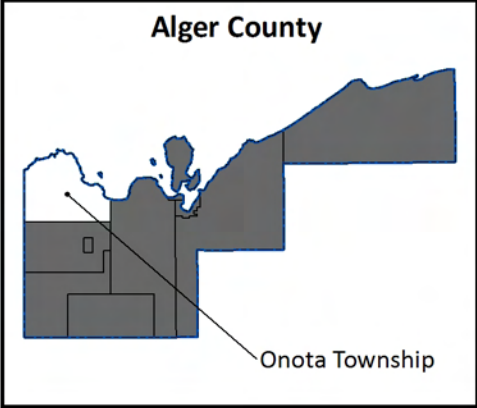
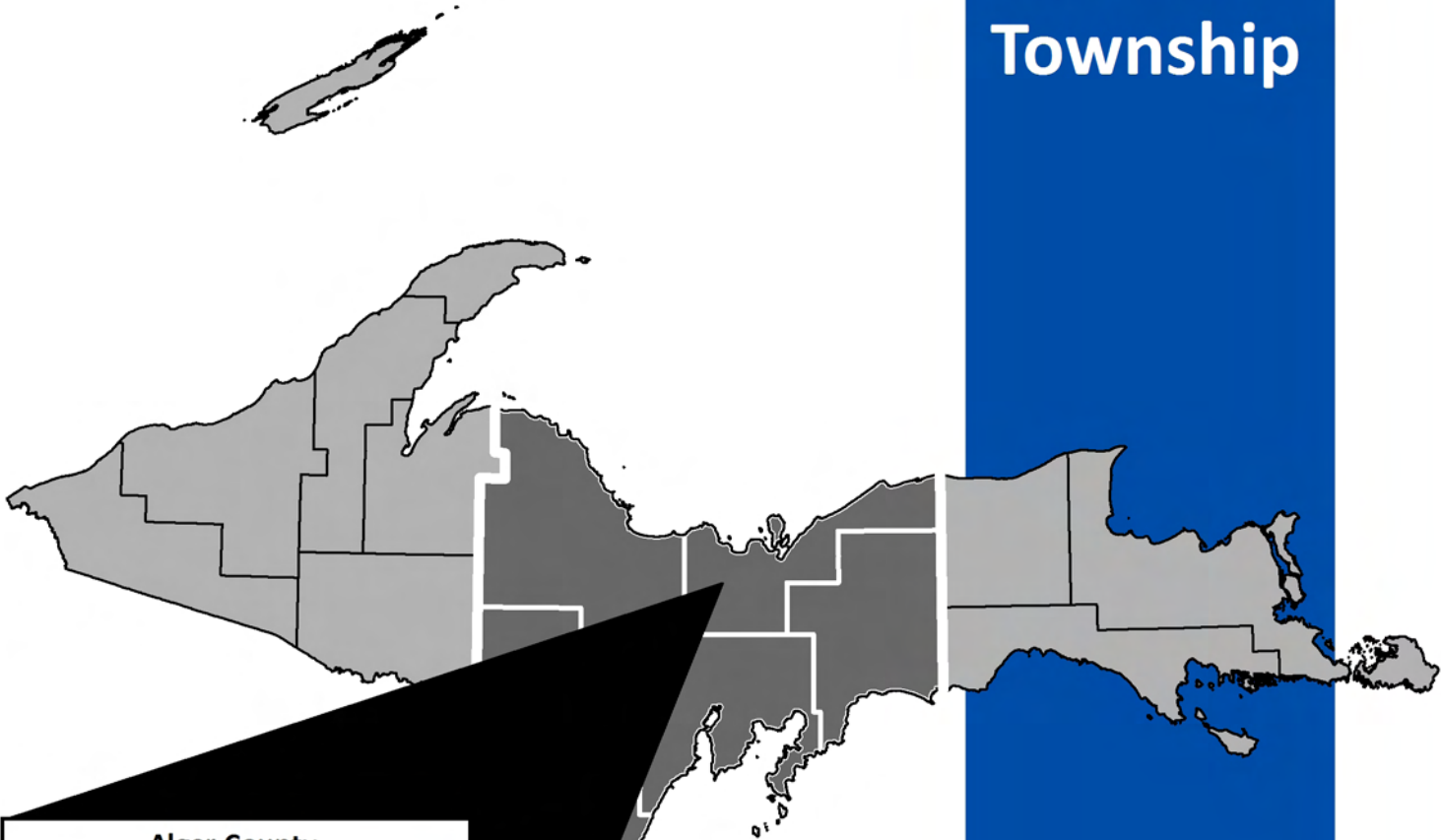


