast that Michigan will grow by 12.53% between 1990 and 2020, while the United States is projected to grow by 30.54% 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 may 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

Schoolcraft County's population remained stable from 1960 to 2000, experiencing a net loss of only 50 residents (-0.6%) over the 40 year period. In contrast, estimates indicate the State of Michigan lost approximately 46,000 people in 2008.

Current estimates indicate a slightly larger population decline for Schoolcraft County from 2000 to 2007, at nearly 4.3%.

Schoolcraft County has a significantly higher median age (41.4 years) than the State (35.5), as well as a lower percentage of school age persons and a higher percentage of senior citizens, indicating 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.

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 (43.9%) than the State overall (31.3%). Rates of those attaining a Bachelor's or Graduate/Professional degree remain lower for the County when compared to the State.

Average household size for Schoolcraft County has decreased from 1990 (2.5) to 2000 (2.36). This is a trend recognized across the country.

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.

The Department of Management and Budget predicts a very slight population increase for Schoolcraft County from 2000 to 2020.

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 economic 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 person in the labor force.

In 2000, the labor force participation rate for the City of Manistique was 50.9%. The Township with the highest percentage rate for labor force participation in Schoolcraft County was Manistique Township at 61.5%. Schoolcraft County's labor force participation rate was 52.9%. These three rates are all lower than that State of Michigan's labor force participation rate of 64.6%.

In 2000, the City of Manistique's unemployment rate 7.0%. Mueller Township had the lowest unemployment rate of 3.7% and Seney Township had the highest rate at 15.7%. These compare to the 6.5% unemployment rate for the County and to the State's unemployment rate of 3.7%. Table 3-1 provides comparative labor force data.

Table 3-1 Civilian Labor Force Employment Status, 2000								
Characteristics	Doyle Twp.		Germfask Twp.		Hiawatha Twp.		Inwood Twp.	
	#	%	#	%	#	%	#	%
Population 16 Years and Older	538	100.0	398	100.0	1,070	100.0	618	100.0
In Labor Force	302	56.1	191	48.0	600	56.1	316	51.1
Civilian Labor Force	302	56.1	191	48.0	600	56.1	316	51.1
Employed	274	50.9	166	41.7	542	50.7	267	43.2
Unemployed	28	5.2	25	6.3	58	5.4	49	7.9
% of Civilian Labor Force	-	9.3	-	13.1	-	9.7	-	15.5
Armed Forces	0	0.0	0	0.0	0	0.0	0	0.0
Not In Labor Force	236	46.9	207	52.0	470	43.9	302	48.9

Table 3-1 continued Civilian Labor Force Employment Status, 2000								
Characteristics	Manistique City		Manistique Twp.		Mueller Twp.		Seney Twp.	
	#	%	#	%	#	%	#	%
Population 16 Years and Older	2,819	100.0	789	100.0	191	100.0	121	100.0
In Labor Force	1,434	50.9	485	61.5	84	44.0	60	49.6
Civilian Labor Force	1,434	50.9	485	61.5	84	44.0	60	49.6
Employed	1,237	43.9	427	54.1	77	40.3	41	33.9
Unemployed	197	7.0	58	7.4	7	3.7	19	15.7
% of Civilian Labor Force	-	13.7	-	12.0	-	8.3	-	31.7
Armed Forces	0	0.0	0	0.0	0	0.0	0	0.0
Not In Labor Force	1,385	49.1	304	38.5	107	56.0	61	50.4

Table 3-1 continued Civilian Labor Force Employment Status, 2000						
Characteristics	Thompson Twp.		Schoolcraft County		State of Michigan	
	#	%	#	%	#	%
Population 16 Years and Older	545	100.0	7,089	100.0	7,630,645	100.0
In Labor Force	276	50.6	3,748	52.9	4,926,463	64.6
Civilian Labor Force	276	50.6	3,748	52.9	4,922,453	64.5
Employed	254	46.6	3,285	46.3	4,637,461	60.8
Unemployed	22	4.0	463	6.5	284,992	3.7
% of Civilian Labor Force	-	8.0	-	12.4	-	5.8
Armed Forces	0	0.0	0	0.0	4,010	0.1
Not In Labor Force	269	49.4	3,341	47.1	2,704,182	35.4

Source: U.S. Census Bureau, Table DP-3. Profile of Selected Economic Characteristics: 2000, Dataset SF 3

Labor force participation by females is presented in Table 3-2. The percentage of women in the labor force increased from 1990 to 2000 at all

levels, Townships, City, County and State, except for Thompson Township which experienced a decline of 8.5%.

Labor force participation by females with children had a general increase as well. The labor force participation rate by females with children declined in Inwood Township and the City of Manistique for women with children aged 6 to 17 years old. In Manistique Township, rates for women with children under 6 years and women with children 6 to 17 years of age both experienced a decrease in the labor force participation rates.

**Table 3-2
Labor Force Participation of Women 1990-2000**

Characteristics	Doyle Township				Germfask Township				Hiawatha Township			
	1990		2000		1990		2000		1990		2000	
	#	%	#	%	#	%	#	%	#	%	#	%
Women 16 Years and Older	220	100.0	253	100.0	216	100.0	215	100.0	491	100.0	502	100.0
In Labor Force	97	44.1	143	56.5	88	40.2	93	43.3	235	47.9	251	50.0
Women w/Children Under 6 Years	35	100.0	28	100.0	15	100.0	35	100.0	64	100.0	43	100.0
In Labor Force	20	57.1	24	85.7	5	33.3	26	74.3	46	71.9	36	83.7
Women w/Children 6-17 Years	43	100.0	46	100.0	47	100.0	16	100.0	95	100.0	97	100.0
In Labor Force	32	74.4	42	91.3	28	59.6	11	68.8	65	68.4	79	81.4

**Table 3-2 continued
Labor Force Participation of Women 1990-2000**

Characteristics	Inwood Township				City of Manistique				Manistique Township			
	1990		2000		1990		2000		1990		2000	
	#	%	#	%	#	%	#	%	#	%	#	%
Women 16 Years and Older	272	100.0	321	100.0	1,512	100.0	1,487	100.0	344	100.0	384	100.0
In Labor Force	120	44.1	154	48.0	684	45.2	715	48.1	165	48.0	215	56.0
Women w/Children Under 6 Years	26	100.0	43	100.0	177	100.0	174	100.0	57	100.0	61	100.0
In Labor Force	17	65.4	36	83.7	97	54.8	133	76.4	33	57.9	35	57.4
Women w/Children 6-17 Years	47	100.0	55	100.0	258	100.0	226	100.0	70	100.0	63	100.0
In Labor Force	29	61.7	30	54.5	206	79.8	158	69.9	54	77.1	47	74.6

Table 3-2 continued
Labor Force Participation of Women 1990-2000

Characteristics	Mueller Township				Seney Township				Thompson Township			
	1990		2000		1990		2000		1990		2000	
	#	%	#	%	#	%	#	%	#	%	#	%
Women 16 Years and Older	80	100.0	92	100.0	78	100.0	55	100.0	162	100.0	263	100.0
In Labor Force	24	30.0	43	46.7	34	43.6	32	58.2	76	46.9	101	38.4
Women w/Children Under 6 Years	6	100.0	8	100.0	9	100.0	6	100.0	28	100.0	33	100.0
In Labor Force	3	50.0	8	100.0	5	55.6	4	66.7	17	60.7	25	75.8
Women w/ Children 6-17 Years	10	100.0	8	100.0	9	100.0	3	100.0	35	100.0	31	100.0
In Labor Force	4	40.0	8	100.0	7	77.8	3	100.0	21	60.0	26	83.9

Labor Force Participation of Women 1990-2000

Characteristics	Schoolcraft County				State of Michigan			
	1990		2000		1990		2000	
	#	%	#	%	#	%	#	%
Women 16 Years and Older	3,378	100.0	3,572	100.0	3,713,304	100.0	3,943,137	100.0
In Labor Force	1,523	45.1	1,747	48.9	2,068,411	55.7	2,305,121	58.5
Women w/Children Under 6 Years	417	100.0	431	100.0	578,410	100.0	538,904	100.0
In Labor Force	243	58.3	327	75.9	330,272	57.1	345,118	64.0
Women w/Children 6-17 Years	614	100.0	545	100.0	638,563	100.0	695,448	100.0
In Labor Force	446	72.6	404	74.1	468,067	73.3	534,956	76.9

Source: U.S. Census Bureau 1990 CPH-L-83 Selected Social Characteristics Table 1 (Book)
Table QT-P26 Employment Status and Work Status in 1999 of Family Members: 2000 Dataset SF

3.3 Employment by Industry Group

Table 3-3 provides comparative data derived from the 2000 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.

The three leading employment sectors for the City of Manistique are educational, health and social services (22.2%), arts, entertainment, recreation, accommodation and food services (14.0%), and retail trade (13.8). The same three employment sectors are also leaders in Schoolcraft County, which are educational, health and social services (22.8%), retail trade (12.0%), and arts, entertainment, recreation, accommodation and food services (11.6%). The State of Michigan's top three employment sectors have a slight variation and are as follows; manufacturing (22.5%), educational, health and social services (19.9%), and retail trade (11.9%).

Table 3-3
Employment by Broad Economic Division, 2000

Broad Economic Division	Doyle Township		Germfask Township		Hiawatha Township		Inwood Township		Manistique City	
	#	%	#	%	#	%	#	%	#	%
Agriculture, Forestry, Fishing & Hunting, Mining	29	10.6	21	12.7	41	7.6	26	9.7	68	5.5
Construction	26	9.5	15	9.0	33	6.1	24	9.0	88	7.1
Manufacturing	19	6.9	14	8.4	62	11.4	18	6.7	156	12.6
Wholesale Trade	8	2.9	0	0.0	6	1.1	4	1.5	8	0.6
Retail Trade	33	12.0	13	7.8	66	12.2	29	10.9	171	13.8
Transportation & Warehousing, Utilities	14	5.1	13	7.8	23	4.2	12	4.5	29	2.3
Information	2	0.7	0	0.0	13	2.4	0	0.0	18	1.5
Finance, Insurance, Real Estate	8	2.9	8	4.8	32	5.9	10	3.7	55	4.4
Professional, Scientific, Management, Administrative, and Waste Management Services	5	1.8	7	4.2	16	3.0	10	3.7	18	1.5
Educational, Health & Social Services	62	22.6	37	22.3	152	28.0	68	25.5	274	22.2
Arts, Entertainment, Recreation, Accommodation And Food Services	26	9.5	21	12.7	31	5.7	35	13.1	173	14.0
Other Services	18	6.6	0	0.0	16	3.0	10	3.7	97	7.8
Public Administration	24	8.8	17	10.2	51	9.4	21	7.9	82	6.6

Table 3-3 Employment by Broad Economic Division, 2000										
Broad Economic Division	Manistique Township		Mueller Township		Seney Township		Thompson Township		Schoolcraft County	
	#	%	#	%	#	%	#	%	#	%
Agriculture, Forestry, Fishing & Hunting, Mining	44	10.3	7	9.1	0	0.0	15	5.9	251	7.6
Construction	27	6.3	12	15.6	0	0.0	25	9.8	250	7.6
Manufacturing	52	12.2	0	0.0	7	17.1	31	12.2	359	10.9
Wholesale Trade	2	0.5	2	2.6	2	4.9	9	3.5	41	1.2
Retail Trade	46	10.8	13	16.9	8	19.5	14	5.5	393	12.0
Transportation & Warehousing, Utilities	18	4.2	4	5.2	0	0.0	21	8.3	134	4.1
Information	3	0.7	0	0.0	0	0.0	7	2.8	43	1.3
Finance, Insurance, Real Estate	31	7.3	6	7.8	2	4.9	10	3.9	162	4.9
Professional, Scientific, Management, Administrative, and Waste Management Services	7	1.6	3	3.9	0	0.0	12	4.7	78	2.4
Educational, Health & Social Services	101	23.7	16	20.8	4	9.8	36	14.2	750	22.8
Arts, Entertainment, Recreation, Accommodation And Food Services	41	9.6	5	6.5	10	24.4	38	15.0	380	11.6
Other Services	23	5.4	5	6.5	3	7.3	14	5.5	186	5.7
Public Administration	32	7.5	4	5.2	5	12.2	22	8.7	258	7.9

Table 3-3 Employment by Broad Economic Division, 2000		
Broad Economic Division	State of Michigan	
	#	%
Agriculture, Forestry, Fishing & Hunting, Mining	49,496	1.1
Construction	278,079	6.0
Manufacturing	1,045,651	22.5
Wholesale Trade	151,656	3.3
Retail Trade	550,918	11.9
Transportation & Warehousing, Utilities	191,799	4.1
Information	98,887	2.1
Finance, Insurance, Real Estate	246,633	5.3
Professional, Scientific, Management, Administrative, and Waste Management Services	371,119	8.0
Educational, Health & Social Services	921,395	19.9
Arts, Entertainment, Recreation, Accommodation And Food Services	351,229	7.6
Other Services	212,868	4.6
Public Administration	167,731	3.6

Source: U.S. Census Bureau Table DP-3 Profile of Selected Characteristics: 2000 Dataset
SF 3

3.4 Employment by Place of Work

Census information indicating where Schoolcraft County residents are employed is shown in Table 3-4. Inwood Township has the highest percentage (35.2%) of residents who worked outside of Schoolcraft County, while Manistique Township has the lowest percentage at 6.2%. Only 1.5% of Schoolcraft County residents have worked outside of Michigan, which is right in line with State's rate of 1.6%.

Table 3-4
Workers Age 16 and Over, Place of Work, 2000

Characteristics	Doyle Township		Germfask Township		Hiawatha Township		Inwood Township		Manistique City	
	#	%	#	%	#	%	#	%	#	%
Total Residents Employed	271	100.0	161	100.0	534	100.0	253	100.0	1,206	100.0
Worked in Schoolcraft County	238	87.8	122	75.8	463	86.7	161	63.6	1,092	90.5
Worked outside Schoolcraft County	31	11.4	36	22.4	62	11.6	89	35.2	99	8.2
Worked in Michigan	269	99.3	158	98.1	525	98.3	250	98.8	1,191	98.8
Worked Outside Michigan	2	0.7	3	1.9	9	1.4	3	1.2	15	1.2

Table 3-4 continued
Workers Age 16 and Over, Place of Work, 2000

Characteristics	Manistique Township		Mueller Township		Seney Township		Thompson Township		Schoolcraft County	
	#	%	#	%	#	%	#	%	#	%
Total Residents Employed	416	100.0	74	100.0	41	100.0	248	100.0	3,204	100.0
Worked in Schoolcraft County	390	93.8	56	75.7	34	82.9	194	78.2	2,750	85.8
Worked outside Schoolcraft County	26	6.2	15	20.3	7	17.1	42	16.9	407	12.7
Worked in Michigan	416	100.0	71	95.9	41	100.0	236	95.2	3,157	98.5
Worked Outside Michigan	0	0.0	3	4.1	0	0.0	12	4.8	47	1.5

Table 3-4
Workers Age 16 and Over, Place of Work, 2000

Characteristics	State of Michigan	
	#	%
Total Residents Employed	4,540,372	100.0
Worked in county of residence	3,220,612	70.9
Worked outside county of residence	1,247,640	27.5
Worked in Michigan	4,468,252	98.4
Worked Outside Michigan	72,120	1.6

Source: U.S. Census Bureau Table P26. Place of Work for Workers 16 Years and Over
Dataset SF 3

Commuting times for Schoolcraft County residents are presented in Table 3-5. 94.8% of county residents are employed outside of their home. 59.1% of these residents have a commute of less than 10 minutes from their residence. 11.2 % of county residents have a commute of more than 30 minutes. Schoolcraft County had a higher percentage of residents who worked at home (5.2%) than Michigan (2.8%).

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.

Table 3-5 Travel Time to Work, Residents Age 16 and Older, 2000										
Residence to Work Travel Time	Doyle Township		Germfask Township		Hiawatha Township		Inwood Township		Manistique City	
	#	%	#	%	#	%	#	%	#	%
Total Workers 16+	271	100.0	161	100.0	534	100.0	253	100.0	1,206	100.0
Work Away From Home	247	91.1	154	95.7	521	97.6	226	89.3	1,151	95.4
Less Than 5 Minutes	8	3.0	10	6.2	29	5.4	16	6.3	232	19.2
5 to 9 Minutes	37	13.7	12	7.5	109	20.4	6	2.4	481	39.9
10 to 14 Minutes	19	7.0	24	14.9	150	28.1	14	5.5	118	9.8
15 to 19 Minutes	71	26.2	16	9.9	86	16.1	68	26.9	99	8.2
20 to 24 Minutes	59	21.8	10	6.2	45	8.4	46	18.2	59	4.9
25 to 29 Minutes	9	3.3	0	0.0	6	1.1	15	5.9	27	2.2
30 to 34 Minutes	7	2.6	14	8.7	17	3.2	21	8.3	23	1.9
35 to 39 Minutes	4	1.5	11	6.8	11	2.1	0	0.0	0	0.0
40 to 44 Minutes	0	0.0	12	7.5	9	1.7	6	2.4	10	0.8
45 to 59 Minutes	13	4.8	20	12.4	25	4.7	5	2.0	28	2.3
60 to 89 Minutes	5	1.8	15	9.3	22	4.1	16	6.3	48	4.0
90 Minutes or More	15	5.5	10	6.2	12	2.2	13	5.1	26	2.2
Worked at Home	24	8.9	7	4.3	13	2.4	27	10.7	55	4.6

Table 3-5 continued
Travel Time to Work, Residents Age 16 and Older, 2000

Residence to Work Travel Time	Manistique Township		Mueller Township		Seney Township		Thompson Township		Schoolcraft County	
	#	%	#	%	#	%	#	%	#	%
Total Workers 16+	416	100.0	74	100.0	41	100.0	248	100.0	3,204	100.0
Work Away From Home	398	95.7	74	100.0	30	73.2	237	95.6	3,038	94.8
Less Than 5 Minutes	24	5.8	9	12.2	12	29.3	16	6.5	356	11.1
5 to 9 Minutes	81	19.5	7	9.5	4	9.8	4	1.6	741	23.1
10 to 14 Minutes	110	26.4	2	2.7	4	9.8	81	32.7	522	16.3
15 to 19 Minutes	94	22.6	7	9.5	0	0.0	59	23.8	500	15.6
20 to 24 Minutes	30	7.2	20	27.0	5	12.2	17	6.9	291	9.1
25 to 29 Minutes	13	3.1	0	0.0	5	12.2	0	0.0	75	2.3
30 to 34 Minutes	12	2.9	7	9.5	0	0.0	13	5.2	114	3.6
35 to 39 Minutes	0	0.0	2	2.7	0	0.0	0	0.0	28	0.9
40 to 44 Minutes	2	0.5	4	5.4	0	0.0	5	2.0	48	1.5
45 to 59 Minutes	4	1.0	2	2.7	0	0.0	8	3.2	105	3.3
60 to 89 Minutes	16	3.8	6	8.1	0	0.0	18	7.3	146	4.6
90 Minutes or More	12	2.9	8	10.8	0	0.0	16	6.5	112	3.5
Worked at Home	18	4.3	0	0.0	11	26.8	11	4.4	166	5.2

Travel Time to Work, Residents Age 16 and Older, 2000

Residence to Work Travel Time	State of Michigan	
	#	%
Total Workers 16+	4,540,372	100.0
Work Away From Home	4,412,607	97.2
Less Than 5 Minutes	158,315	3.5
5 to 9 Minutes	507,653	11.2
10 to 14 Minutes	681,990	15.0
15 to 19 Minutes	708,036	15.6
20 to 24 Minutes	675,865	14.9
25 to 29 Minutes	291,938	6.4
30 to 34 Minutes	546,870	12.0
35 to 39 Minutes	126,158	2.8
40 to 44 Minutes	147,930	3.3
45 to 59 Minutes	304,785	6.7
60 to 89 Minutes	171,403	3.8
90 Minutes or More	91,664	2.0
Worked at Home	127,765	2.8

Source: U.S. Census Bureau Table P31 Travel Time to Work for Workers 16 Years and Over Dataset SF 3

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.

Historical labor force and unemployment data is presented in Table 3-6 for selected areas. Schoolcraft County traditionally has higher unemployment rates than the Upper Peninsula. In turn, the Upper Peninsula had higher percentage rates than the State of Michigan.

Table 3-6							
Labor Force and Unemployment, Selected Areas, 1990-2007							
Year	Schoolcraft County Labor Force			Unemployment Rates (Percentage)			
	Employed	Unemployed	Total Labor Force	Schoolcraft County	Upper Peninsula	State of Michigan	United States
1990	3,199	620	3,819	16.2	9.2	7.5	5.3
1995	3,545	560	4,105	13.6	8.9	5.3	5.6
2000	3,607	317	3,924	8.1	5.8	3.6	4.0
2005	3,659	433	4,092	10.6	7.0	6.9	5.1
2007	3,560	428	3,988	10.7	8.4	7.2	4.6

Source: Michigan Department of Labor & Economic Growth, for years cited

Table 3-7 provides labor force and unemployment data for the fifteen counties located in the Upper Peninsula for 2007. Schoolcraft County's unemployment rate is 10.7%. This is the second highest unemployment rate in the Upper Peninsula (tied with Keweenaw County), second only to Baraga County. Schoolcraft County's unemployment rate is also higher than that of the State of 7.2%.

