

# 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

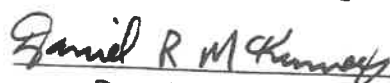
WHEREAS, The Schoolcraft County Board has determined that the draft of the Master Plan represents the long-range vision of Schoolcraft County.


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, LaFoilie, 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.

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.

**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



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%
<b>Schoolcraft</b>	<b>8,903</b>	<b>8,818</b>	<b>8,726</b>	<b>8,702</b>	<b>8,772</b>	<b>8,666</b>	<b>8,673</b>	<b>8,518</b>	<b>-4.3%</b>

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).

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%
<b>Schoolcraft County</b>	<b>37.5</b>	<b>41.4</b>	<b>10.4%</b>
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

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

Age Group	Doyle Township		Germfask Township		Hiawatha Township		Inwood Township		Manistiquette City		Manistiquette 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		Seneey 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

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 continued  
Number of Person by Race, 1990-2000**

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

**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%
Black	7	.08%	145	1.6%	1,291,706	13.9%
American Indian, Eskimo, & Aleut	519	6.3%	545	6.1%	55,638	.6%
Asian & Pacific Islander	13	.2%	37	.4%	104,983	1.1%
Other Races	8	.1%	33	.4%	86,884	.9%
Total	8,302	100.0%	8,654	97.2%	9,295,297	100.0%

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

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.

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	

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	

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	

	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
<b>Schoolcraft County</b>	<b>1,178.11</b>	<b>8,903</b>	<b>7.6</b>
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.

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.





Characteristics	Doyle Twp.		Germfask Twp.		Hiawatha Twp.		Inwood Twp.	
	#	%	#	%	#	%	#	%
<b>Population 16 Years and Older</b>	538	100.0	398	100.0	1,070	100.0	618	100.0
<b>In Labor Force</b>	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
<b>Not In Labor Force</b>	236	46.9	207	52.0	470	43.9	302	48.9

Characteristics	Manistique City		Manistique Twp.		Mueller Twp.		Seney Twp.	
	#	%	#	%	#	%	#	%
<b>Population 16 Years and Older</b>	2,819	100.0	789	100.0	191	100.0	121	100.0
<b>In Labor Force</b>	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
<b>Not In Labor Force</b>	1,385	49.1	304	38.5	107	56.0	61	50.4

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

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

Characteristics	Doyle Township						Germfask Township						Hiawatha Township					
	1990		2000		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	220	100.0	253	100.0		
In Labor Force	97	44.1	143	56.5	88	40.2	93	43.3	235	47.9	251	50.0	97	43.8	143	56.5		
Women w/Children Under 6 Years	35	100.0	28	100.0	15	100.0	35	100.0	64	100.0	43	100.0	35	100.0	28	100.0		
In Labor Force	20	57.1	24	85.7	5	33.3	26	74.3	46	71.9	36	83.7	20	57.1	24	85.7		
Women w/Children 6-17 Years	43	100.0	46	100.0	47	100.0	16	100.0	95	100.0	97	100.0	43	100.0	46	100.0		
In Labor Force	32	74.4	42	91.3	28	59.6	11	68.8	65	68.4	79	81.4	32	74.4	42	91.3		

**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		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	272	100.0	321	100.0		
In Labor Force	120	44.1	154	48.0	684	45.2	715	48.1	165	48.0	215	56.0	120	44.1	154	48.0		
Women w/Children Under 6 Years	26	100.0	43	100.0	177	100.0	174	100.0	57	100.0	61	100.0	26	100.0	43	100.0		
In Labor Force	17	65.4	36	83.7	97	54.8	133	76.4	33	57.9	35	57.4	17	65.4	36	83.7		
Women w/Children 6-17 Years	47	100.0	55	100.0	258	100.0	226	100.0	70	100.0	63	100.0	47	100.0	55	100.0		
In Labor Force	29	61.7	30	54.5	206	79.8	158	69.9	54	77.1	47	74.6	29	61.7	30	54.5		

### 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%).

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

### 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%.

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

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	<b>3,204</b>	<b>100.0</b>
Worked in Schoolcraft County	390	93.8	56	75.7	34	82.9	194	78.2	<b>2,750</b>	<b>85.8</b>
Worked outside Schoolcraft County	26	6.2	15	20.3	7	17.1	42	16.9	<b>407</b>	<b>12.7</b>
Worked in Michigan	416	100.0	71	95.9	41	100.0	236	95.2	<b>3,157</b>	<b>98.5</b>
Worked Outside Michigan	0	0.0	3	4.1	0	0.0	12	4.8	<b>47</b>	<b>1.5</b>

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

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

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

**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
<b>Schoolcraft</b>	<b>3,560</b>	<b>428</b>	<b>3,988</b>	<b>10.7</b>

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.

**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

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.



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.

### **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



## 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:

**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.

**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

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

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



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](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 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

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.

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

**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.

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

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



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 5-3  
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.

### **5.13 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.

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.

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

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

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,



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

## 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.

**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

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.

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
<b>Schoolcraft County</b>	<b>2.7</b>	<b>7.4</b>	<b>7.2</b>	<b>12.6</b>	<b>13.2</b>	<b>10.4</b>	<b>13.5</b>	<b>10.5</b>	<b>22.6</b>
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.

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

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.

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
<b>Schoolcraft County</b>	<b>\$273</b>	<b>\$345</b>
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 7-9  
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

#### 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.

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
<b>Schoolcraft County</b>	<b>391</b>	<b>7.1</b>	<b>25</b>	<b>0.7</b>	<b>394</b>	<b>7.2</b>	<b>17</b>	<b>0.5</b>	<b>283</b>	<b>5.2</b>	<b>121</b>	<b>3.4</b>
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.



## 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.

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.

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.