Onota Township



Master Plan

Prepared By:
Onota Township Planning Commission
&
Onota Township Board
Adopted May 7, 2012



At a regular meeting of the **Onota Township Board** on May 7, 2012 at 7:00pm, the following motion was offered:

Moved by John Shauver and seconded by Elizabeth Schut to adopt the following resolution:

Resolution #2012-06
Onota Township Master Plan Adoption

WHEREAS, The Michigan Planning Enabling Act, PA 33 of 2008, provides that the Planning Commission may prepare a Master Plan and accompanying maps for the use, development and preservation of all lands in the township; and

WHEREAS, In April 2011, the Planning Commission notified each municipality contiguous to the township, the County Board, each public utility company and railroad company owning or operating a public utility or railroad within the township, and other agencies for purposes of notification, of its intent to adopt a Master Plan and accompanying maps; and

WHEREAS, The Planning Commission encouraged public participation during the planning process via a public open house held December 29, 2011 and regular Planning Commission meetings; and

WHEREAS, The proposed Master Plan and accompanying maps were submitted to Township Board, who authorized distribution of the proposed plan on January 3, 2012; and

WHEREAS, The proposed Master Plan and accompanying maps were distributed to each municipality contiguous to the township, the County Board, each public utility company and railroad company owning or operating a public utility or railroad within the township, and other agencies who responded to the notice of intent for purposes of notification, for review and comment; and

WHEREAS, On April 10, 2012, after proper public notice, the Planning Commission held a public hearing on the proposed Master Plan and accompanying maps, and the Planning Commission approved and adopted the Master Plan and accompanying maps, as per the requirements of the Michigan Planning Enabling Act, PA 33 of 2008 and recommended adoption of the Master Plan by the Onota Township Board.

WHEREAS, The Onota Township Board has determined that the draft of the Master Plan and accompanying maps represent the long-range vision of the township.

THEREFORE BE IT RESOLVED, The Onota Township Board hereby approves and adopts the Master Plan and accompanying maps, as per the requirements of the Michigan Planning Enabling Act, PA 33 of 2008.

Roll call vote:

	YES	NO
John Shauver	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Nancy Bennett	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Elizabeth Schut	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sharon Stocking	<input checked="" type="checkbox"/>	<input type="checkbox"/>

MOTION CARRIED.

I certify that the above is a true and complete copy of a resolution passed by the Onota Township Board at a meeting on May 7, 2012.

By: 
Nancy R. Bennett, Township Clerk

Resolution #2012-06

At a regular meeting of the **Onota Township Planning Commission** on April 10, 2012 at 7:00pm, the following motion was offered:

Moved by Chris Himar and seconded by Cheryl Lane to adopt the following resolution:

Resolution # 2012-1
Onota Township Master Plan Adoption

WHEREAS, The Michigan Planning Enabling Act, PA 33 of 2008, provides that the Planning Commission may prepare a Master Plan and accompanying maps for the use, development and preservation of all lands in the township; and

WHEREAS, In April 2011, the Planning Commission notified each municipality contiguous to the township, the County Board, each public utility company and railroad company owning or operating a public utility or railroad within the township, and other agencies for purposes of notification, of its intent to draft and adopt a Master Plan and accompanying maps; and