Table 3-7 Labor Force and Unemployment, Upper Peninsula Counties, 2007				
County	Employed	Unemployed	Total Labor Force	Unemployment Rates (Percentage)
Alger	4,069	368	4,437	8.3
Baraga	3,803	539	4,342	12.4
Chippewa	16,188	1,528	17,716	8.6
Delta	18,634	1,535	20,169	7.6
Dickinson	13,695	869	14,564	6.0
Gogebic	7,052	589	7,641	7.7
Houghton	16,561	1,264	17,825	7.1
Iron	5,562	438	6,000	7.3
Keweenaw	964	115	1,079	10.7
Luce	2,535	248	2,783	8.9
Mackinac	5,841	644	6,485	9.9
Marquette	33,835	2,216	36,051	6.1
Menominee	12,574	764	13,338	5.7
Ontonagon	3,167	286	3,453	8.3
Schoolcraft	3,560	428	3,988	10.7

Source: Michigan Department of Labor & Economic Growth, 2007

3.6 Major Employers

Health care services comprise two major employers in the County. Schoolcraft Memorial Hospital (225 employees) and Schoolcraft County Medical Facility (124 employees) are significant to the local economy. The Schoolcraft Memorial Hospital (SMH) has been serving the residents of Schoolcraft County for over 50 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.

Manistique Papers, Inc. has been in service for almost 100 years, being built in 1914 and currently employs about 150. 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. They have also introduced two new products to the market place in the last 8 years. Introduced in 2000, was a 70 bright product and a 100% recycled 85 bright product was introduced in 2005. The products manufactured at Manistique Papers are used for commercial and book printing, food service applications, business papers, and envelope conversion.

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 130.

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, recently built, "will be one of the few elementary schools in the state of Michigan utilizing the Crestron system. This state of the art technology will be in each classroom. It connects computers, DVD players, VCR's and cameras to projectors and plasmas which can be controlled by a touchpanel."

The Schoolcraft County Courthouse employs 83 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 and 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 steel-making, and as filler in paper-making. Western Lime, located at Port Inland produces high calcium pebble lime from limestone that is quarried on site by Carmeuse.

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 incomes for Schoolcraft County, its' jurisdictions and the state are presented in Table 3-8.

Table 3-8
Households by Annual Household Income, 1999

Annual Income	Doyle Township		Germfask Township		Hiawatha Township		Inwood Township		Manistique City	
	#	%	#	%	#	%	#	%	#	%
Households	264	100.0	203	100.0	561	100.0	292	100.0	1,443	100.0
Less than \$10,000	12	4.5	22	10.8	29	5.2	24	8.2	262	18.2
\$10,000 to \$14,999	25	9.5	21	10.3	45	8.0	20	6.8	145	10.0
\$15,000 to \$24,999	31	11.7	50	24.6	101	18.0	63	21.6	330	22.9
\$25,000 to \$34,999	63	23.9	39	19.2	80	14.3	51	17.5	223	15.5
\$35,000 to \$49,999	56	21.2	33	16.3	107	19.1	61	20.9	193	13.4
\$50,000 to \$74,999	31	11.7	25	12.3	112	20.0	42	14.4	186	12.9
\$75,000 to \$99,999	20	7.6	9	4.4	51	9.1	18	6.2	73	5.1
\$100,000 to \$149,999	17	6.4	2	1.0	27	4.8	4	1.4	22	1.5
\$150,000 to \$199,999	3	1.1	0	0.0	4	0.7	5	1.7	0	0.0
\$200,000 or more	6	2.3	2	1.0	5	0.9	4	1.4	9	0.6
Median Household Income (dollars)	36,250	-	27,625	-	40,156	-	32,500	-	24,295	-

Table 3-8 continued
Households by Annual Household Income, 1999

Annual Income	Manistique Township		Mueller Township		Seney Township		Thompson Township		Schoolcraft County	
	#	%	#	%	#	%	#	%	#	%
Households	420	100.0	98	100.0	45	100.0	290	100.0	3,616	100.0
Less than \$10,000	39	9.3	8	8.2	7	15.6	28	9.7	431	11.9
\$10,000 to \$14,999	30	7.1	8	8.2	5	11.1	16	5.5	315	8.7
\$15,000 to \$24,999	58	13.8	22	22.4	10	22.2	63	21.7	728	20.1
\$25,000 to \$34,999	65	15.5	15	15.3	5	11.1	23	7.9	564	15.6
\$35,000 to \$49,999	70	16.7	15	15.3	9	20.0	59	20.3	603	16.7
\$50,000 to \$74,999	82	19.5	20	20.4	7	15.6	61	21.0	566	15.7

Table 3-8 continued										
Households by Annual Household Income, 1999										
Annual Income	Manistique Township		Mueller Township		Seney Township		Thompson Township		Schoolcraft County	
	#	%	#	%	#	%	#	%	#	%
\$75,000 to \$99,999	54	12.9	7	7.1	0	0.0	16	5.5	248	6.9
\$100,000 to \$149,999	17	4.0	0	0.0	2	4.4	15	5.2	106	2.9
\$150,000 to \$199,999	2	0.5	0	0.0	0	0.0	2	0.7	16	0.4
\$200,000 or more	3	0.7	3	3.0	0	0.0	7	2.4	39	1.1
Median Household Income (dollars)	40,000	-	33,571	-	30,625	-	38,750	-	31,140	-

Table 3-8 continued		
Households by Annual Household Income, 1999		
Annual Income	State of Michigan	
	#	%
Households	3,788,780	100.0
Less than \$10,000	313,905	8.3
\$10,000 to \$14,999	219,133	5.8
\$15,000 to \$24,999	469,100	12.4
\$25,000 to \$34,999	470,419	12.4
\$35,000 to \$49,999	624,326	16.5
\$50,000 to \$74,999	778,755	20.6
\$75,000 to \$99,999	432,681	11.4
\$100,000 to \$149,999	324,966	8.6
\$150,000 to \$199,999	79,291	2.1
\$200,000 or more	76,204	2.0
Median Household Income (dollars)	44,667	-

Source: U.S. Census Bureau Table DP-3 Profile of Selected Economic Characteristics: 2000 Dataset SF 3

51.1 percent of households in the City of Manistique had an annual income of less than \$25,000. This compares to Schoolcraft County's rate of 40.7 percent and to the state of 26.5 percent.

18.0 percent of the City of Manistique's households fell within the range of \$50,000 to \$99,999, compared to 22.6 percent of the County households and 32.0 percent of the State's households.

2.1 percent of the households in the City of Manistique earned \$100,000+, while 4.4 percent did the same at the county level, and 12.7 percent at the state level.

Further income analysis is provided in Table 3-9 using per capita, median household and median family incomes. Per capita income is derived from the total income reported in a given community divided by the total population. Household income is derived from all households including families. Family income includes that of married-couple families and other households made up of persons related by blood, marriage or adoption. It does not include persons living alone, unrelated persons sharing living quarters or other non-family households.

**Table 3-9
Income Levels, 1989-1999**

	Doyle Township		Germfask Township		Hiawatha Township		Inwood Township		Manistique City	
	1989	1999	1989	1999	1989	1999	1989	1999	1989	1999
Per Capita Income	\$8,969	\$18,740	\$8,231	\$14,648	\$11,787	\$20,385	\$9,646	\$15,386	\$9,681	\$14,986
Median Household Income	\$19,545	\$36,250	\$19,187	\$27,625	\$25,586	\$40,156	\$19,375	\$32,500	\$17,581	\$24,295
Median Family Income	\$21,029	\$39,018	\$21,696	\$29,375	\$27,656	\$46,406	\$23,750	\$35,147	\$23,546	\$31,979

**Table 3-9 continued
Income Levels, 1989-1999**

	Manistique Township		Mueller Township		Seney Township		Thompson Township		Schoolcraft County	
	1989	1999	1989	1999	1989	1999	1989	1999	1989	1999
Per Capita Income	\$9,394	\$18,127	\$8,562	\$18,507	\$7,312	\$10,855	\$9,692	\$24,045	\$9,740	\$17,137
Median Household Income	\$22,826	\$40,000	\$17,639	\$33,571	\$18,333	\$30,625	\$21,932	\$38,750	\$20,112	\$31,140
Median Family Income	\$24,762	\$46,667	\$18,889	\$34,643	\$23,250	\$31,875	\$24,886	\$41,731	\$24,066	\$36,810

**Table 3-9 continued
Income Levels, 1989-1999**

	State of Michigan	
	1989	1999
Per Capita Income	\$14,154	\$22,168
Median Household Income	\$31,020	\$44,667
Median Family Income	\$36,652	\$53,457

Source: U.S. Census Bureau Table DP-3 Profile of Selected Economic Characteristics: 2000
Table CPH-L-83 Income and Poverty Status in 1989: 1990 (Book)

Using state incomes as a standard of comparison, per capita, median household income and median family income have followed the same pattern for the City of Manistique and for Schoolcraft County. The City of Manistique experienced a loss in each, while Schoolcraft County saw a gain. For the City of Manistique, per capita income decreased from 68.4 percent of the statewide average in 1989 to 67.6 percent in 1999. At the County level per capita income rose from 68.8 percent in 1989 to 77.3 percent in 1999.

The median household income decreased at the City level from 56.7 percent in 1989 to 54.4 percent in 1999, while it increased at the County level from 64.8 percent in 1989 to 69.7 percent in 1999.

The median family income follows the same pattern. The City of Manistique decreased from 64.2 percent in 1989 to 59.8 percent in 1999, while Schoolcraft County increased from 65.7 percent in 1989 to 68.8 percent in 1999.

3.8 Poverty

Poverty levels are determined by the United States Bureau of the Census based on a complex formula that includes 48 different thresholds that vary by family size, number of children within the family and the age of the householder. Poverty levels are shown in Table 3-10.

**Table 3-10
Poverty Rates and Percent Below Poverty Level, 1999**

Poverty Rates by Group	Doyle Township	Germfask Township	Hiawatha Township	Inwood Township	City of Manistique	Manistique Township	Mueller Township	Seney Township
Individuals	8.5	11.3	6.0	11.8	15.7	12.5	6.0	33.1
Female Householder Families	40.0	0.0	26.3	13.3	25.5	51.6	50.0	0.0
Female Households w/ Children Under 18	0.0	0.0	29.4	33.3	34.7	59.3	0.0	0.0
Female Households w/ Children Under 5	0.0	0.0	0.0	33.3	82.6	69.2	0.0	0.0
Families w/ Children Under 18	8.4	10.5	10.9	14.3	20.1	16.6	0.0	0.0
Families w/ Children Under 5	14.3	20.0	20.0	23.3	25.6	15.5	0.0	0.0
Persons 18 and Older	7.9	11.2	6.0	7.9	14.0	9.2	6.0	40.5
Persons 65 and Older	6.4	10.7	4.3	2.9	9.8	2.6	10.8	40.9

**Table 3-10 continued
Poverty Rates and Percent Below Poverty Level, 1999**

Poverty Rates by Group	Thompson Township	Schoolcraft County	State of Michigan
Individuals	8.8	12.2	10.5
Female Householder Families	0.0	26.2	24.0
Female Households w Children Under 18	0.0	35.4	31.5
Female Households w/ Children Under 5	0.0	61.2	44.2
Families w/ Children Under 18	6.3	14.9	11.3
Families w/ Children Under 5	0.0	19.1	14.7
Persons 18 and Older	9.1	10.8	9.3
Persons 65 and Older	3.8	7.6	8.2

Source: U.S. Census Bureau Table DP-3 Profile of Selected Economic Characteristics: 2000 Dataset SF 3

Poverty rates of individuals within and for Schoolcraft County ranged from 6.0 percent (Hiawatha and Mueller Township) to 33.1 percent (Seney Township) compared to 10.5 percent of Michigan. In general, poverty levels were much higher for female-led households with children than for families with children. Poverty levels of persons aged 65 and older within and for Schoolcraft County ranged from 2.6 percent (Manistique Township) to 40.9 percent (Seney Township) compared to 8.2 percent in Michigan.

3.9 Issues and Opportunities

In 2000, Schoolcraft County's labor force participation rate was lower than that of the State.

Labor force participation by women and women with children experienced an increase in Schoolcraft County from 1990 to 2000.

The top three employment sectors for Schoolcraft County are educational, health and social services (22.8%), retail trade (12.0%), and arts, entertainment, recreation, accommodation and food services (11.6%).

Nearly 86% of Schoolcraft County residents work within Schoolcraft County, and only 1.5% of County residents worked outside of Michigan.

59.1% of residents who worked outside of their homes have a commute of less than 10 minutes from their residence. 11.2 % of county residents have a commute of more than 30 minutes.

Schoolcraft County had a higher percentage of residents who worked at home (5.2%) than the State of Michigan (2.8%). With improvements to fiber optic lines and developing uninterrupted cell service, more County residents may be able to work from home.

Schoolcraft County traditionally has higher unemployment rates than the Upper Peninsula and the State. In 2007, the County's unemployment rate was 10.7%, while the State's was 7.2%.

Health care services comprise two major employers in the County. Schoolcraft Memorial Hospital (225 employees) and Schoolcraft County Medical Facility (124 employees) are significant to the local economy.

In 2000, 40.7% of households in the County reported an income of less than \$25,000. This compares to 26.5% reported for the State.

The median household income for the County (\$31,140) is significantly less than the income reported for the State (\$44,667). This can be offset by the much lower cost of living in the Upper Peninsula, when compared to the Lower Peninsula.

Poverty rates for the County are generally higher than those of the State, particularly for female-led households with children under 5.

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 City of Manistique has a natural open harbor that is currently in need of dredging. Should opportunity present itself for dredging, the harbor would add to the County's multi-modal transportation, including US-2 and the rail line. The lakeshore is an obvious resource but access for boat traffic is a problem without an operable harbor.

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 as a result of logging or mining operations in the late 1800s, including Schoolcraft County, which was founded primarily because of the 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.

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 also 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 since 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 and shown on Map 4-1:

- 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 construction and other uses.

4.4 Soils

Soil 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. The ten most abundant soil types occurring in the County are listed in Table 4-1 below. Brief descriptions of each soil type follow.

Definitions of soil properties:

* **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.

* **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:

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. **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.

- **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 unweathered 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.

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.

- **Soil Morphology:** Typically well drained soils have bright matrix colors (high chroma and value) in the upper subsoil which gradually fades with depth to the unweathered 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.

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.

- **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 and 40 inches below the soil surface.

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.

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.

- **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.

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.

- **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.

Table 4-1
Soil Types and Amount (including water), Schoolcraft County

Soil Type	Acres in County	Percent of Total Acreage
Markey mucky peat	97,594.3	12.5%
Carbondale, Lupton and Tawas soils	80,382.3	10.3%
Rubicon sand, 0 to 6 percent slopes	46,069.4	5.9%
Water	29,977.1	3.8%
Spot-Finch complex, 0 to 3 percent slopes	29,001.9	3.7%
Cathro and Lupton soils	21,883.3	2.8%
Kalkaska sand, 0 to 6 percent slopes	16,725.9	2.1%
Deford-Rubicon-Au Gres complex, 0 to 15 percent slopes	14,785.5	1.9%
Garlic sand, 0 to 6 percent slopes	13,568.8	1.7%
Paquin sand, 0 to 3 percent slopes	12,663.9	1.6%
Kinross-Au Gres-Rubicon complex, 0 to 15 percent slopes	11,172.3	1.4%

Source: National Custom Soil Survey for Schoolcraft County, 2008.

- **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: High to 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 ortstein

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 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: 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: Moderately high to high

Frequency of 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 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: 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 grades in excess of recommended standards.

Steep 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 aesthetically 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 the 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 4-3 illustrates surface topography for Schoolcraft County.

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 as 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 Map 4-3. Sufficient amounts of surface water are necessary for many industries and for the generation of electricity. Surface water features are also important for recreational 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 1,086 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 Point 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 a number of 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 5-1.

4.8 Forests

Schoolcraft County boasts over 540,500 acres of forest. About three-quarters of the County is public land, much of it designated 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 located 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 balsaminifera*)
- 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:

http://www.msue.msu.edu/portal/msue_url_frame.cfm?pageset_id=28640&page_id=105833&target_url=http://forestry.msu.edu/uptreeid/default.htm

4.9 Mineral Resources

Mining or extraction of materials such as gold, iron ore, oil, natural gas, and coal are the most commonly 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 and 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 sand and gravel pits located in the County that are utilized on an as needed basis.

Carmeuse 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 steel-making, and as filler in papermaking.

4.10 Scenic Sites

An abundance of scenic sites are 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 Brook 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 President Franklin D. Roosevelt for the protection and production of migratory birds and other wildlife. It is located about 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 drained 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 nine and had a budget of \$1.1 million dollars for the 2006 fiscal year. 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.

Source: <http://www.fws.gov/midwest/seney/index.htm>

- 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 decagonal 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.

- **Seul Choix Pointe Lighthouse**

Seul Choix Point Lighthouse is located on Lake Michigan, on County Road 431 in Gulliver. The lighthouse is open Memorial Day through mid-October, 10 am to 6 pm, seven days a week and hosts over 20,000 visitors per year. The Seul Choix Point 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) Point 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 Point 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 205 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 which 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.

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

The general historic land use patterns which are common to the Upper Peninsula are reflected in the land use patterns which have developed in Schoolcraft County. Mining and timbering were two of the major economic activities that attracted the original migrants to the Upper Peninsula, which in turn gave rise to small settlements.

Many of these settlement sites were located along the shores of Lake Superior and Lake Michigan for their strategic defense location and due to the dependence on water bodies for transportation. This often left the interior areas sparsely settled. Homes were built within walking distance of work areas at first. As more settlers arrived, settlements expanded into the familiar grid system prevalent today. Lumbering and farming developed into important land uses. To accompany the increasing population, commercial, industrial and recreational areas were developed. Later, with the extension of railroads, some settlements, depending on their location and economic stability, began to grow, while some began to decline.

Schoolcraft County was officially organized in 1871, with the City of Manistique as the county seat. Schoolcraft County was settled largely due to one tree species; the Eastern White Pine (*Pinus strobus*). Beginning in the early 1880s, logging companies began extracting lumber from the vast forests of white pine. Logging enterprises gave rise to two types of towns, lumber boomtowns and mill towns. The second phase of the County's history was also resource-oriented, but was a much less successful venture. Large areas of land were drained and sold to farmers, only to be abandoned after a few years due to lack of productivity. The few prosperous farms were located in the southern portion of the county, along a corridor down US-2. Farms existing today produce dairy, beef, small grains and beans.

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, however, 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, too, 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 business 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 and development, they have a major indirect effect. 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 its 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. The State of Michigan does, however, 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 the Township utilize zoning ordinances to regulate land use. A joint zoning ordinance is a possibility for the future.

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 considerations 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.

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. Precise acreage by category within the Schoolcraft County is contained in Table 5-1. **Map 5-1** illustrates updated land cover based on an interpretation of 1998 digital orthophotos and MIRIS data.

Current land use patterns are described in ten 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.

The County contains over 780,000 acres of land and water surface within its boundaries. Descriptions of each of the ten broad land use categories and an analysis of inventory results are contained in the succeeding paragraphs.

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%. Nonforested 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.

Table 5-1
Land Use/Cover, Schoolcraft County

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

Source: MIRIS, Michigan DNR.

5.5 Residential Land Use

Residential land use includes single family homes, multi-family homes and mobile homes. Residential areas are spread throughout the County. Map 5-2 displays current land use throughout the County.

5.6 Commercial Land Use

Commercial land use in Schoolcraft County occurs mainly along the US-2 corridor through the City of Manistique east into Manistique Township.

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

5.7 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.

5.8 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 local residents and forest products from these areas benefit local industry.

Agriculture has been waning within the County. The area could be rejuvenated by utilizing the available agricultural land for alternative energy farming. Pockets of successful agricultural uses remain within the County.

5.9 Public 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 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 of life in a community.

5.10 Townships

Doyle Township

Doyle Township boasts McDonald Lake and Gulliver Lake, and both harbor a fair amount 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 development, including several hobby farms, a chicken farm and a dairy 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 about 85% of residents are recent advances in Germfask.

Germfask's commercial enterprises are generally located along M-77. Zeller Logging, UP Feeds and the Seney Wildlife Refuge are the Township's main employers. The Township also has a commercial venture, Big Cedar Camp and Kayak, 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 northeast 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 also 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. Stuben has a small store and some year round residences.