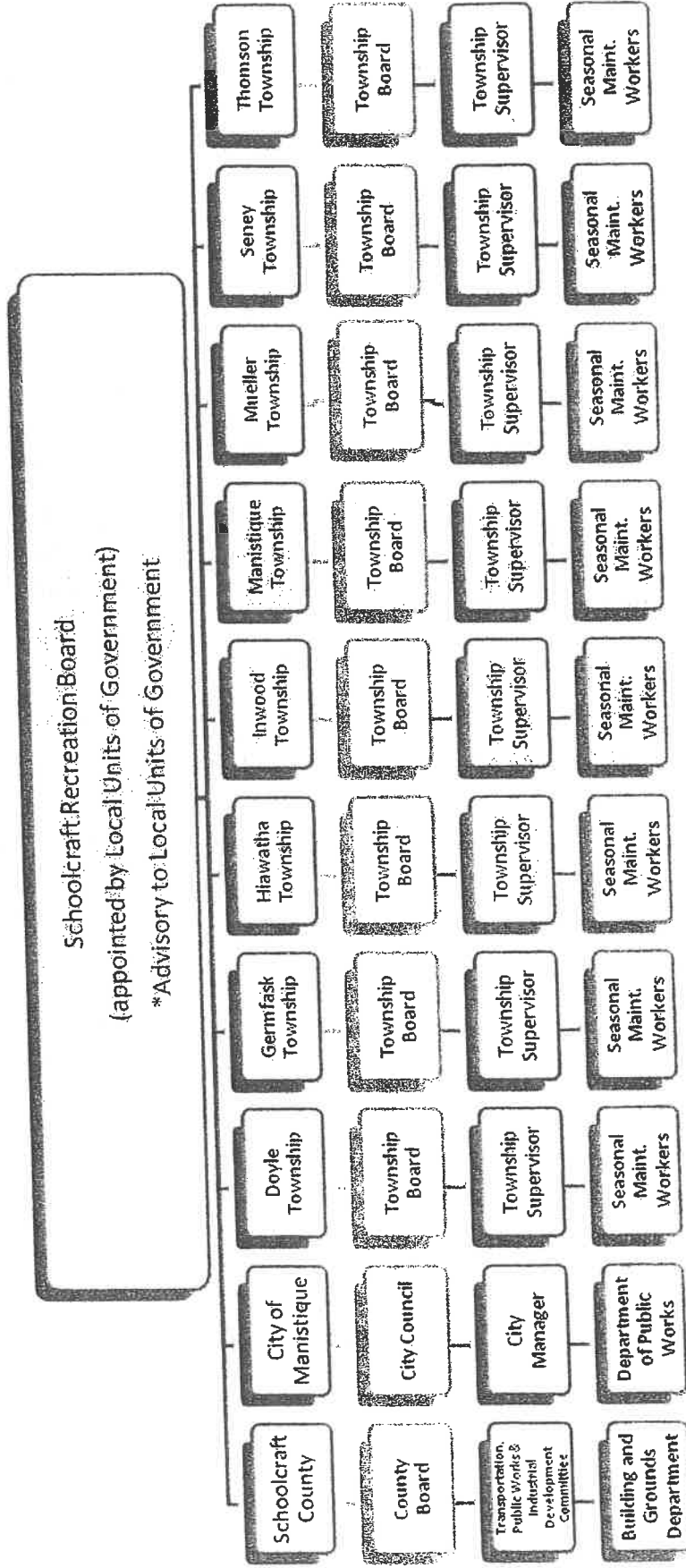
### **8.2 Recreation Administration**

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

# Schoolcraft County Recreation Board Organizational Chart



## **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.

## **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.

### **8.12 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

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.



- 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.

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.

## **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.

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.

<b>Table 9-1 Act 51 Legal System, County Primary Roads, Schoolcraft County</b>	
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.

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

- 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.

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,

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, 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.



## **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

- 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.

- 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.

## **11.5 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.

- 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.

## **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.

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.

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.