WHEREAS, The Planning Commission encouraged public participation during the planning process via a public open house held December 29, 2011 and regular Planning Commission meetings; and

WHEREAS, The proposed Master Plan and accompanying maps were submitted to Township Board, who authorized distribution of the proposed plan on January 3, 2012; and

WHEREAS, The proposed Master Plan and accompanying maps were distributed to each municipality contiguous to the township, the County Board, each public utility company and railroad company owning or operating a public utility or railroad within the township, and other agencies who responded to the notice of intent for purposes of notification, for review and comment; and

WHEREAS, On April 10, 2012, after proper public notice, the Planning Commission held a public hearing on the proposed Master Plan and accompanying maps, during which members of the public were given the opportunity to comment on the proposed Plan and comments received were discussed; and

WHEREAS, The Planning Commission has determined that the draft of the Master Plan and accompanying maps represent the long-range vision of the township.

THEREFORE BE IT RESOLVED, The Onota Township Planning Commission hereby approves and adopts the Master Plan and accompanying maps, as per the requirements of the Michigan Planning Enabling Act, PA 33 of 2008 and recommends adoption of the Master Plan by the Onota Township Board.

Roll call vote:

	YES	NO	
Brian Bressette	<input type="checkbox"/>	<input type="checkbox"/>	ABSENT
Audrey Desarmo	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Jack Hudson	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Chris Kimar	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Cheryl Lane	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Darrell Stewart	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Gary Webb	<input type="checkbox"/>	<input type="checkbox"/>	ABSENT

MOTION CARRIED.

I certify that the above is a true and complete copy of a resolution passed by the Onota Township Planning Commission at a meeting on April 10, 2012.

By: Cheryl Lane
Planning Commission Secretary

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CHAPTER 1.0 INTRODUCTION TO PLANNING

1.1 Introduction

The preparation of this updated Master Plan represents many months of study, analysis and review by the Onota Township Planning Commission with technical assistance from the Central Upper Peninsula Planning and Development (CUPPAD) Regional Commission. The Township derives its authority to prepare a Master Plan from the Michigan Planning Enabling Act, PA 33 of 2008, as amended. The Act states:

Sec. 31. (1) A planning commission shall make and approve a master plan as a guide for development within the planning jurisdiction...

Sec. 33. (1) A master plan shall address land use and infrastructure issues and may project 20 years or more into the future. A master plan shall include maps, plats, charts, and descriptive, explanatory, and other related matter and shall show the planning commission’s recommendations for the physical development of the planning jurisdiction.