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

Manistique City

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 also along M-94, as well as in the downtown 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. Commercial

uses have also extended out of the City, west along US-2, into Manistique Township.

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 Manistique Paper, Inc., 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. A vast amount of sawdust remains deposited at the mouth of the Manistique River as a result of past lumber operations and washes ashore when wind and water conditions are right.

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 in recent years. The 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 also 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 also in the Seul Choix Point area.

Blaney Park is located 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 Celabeth House Bed and Breakfast. The Township has purchased the "old green school" but development has not yet taken place.

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. The vast majority 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 also located in Seney and includes two gas stations, a restaurant, bar, bank and grocery store.

Seney Township also has land designated for industrial use located south west 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 located 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 MDNR 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, Stuben Lake and Crooked Lake, which includes more seasonal homes. Residential development has also occurred around the golf course.

5.11 Areas of Environmental Concern

The Michigan Department of Environmental Quality (MDEQ) maintains a listing of sites identified as containing contaminants. Environmental contamination means the release of a hazardous substance, or the potential release of a discarded 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 are listed in Table 5-2 below. The Site Assessment Model (SAM) scores are based on a numeric scale reflecting the degree of contamination in ascending order from 0 to 48.

Table 5-2
Sites of Environmental Contamination, Schoolcraft County, 2009

Site Name*	ID Number	Location	Pollutant(s)	Status	SAM Score**
Ellenson Maclean Oil Co.	77000003	Depot Road, North of US-2, Cooks	Gasoline	Interim response in progress	15
City of Manistique Landfill	77000005	Steuben Quadrangle, Manistique	Domestic	Inactive-no actions taken to address contamination	30
Manistique Paper Pulp Co. Dump	77000006	Sec 36, along M-94, Manistique	Light Industrial	Interim response in progress	39
Manistique River Slips	77000007	Old River Channel, Manistique	Pb; Ni; PCBs	Interim response in progress	48
Schoolcraft County Dump	77000010	Section 1, Manistique	Domestic	N/A	10
Schoolcraft County Road Commission Seney	77000011	7102 West Railroad Street, Seney	Benzene; CL; Ethylbenzene; Toluene; Xylenes	Interim response in progress	28
Residential Well Mueller Township	77000012	RR #1 Box 152, US-2, Gulliver	Benzene; CL; Ethylbenzene; Toluene; Xylenes	Inactive-no actions taken to address contamination	21
Thompson Spill	77000013	US-2 at the corner of Coho Street, Thompson	Petroleum	Interim response in progress	23

Table 5-2
Sites of Environmental Contamination, Schoolcraft County, 2009

Site Name*	ID Number	Location	Pollutant(s)	Status	SAM Score**
Manistique Industrial Park, Manistique	77000014	Pine Street	Benzene; Ethylbenzene; Naphthalene; Toluene; Xylenes; Metals	Interim response in progress	43
Blandford Heating Oil	77000016	Box 1157 Beckman Road, Manistique	1,2,4 TMB; Benzene; Xylenes	Interim response in progress	25
Old Woods Bulk Plant	77000036	191 River Street, Manistique	Petroleum	Interim response conducted-no further activities anticipated	40
Former Standard Oil Bulk Plant	77000037	300 New Delta Avenue, Manistique	Benzene; Ethylbenzene; Toluene; Xylenes	Interim response conducted-no further activities anticipated	23

Source: MDEQ, Part 201 Site List, 2009.

*Site name does not necessarily denote the party responsible for contamination.

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 the MDEQ in Schoolcraft County in Table 5-3. These sites will remain listed until corrective action plans begin.

Table 5-3
Leaking Underground Storage Tanks, Schoolcraft County, 2009

Site ID Number	Name	Location
00034872	Bayview Shell	East US-2, Manistique, MI
00037563	Boot Lake Bar	Star Route-94 Box 3127, Manistique, MI
00035500	Citgo Quik Food Mart	425 E. Lakeshore Drive, Manistique, MI
00038966	City of Manistique-Marina	1 South Cedar Street, Manistique, MI
00014639	Edison Sault Electric Co.	335 Chippewa Avenue, Manistique, MI
00002001	Germfask Trading Post, Inc.	PO Box 38, Germfask, MI
00037763	Jack Pine Lodge, Inc.	5350 North M-94, Manistique, MI
00016893	Lakeshore Shell	1038 West US-2, Manistique, MI
00013162	Lawrence Gas and Leasing Co.	RR-1 Box 1491, Manistique, MI
00009236	Linda's Bread Box	10 North M-149, Cooks, MI
00002751	Linderoth Sales and Service	430 Deer Street, Manistique, MI
00002752	Manistique Oil Co., Inc.	216 Deer Street, Manistique, MI

Table 5-3
Leaking Underground Storage Tanks, Schoolcraft County, 2009

00001941	Pathway Shell	813 East Lakeshore Drive/East US-2, Manistique, MI
00019363	PB Fuel Inc.	100 Chippewa Avenue, Manistique, MI
00006738	Schoolcraft County Airport	RR-1 Box 1514C, Manistique, MI
00001278	Schoolcraft County Road Commission	M-28, Seney, MI
00001587	Seney Party Store	M-77/M-28, Seney, MI
00002054	Seney Spirit	PO Box 78 M-28, Seney, MI
00009285	St. Francis de Sales Parish	330 Oak Street, Manistique, MI
00040705	The Blaney Park Quickstop	1223 West US-2, Manistique, MI

Source: MDEQ, 2009.

5.12 Land Use Trends

Growth, as measured in terms of state equalized valuation (SEV), is shown in Table 5-4 for all governmental units in Schoolcraft County. From 2000 to 2008, the total SEV for the County increased by nearly 90 percent.

**Table 5-4
State Equalized Valuation, Schoolcraft County, 2000 and 2008**

Unit of Government	2000 SEV Real Property	2000 SEV Personal Property	2000 Total SEV	2008 SEV Real Property	2008 SEV Personal Property	2008 Total SEV	Change 2000-2008
Doyle Township	\$29,543,269	\$3,142,475	\$32,685,744	\$61,971,190	\$7,248,249	\$69,219,439	\$36,533,695
Germfask Township	\$10,608,663	\$298,890	\$10,907,553	\$19,969,812	\$469,443	\$20,439,255	\$9,531,702
Hiawatha Township	\$40,853,438	\$3,741,805	\$44,595,243	\$77,578,833	\$8,325,246	\$85,904,079	\$41,308,836
Inwood Township	\$26,298,250	\$3,694,685	\$29,992,935	\$51,093,800	\$4,118,539	\$55,212,339	\$25,219,404
Manistique Township	\$27,097,658	\$5,003,250	\$32,100,987	\$46,842,849	\$9,301,784	\$56,144,633	\$24,043,646
Mueller Township	\$18,230,850	\$5,852,058	\$24,082,908	\$40,364,700	\$11,979,479	\$52,344,179	\$28,261,271
Seney Township	\$8,540,725	\$612,198	\$9,152,923	\$18,339,387	\$544,271	\$18,883,658	\$9,730,735
Thompson Township	\$30,676,175	\$3,118,566	\$33,794,741	\$76,176,172	\$3,787,179	\$79,963,351	\$46,168,610
City of Manistique	\$40,925,600	\$12,350,600	\$53,276,200	\$60,630,054	\$15,095,244	\$75,725,298	\$22,449,098
Schoolcraft County Total	\$233,134,707	\$37,814,527	\$270,949,234	\$452,966,797	\$60,869,434	\$513,836,231	\$242,886,997

Source: Schoolcraft County Equalization, 2009.

5.13 Issues and Opportunities

About 75% of Schoolcraft County is designated as public land. 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 the 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 industrial park may help attract new business. Road improvements surrounding industrial districts will increase access to industrial properties.

Cleanup of contaminated 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 in close proximity to former mining sites will need to be thoroughly evaluated before proceeding.

From 2000 to 2008 the total SEV for the County increased nearly 90%.

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.

As part of the master plan revision, the County's public and community facilities were reviewed and evaluated as to their present condition and adequacy to meet the present and future needs of the community. These facilities are shown on **Map 6-1**. This will not be an exhaustive study of community services and facilities but will provide a guideline for future decision making.

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 1990s and houses the Family Independence Agency offices. The building consists of administrative offices (Clerk, Register of Deeds, Treasurer, Zoning Administration, Building Code Administrator, Electrical Inspector, Veterans Administration, Michigan State University Extension, and Equalization Department) and County circuit court, district court, probate court, probation and parole, and additional offices including Friend of the Court. The Schoolcraft County Health Department and Substance Abuse office is also located in the courthouse. 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 closet, 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 in the building formerly utilized as the Germfask School. Meals are provided two days a week for seniors. The Hiawatha Township Community Center is located on M-94, about two miles north of Manistique in the former Hiawatha School.

- **County Sheriff's 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's Department and jail. A garage is also located on site. The jail has a total capacity of twenty-four inmates. The Sheriff's 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 5910W US-2, just outside of Manistique. About 54 flights take off from the airport per week, with about 50% being transient general aviation and 50% local general aviation. The airport currently maintains four paved asphalt runways.

- **Humane Society of Schoolcraft County**

The Humane Society of Schoolcraft County is located at 6091W US-2 in Manistique. The animal shelter is open Tuesday thru Friday 12:30-3:30, Saturday 9:00-Noon. 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 timeframe varies with the animal and the situation. The Humane Society is supported by volunteers and fundraisers.

- **Schoolcraft County Fairgrounds**

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

- **Schoolcraft County Road Commission**

*Roads and streets in Schoolcraft County are discussed in further detail in Chapter 9-Transportation. The majority of roads in the County are public roads and are maintained by the Schoolcraft County Road Commission. Townships in the County are responsible for a portion of the costs of

improvements to local roads and improvement projects are scheduled by the Road Commission based on funding availability and the priority of requests submitted by the townships. County primary roads are the responsibility of the Schoolcraft County Road Commission. State trunklines, such as US-2, are maintained by the Road Commission in cooperation with the Michigan Department of Transportation.

Schoolcraft County Road Commission garages are located in Seney (M-28 and Railroad Street) and in Germfask. The Road Commission stores and maintains vehicles and equipment at these facilities and maintains stockpiles of sand and salt for winter use. Road Commission offices were built in 2004 and located at 332N East Road, in Manistique.

- **Law Enforcement**

Police protection in the County, in addition to the Sheriff's Department, is provided by the City of Manistique Public Safety Department, 300 North Maple Street. The City of Manistique's Public Safety Department is comprised of a Director of Public Safety, two sergeants and seven 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 all 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.

- **Camp Manistique**

Under the administrative control of the Newberry Correctional Facility, Camp Manistique opened in June 1993, with a capacity of 216 prisoners and 49 employees. Prisoners were provided with on-site routine medical and dental care. The perimeter security included one twelve-foot fence with rolls of razor-ribbon wire, and a perimeter vehicle.

Camp Manistique was closed on October 20, 2007. It has been included in a regional jail study. The County is currently looking at the feasibility of Camp Manistique to replace the local jail. County officials are comparing the construction and cost necessary to convert the low-security facility into a county jail, whether by utilizing the current boundaries of the building or by adding on. If renovated, the County could initiate partnerships with other communities and Camp Manistique could house inmates from other counties, offsetting jail overcrowding.

- **Emergency Medical Services**

The City of Manistique provides emergency medical services in conjunction with Schoolcraft Memorial Hospital. All City police officers are certified EMT's and if a Registered Nurse is needed on the call, Schoolcraft Memorial Hospital sends one. There are volunteer EMT's in Schoolcraft County that also provide assistance. Three ambulances service the area. The County is equipped to receive assistance from air lifelines as well. Inwood Township also provides EMS services.

- **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.

Table 6-1 Schoolcraft County Fire Departments	
Department	Staffing
Doyle Township	17 Volunteers
Hiawatha Township	20 Volunteers
Inwood Township	Volunteers
Germfask	12 Volunteers
Manistique	9 Firefighters; 14 Paid per call
Mueller Township	9 Paid per call
Seney Township	2 Firefighters; 10 Paid per call
Thompson Township	7 Volunteers

- **Health Care**

Schoolcraft Memorial Hospital (SMH) is a critical access facility, located at 500 Main Street in Manistique. The hospital operates a walk-in clinic for patients with non-emergency conditions at the main hospital in Manistique. Clinic services are also offered at alternate locations, including the Germfask Medical Clinic (Germfask Community Building on Tuesdays) and the Curtis Medical Clinic (Curtis Community Center on Wednesdays).

SMH provides in-patient and out-patient services, including approximately 500 general and gynecological surgeries throughout the year. Services are offered for the following specialties:

- Gynecological
- Gastroscopy
- Colonoscopy
- Endoscopy
- Ear, Nose & Throat
- Orthopedics
- Podiatry

Outpatient services include:

- Blood transfusions
- Chemotherapy
- Endoscopy
- Diabetic education
- EEGs
- Infusions
- Injections
- Observations
- Minor nursing procedures
- Cystoscopy
- Pain clinic procedures
- Pre/post-op surgeries

SMH provides home health care services including aides, nurses, physical therapy, private duty services, occupational therapy, speech therapy and social work. SMH also operates Woodland Meadows Assisted Living in Manistique, which opened in 2003 and offers 24-hour staffing.

About 40 acres of property has been purchased on US-2, west of Manistique in Thompson Twp to build a new hospital. Schoolcraft Memorial Hospital has recently hired a new CEO, with experience leading the construction of a new hospital. Recent architectural drawings released for the new facility indicate plans for a 43,000 square foot hospital. As of 2009, the project has been divided into phases that will each be constructed when the hospital can afford it.

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 rehabilitation 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

Hospice of Schoolcraft County is located at 300 Walnut Street in Manistique. LMAS DHD Hospice of Schoolcraft County is a non-profit Hospice organization affiliated with the LMAS District Health Department. 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 thru an evaluation. Hiawatha Behavioral is the merged mental health program for Schoolcraft, Mackinac and Chippewa counties.

• Township Hall and City Hall Facilities

Each of Schoolcraft County's eight townships contains 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.

Table 6-2	
Township and City Halls	
Doyle Township	1159N North Gulliver Road, Gulliver, MI 49840
Germfask Township	8093 Pine Street, Germfask, MI 49836
Hiawatha Township	1595N State Hwy M94, Manistique, MI 49854
Inwood Township	11680W Depot Rd, Cooks, MI 49817
Manistique Township	616N River Road, Manistique, MI 49854
Mueller Township	1805W Quarry Rd, Gulliver, Mi. 49840
Seney Township	1576 W. Railroad Street, Seney, MI 49883
Thompson Township	8096W Pine Street, Thompson, MI 49854
City of Manistique	300 North Maple Avenue, Manistique, MI 49854

Source: Schoolcraft County, 2008.

• Education

Most Schoolcraft County students attend schools administered by the Manistique Area Schools. Enrolling about 1,040 students, the district administers a consolidated PreK-5 elementary school and a combined 6-8 middle school/9-12 high school. The district also sponsors an alternative high school. In addition to a core curriculum, Manistique Area Schools provide students with advance placement courses and career preparation is incorporated into the classroom. Outside the classroom, area students can participate in a full range of academic clubs, music programs and interscholastic sports.

The Menominee-Delta-Schoolcraft Community Action Agency administers the Head Start program and is located on Chippewa Avenue.

Several Schoolcraft County students attend Tahquamenon Area Schools in Newberry. Most students in Inwood Township attend Big Bay de Noc Schools located in Garden Township (Delta County). A very small number of students in northern Hiawatha Township attend Munising Public Schools in Munising.

Manistique Area Schools and Big Bay de Noc School District receive special education and teacher professional development programming from the Delta-Schoolcraft Intermediate School District. The ISD's career technical center offers high school students courses in the fields of business, health, building trades, automotive and manufacturing technology. The Eastern Upper Peninsula ISD provides similar services to the Tahquamenon Area Schools.

Also offered to residents of Schoolcraft County is the opportunity to attend private school. St. Francis de Sales is a PreK-8 Catholic School in Manistique that enrolls about 154 students. Bethel Baptist Christian School is also located in Manistique and is a K-12 school with an average enrollment around 15 students.

- **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 offer 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 2,300 students. Also located on the college's 150-acre campus is a Michigan Technical Education Center. Opened in 2000, the M-TEC provides workforce training programs designed to meet the specific needs of area businesses. 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 8,600 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.

Michigan Technological University

Michigan Technological University, in Houghton, is one of the country's premier science and technology institutions. The university annually enrolls about 6,600 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.

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 3,000 students with 111 full-time faculty.

Finlandia University

Finlandia University, in Hancock, is the only private university in the Upper Peninsula. Finlandia offers nine academic programs of study. Finlandia serves a student body of around 550 students. Finlandia's student-to-faculty ratio is 13:1; most classes have enrollments of 25 or less.

- **Library Facilities**

Manistique School and Public Library is located at 100 North Cedar Street Room 31 within the High School. The library is open Monday and Thursday 11:30 a.m.- 8:00 p.m. and Tuesday, Wednesday, and Friday 11:30 a.m. - 4:00 p.m. The library is closed Saturdays.

St. Francis de Sales also has a library within the school. The County Courthouse includes 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, the 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 1950s,

with upgrades occurring in the 1990s. The City is in the midst of major upgrade, having received a low-interest grant/loan from the farm bill. The City has been approved to receive \$6 million - \$1 million grant and \$5 million loan with a 2.75 percent interest rate for 40 years for additional upgrade. Upgrades will be made to treatment plant pumps, valves and piping, and a new water UV light treatment will be added to the water treatment process. The construction will also entail new storage tanks being built, filter upgrades, a new spray-wash mechanism, replacement of the plant's 32-year-old 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 Wastewater treatment plant currently uses aerobic bacteria to treat the wastewater. Previously, the plant utilized a lagoon treatment system.

Germfask is in the process of drilling a new 820' well, utilizing a \$1.57 million U.S. Department of Agriculture Rural Development grant/loan. The project brings the Township into compliance with the Department of Environmental Quality's 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 were installed, adding about 20 people to the town's water system. The purchased generator system will provide 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 will replace 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 instead.

Seney Township completed a new water system project in 2007. Community Development Block Grant, Environmental Protection Agency and United States Department of Agriculture grants were used to help fund the project. Seney relies on two 578' wells for municipal water that currently serves about 116 customers. The new system uses two lagoons 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 holding tank but would like to look at obtaining a standing water tower to reduce costs. The Township would also like to add an additional lagoon to the sewer treatment system.

All other Schoolcraft County residents rely on private wells and septic systems.

- **Solid waste**

Manistique Rentals services all the Townships and City of Manistique for solid waste pickup. There is a limited amount of recycling, including: corrugated cardboard, tin cans, newspaper, magazines, light bulbs and aerosol cans, but no glass or plastics. Delta Disposal out of Escanaba also picks up solid waste for some areas of the County.

Currently there are no solid waste landfills located in the County. There has been discussion of locating a solid waste landfill on the River Road but there has been no action on the project.

- **Electrical service**

Electrical service in Schoolcraft County is provided by Edison Sault Electric, UP Power, Cloverland Electric and Alger/Delta Electrical Cooperative.

There are currently no power plants located within the County.

- **Telephone and cable**

Telephone services are provided by Charter Communications, CenturyTel and SBC Americtech.

Cable services are provided by Charter Communications.

- **Internet**

Charter Communications provides internet but the service area is limited to City and some surrounding areas. Centurytel provides DSL or dial-up depending on location. Other communities in the County rely on dial up or satellite for their internet services.

- **Cell service**

Cellular service is provided by Alltel and AT&T through some areas of the County.

6.4 Other Public Facilities and Services

- **State offices:**

The Family Independence Agency is located in the County courthouse. A Secretary of State office (driver licensing and license plates) is located in Manistique at 111 River Street. Michigan Works! is located at 200 North Maple Street in Manistique. A local Forest Service office is located at 499 East Lakeshore Drive in Manistique.

The MDNR operates the Thompson State Fish Hatchery, located on M149 in Thompson. The Thompson State Fish Hatchery was established in 1922 for the production and rearing of cold and cool water fish. Brown and Rainbow Trout, Steelhead, Chinook, Salmon, Walleye and Northern Muskellunge are raised in indoor and outdoor facilities. The hatchery was completely renovated in 1977 and also boasts an interpretive center.

6.5 Issues and Opportunities

Schoolcraft County boasts several senior centers, in Manistique, Hiawatha Township and Germfask and offers an array of services to the senior population.

Camp Manistique, closed in 2007, has potential for reuse, possibly as a County Jail or for a regional jail.

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.

Schoolcraft Memorial Hospital provides the County with a wide range of medical services. Plans for immediate expansion have recently been divided in to phases, to be completed when the hospital has the necessary funds.

Most Schoolcraft County students attend schools administered by the Manistique Area Schools. There are also opportunities in the County for students to attend private schools as well. There are local several universities that provide advanced education to area residents.