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**

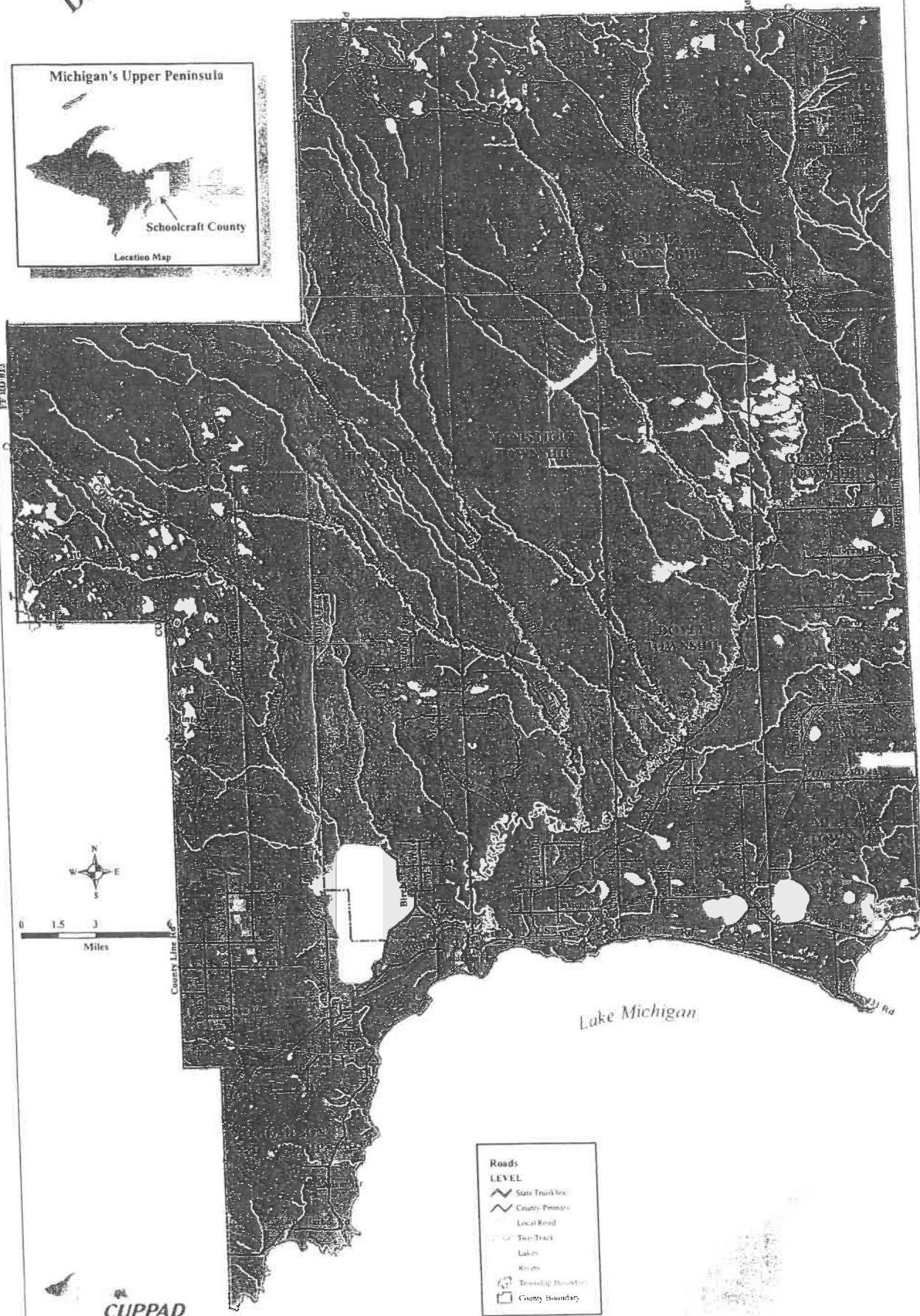
In the Townships, most of the land designated for residential use is zoned as Residential 2 or Rural Residential. The Residential 2 District provides for single and two-family dwellings as well as mobile homes. The Rural Residential District provides for an alternative residential environment in accessible 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

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# Schoolcraft County

Orthophoto



**Roads**  
**LEVEL**

- State Trunkline
- County Primary
- Local Road
- Trail/Track

Lakes

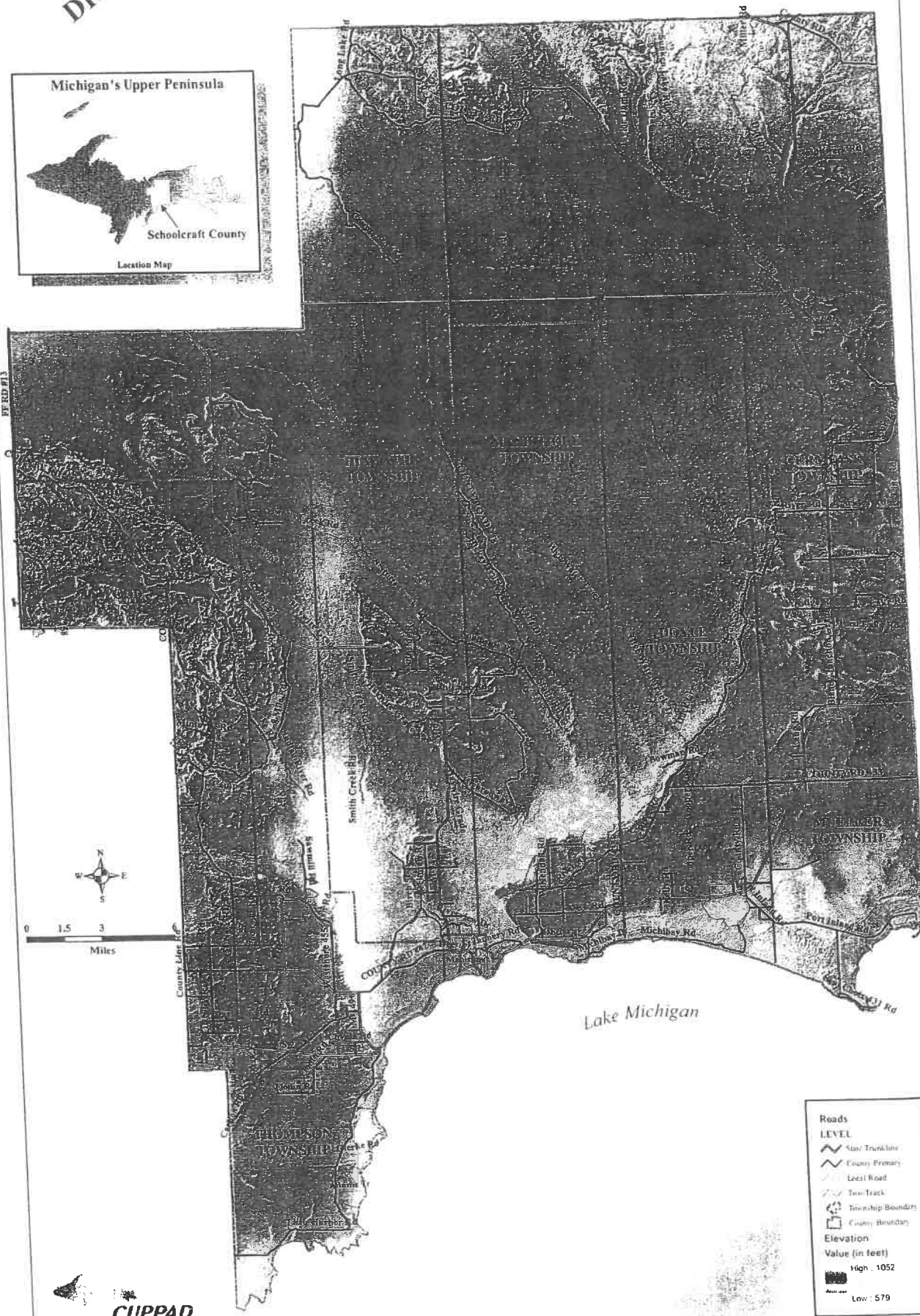
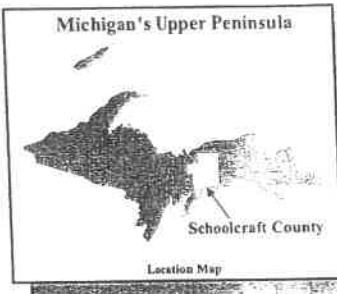
- Township Boundary
- County Boundary