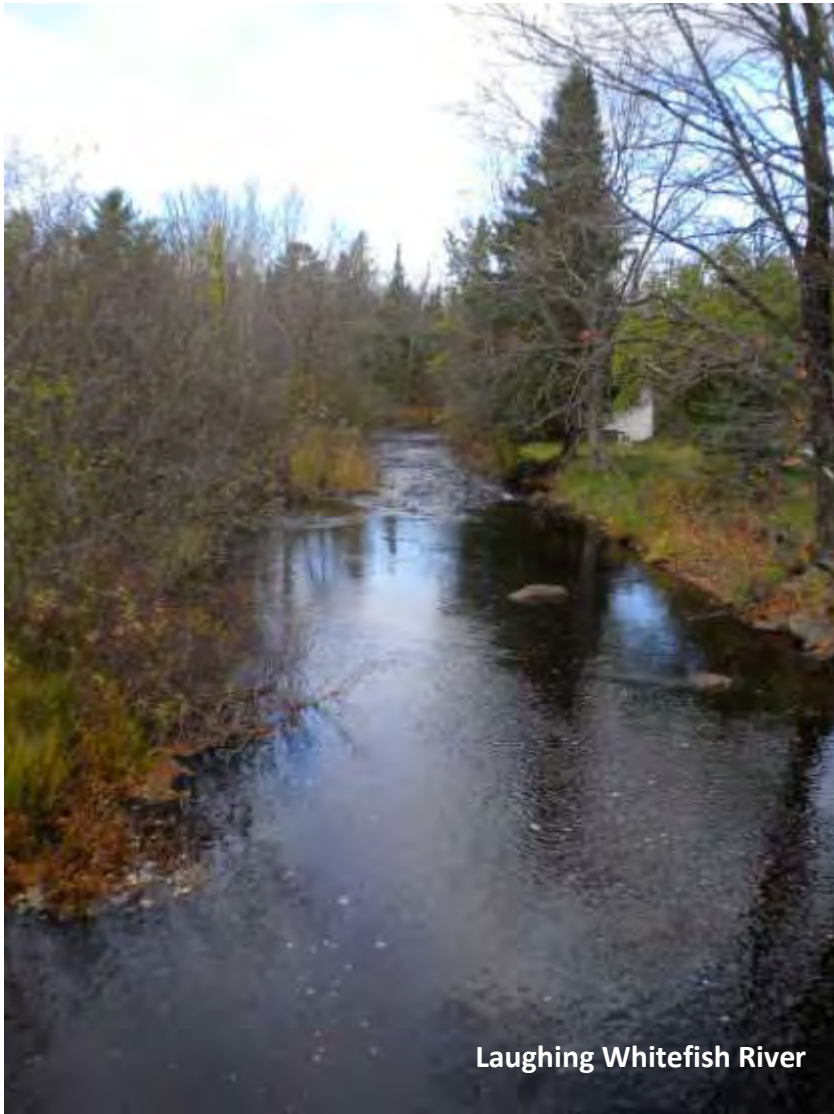
Major elements discussed in this document include: population, economic base, natural features, land use, community facilities and services, housing and transportation. This information is intended to present a picture of the Township’s development over time and establish present conditions, i.e., “where are we now and how did we get here?” Each of these chapters, or elements, includes a summary of the points having the greatest relevance to future Township decision-making. Goals, policies and strategies were developed mainly from these summaries and from a survey undertaken by the Planning Commission. These goals, policies and strategies will serve as the framework for guiding future development within the Township. Thus, this plan addresses the issues of present conditions, Township needs and desired future conditions, while also providing a means to achieve future development goals and objectives.

The Master Plan has the following characteristics:

- *It is a physical plan. Although social and economic conditions are considered, the plan will be a guide to the physical development of the community.*
- *It provides a long range viewpoint. The Master Plan will depict land use and community development within a time frame of 20 years.*
- *It is comprehensive, covering the entire Township and all the components that affect its physical makeup.*
- *It is the official statement of policy regarding such issues as land use, community character and transportation which impact the physical environment. As a policy guide, it must be sufficiently flexible to provide guidance for changing conditions and unanticipated events.*

The Master Plan also incorporates a future land use and zoning plan, relating the future land use plan and map to the Township's Zoning Ordinance. The Master Plan is not a Zoning Ordinance. The Master Plan is the long range policy guide for the physical arrangement and appearance of the Township. The Zoning Ordinance more specifically regulates the manner in which individual properties are used. The Zoning Ordinance is only one of a number of tools used to implement the Master Plan. This plan provides a factual information base to assess the Township's strengths and weaknesses, as well as a framework for its future growth and development.

Rural township planning is in many ways unlike conventional urban planning or planning at a larger governmental level. In general terms, however, the planning function seeks similar outcomes which are to help create an increasingly better, more healthful, convenient, efficient



Laughing Whitefish River

and attractive community environment. Through the conscious efforts of organization that we call "planning," problems can be prevented or solved systematically.

Small communities frequently face different technical, physical and political problems. Many local problems cannot be resolved at the state, regional or even county level, although decisions made at those levels certainly influence local issues.