Each of Schoolcraft County's eight townships contains at least one township-owned building which serves as a focal point for local government and community activities. Several of the buildings are in need of upgrades.

There is currently no County Library. Library services are offered by the Manistique High School Public Library.

The City provides municipal water to all city residents, in addition to some customers in Hiawatha Township, located near the water plant. The City of

Manistique Wastewater Treatment Plant was upgraded in 2000 to increase capacity.

Germfask and Seney Townships have recently taken advantage of grant funding to improve their water systems. All other County residents rely on individual well and septic systems.

Cellular and internet service quality varies widely throughout the County. Additional cellular towers would provide more complete service. Additional internet access is also desired.

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 a 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.

Nationwide trends in 2008 indicate a rapid decline in housing prices. Prices of single family homes have fallen 14.1% nationwide through the first quarter of 2008. New home sales in the United States may remain relatively weak for some time, as the housing industry struggles with falling prices and rising mortgage foreclosures. From 1960 to 2005, the rate of homeownership nationwide was on the rise. From 2005 to 2008, the rate of homeownership has been steadily decreasing, while the number of households renting has been steadily increasing nationwide. While personal income is a major factor for many when deciding to rent or own their home, other considerations make renting a preferred choice for many households.

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

Trends

According to the 2000 census, Schoolcraft County had 5,700 housing units. The City of Manistique had the most housing units of 1,611, followed by Hiawatha Township with 932, and 623 units in Inwood Township. This data is presented below in Table 7-1.

From 1990 to 2000 the number of housing units in Schoolcraft County increased from 5,487 to 5,700 units. This represents a 3.9% increase. The State of Michigan experienced a 10.0 % increase in the number of housing units during the same time period. Between 1990 and 2000, the housing stock nationwide was also growing at a rate of 10.0%.

Occupancy and Tenure

According to the 2000 Census, only 63.3% of the housing units in Schoolcraft County were occupied. This is much lower than the State's housing unit occupancy rate of 89.4%. The City of Manistique was right on target with the State for its' occupancy rate, but the Townships within Schoolcraft County were all significantly lower ranging from 68.3% (Manistique Township) to 24.9% (Seney Township). A strong majority of the vacant units are designated as seasonal, recreational, or occasional use.

About two-thirds of the housing units in the City of Manistique were designated as being occupied by the owners. This is much lower than the townships in which a grand majority of units were occupied by the owners. This trend is common, with apartments and other rental units typically being in urban areas. 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.

**Table 7-1
Total Housing Units, Occupancy and Tenure, 2000**

Housing Units	Doyle Township		Germfask Township		Hiawatha Township		Inwood Township		City of Manistique		Manistique Township	
	#	%	#	%	#	%	#	%	#	%	#	%
Total Units	524	100.0	308	100.0	932	100.0	623	100.0	1,611	100.0	608	100.0
Occupied	265	50.6	199	64.6	560	60.1	297	47.7	1,445	89.7	415	68.3
Owner	243	46.4	185	60.1	522	56.0	266	42.7	977	60.6	358	58.9
Renter	22	4.2	14	4.5	38	4.1	31	5.0	468	29.1	57	9.4
Vacant	259	49.4	109	35.4	372	39.9	326	52.3	166	10.3	193	31.7
For Rent	4	0.8	2	0.6	10	1.1	0	0.0	45	2.8	10	1.6
For Sale	4	0.8	4	1.3	12	1.3	1	0.2	21	1.3	5	0.8
Rented or Sold, Not Occupied	0	0.0	0	0.0	4	0.4	2	0.3	12	0.7	4	0.7
Seasonal, Recreational or Occasional Use	235	44.8	96	31.2	332	35.6	315	50.6	34	2.1	140	23.0
For Migrant Workers	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	54	3.4	34	5.6

**Table 7-1 continued
Total Housing Units, Occupancy and Tenure, 2000**

Housing Units	Mueller Township		Seney Township		Thompson Township		Schoolcraft County		State of Michigan	
	#	%	#	%	#	%	#	%	#	%
Total Units	295	100.0	189	100.0	610	100.0	5,700	100.0	4,234,279	100.0
Occupied	96	32.5	47	24.9	282	26.2	3,606	63.3	3,785,661	89.4
Owner	89	30.2	43	22.8	265	43.4	2,948	51.7	2,793,346	66.0
Renter	7	2.4	4	2.2	17	2.8	658	11.5	992,315	23.4
Vacant	199	67.5	142	78.9	328	53.8	2,094	36.7	448,618	10.6
For Rent	0	0.0	2	1.1	3	0.5	76	1.3	74,799	1.8
For Sale	10	3.4	0	0.0	5	0.8	62	1.1	51,894	1.2
Rented or Sold, Not Occupied	4	1.4	3	1.7	0	0.0	29	0.5	31,319	0.7
Seasonal, Recreational or Occasional Use	181	61.4	131	72.8	302	49.5	1,766	31.0	242,919	5.7
For Migrant Workers	0	0.0	0	0.0	0	0.0	0	0.0	1,533	0.03
Other Vacant	4	1.4	6	3.3	18	3.0	161	2.8	46,154	1.1

Source: U. S. Census Bureau

Table H8-Vacancy Status, 2000 Dataset SF 3

Table H7-Tenure, 2000 Dataset SF 3

Table DP-4 Profile of Selected Housing Characteristics, 2000 Dataset SF 3

Units in Structure

Table 7-2 shows the distribution of housing unit types between single-family units, multi-family units and mobile homes, boats, RV's, etc. In 2000, 83.9% of Schoolcraft County's housing units were single-family, 6.6% were

multi-family and 9.5% were mobile homes, boats, RV's, etc. With the exception of Manistique Township, all jurisdictions saw an increase in single-family units from 1990 to 2000. The same is true of Schoolcraft County as a whole and the State of Michigan.

Table 7-2

Percent Historic and Current Housing Types by Unit, 1990-2000

Unit of Government	% 1990			% 2000			% Change 1990-2000		
	Single-Family	Multi-Family	Mobile Homes, Boat, RV, Etc.	Single-Family	Multi-Family	Mobile Homes, Boat, RV, Etc.	Single-Family	Multi-Family	Mobile Homes, Boat, RV, Etc.
Doyle Township	81.0	0.0	19.0	86.1	0.0	13.9	+5.0	0.0	-5.1
Germfask Township	82.4	5.4	12.2	84.4	2.6	13.0	+2.0	-2.8	+0.8
Hiawatha Township	83.6	0.8	15.6	92.2	.9	6.8	+8.6	+0.1	-8.8
Inwood Township	85.5	0.3	14.2	87.8	0.8	11.4	+2.2	+0.5	-2.8
City of Manistique	71.9	24.5	3.6	75.2	21.8	3.0	+3.3	-2.7	-0.6
Manistique Township	87.7	0.8	11.5	82.3	1.6	16.1	-5.4	+0.8	+4.6
Mueller Township	83.0	0.0	17.0	92.9	0.0	7.1	+9.9	0.0	-9.9
Seney Township	85.6	0.0	14.4	86.8	1.1	12.2	+1.2	+1.1	-2.2
Thompson Township	82.7	0.0	17.3	83.6	0.0	16.4	+0.9	0.0	-0.9
Schoolcraft County	80.4	7.8	11.8	83.9	6.6	9.5	+3.5	-1.2	-2.3
State of Michigan	72.8	19.8	7.4	74.5	18.8	6.7	+1.7	-1.0	-0.7

Source: 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

Age of Housing

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

47.2% of the City's housing units were built prior to 1940, compared to only 22.6% of the County's and 16.9% of the State's. The City of Manistique has experienced a slow decline since 1940 of new housing structures. Most of the townships experience a growth from 1950-1979 and a decline since then. Some anomalies to this pattern are Thompson Township which saw

51.9% of its' housing units being built between 1980 and 1989. Seney Township also deviates from the general pattern, seeing most of its growth in housing units from 1970 to 1998.

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,**) when maintenance may also 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 homes less desirable to an aging population.

Table 7-3

Housing Units by Year Structure Was Built

Unit of Government	% 1999 to 2000*	% 1995 to 1998	% 1990 to 1994	% 1980 to 1989	% 1970 to 1979	% 1960 to 1969	% 1950 to 1959	% 1940 to 1949	% 1939 or Earlier
Doyle Township	3.8	12.6	9.7	14.1	16.0	12.8	12.8	9.9	8.2
Germfask Township	5.8	8.1	6.2	10.4	14.9	14.6	10.1	7.1	22.7
Hiawatha Township	2.0	6.7	8.6	14.7	17.1	13.2	10.3	11.3	16.2
Inwood Township	1.6	6.6	10.8	11.1	14.0	11.7	21.2	9.6	13.5
City of Manistique	2.0	3.4	1.7	8.1	6.6	8.1	10.7	12.4	47.2
Manistique Township	5.4	12.2	5.8	19.6	24.3	7.9	9.0	5.3	10.5
Mueller Township	4.1	11.5	13.6	7.5	8.5	12.2	22.0	12.5	8.1
Seney Township	0.0	14.8	18.5	18.5	13.8	3.2	14.8	7.9	8.5
Thompson Township	1.5	6.6	9.3	51.9	11.8	10.2	19.8	12.3	12.6
Schoolcraft County	2.7	7.4	7.2	12.6	13.2	10.4	13.5	10.5	22.6
State of Michigan	2.2	6.4	6.1	10.5	17.1	14.2	16.7	9.8	16.9

*To March 2000 - Source: U.S. Census Bureau
Table H34-Year Structure Built, 2000 Dataset SF 3

Household Type

The United States Bureau of the Census categorizes households into three types: family, non-family and group quarters. As shown in Table 7-4, 59.7% of the City's residents and 69.3% of the County's residents lived in family households, compared to 68.0% 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, 40.3% of the City's residents, 30.7% of the County's and 32.0% of the State's residents live in non-family households. The majority of non-family households represent persons living alone.

**Table 7-4
Households by Type, 2000**

Households	Doyle Township		Germfask Township		Hiawatha Township		Inwood Township	
	#	%	#	%	#	%	#	%
Total Households	256	100.0	198	100.0	563	100.0	293	100.0
Family Households	193	75.4	143	72.2	404	71.8	235	80.2
W/ Own Children Under 18 Years	71	27.7	50	25.3	142	25.2	78	26.6
Married Family	179	69.9	126	63.6	365	64.8	211	72.0
W/ Own Children Under 18 Years	61	23.8	44	22.2	119	21.1	67	22.9
Female Householder	8	3.1	11	5.6	22	3.9	14	4.8
W/ Own Children Under 18 Years	5	2.0	4	2.0	15	2.7	6	2.0
Non-family Households	63	24.6	55	27.8	159	28.2	58	19.8
Householder Living Alone	51	19.9	46	23.2	148	26.3	55	18.8
Householder 65 Years and Over	20	7.8	21	10.6	67	11.9	27	9.2

**Table 7-4 continued
Households by Type, 2000**

Households	City of Manistique		Manistique Township		Mueller Township		Seney Township	
	#	%	#	%	#	%	#	%
Total Households	1,449	100.0	411	100.0	102	100.0	56	100.0
Family Households	865	59.7	310	75.4	84	82.4	45	80.4
W/ Own Children Under 18 Years	426	29.4	139	33.8	20	19.6	13	23.2
Married Family	628	43.3	257	62.5	77	75.5	35	62.5
W/ Own Children Under 18 Years	255	17.6	96	23.4	18	17.6	8	14.3
Female Householder	187	12.9	29	7.1	4	3.9	8	14.3
W/ Own Children Under 18 Years	141	9.7	23	5.6	1	1.0	4	7.1
Non-family Households	584	40.3	101	24.6	18	17.6	11	19.6
Householder Living Alone	535	36.9	82	20.0	15	14.7	10	17.9
Householder 65 Years and Over	260	17.9	33	8.0	12	11.8	6	10.7

Table 7-4 continued Households by Type, 2000						
Households	Thompson Township		Schoolcraft County		State of Michigan	
	#	%	#	%	#	%
Total Households	278	100.0	3,606	100.0	3,785,661	100.0
Family Households	219	78.8	2,498	69.3	2,575,699	68.0
W/ Own Children Under 18 Years	73	26.3	1,012	28.1	1,236,713	32.7
Married Family	200	71.9	2,078	57.6	1,947,710	51.4
W/ Own Children Under 18 Years	62	22.3	730	20.2	873,227	23.1
Female Householder	10	3.6	293	8.1	473,802	12.5
W/ Own Children Under 18 Years	7	2.5	206	5.7	283,758	7.5
Non-family Households	59	21.2	1,108	30.7	1,209,962	32.0
Householder Living Alone	47	16.9	989	27.4	993,607	26.2
Householder 65 Years and Over	23	8.3	469	13.0	355,414	9.4

Source: U.S. Census Bureau

Table DP-1 Profile of General Demographic Characteristics, 2000 Dataset SF 1

Information of household type and relationship was also presented in Table 2-8 in Chapter 2. This data illustrates that the number of family households, especially married-couple families, has generally decreased from 1990 to 2000. At the same time, the number of non-family households has increased.

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 decreasing in the United States over the past several decades, and Schoolcraft County, with the exception of Seney Township, is following this same pattern.

Table 7-5
Persons Per Household, 1990-2000

Area	Persons Per Household	
	1990	2000
Doyle Township	2.89	2.46
Germfask Township	2.81	2.44
Hiawatha Township	2.56	2.36
Inwood Township	2.65	2.46
City of Manistique	2.30	2.24
Manistique Township	2.69	2.56
Mueller Township	2.48	2.40
Seney Township	2.50	2.66
Thompson Township	2.55	2.41
Schoolcraft County	2.50	2.36
State of Michigan	2.66	2.56

Source: U.S. Census Bureau

Table DP-1 Profile of General Demographic Characteristics, 2000 SF 1

Table DP-1 General Population and Household Characteristics, 1990 Dataset STF 1

Housing Values and Rent

Table 7-6 presents median housing values for 1990 and 2000. Housing values have increased during this time period for all areas but especially so for Doyle Township jumping from \$35,400 to \$104,000 representing a 194% increase. Several townships experience significant increases such as Thompson Township-164%, Inwood Township-140%, Manistique Township-129% and Mueller Township at 115%. Schoolcraft County experienced a 101% increase in housing values compared to the State of 90.8%.

Table 7-6
Median Housing Values, 1990-2000

Area	1990	2000
Doyle Township	\$35,400	\$104,000
Germfask Township	\$30,000	\$52,500
Hiawatha Township	\$47,900	\$95,200
Inwood Township	\$33,700	\$80,900
City of Manistique	\$27,400	\$46,500
Manistique Township	\$37,000	\$84,800
Mueller Township	\$32,500	\$70,000
Seney Township	\$26,100	\$45,000
Thompson Township	\$39,300	\$103,900
Schoolcraft County	\$32,300	\$64,900
State of Michigan	\$60,600	\$115,600

Source: U.S. Census Bureau

Table DP-1 General Population and Housing Characteristics: 1990 Dataset STF 1

Table DP-4 Profile of Selected Housing Characteristics: 2000 Dataset SF 3

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 increased from \$273 to \$345, \$201 below Michigan's median gross rent. Doyle Township is the only area that saw median rent decline during this time frame. Median rent decreased from \$370 to \$340, a decline of \$30.

Table 7-7 Median Gross Rent, 1990-2000		
Area	1990	2000
Doyle Township	\$370	\$340
Germfask Township	\$143	\$306
Hiawatha Township	\$325	\$410
Inwood Township	\$306	\$313
City of Manistique	\$269	\$343
Manistique Township	\$225	\$377
Mueller Township	\$325	\$275
Seney Township	\$225	\$275
Thompson Township	\$375	\$450
Schoolcraft County	\$273	\$345
State of Michigan	\$423	\$546

Source: U.S. Census Bureau

Table DP-4 Profile of Selected Housing Characteristics: 2000 Dataset SF 3

Table DP-5 Housing Characteristics: 1990 Dataset STF 3

7.3 Financial Characteristics

Not surprisingly, median incomes in the Upper Peninsula are significantly lower than statewide averages. While this can be offset somewhat by lower housing costs locally, the ability of local households to afford housing is impacted by these lower incomes.

A common method used to gauge the affordability of a community's housing stock is the percentage of income spent on housing related expenses.

Ideally, housing costs (mortgage, taxes, etc.) should consume no more than 25 to 30 percent of gross household income. Income levels are presented in Table 7-8. Below, Tables 7-9 and 7-10 show percentages of income directed to the cost of housing. Although the Census data is limited, it does illustrate the greater impact housing costs have on lower income households.

Table 7-8 Income Levels, 1989-1999										
	Doyle Township		Germfask Township		Hiawatha Township		Inwood Township		Manistique City	
	1989	1999	1989	1999	1989	1999	1989	1999	1989	1999
Per Capita Income	\$8,969	\$18,740	\$8,231	\$14,648	\$11,787	\$20,385	\$9,646	\$15,386	\$9,681	\$14,986
Median Household Income	\$19,545	\$36,250	\$19,187	\$27,625	\$25,586	\$40,156	\$19,375	\$32,500	\$17,581	\$24,295
Median Family Income	\$21,029	\$39,018	\$21,696	\$29,375	\$27,656	\$46,406	\$23,750	\$35,147	\$23,546	\$31,979

Table 7-8 continued Income Levels, 1989-1999										
	Manistique Township		Mueller Township		Seney Township		Thompson Township		Schoolcraft County	
	1989	1999	1989	1999	1989	1999	1989	1999	1989	1999
Per Capita Income	\$9,394	\$18,127	\$8,562	\$18,507	\$7,312	\$10,855	\$9,692	\$24,045	\$9,740	\$17,137
Median Household Income	\$22,826	\$40,000	\$17,639	\$33,571	\$18,333	\$30,625	\$21,932	\$38,750	\$20,112	\$31,140
Median Family Income	\$24,762	\$46,667	\$18,889	\$34,643	\$23,250	\$31,875	\$24,886	\$41,731	\$24,066	\$36,810

Table 7-8 continued Income Levels, 1989-1999		
	State of Michigan	
	1989	1999
Per Capita Income	\$14,154	\$22,168
Median Household Income	\$31,020	\$44,667
Median Family Income	\$36,652	\$53,457

Source: U.S. Census Bureau
Table DP-3 Profile of Selected Economic Characteristics: 2000
Table CPH-L-83 Income and Poverty Status in 1989: 1990 (Book)

Table 7-9
Monthly Owner Costs as a Percentage of Household Income, 1999

Monthly Owner Costs as a % of Household Income	Doyle Township	Germfask Township	Hiawatha Township	Inwood Township	City of Manistique	Manistique Township
Less than 15.0%	52.5	38.5	54.1	62.7	56.7	44.6
15.0 to 19.9%	14.4	17.9	14.5	11.8	17.0	16.4
20.0 to 24.9 %	14.4	11.5	10.4	9.1	8.8	14.1
25.0 to 29.9 %	5.8	12.8	9.0	7.3	2.9	7.9
30.0 to 34.9 %	4.3	2.6	1.6	2.7	2.4	5.1
35.0% or more	8.6	16.7	9.3	6.4	11.4	10.7
Not Computed	0.0	0.0	1.1	0.0	0.8	1.1

Table 7-9 continued
Monthly Owner Costs as a Percentage of Household Income, 1999

Monthly Owner Costs as a % of Household Income	Mueller Township	Seney Township	Thompson Township	Schoolcraft County	State of Michigan
Less than 15.0%	40.5	53.3	56.1	54.0	41.8
15.0 to 19.9%	14.3	26.7	8.1	15.6	18.4
20.0 to 24.9 %	14.3	6.7	11.4	10.3	13.1
25.0 to 29.9 %	16.7	13.3	5.7	6.0	8.3
30.0 to 34.9 %	4.8	0.0	1.6	2.6	5.0
35.0% or more	9.5	0.0	13.0	10.5	12.7
Not Computed	0.0	0.0	4.1	0.9	0.8

Source: U.S. Census Bureau
Table DP-4 Profile of Selected Housing Characteristics: 2000 Dataset SF 3

Table 7-10							
Gross Rent as a Percentage of Household Income, 1999							
Gross Rent as a % of Household Income	Doyle Township	Germfask Township	Hiawatha Township	Inwood Township	City of Manistique	Manistique Township	
Less than 15.0%	13.3	14.3	37.1	41.7	17.2	20.8	
15.0 to 19.9%	26.7	0.0	5.7	8.3	4.7	37.5	
20.0 to 24.9 %	40.0	0.0	5.7	16.7	10.3	0.0	
25.0 to 29.9 %	0.0	14.3	14.3	8.3	17.8	4.2	
30.0 to 34.9 %	0.0	7.1	0.0	0.0	8.8	2.1	
35.0% or more	0.0	14.3	11.4	16.7	35.2	20.8	
Not Computed	20.0	50.0	25.7	8.3	6.0	14.6	

Table 7-10 continued						
Gross Rent as a Percentage of Household Income, 1999						
Gross Rent as a % of Household Income	Mueller Township	Seney Township	Thompson Township	Schoolcraft County	State of Michigan	
Less than 15.0%	0.0	50.0	0.0	19.2	20.9	
15.0 to 19.9%	0.0	50.0	20.0	8.1	14.9	
20.0 to 24.9 %	60.0	0.0	0.0	10.1	12.4	
25.0 to 29.9 %	0.0	0.0	0.0	15.1	10.0	
30.0 to 34.9 %	0.0	0.0	0.0	6.9	6.8	
35.0% or more	40.0	0.0	20.0	30.3	28.4	
Not Computed	0.0	0.0	60.0	10.0	6.7	

Source: U.S. Census Bureau Table
DP-4 Profile of Selected Housing Characteristics: 2000 Dataset SF 3

7.4 Selected Housing Characteristics

Substandard housing information is presented in Table 7-11. Housing units lacking complete plumbing (hot and cold piped water, flush toilet and bathtub 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 2000. Germfask, Mueller and Seney Townships have the greatest percentage of substandard housing units.