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# Schoolcraft County

## Surface Topography



0 1.5 3 Miles

**Roads**

**LEVEL**

- State Trunkline
- County Primary
- Local Road
- Two-Track

**Elevation**

Value (in feet)

High: 1052

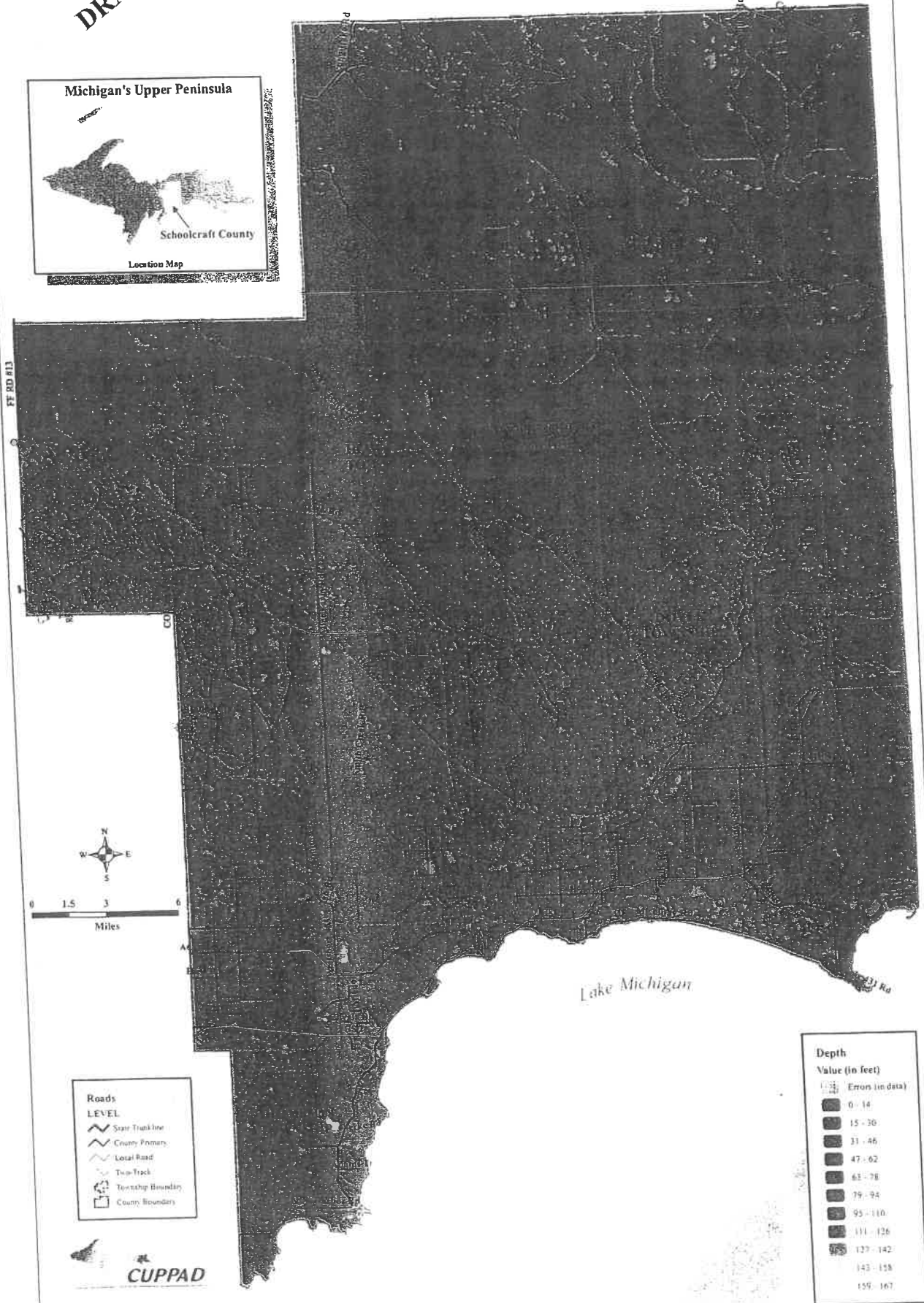
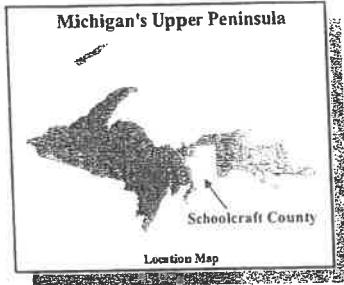
Low: 579