In summary, this plan is intended for use as a guide by local officials when making decisions regarding development and land use. Planning is a continuous process that requires that goals, policies and strategies be re-evaluated as changes occur. Change is inevitable and the process should not

be viewed as "finished." Only by keeping pace with change through timely and accurate revision will this plan be of greatest value.

CHAPTER 2.0 POPULATION

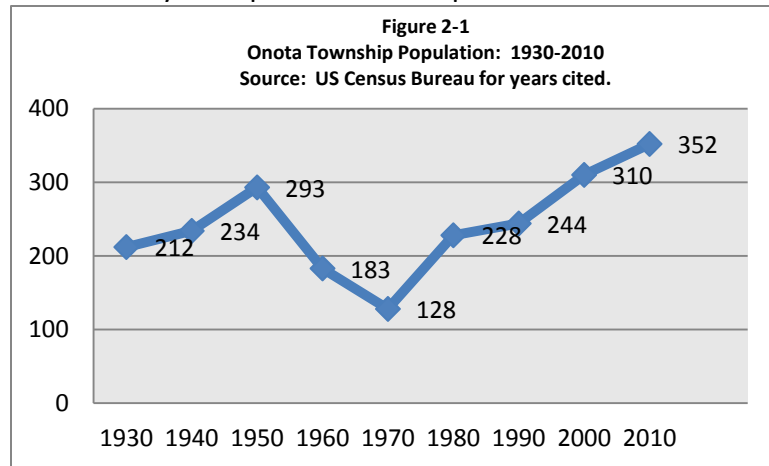
2.1 Introduction

Population change is the primary component in tracking a community's past growth as well as forecasting future population trends. The growth and characteristics of population in a community are subject to changes in prevailing economic conditions. A thorough examination provides an understanding of the people who live, work and recreate in the community. Since communities do not exist in a vacuum, comparisons to other communities will be provided throughout this chapter.

Demography, or the statistical study of the population, is key to understanding the impact of population on housing, educational, recreational, health care, transportation and future economic needs of a community. Detailed demographic characteristics of Onota Township and the general area will be presented in this chapter.

2.2 Population Trends

Onota Township has experienced increases in every decade since 1970. The largest increase occurred from 1970 to 1980 - 78 percent. From 2000 to 2010 Onota Township's population increased by 13.5 percent to 352 persons recorded in the 2010 census. Many townships in the



Upper Peninsula have experienced similar growth, while cities in the region have observed a population decline over the same time period. The City of Munising is an example of a city experiencing a large population decrease. After a peak of 4,409 residents in 1940, the city has experienced a population decline of 46.6 percent to 2,355 in 2010. Major events such as World War I, World War II, and the Great

Depression influenced where people lived, how they lived and what jobs they pursued to support themselves and their families. Economic factors of a more local nature such as available timber resources and markets for farm products were primary determinants as well. Official population counts for Onota Township since 1930 are presented in Figure 2-1.

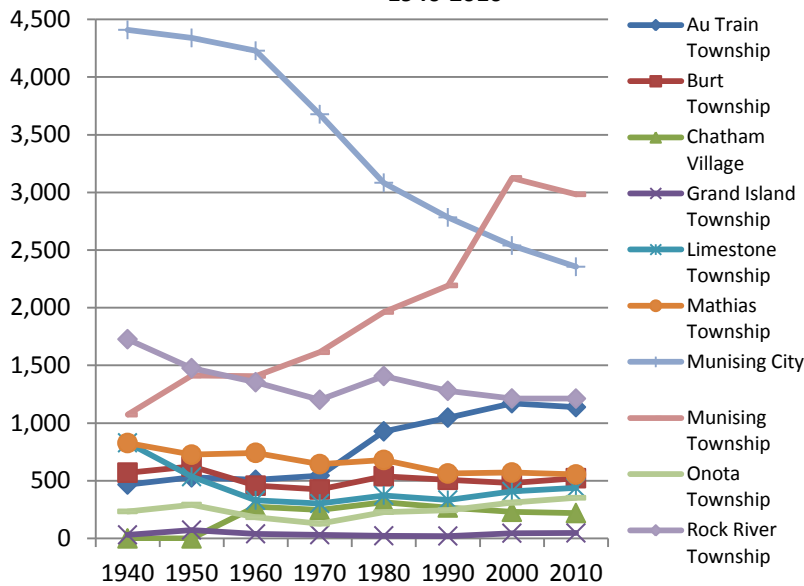
Table 2-1 and Figure 2-2 report population for all Alger County municipalities from 1940 to 2010. Munising Township experienced the largest overall population increase (178.0 percent), while Au Train Township mirrored that level of growth (143.7 percent). Au Train Township may have experienced an influx of population in part years due to the high percentage of seasonal residents who make the Township their home for a portion of the year. Many area township populations have increased due to an out-migration of residents from urban to rural areas. The largest overall population decline was recorded in Limestone Township (47.2 percent).