Table 7-11 Conditions of Housing Units, 1990-2000												
Area	Lacking Complete Plumbing Facilities				Lacking Complete Kitchen Facilities				No Telephone Service			
	1990		2000		1990		2000		1990		2000	
	#	%	#	%	#	%	#	%	#	%	#	%
Doyle Township	31	5.8	2	0.8	35	6.5	2	0.8	24	4.5	0	0.0
Germfask Township	7	2.4	6	3.0	4	1.4	2	1.0	13	4.4	14	7.0
Hiawatha Township	112	12.6	6	1.1	89	10.0	2	0.4	18	2.0	5	0.9
Inwood Township	72	11.9	3	1.0	53	8.7	3	1.0	23	3.8	2	0.7
City of Manistique	8	0.5	2	0.1	6	0.4	2	0.1	128	7.9	75	5.2
Manistique Township	11	2.1	2	0.5	11	2.1	2	0.5	27	5.3	17	4.1
Mueller Township	14	5.1	4	4.2	12	4.3	2	2.1	9	3.3	0	0.0
Seney Township	19	8.1	0	0.0	9	3.8	2	4.3	25	10.6	0	0.0
Thompson Township	117	22.7	0	0.0	115	22.3	0	0.0	16	3.1	8	2.8
Schoolcraft County	391	7.1	25	0.7	394	7.2	17	0.5	283	5.2	121	3.4
State of Michigan	32,492	0.8	16,971	0.4	34,613	0.9	17,844	0.5	103,922	2.7	99,747	0.3

Source: U.S. Census Bureau

Table DP-4 Profile of Selected Housing Characteristics, 2000 Dataset SF 3

Table DP-5 Housing Characteristics, 1990 Dataset STF 3

The type of heating fuel utilized in occupied housing units is presented in Table 7-12 below. The most common form of heat within the City of Manistique is utility gas, with 80.1% of housing units utilizing this method. The most common heating method among the townships is using bottled, tank or LP gas. Although there is some variation between the Townships as to what the second, third and fourth most popular heating sources are, bottled, tank or LP gas is generally followed by wood, fuel oil, kerosene, etc. and finally electricity. Some units utilize other fuel sources and others have no fuel.

Table 7-12**Occupied Housing Unit Heating Fuel, 2000**

Source	Doyle Township		Germfask Township		Hiawatha Township		Inwood Township		City of Manistique		Manistique Township	
	#	%	#	%	#	%	#	%	#	%	#	%
Utility Gas	2	0.8	0	0.0	90	16.1	4	1.3	1,157	80.1	102	24.6
Bottled, Tank or LP Gas	184	69.4	129	64.8	176	31.4	158	53.2	33	2.3	153	36.9
Electricity	21	7.9	5	2.5	133	23.8	18	6.1	137	9.5	63	15.2
Fuel Oil, Kerosene, etc.	19	7.2	12	6.0	99	17.7	62	20.9	60	4.2	45	10.8
Coal or Coke	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Wood	39	14.7	50	25.1	60	10.7	55	18.5	53	3.7	50	12.0
Solar Energy	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Other Fuel	0	0.0	3	1.5	0	0.0	0	0.0	0	0.0	2	0.5
No Fuel	0	0.0	0	0.0	2	0.4	0	0.0	5	0.3	0	0.0
Total Units	265	100.0	199	100.0	560	100.0	297	100.0	1,445	100.0	415	100.0

Table 7-12 continued**Occupied Housing Unit Heating Fuel, 2000**

Source	Mueller Township		Seney Township		Thompson Township		Schoolcraft County		State of Michigan	
	#	%	#	%	#	%	#	%	#	%
Utility Gas	0	0.0	0	0.0	0	0.0	1,355	37.6	2,961,242	78.2
Bottled, Tank or LP Gas	52	54.2	36	76.6	158	56.0	1,079	29.9	357,502	9.4
Electricity	8	8.3	2	4.3	30	10.6	417	11.6	251,208	6.6
Fuel Oil, Kerosene, etc.	11	11.5	4	8.5	48	17.0	360	10.0	130,933	3.5
Coal or Coke	0	0.0	0	0.0	0	0.0	0	0.0	659	0.0
Wood	25	26.0	5	10.6	46	16.3	383	10.6	54,608	1.4
Solar Energy	0	0.0	0	0.0	0	0.0	0	0.0	641	0.0
Other Fuel	0	0.0	0	0.0	0	0.0	5	0.1	18,413	0.5
No Fuel	0	0.0	0	0.0	0	0.0	7	0.2	10,455	0.3
Total Units	96	100.0	47	100.0	282	100.0	3,606	100.0	3,785,661	100.0

Source: U.S. Census Bureau Table DP-4 Profile of Selected Housing Characteristics: 2000 Dataset SF 3

7.5 Private Housing Developments

New home construction for Schoolcraft County is presented below in Table 7-13 for the years 2004 to 2007. The values shown are derived from construction cost estimates provided by permit applicants.

Table 7-13**Schoolcraft County Building Permits Issued, 2004-2007**

Year	Number of New Residential Permits Issued	Construction Cost
2004	67	4,098,486
2005	50	6,902,645
2006	45	6,212,381
2007	37	5,654,799

Source: U.S. Census Bureau Building Permits

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.

Table 7-14
Subsidized Housing, Schoolcraft County, 2007

Development Name	Address	Administration	Units	Year Built	Type
Parkview Estates	8066 Cornell Road, Germfask	Public Housing	16	1984	Elderly Low-Rise
Harbor View Towers	400 East Lakeshore Drive, Manistique	Public Housing	35	1968	Elderly Low-Rise
Heritage House	900 Stuben Avenue, Manistique	Public Housing	48	1984	Elderly Low-Rise
Manistique Lakeview Apartments	701 Park Avenue, Manistique	Rural Housing	40	1992	Family Low-Rise
Maple Square	400 East Lakeshore Drive, Manistique	Public Housing	25	1968	Family Low-Rise, Family Detached
Whispering Wind	600 Cherry Hill, Manistique	Rural Housing	121	-	Elderly Low-Rise, Family Low-Rise

Source: Michigan State Housing Development Authority Subsidized Housing Directory 2009

7.7 Public and Private Housing Assistance Program

Schoolcraft County has several housing programs available to help those who need it.

Michigan State Housing Development Authority (MSHDA) Schoolcraft County 2006/2007 Housing Rehabilitation Grant—this grant is used to rehabilitate owner occupied homes within Schoolcraft County. Eligibility requirements must be met.

MSHDA Homebuyer Down Payment Assistance with Rehab—Qualified applicants can receive up to \$10,000 for a down payment and up to an additional \$20,000 for a home rehabilitation within Schoolcraft County.

MSHDA Links to Home Ownership Grant—families that have past credit issues are eligible to receive financial counseling. Reasons must be given for the delinquent credit. The family must qualify for a MSHDA mortgage within one year of beginning counseling. Other requirements apply.

MSHDA's Property Improvement Program (PIP)—PIP is a low cost loan and can help lower income homeowners with financing property improvements. Rates vary based on household income and payments can be stretched out depending on financial ability and amount borrowed. Homeowners determine what type of repairs and improvements to do.

Housing assistance is available to those who need it. Housing Choice Vouchers are available, but participants must meet eligibility requirements. Those who are interested should contact the County's Housing Agent. Schoolcraft County's Housing Agent is Paperwork Services, LLC. and can be reached at 906.863.8095.

Schoolcraft County also has a Habitat for Humanity Chapter, Hiawathaland Habitat for Humanity. The goal of Habitat for Humanity is to eliminate poverty housing and replace it by building adequate and basic housing for those in need. Currently there are four Habitat for Humanity houses under construction in Schoolcraft County. Eligible families must meet selection criteria. Hiawathaland Habitat is currently located at 417 Oak Street, in Manistique but will be moving into the Lincoln school. Habitat works in partnership with the school district building trades program, providing an educational opportunity for students.

7.8 Issues and Opportunities

Only 63.3% of the housing units in Schoolcraft County were occupied, much lower than the State's housing unit occupancy rate of 89.4%. A strong majority of the vacant units are designated as seasonal, recreational, or occasional use.

In 2000, 83.9% of Schoolcraft County's housing units were single-family, 6.6% were multi-family and 9.5% were mobile homes, boats, RV's, etc.

57% of the 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.

The number of households in the County has increased as a result of more people living alone and more single-parent families. This affects the overall demand for housing, as well as the type and price of housing desired.

The household size in the County has decreased over the last decade, with more single parent families and more individuals living alone, especially the elderly.

Nearly 86 percent of homeowners spend less than 30% of their monthly income on their homeowner costs.

There are relatively few housing units in Schoolcraft County which are substandard according to Census criteria. Of these units, some may be seasonal dwellings that do not serve as a primary residence.

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

Schoolcraft County has several programs available to residents to assist in rehabilitating existing homes.

The County also provides six publicly funded housing developments and offers several housing options for the elderly.

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, well over 205 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. 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 was formed under Act 156 of 1917, section 123.51. This 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.

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 staff are responsible for the maintenance

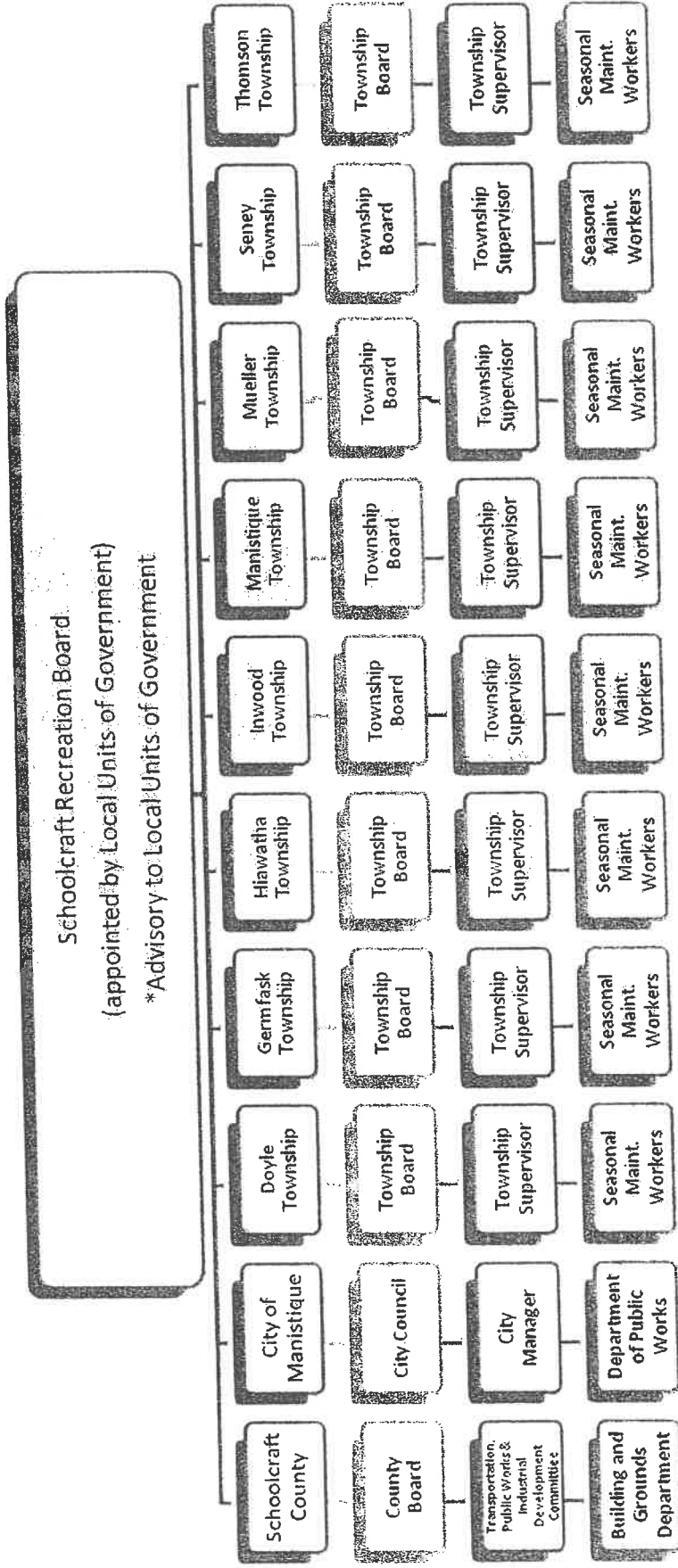
and upkeep of the city's recreation facilities. The Schoolcraft County Board of Commissioners has the power to recommend, administer and update the recreation facilities the County owns. The Building and Grounds Department staff is responsible for the maintenance and upkeep of the Counties recreation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

Recreation coordination, program development and planning are the responsibilities of the ten members appointed by the local units of government to the Multi-Jurisdictional Schoolcraft Recreation Board. The Schoolcraft Recreation Board members provide liaison with each local unit of government to ensure all recreation issues in the region are addressed. The Plan will be regularly reviewed and updated as necessary. The Schoolcraft Recreation Board is advisory to all ten local units of government.

Table 8-1
Schoolcraft County Recreation Board

Office	Name	Representing	Term Expires
President	Mr. Tom Jenerou	Hiawatha Township	01/01/2010
Vice President	Mr. Jerry Dotson	Manistique Township	01/01/2009
Secretary	Mrs. Giannine Perigo	Mueller Township	01/01/2010
Member	Mr. Steve Videtich	Schoolcraft County	01/01/2009
Member	Mrs. Sheila Aldrich	City of Manistique	01/01/2010
Member	Mr. Don Reed	Seney Township	01/01/2009
Member	Mrs. Lisa Boudreau	Thompson Township	01/01/2009
Member	Mrs. Jennifer Hubble	Doyle Township	01/01/2010
Member	Mr. Tom Kenney	Germfask Township	01/01/2010
Member	Mr. Al Unger	Inwood Township	01/01/2009

Schoolcraft County Recreation Board Organizational Chart



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. The following information was presented in the Schoolcraft County-wide Multi-jurisdictional Recreation Plan. Map 8-1 depicts recreational areas throughout the County.

8.4 Schoolcraft County

Schoolcraft County owns and maintains three recreational facilities:

Lindsley 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, playground, basketball courts, horseshoe pits, volleyball area and an open game area. The local soccer association maintains an area used for soccer.

- These facilities were developed with a MDNR Recreation Grant, 26-01060-B in 1978.
- All of the facilities with the exception of 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 Townships.

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.

Creek/Lakefront Access Site is a parcel of property the County purchased for development as a picnic area stream access site for smelt fishing. The property is currently undeveloped but is being looked at as a potential site for lakefront access on Lake Michigan with smelt stream access.

- Service area: Local citizens and tourists as an access site to Lake Michigan once developed.

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 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 the 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 site, 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 and 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:

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 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 ballfield, 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 of 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.
- It is being considered for development with a picnic pavilion, playground facilities, vault toilets and other amenities.

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, recreation hall and classrooms that can be used for a variety of recreational uses.
- The building houses the Jack Reque Alternative Education program that provides services to 30-40 students.
- 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.
- Some of the outdoor facilities meet accessibility guidelines.
- Service area: Hiawatha Township and the surrounding 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.
- 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 newly constructed little league ball field.
- The Township Hall and pavilion meet accessibility guidelines.
- The new little league field meets some accessibility guidelines.
- There are plans for substantial additions that include a parking lot, basketball court, playground, regulation ball field, concession stand, vault toilets and flowers and landscaping with a recreation area sign.

8.9 Manistique Township

Manistique Township owns and maintains four recreational areas:

Manistique Township Hall Playground is a ½ acre parcel 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 newly paved parking lot and a trail to the beach. There are portable toilets located on the site.

- None of the facilities at this park meet accessibility guidelines.
- 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 handicapped accessibility.

Environmental Lab is an 80-acre outdoor laboratory with a vault toilet, trail-system throughout 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 Point Lighthouse. The Gulliver Historical Society maintains the site.

- This park consists of the restored Seul Choix Point 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 this 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.

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

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 this site meets accessibility guidelines.
- This site is slated for further improvements.

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 multi-purpose building/ice arena. This area is currently under construction funded by a MDNR Recreation Grant.

- TF05-105, Manistique Central Park Improvements, 2005
 - Fishing Platforms
 - Quarry Lake Improvements
 - Entrance Roads
 - Parking
 - Trails
 - Archery Range
 - Basketball & Tennis Courts
 - Site Amenities
 - Baseball Field
 - Restrooms
 - Skateboard Park
 - Plaque

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

- TF93-199, 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 with 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 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, 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. Building includes offices, dining room, kitchen facilities, storage, two activity rooms and restroom facilities.

- Most of the facilities meet 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, 1992 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 concession stand.
- The Manistique Recreation Building meets most accessibility guidelines.

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 boat launch, 1-3 campsite, 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 Grant Canada Geese and other waterfowl.
- Hunting, fishing and nature trails.

Lake Superior State Forest

- Campgrounds:
 - North Gemini Lake-17 campsites, boat launch, fishing, swimming, ski trails. **Closed July 9, 2007**
 - South Gemini Lake-8 campsites, boat launch, fishing. **Closed July 9, 2007**
 - 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.
- Merwin Creek-11 campsites, canoeing, fishing. **Closed July 9, 2007**
- Mead Creek-1 campsite, canoeing, fishing. **Closed July 9, 2007**

Indian Lake State Park

- 300 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 21, 1958.

- **Blaney Inn**

The Blaney Inn is located on M-77 in Mueller Township. The Blaney Inn is a one and one-half story, steeply gable-roofed, clapboard and shingled Colonial Revival building. The Blaney Inn has historical association with Blaney Park, an early twentieth century experiment in resort and tourism development on the site of a former logging operation. The site was listed on the state register on July 23, 1987.

- **Manistique Pumping Station**

The Manistique Pumping Station is located on Deer Street (US-2) 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 Point 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 Point 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 on 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 essentially unaltered. 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 girder. The site was listed on the national register on December 17, 1999.

- White Marble Lime Company Kilns

The White Marble Lime 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.

Schoolcraft County has an updated 5-year recreation plan approved by the MDNR, which allows the County to apply for MDNR Trust Fund grants. The County has identified several priorities for recreational development in each jurisdiction. Grant funding should be pursued to begin the proposed improvements.

Green infrastructure crosses community boundaries and 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 ADA. 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 Historic 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.

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 a 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. Counties, cities and villages receive approximately 61 percent of the funding allocated through Act 51 for local roads with the remaining 39 percent earmarked for state highways under the jurisdiction of the Michigan Department of Transportation.

Map 9-1 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 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 percent 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 136.201 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. The mileage of each road system is used as the basis for computation of road funding.

Primary roads are considered those of the greatest general importance to the County. All other roads not classified as primary are considered local. The local road system contains the most miles in the Schoolcraft County road system, but has the lowest level of traffic.

The county road system does not include roads within the City of Manistique. There are 102.782 miles of county roads which are maintained as year-round roads within the Township. County Primary Roads are listed in Table 9-1.

Table 9-1 Act 51 Legal System, County Primary Roads, Schoolcraft County	
County Primary Road	Location
35.5 Road	Inwood Township
Cemetery Road	Inwood Township
County Road 433	Manistique Township
County Road 434	Doyle Township
County Road 437	Inwood Township
County Road 438	Doyle Township
County Road 440	Hiawatha Township
County Road 442	Inwood Township/Thompson Township
County Road 453	Inwood Township/Thompson Township
County Road 455	Inwood Township/Thompson Township
County Road 456	Seney Township
County Road 98	Germfask Township
Evergreen Beach Road	Hiawatha Township/Thompson Township
FF-13	Hiawatha Township/Inwood Township
Fox River Road	Seney Township
Highwater Truck Trail	Hiawatha Township/Manistique Township
Leduc Road	Hiawatha Township
Little Harbor Road	Thompson Township
MacDonald Lake Road	Doyle Township/Mueller Township
Manistique Avenue	Hiawatha Township
River Road	Doyle Township/Mueller Township
River/Riverside Truck Cutoff	Doyle Township
Tannery Road	Manistique Township
Ten Curves Road	Germfask Township

Source: MDOT, 2008.