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# Schoolcraft County

## Depth to Water Table



**Roads**  
**LEVEL**

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



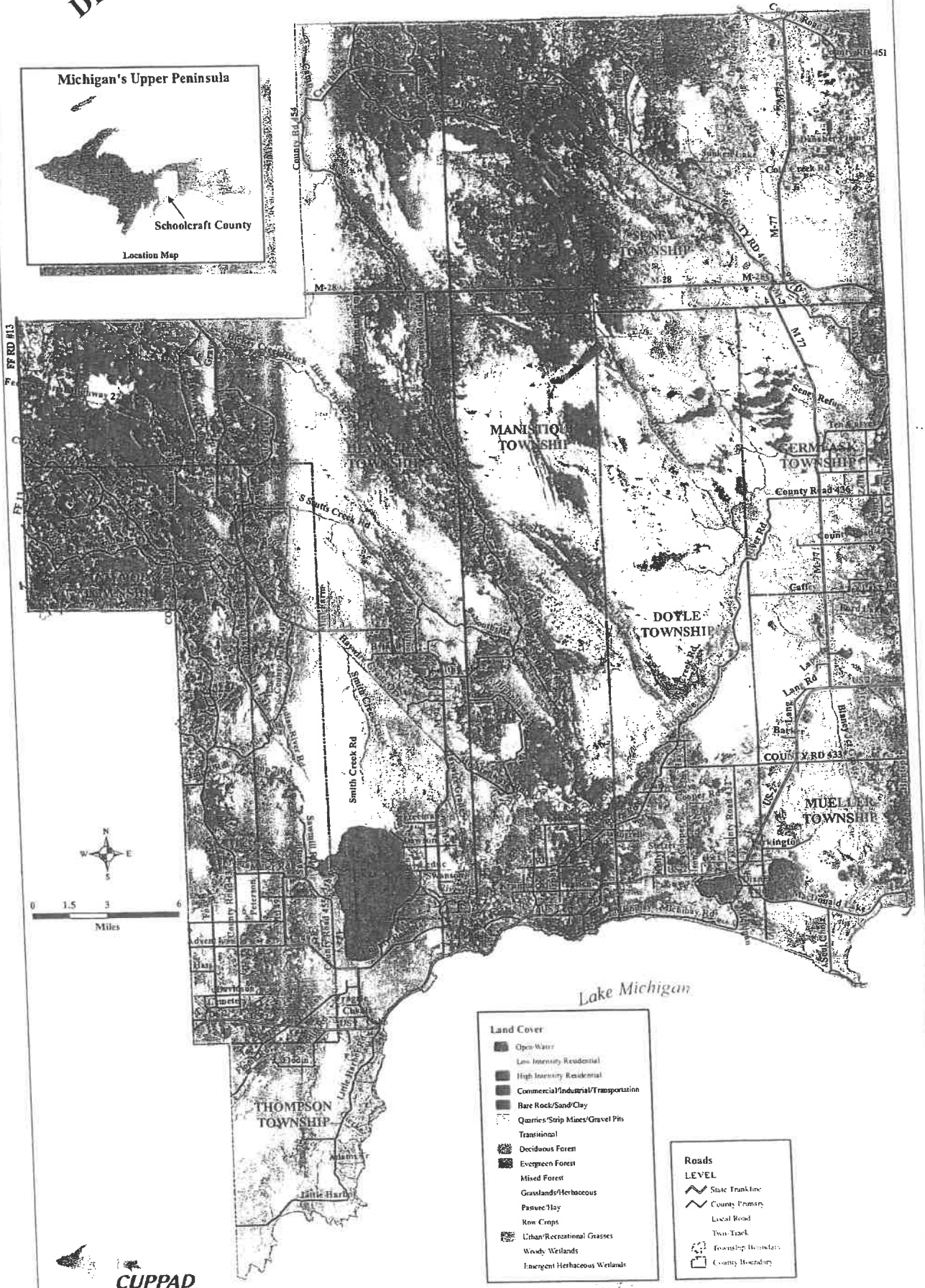
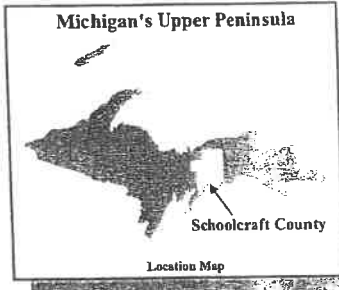
**Depth**  
**Value (in feet)**