Table 2-1
Population, Selected Areas, 1940-2010

Governmental Unit	1940	1950	1960	1970	1980	1990	2000	2010	% Change 1940-2010
Onota Township	234	293	183	128	228	244	310	352	50.4
Au Train Township	467	529	508	545	928	1,047	1,172	1,138	143.7
Burt Township	570	624	457	424	539	508	480	522	-8.4
Chatham Village	-	-	275	246	315	268	231	220	-
Grand Island Township	31	73	40	32	23	21	45	47	51.6
Limestone Township	829	535	330	302	373	334	407	438	-47.2
Mathias Township	827	726	742	644	680	563	571	554	-33.0
Munising City	4,409	4,339	4,228	3,677	3,083	2,783	2,539	2,355	-46.6
Munising Township	1,073	1,412	1,408	1,614	1,963	2,193	3,125	2,983	178.0
Rock River Township (w/ Village of Chatham)	1,727	1,476	1,354	1,202	1,408	1,279	1,213	1,212	-29.8
Alger County	10,167	10,007	9,250	8,568	9,225	8,972	9,862	9,601	-5.6

Source: U.S. Census Bureau for years cited

Figure 2-2
Population, Alger County Municipalities
1940-2010



The trend of population growth for townships that surround cities is not simply a local phenomenon. In major metropolitan areas this trend has taken the form of migration from the city to its surrounding suburbs, while in smaller urban areas people are moving into surrounding rural areas. There are many reasons for this migration, including lower taxes and user fees, lower development costs, a desire for a more rural lifestyle, lower incidences

of crime, desire for larger residential lots, etc. Over the past two decades, the population growth in townships surrounding Upper Peninsula cities has been substantial.

Alger County's population declined slightly in every decade, with the exception of the 1970s. During the 1970s a population increase of 7.7 percent was recorded. Overall, the 1940 to 2010 period saw the county's population decrease by 566 persons, or 5.6 percent. The State of

Michigan experienced population growth in each of the decades from 1940 to 2000. Michigan was the only state to experience a population decline in the 2010 Census; severe economic conditions have led many Michigan residents to seek employment elsewhere.

2.3 Age

According to data obtained from the 2010 Census, the population of Onota Township is significantly older than Alger County as a whole. Onota Township’s median age in 2010 was 57.5 years, higher than that of Alger County (45.0), as well as Michigan (37.6) and the Units States (37.2) overall. From 1980 to 2010, the Township experienced a 21.6 year increase in the median age of its residents. While the median age rose in every municipality in Alger County, Onota Township’s increase was the most dramatic. Burt Township is the only Alger County municipality that reported a higher median age (62.9). Table 2-2 presents comparative data on median age.