MDOT is planning on resurfacing nine miles of M-94 between River Road and Dodge Lake Road, north of Manistique. MDOT also plans to realign approximately one-half mile of the highway, north of Freeman Road to make safety and maintenance improvements. MDOT is working with the Michigan Department of Natural Resources to acquire an easement at the location of the M-94/Haywire Trail snowmobile crossing. MDOT will construct a signed level approach at the new crossing, as well as a small turnout area for the trail groomer. Trail access will be maintained throughout construction.

Major Street System

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 on the basis of 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.

The City of Manistique's 7.470 miles of designated major streets include portions of the following:

- S. Cedar Street
- County Road 440
- County Road 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 Avenue
- 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 streets 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.

9.3 Private Roads

Private roads have not been an issue in the County. 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 Functional Classification

The National Functional Classification is a planning tool developed by the Federal Highway Administration in the 1960s 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. The placement of roads into these categories is determined by the relationship to traffic patterns, land use, land access needs, and traffic volumes. Map 9-2 shows the National Functional Classification Road System for Schoolcraft County. This classification applies rural or urban designations based on the population of a community. Communities with populations of fewer than 5,000 are considered rural; those of 5,000 or more are categorized as urban.

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.

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 interrupted 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 neighborhood 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 trips 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. Minor rural collectors include portions of: County Road 445, County Road 433, Seul Choix Road, and Little Harbor Road.

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: Cedar Street, Bass Lake Road, Railroad Street, Tannery Road, Wood 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 (failed), 2-3 (poor), 4-5 (fair), 6-7 (good), 8 (very good), 9-10 (excellent).

Surface condition evaluations for roads within Schoolcraft County were completed in 2007 and 2008. Surface conditions vary greatly throughout the County. A sample of surface conditions evaluations for roads within the County in 2007 and 2008 were as follows:

- M-28 from M-28 to the Hiawatha Township line-8
- M-77 from US-2 to Polhamus Road-7
- M-94 from Dump Road to Highrollways Road-3
- US-2 from Pine Street to County Road 435-4
- US-2 from South Cedar Street to Arbutus Avenue-6
- US-2 from Tannery Road to County Road 438-6
- US-2 from M-77 to Fire Tower Road-7
- County Road 442 from US-2 to Old US-2-3
- County Road 434 from US-2 to Canadian National Railway-5

- County Road 433 from US-2 to River Road-4
- County Road 453 from Peterson Road to M-149-3
- FF-13 from the County line to Federal Forest Road 2173-6
- Little Harbor Road from Coho Street to Cedar Street-3
- River Road from County Road 438 to Doyle Township line-4
- North Maple Street from New Elm Street to East Elk Street-6

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 \$2 billion dollars in FY 2006-07. 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 state transportation funds, to special program accounts, and to local units of government. The effect of the MTF distribution formula is to allocate state restricted transportation revenue between highway programs and public transportation programs, and highway program funds between MDOT and local road commissions.

Michigan Transportation Fund (Act 51)

Michigan Transportation Fund revenues distributed to the City of Manistique for the fiscal year 2007, totaled \$254,933.17. Townships do not directly receive Michigan Transportation Fund revenues. The Schoolcraft County Road Commission received \$1,830,541.74 in 2007. The County Road Commission funds are then divided amongst two primary road funds and two local road funds and used when needed.

Table 9-2 identifies funding sources for the complete Michigan transportation budget. The gross majority of transportation money comes from federal and state sources.

Table 9-2

Revenue Supporting Michigan's FY 2006-2007 Transportation Budget

Source	Revenue	% of Total Gross
State Funds	\$2,225,029,000	64.6%
Federal Funds	\$1,169,336,300	34.0%
Local Funds	\$47,500,000	1.4%
Gross Appropriation	\$3,441,865,300	100.0%

Source: Michigan Department of Transportation, 2007.

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 village street agencies are eligible to apply for funds. Several types of projects are appropriate for funding, including:

- Category A: target industry development and redevelopment
- Category C: reduction of traffic congestion in urban counties
- Category D: road 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 in 2005 will provide Michigan with increased funding than received previously under TEA-21. Under the concept of "multi-modals," transportation planning is supposed to bring about cooperation among the different transportation modes that interconnect at shared hubs, or multi-modals. The state of Michigan is attempting to utilize flexible funding to support multi-modal infrastructure.

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. 18 million households in 2000 had three or more vehicles. This trend leads to increased congestion and travel times, according to the Federal Highway Administration.

According to the MDOT's Long Range Plan, highway travel in Michigan is increasing at a much higher rate than the state population. In 1940, travel logged on Michigan roads totaled 14.6 billion miles. Vehicle travel on Michigan's major highways increased by 27 percent from 1990 to 2004 - jumping from 81.1 billion vehicle miles traveled in 1990 to 103.3 billion vehicle miles traveled in 2004. At the same time, total lane miles in the state increased by only four percent. Seventy-seven percent of the \$321 billion worth of commodities delivered annually to and from sites in Michigan is transported on the state's highways.

Traffic counting devices are used by MDOT to track volumes at set points along state trunklines.

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 Action 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 Public Transportation (SCPT). Countywide public transit services were initiated on September 15, 1980. Senior citizens and persons with disabilities comprise 52 percent of the annual ridership. SCPT is available Monday through Friday from 7:30 a.m. - 5:00 p.m. and Saturday and Sunday by appointment only. SCPT has a total of nine vehicles, four of which are lift equipped. SCPT currently employs four people. In 2007, SCPT logged 169,633 miles and carried 30,768 passengers.

Specialized medical transport services are also available in Schoolcraft County.

9.10 Private Transportation

Intercity bus service is provided in Schoolcraft County by Indian Trails Motorcoach. The Lakeshore Shell 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

There is no passenger rail service within Schoolcraft County. A Canadian National line runs through the County.

9.12 Air Transportation

The Schoolcraft County Airport is located at 5910W US-2, just outside of Manistique. About 54 flights take off from the airport per week, with 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 is served by one major carrier -Northwest Airlines, with daily service to Iron Mountain's Ford Airport, Detroit Metropolitan Airport and Minneapolis-St. Paul International. The airport also host 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 Safe Routes to School programs is to help children, and those with disabilities, to walk and bicycle to school;

- To make bicycling and walking to school a safer and more appealing transportation alternative, thereby 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.

The City of Manistique has explored the Safe Routes to School program. The final step to implement Safe Routes to School in a community is to develop a SR2S Action Plan. The SR2S team will review findings from the walking audit and information collected through student and parent surveys to develop recommendations to encourage and enable students to walk to school on safe routes. The Action Plan will address education, encouragement, enforcement and/or engineering needs. Grant funding is available through the program.

9.15 Issues and Opportunities

While certain roads in the County are in good condition, a significant proportion of the roads are in need of repair. Funding through the state for road improvements is becoming increasingly limited due to the state's budget crisis.

Communities along US-2 could consider adopting a US-2 Access Management Plan approved by MDOT, which will help to improve access, traffic flow and safety.

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. Grant funding is available.

10.0 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 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 Master Plan prepared by the Planning Commission will be the plan that the Zoning Ordinance will be connected to. As indicated by the residents who attended the four public input sessions held to gather information for this Master Plan, natural resources are important to Schoolcraft County.

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

- Large intact forests
- High quality and/or rare natural communities

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 plan sign off prior 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 Environmental Quality (DEQ) (wetlands and sand dunes), conformity with the Soil and Sedimentation Act, and County Zoning as the final signatory.

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 thru 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 thru 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 call 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 can be reviewed.

- b) Natural vegetation buffers can be considered and encouraged. 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 residence and 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.

A separate amendment to limit light pollution could be considered as an addition to all or most Zoning Districts within the Ordinance. The general intent of a light pollution ordinance is to permit reasonable uses of outdoor lighting for nighttime safety, utility, security, and enjoyment while preserving the ambiance of the night; curtailing degradation of the nighttime visual environment and the night sky; minimize glare and obtrusive light by limiting outdoor lighting that is misdirected, excessive, or unnecessary.

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 and Strategies

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 take into account 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.

11.2 Population

Discussion:

Schoolcraft County's population remained stable from 1960 to 2000, experiencing a net loss of only 50 residents (-0.6%) over the 40 year period. The County has a significantly higher median age (41.4 years) than the

State (35.5), as well as a lower percentage of school age persons and a higher percentage of senior citizens, indicating an aging population. 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 increase for Schoolcraft County from 2000 to 2020.

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

Discussion:

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 (22.8%), retail trade (12.0%), and arts, entertainment, recreation, accommodation and food services (11.6%). About 86 percent of Schoolcraft County residents worked in the County; nearly 60 percent 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.

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 grant, loan, 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 addition of 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

Discussion:

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. 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.

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

Discussion:

About 75% of Schoolcraft County is designated as public land. 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. 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.

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 and building ordinances 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 wherever 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.
- Revise the existing Schoolcraft County Zoning Ordinance to include regulations regarding wind towers and outdoor wood burners in the appropriate districts under conditions.

11.6 Community Facilities and Services

Discussion:

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.

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.
- Wherever practical, augment local resources with federal and state grant and loan programs to achieve facility and service improvements.

11.7 Housing

Discussion:

About 93 percent of residential housing units in the County were classified as single family dwellings or mobile homes. Only 63 percent 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. 57 percent of the homes in Schoolcraft County were built before 1970.

Goal:

Develop, maintain and improve a 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 dwellings and yards appropriately so as to avoid blighted or unsafe conditions.
- Encourage development of additional residential housing appropriate for elderly and persons with special needs as appropriate.

11.8 Recreation

Discussion:

Schoolcraft County owns and maintains three 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.

Goal:

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

Strategies:

- Continue to maintain a current recreation plan that is prepared in conformance with standards set forth by the Michigan Department of Natural Resources.
- Develop and maintain recreation areas consistent with the recreation plan.
- 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

Discussion:

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 dredging. Residents have indicated an interest in the development of non-motorized trails.

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.
- Encourage non-motorized trail development.
- Promote traffic safety measures in school zone areas.
- Support continuation and expansion of service at 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 Land 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 on how development will 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 recreational 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. In order 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.

Map 12-1, Future Land Use, 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 2008 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 or 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 that 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 the 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 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 the 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 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 the 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 insure 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 with 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 the 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 in a natural state for the use and enjoyment of the populace. The "Fox River Natural River Plan" was incorporated into the Schoolcraft County Zoning Ordinance in 1988.

Schedule of Regulations						
District	Minimum Lot Size (Sq. feet or acreage)	Minimum Lot Width	Minimum Setback			Maximum Lot Depth
			Front	Side	Rear	
Residential 1	20,000 sq.ft. A	100 ft.	25G	7	15	B
Residential 2	30,000 sq.ft. A	150 ft.	25G	7	15	B
Rural Residential	60,000 sq. ft B	200 ft.	25G	7	15	B
Resource Production	10 acres	300 ft.	25G	7	15	
Timber Production	40 acres	300 ft.	25G	7	15	
Public Land	None		25G	7	15	
Lakeshore and River 1	30,000 sq ft.	100 ft.	25G	7	15	E,F
Lakeshore and River 2	45,000 sq. ft.	150 ft.	25G	7	15	E,F
Lakeshore and River 3	60,00 sq. ft.	200 ft.	25G	7	15	E,F
Agricultural	20 acres	300 ft.	25G	7	15	
Commercial	40,000 sq. ft.	150 ft.	25G	5	15	
Industrial	40,000 sq. ft.	150 ft.	25G	5	15	
Town District	20,000 sq. ft. A	100 ft.	25G	7	15	
Natural River Plan	5 acres	300 ft.	100D,G	30	5	

Footnotes to the Table:

- A. 5,000 square feet where lot is served by public water and/or water supply.
- 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 Section 304 thru 307.
- D. The front setback is measured from the ordinary High Water Mark, see Section 102NN.
- E. The closest 1/8 line opposite subject body of water.
- F. Minimum lot width measured along high water mark. Property located entirely within a Lakeshore and River 1, 2, and 3 zoning district cannot be split off without the water frontage required in Section 301 (see above) in each of these districts unless said parcel has no water frontage in which case, the water frontage requirement is waived in favor of an equivalent of both acreage and road frontage.
- G. For building purposes, front setback shall be a distance of 25' from the right of way line of all public roads, private roads, and road easements, but in no case shall exceed 60' from the centerline of an existing road or easement and further, in no case shall a right of way be built upon and remove all current text contrary to this.
- H. Property lines adjoining designated alleys and walkways shall be deemed to be "rear lot lines" and NOT as front lines such as those adjoining a road.

12.2A Potential 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 a permitted use within the various zoning districts. At this time wind energy and outdoor wood burners are not listed as permitted uses.

Wind energy is an emerging technology that may require the County to consider updates to the zoning ordinance. Regulations may need to be considered for both small and large scale wind turbines. Small wind generally serves private homes, farms or small businesses. Zoning definitions will need to be added and updated. The types of turbines may differ by use, height or capacity. The zoning districts in which wind turbines will be hosted must also be determined. Appropriate development standards will need to be created and adopted for each type of wind energy facility. Site plan review requirements may also need to be revised. A wind energy overlay district could also be incorporated into the zoning ordinance. An overlay district is an additional zoning requirement that is placed on a geographic area but does not change the underlying zoning.

The County Zoning Department is also reviewing standards regarding outdoor wood burners to incorporate into the zoning ordinance. Should the County begin to draft an ordinance regarding the wood burners, engineering modifications that may be made could be addressed in regards to 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.

12.3 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 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 the 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 Manistique Paper 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 potential for commercial use but are in need of clean up.

With the current economic downturn in the United States, the potential for commercial development in the County is dependent on the amount of funds available. The lack of infrastructure, utilities and population in the area impedes commercial development.

In accordance with the suggestions made in Chapter 10-Coastal Zone Management Strategies, setbacks for future commercial development along lakeshores and rivers could 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 as mobile homes. The Rural Residential District provides for an alternative residential environment 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 Zone 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 of 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 industry.

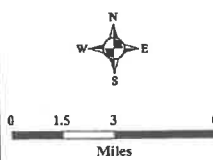
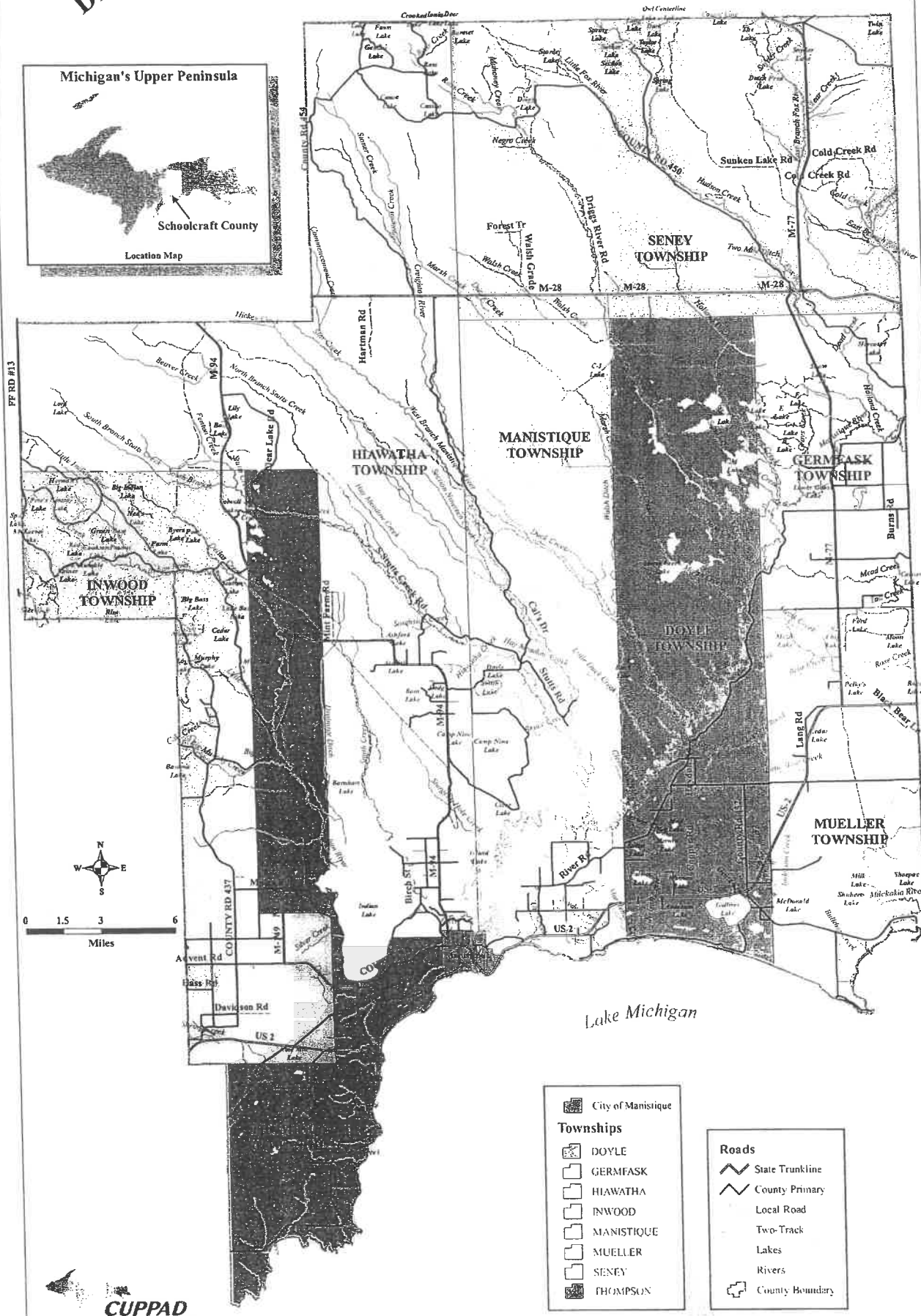
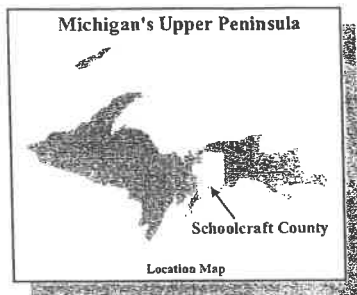
12.4 Conclusion

Planning is intended to guide the forces of change in ways that insure 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.