- Errors (in data)
- 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



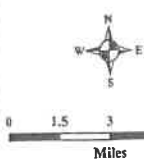
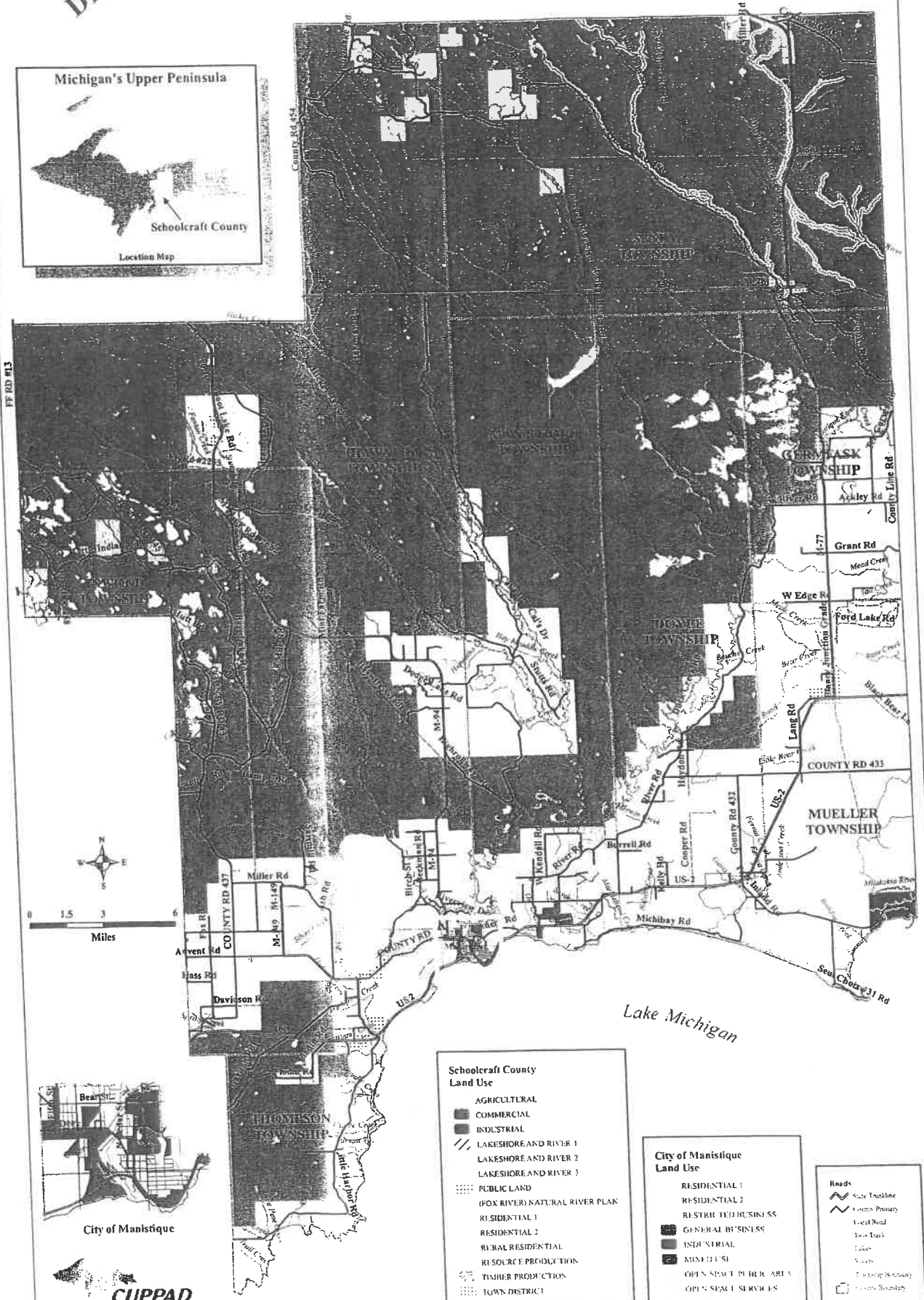
Land Cover	
[Symbol]	Open Water
[Symbol]	Low Intensity Residential
[Symbol]	High Intensity Residential
[Symbol]	Commercial/Industrial/Transportation
[Symbol]	Bare Rock/Sand/Clay
[Symbol]	Quarries/Strip Mines/Gravel Pits
[Symbol]	Transitional
[Symbol]	Deciduous Forest
[Symbol]	Evergreen Forest
[Symbol]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

Roads	
LEVEL	
[Symbol]	State Frontline
[Symbol]	County Primary
[Symbol]	Local Road
[Symbol]	Two-Track
[Symbol]	Township Boundaries
[Symbol]	County Boundary



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# Schoolcraft County Land Use



**Schoolcraft County Land Use**

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

**City of Manistique Land Use**

[Symbol]	RESIDENTIAL 1
[Symbol]	RESIDENTIAL 2
[Symbol]	RESTRICTED BUSINESS
[Symbol]	GENERAL BUSINESS
[Symbol]	INDUSTRIAL
[Symbol]	MIXED USE
[Symbol]	OPEN SPACE PUBLIC AREA
[Symbol]	OPEN SPACE SERVICES

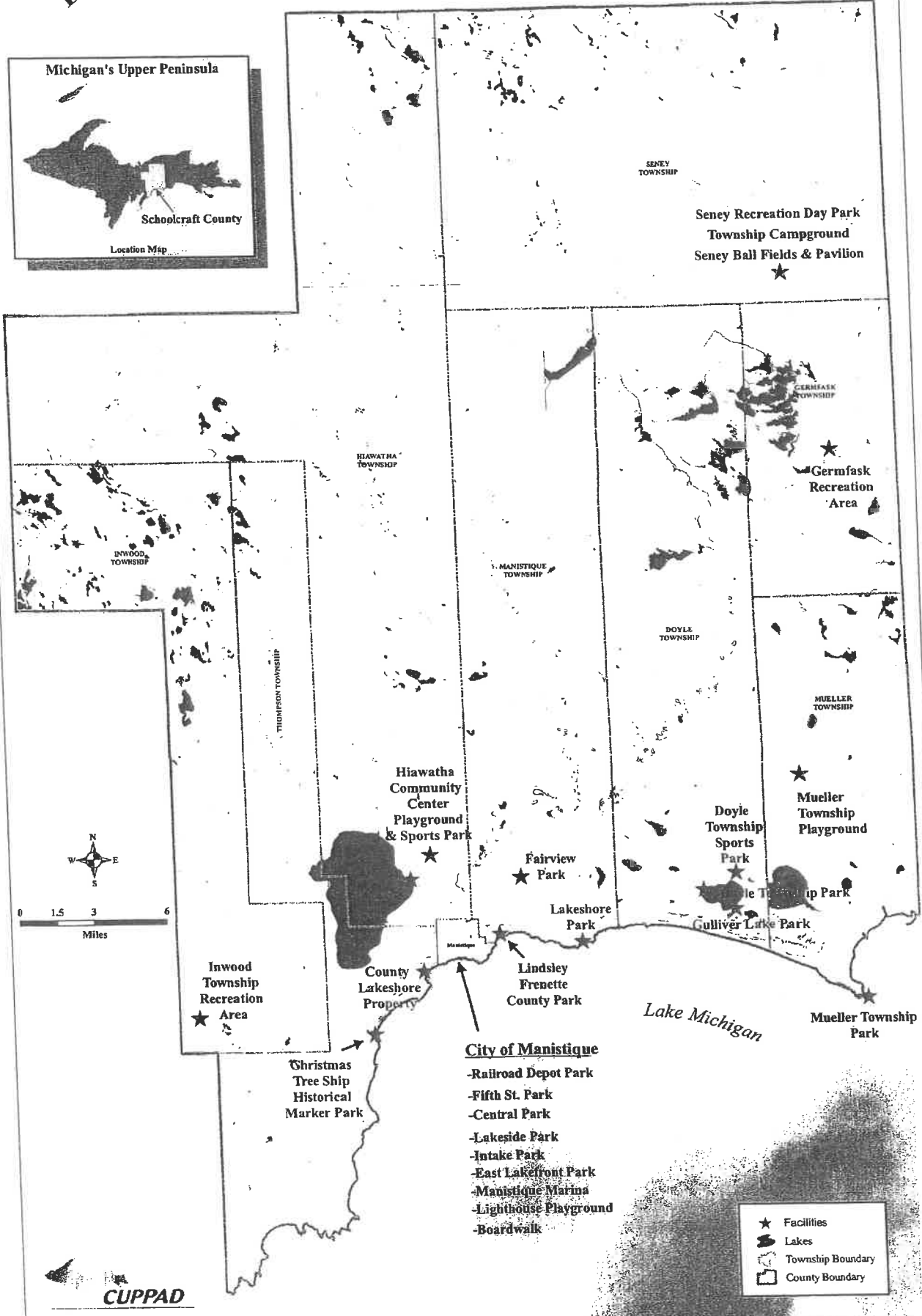
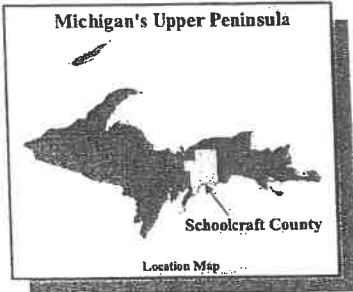
**Roads**