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Schoolcraft County

Base Map



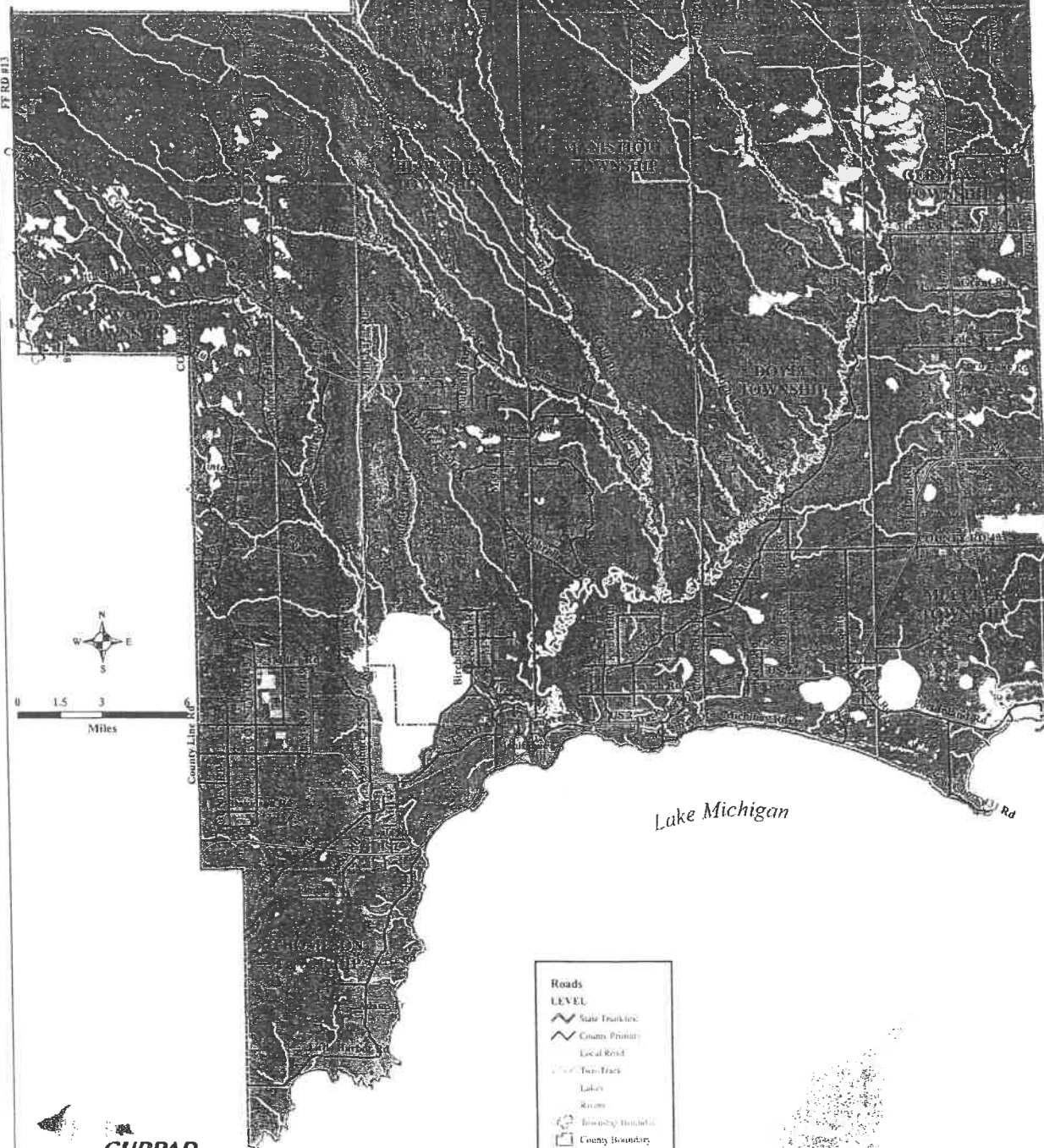
- City of Manistique**
- Townships**
- DOYLE
 - GERMFASK
 - HIAWATHA
 - INWOOD
 - MANISTIQUE
 - MUELLER
 - SENEY
 - THOMPSON

- Roads**
- State Trunkline
 - County Primary
 - Local Road
 - Two-Track
 - Lakes
 - Rivers
 - County Boundary

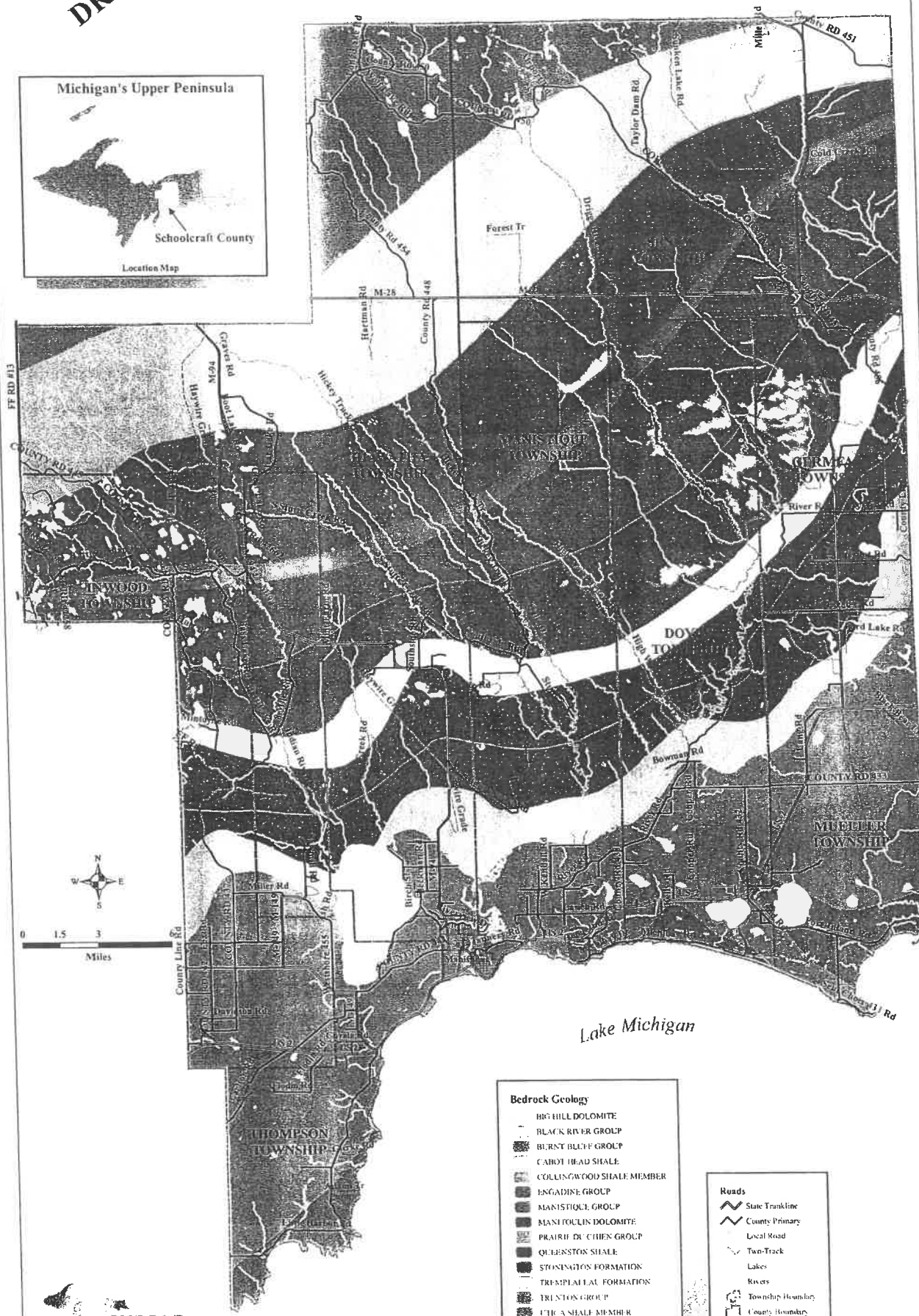
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Schoolcraft County

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










Bedrock Geology



Lake Michigan

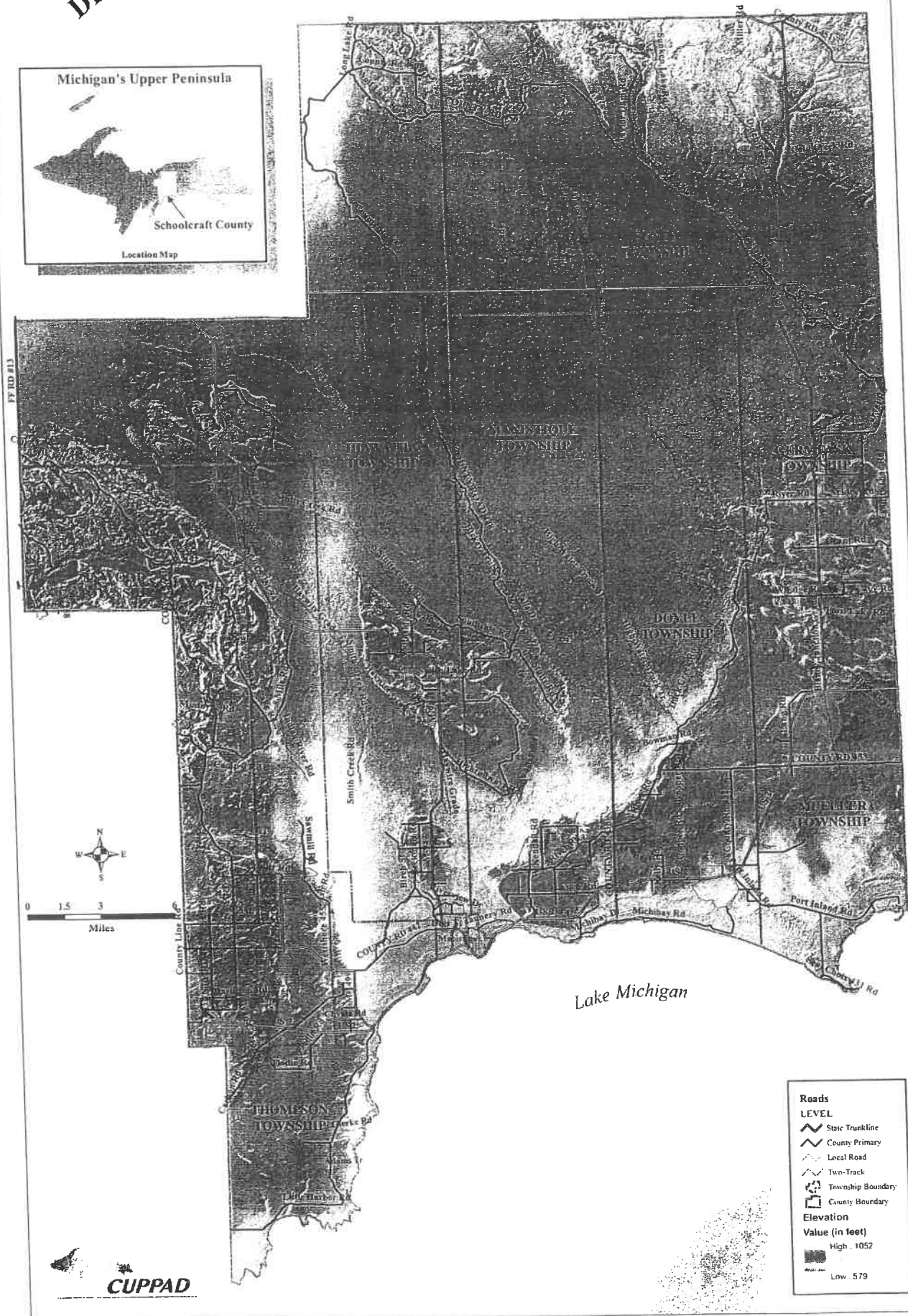
Bedrock Geology

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 HET HILL DOLOMITE

 BLACK RIVER GROUP

 BURNT BLUFF GROUP

 CABOT HEAD SHALE

 COLLINGWOOD SHALE MEMBER

 ENADGINE GROUP

 MANISTIQUE GROUP

 MANI JOUIN DOLOMITE

 PRAIRIE DU CHIEN GROUP

 QUEBECOST SHALE

 STONINGTON FORMATION

 TREMPLE LAU FORMATION

 TRISTON GROUP

 THE SHALE MEMBER

Roads

-  State Trunkline
 County Primary
 Local Road
 Two-Track
 Lakes
 Rivers
 Township Boundary
 County Boundary

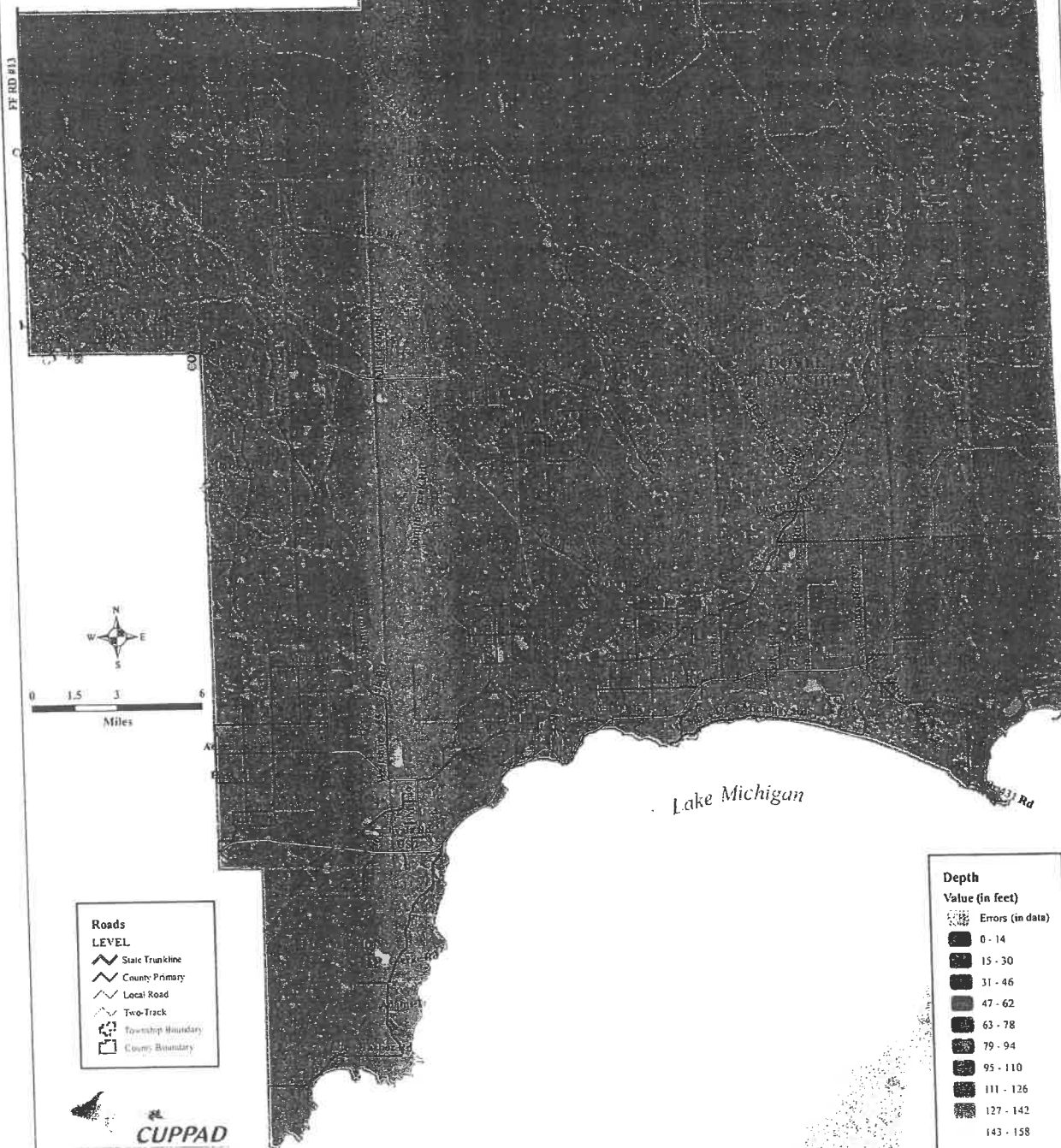
Surface Topography



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Schoolcraft County

Depth to Water Table



Roads	
LEVEL	
	State Trunkline
	County Primary
	Local Road
	Two-Track
	Township Boundary
	County Boundary

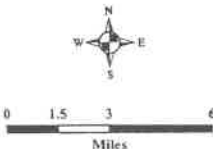
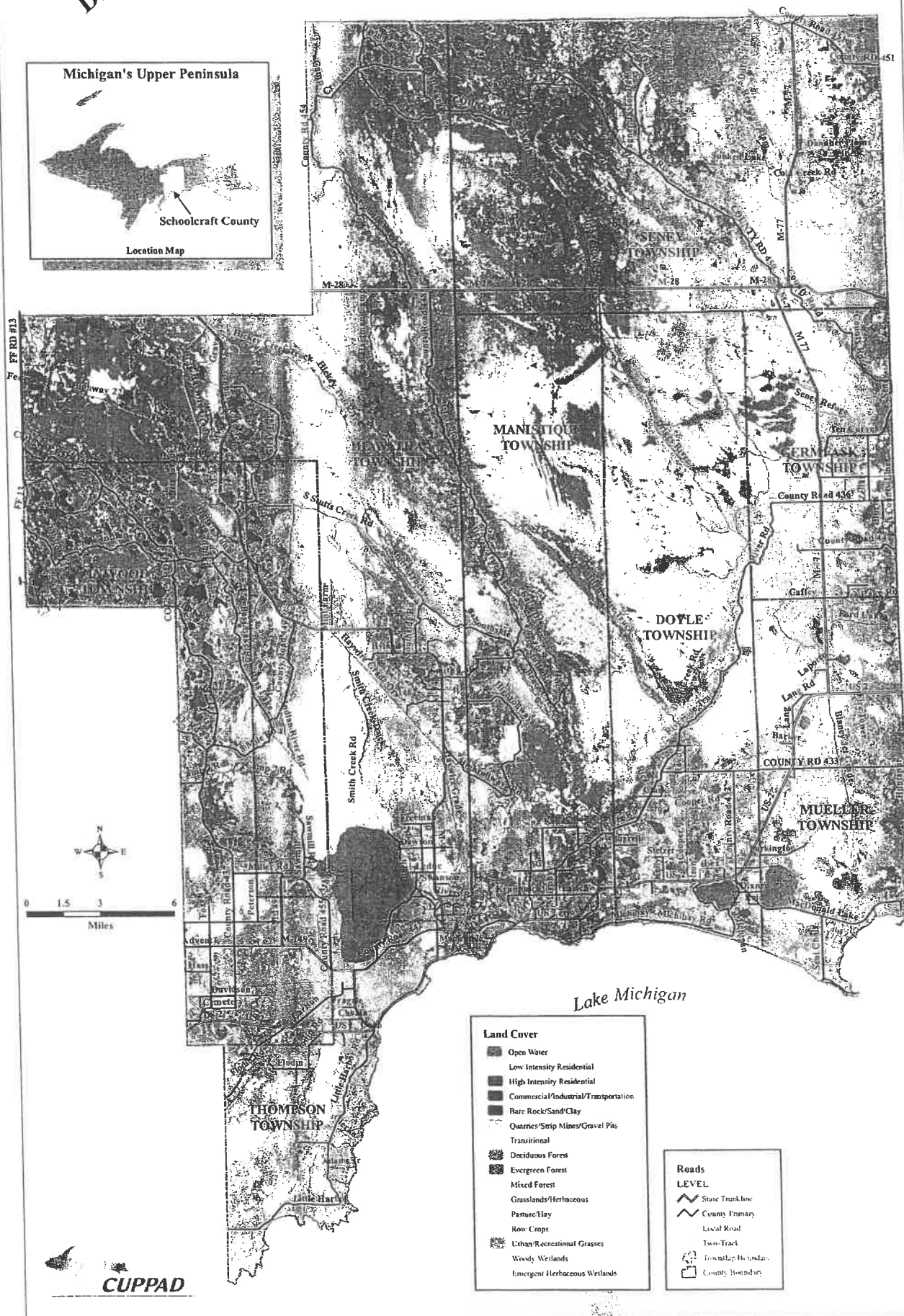
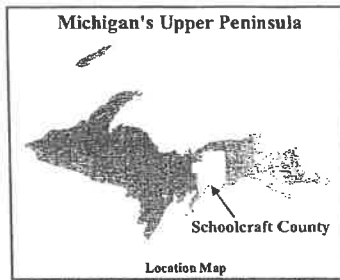
Depth	
Value (in feet)	
	0 - 14
	15 - 30
	31 - 46
	47 - 62
	63 - 78
	79 - 94
	95 - 110
	111 - 126
	127 - 142
	143 - 158
	159 - 167



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Schoolcraft County

Land Cover



- Land Cover**
- Open Water
 - Low Intensity Residential
 - High Intensity Residential
 - Commercial/Industrial/Transportation
 - Bare Rock/Sand/Clay
 - Quarries/Strip Mines/Gravel Pits
 - Transitional
 - Deciduous Forest
 - Evergreen Forest
 - Mixed Forest
 - Grasslands/Herbaceous
 - Pasture/Hay
 - Row Crops
 - Urban/Recreational Grasses
 - Wetlands
 - Emergent Herbaceous Wetlands