[Symbol]	State Thruway
[Symbol]	County Primary
[Symbol]	Local Road
[Symbol]	Town Road
[Symbol]	Trail
[Symbol]	Water
[Symbol]	Unimproved Area
[Symbol]	County Secondary

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# Schoolcraft County

## County, City and Township Recreation Facilities



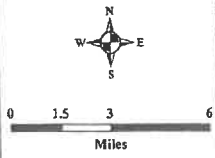
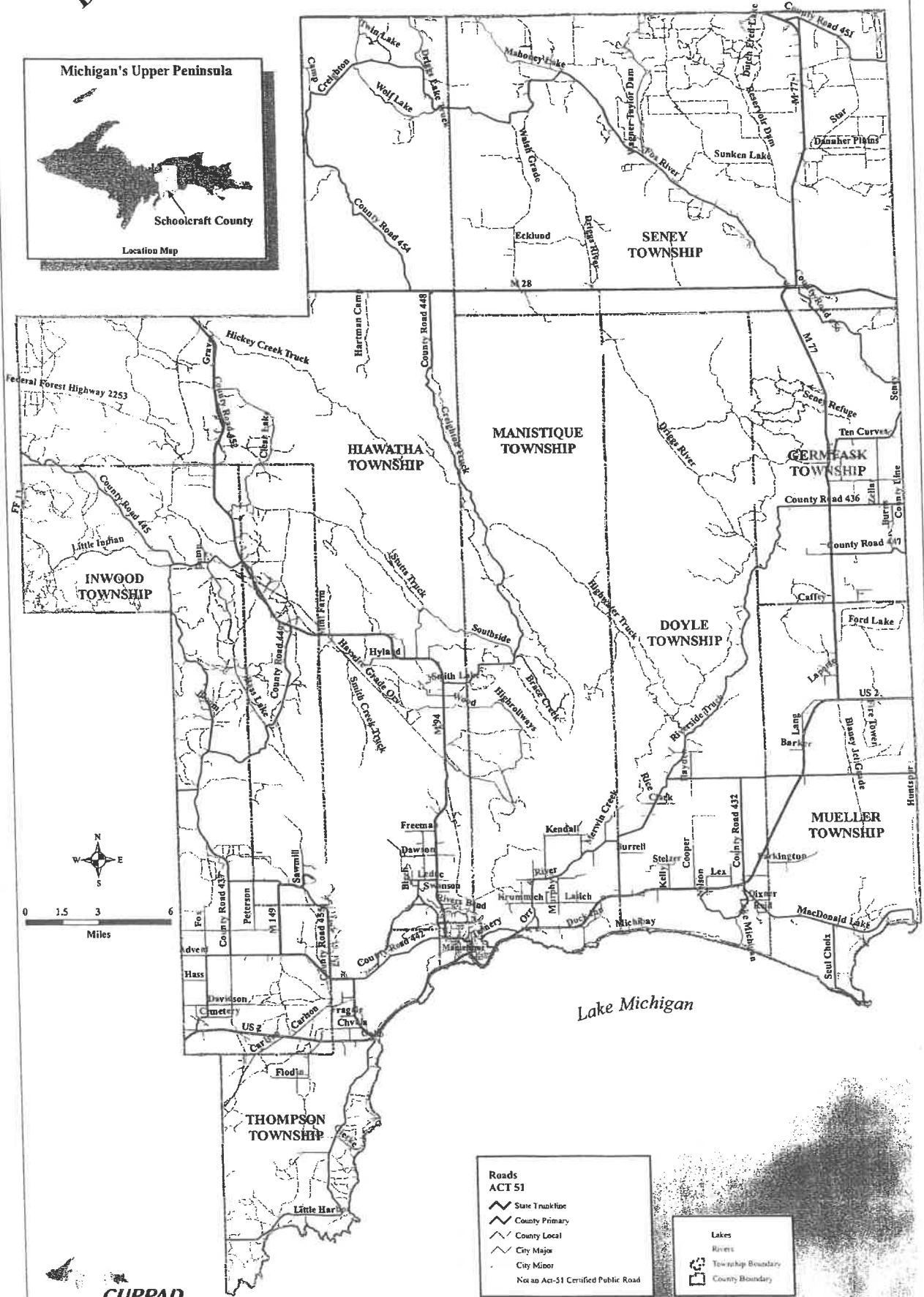
★	Facilities
■	Lakes
---	Township Boundary
□	County Boundary