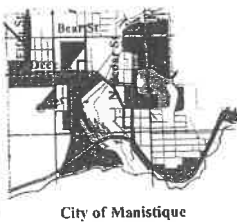
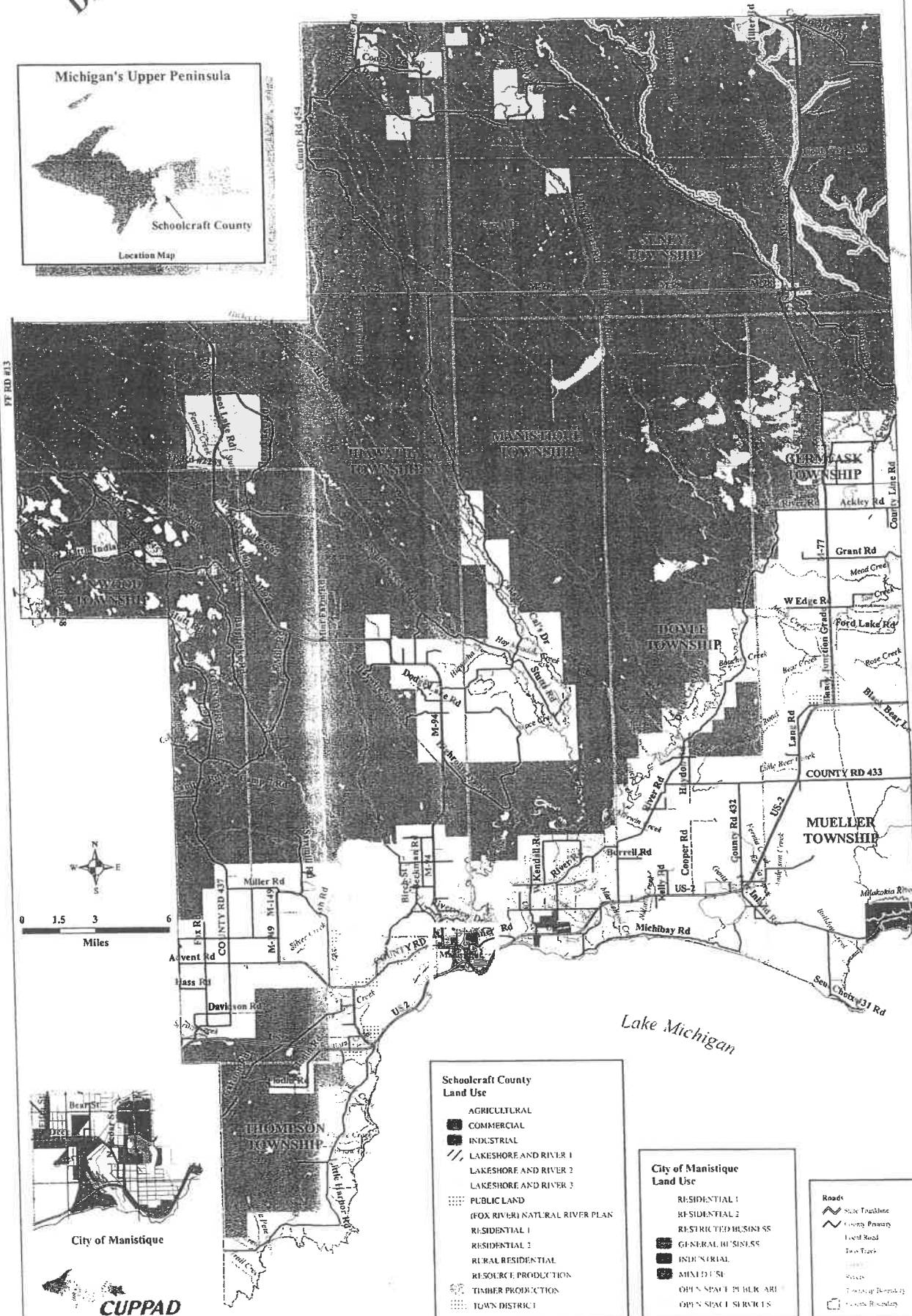
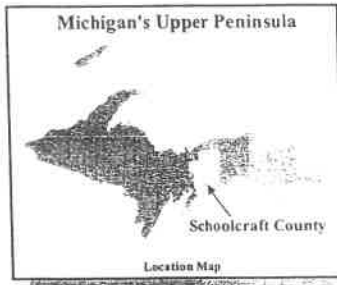
- Roads**
- LEVEL**
- State Trunkline
 - County Primary
 - Local Road
 - Two-Track
 - Township Boundary
 - County Boundary



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Schoolcraft County

Land Use



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Schoolcraft County Land Use

- AGRICULTURAL
- COMMERCIAL
- INDUSTRIAL
- LAKESHORE AND RIVER 1
- LAKESHORE AND RIVER 2
- LAKESHORE AND RIVER 3
- PUBLIC LAND
- (FOX RIVER) NATURAL RIVER PLAN
- RESIDENTIAL 1
- RESIDENTIAL 2
- RURAL RESIDENTIAL
- RESOURCE PRODUCTION
- TIMBER PRODUCTION
- TOWN DISTRICT 1

City of Manistique Land Use

- RESIDENTIAL 1
- RESIDENTIAL 2
- RESTRICTED BUSINESS
- GENERAL BUSINESS
- INDUSTRIAL
- MIXED USE
- OPEN SPACE / PUBLIC AREA
- OPEN SPACE / SERVICES

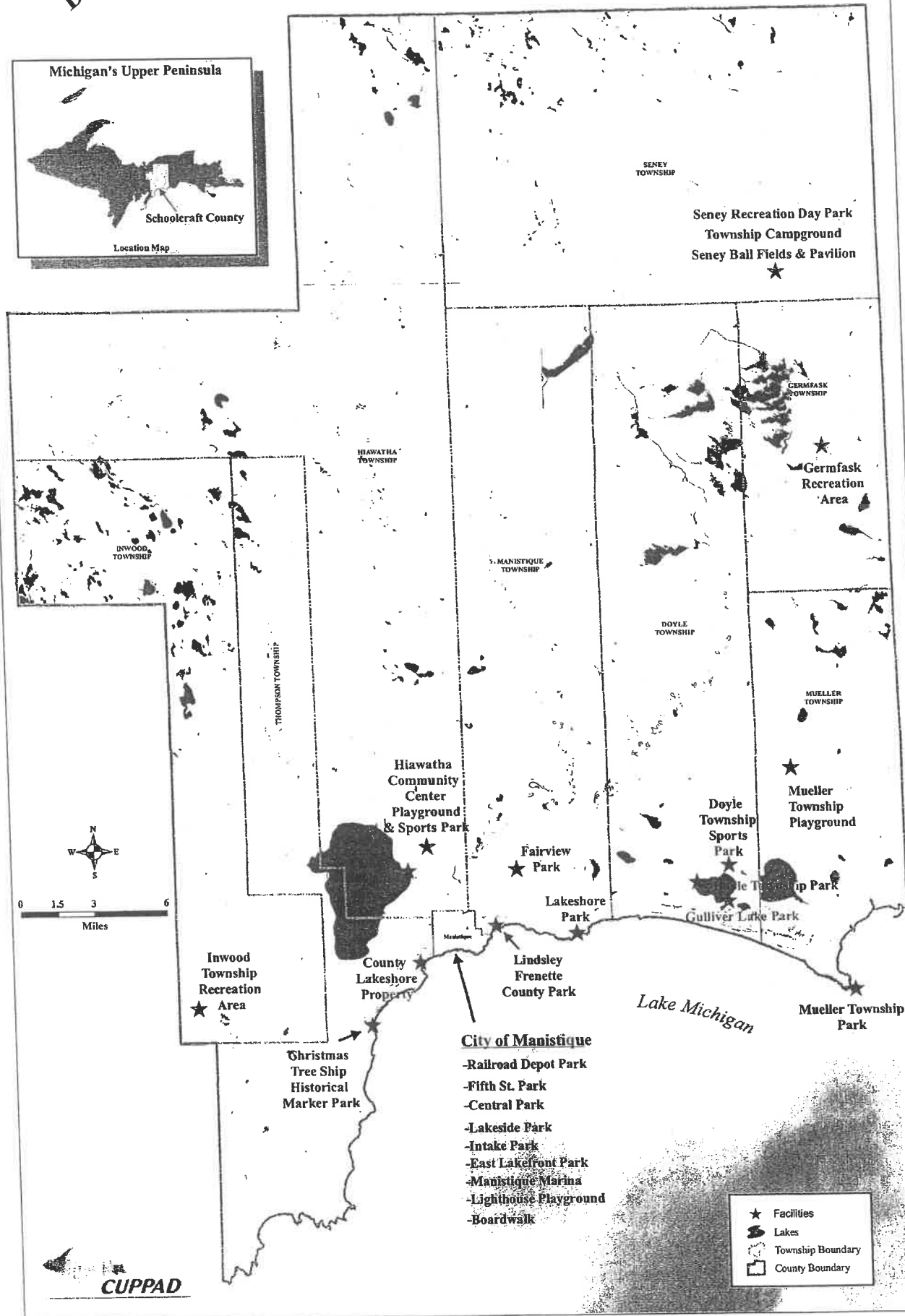
Roads

- State Roadline
- County Primary
- Local Road
- Interstate
- US-2
- US-41
- US-131
- US-132
- US-133
- US-134
- US-135
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Schoolcraft County

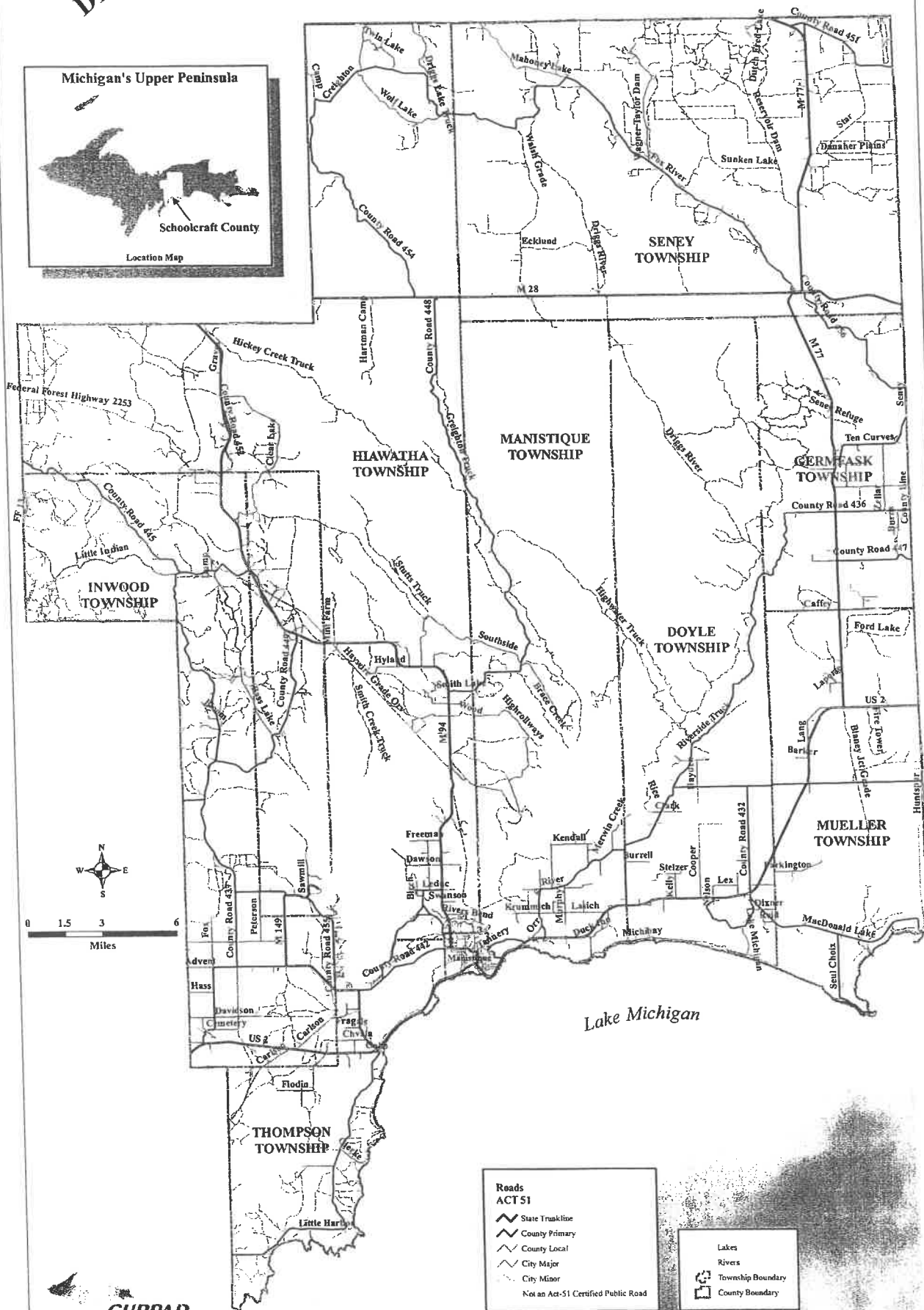
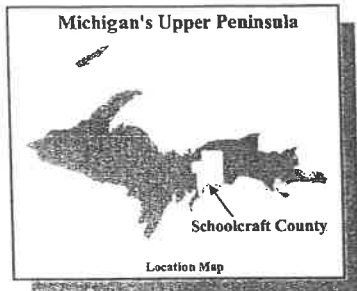
County, City and Township
Recreation Facilities



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Schoolcraft County

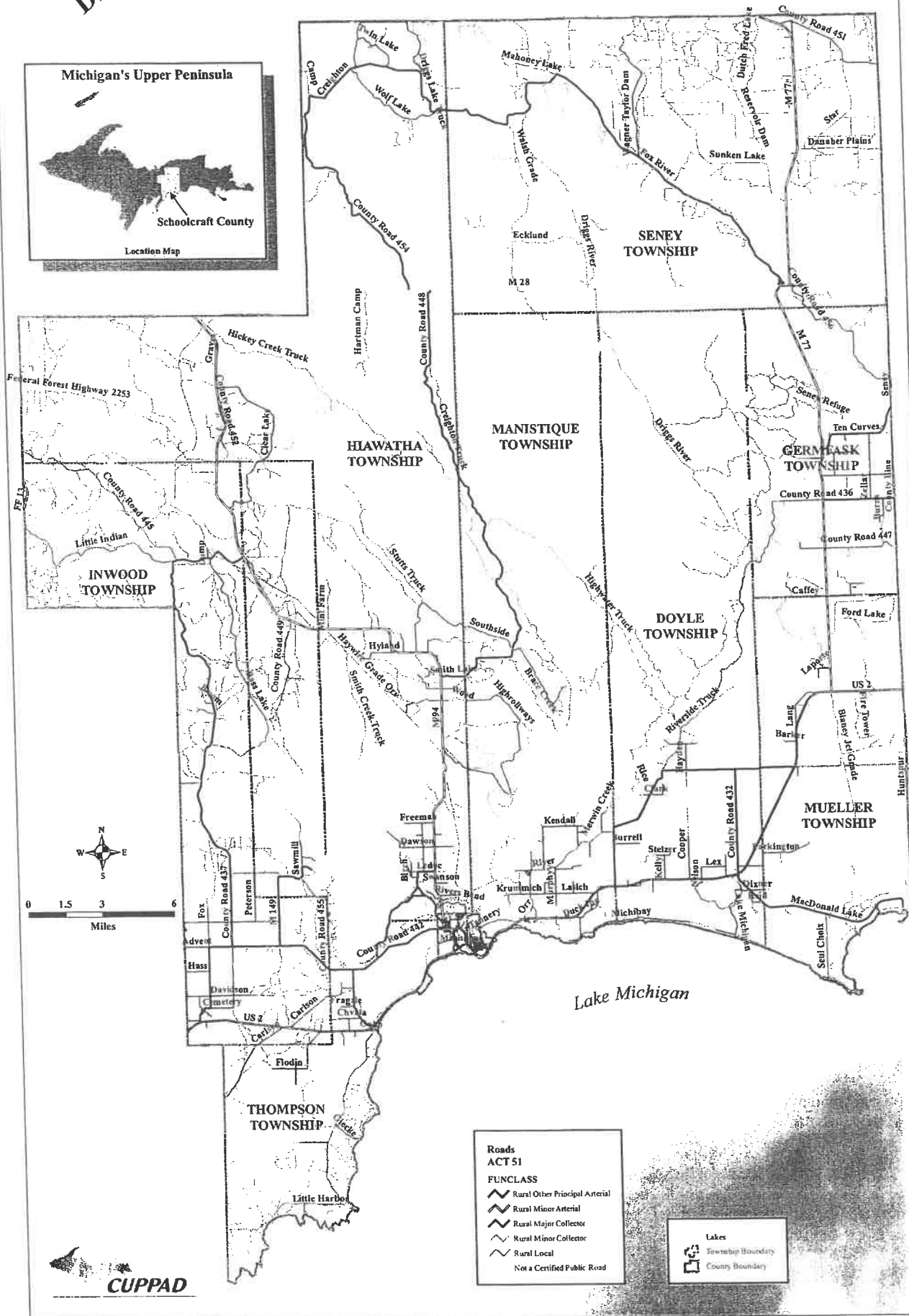
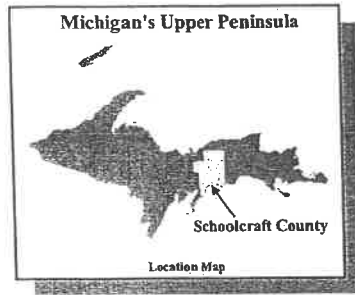
ACT 51 Roads



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Schoolcraft County

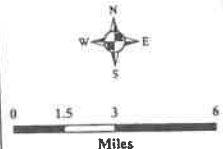
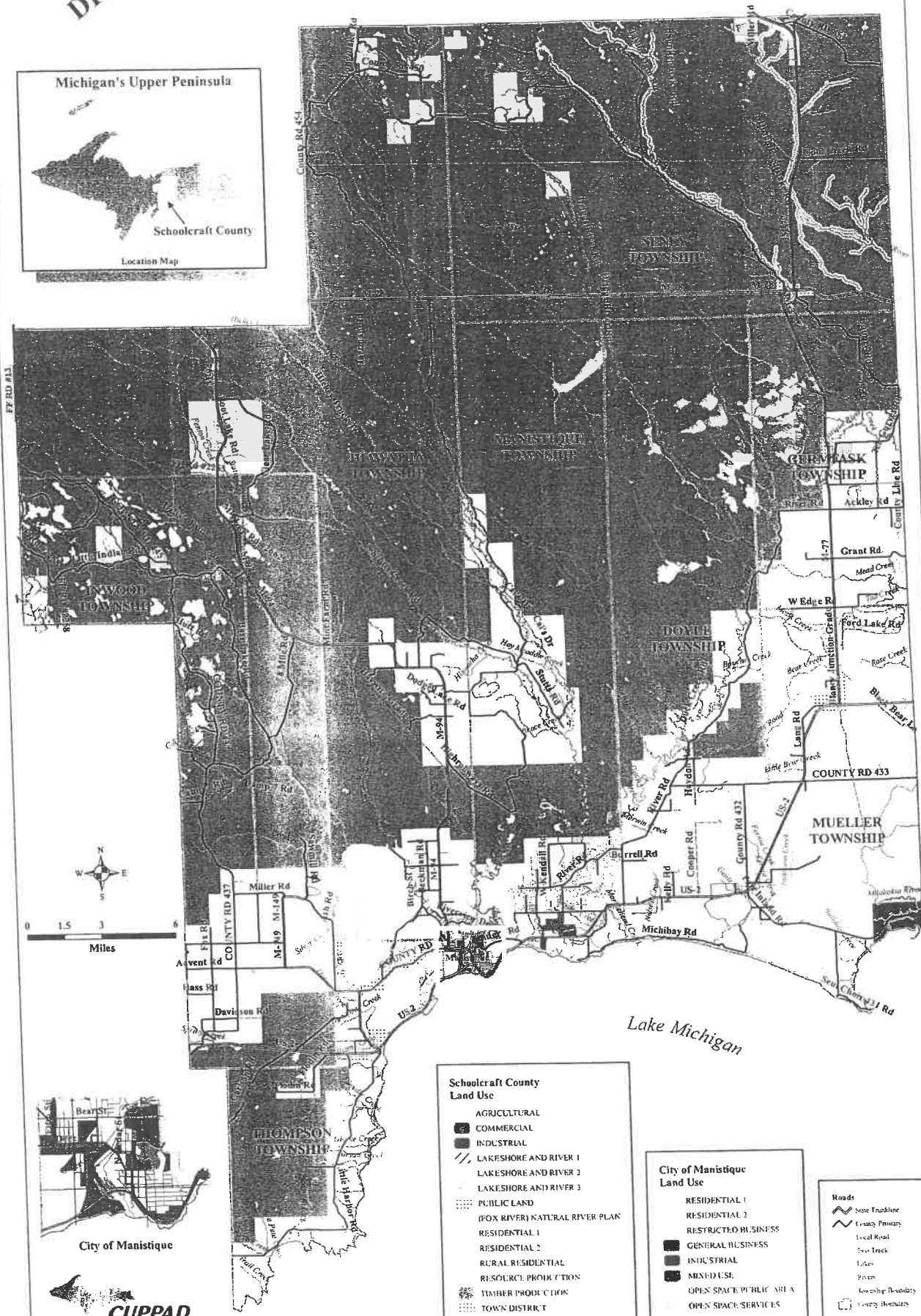
National Function Class (NFC)



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Schoolcraft County

Future Land Use



Schoolcraft County Land Use

- AGRICULTURAL
- COMMERCIAL
- INDUSTRIAL
- LAKE SHORE AND RIVER 1
- LAKE SHORE AND RIVER 2
- LAKE SHORE AND RIVER 3
- PUBLIC LAND
- (FOX RIVER) NATURAL RIVER PLAN
- RESIDENTIAL 1
- RESIDENTIAL 2
- RURAL RESIDENTIAL
- RESOURCE PRODUCTION
- TIMBER PRODUCTION
- TOWN DISTRICT

City of Manistique Land Use

- RESIDENTIAL 1
- RESIDENTIAL 2
- RESTRICTED BUSINESS
- GENERAL BUSINESS
- INDUSTRIAL
- MIXED USE
- OPEN SPACE/PUBLIC AREA
- OPEN SPACE/SERVICES

Roads

- State Roadline
- County Primary
- Local Road
- Two Track
- Levee
- Ditch
- Low water Boundary
- County Boundary