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# Schoolcraft County

## ACT 51 Roads



**Roads ACT 51**

- State Trunkline
- County Primary
- County Local
- City Major
- City Minor
- Not an Act-51 Certified Public Road

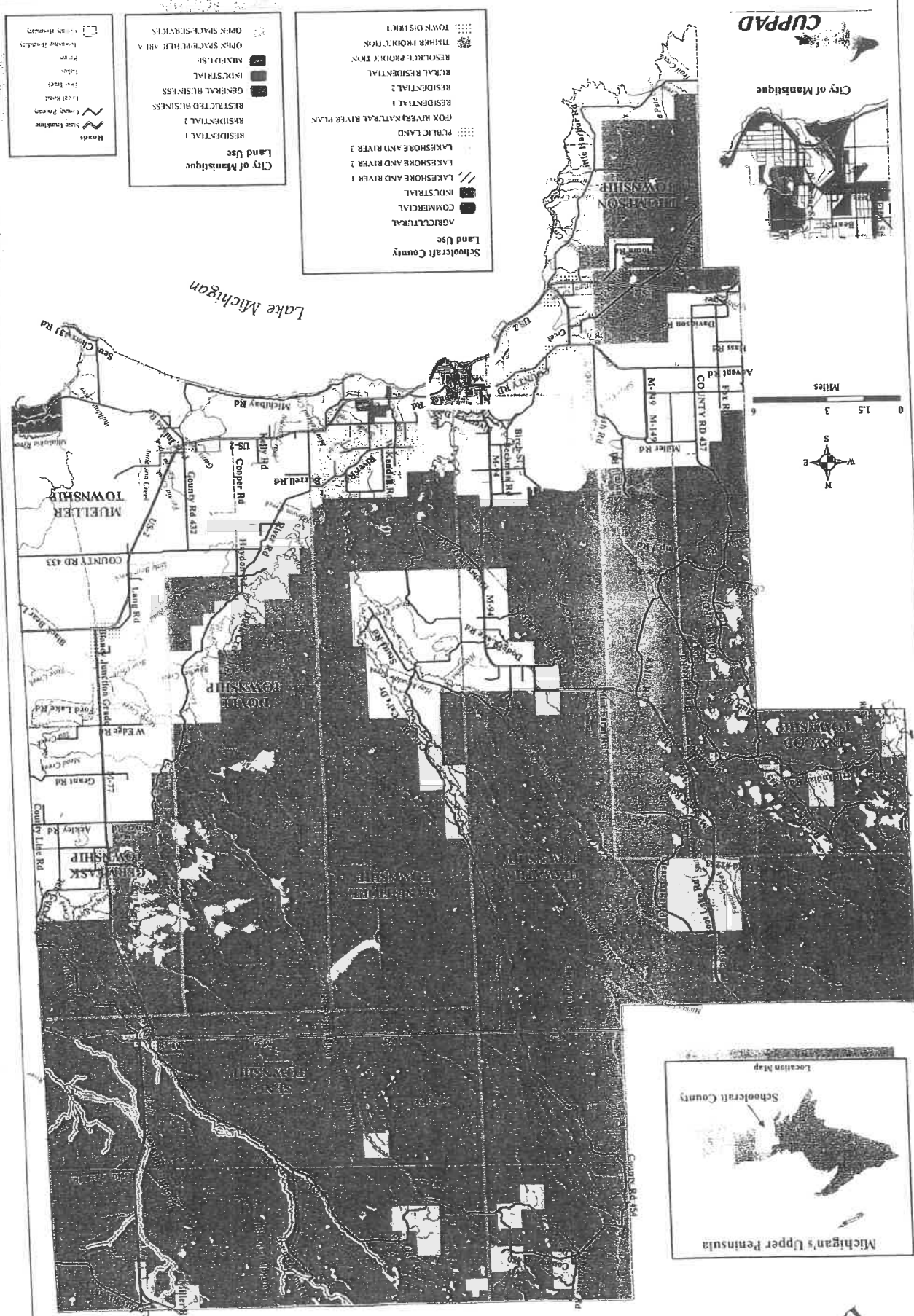
**Lakes**

- Rivers
- Township Boundary
- County Boundary



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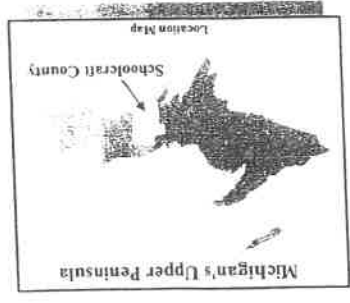
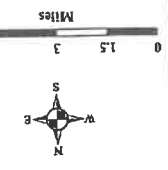
# Schoolcraft County Future Land Use



- City of Manistique Land Use**
- RESIDENTIAL 1
  - RESIDENTIAL 2
  - RESTRICTED BUSINESS
  - GENERAL BUSINESS
  - INDUSTRIAL
  - MINI-USE
  - OMNS SPACE-RENTAL A
  - OMNS SPACE-SERVICES

- Schoolcraft County Land Use**
- AGRICULTURAL
  - COMMERCIAL
  - INDUSTRIAL
  - LAKE SHORE AND RIVER 1
  - LAKE SHORE AND RIVER 2
  - LAKE SHORE AND RIVER 3
  - PUBLIC LAND
  - TOX AVER N ATURAL RIVER PLAN
  - RESIDENTIAL 1
  - RESIDENTIAL 2
  - RECREAL RESIDENTIAL
  - RESORT, PROTECT TRON
  - THINER PROTECT TRON
  - TOWN DISTRICT

- City of Manistique Land Use**
- Highway
  - Interstate
  - Local Road
  - State Road
  - Water
  - Water Treatment
  - Water Pond



FP RD 013

COUNTY RD 434