Longer life expectancies and smaller family sizes are the major reasons that the overall population is getting older. Moreover, the largest segment of the population, the “baby boom” generation (born 1946 to 1965), is approaching retirement age. The examination of a community’s age structure is critical to sound decision making within a

Area	1980	1990	2000	2010	Change 1980-2010
Onota Township	31.4	38.6	49.8	57.5	+26.1
Au Train Township	30.1	36.2	42.3	51.7	+21.6
Burt Township	42.2	48.1	56.7	62.9	+20.7
Chatham Village	--	36.2	40.8	42.5	--
Grand Island Township	42.5	37.5	45.8	50.5	+8.0
Limestone Township	32.8	37.8	45.5	51.5	+18.7
Mathias Township	31.6	39.9	44.6	49.1	+17.5
Munising City	34.3	39.7	43.8	45.7	+11.4
Munising Township	28.7	32.4	35.2	37.5	+8.8
Rock River Township	29.9	36.1	42.3	46.3	+16.4
Alger County	31.6	36.7	41.2	45.0	+13.4
State of Michigan	28.8	32.6	35.5	37.6	+8.8
United States	30.0	32.9	35.3	37.2	+7.2

community. Persons ages five through 18 make up the school age portion of the population- which is further divided into elementary, middle and high school age groups. The working age population is generally accepted as those from 18 to 65 years of age. Those persons 18 or older constitute the eligible voting population. Of course, not everyone between the ages of 18 and 64 is in the labor force, and not everyone 18 or older actually votes. However, this breakdown does give communities a sense of how their population is distributed for planning and comparative purposes. In 2000, the U.S. Bureau of the Census reorganized the age groups; the working age group is now reported as ages 20-64.

An analysis of the information in Table 2-3 by age cohort provides another perspective on age distribution within the population. By studying the population fluctuations within this and other groups, it is possible to evaluate the important factors of in-migration and out-migration. Au Train Township data is included because of the common school district.

Table 2-3 Population Distribution by Age Group, Onota and Au Train Townships, 2010				
Age Group	Onota Township		Au Train Township	
	Number	Percent	Number	Percent
Preschool Age				
Under 5	12	3.4	41	3.6
<i>Subtotal</i>	12	3.4	41	3.6
School Age				
5 - 9	7	2.0	47	4.1
10 - 14	8	2.3	51	4.5
15 - 19	10	2.8	67	5.9
<i>Subtotal</i>	25	7.1	165	14.5
Working Age				
20 - 24	7	2.0	51	4.5
25 - 34	25	7.1	68	5.9
35 - 44	27	7.7	126	11.1
45 - 54	61	17.3	215	18.9
55 - 59	51	14.5	121	10.6
60 - 64	41	11.6	110	9.7
<i>Subtotal</i>	212	60.2	691	60.7
Retirement Age				
65 - 74	78	22.1	158	13.9
75 - 84	18	5.1	65	5.7
85 years and over	7	2.0	18	1.6
<i>Subtotal</i>	103	29.2	541	21.2
Total	352		1,138	

In 2010, the age group of 65-74 made up the largest portion of the Township’s total population, at 78 persons, or 22.1 percent; the 45-54 age group was the second largest at 61 persons, or 17.3 percent. For Au Train Township, the 45-54 year old age group was the largest, with 65-74 year olds representing the second largest age group.

The elderly population, which includes those 65 years and older, made up 29.2 percent of the total population in 2010. The data indicated that the population of the Township is aging more rapidly than any other Alger County municipality. Growth of the older segment of the population influences the type and cost of services offered by the Township and other providers.

Source: U.S. Census Bureau, Profile of General Demographic Characteristics for Michigan: 2010, Table DP-1

In recent decades, there has been a shift in population from the school age and working age population into the retired age group. This change has occurred almost universally across the country. The

proportion of individuals in the preschool and school age groups continues to shrink which contributes to declining school enrollment. The forces of migration – in and out – are important to consider. In rural areas where job opportunities are limited, younger adults find it necessary to move (out-migration) to further their educations or careers. In 2010, the number of residents in the 25-34 year old age group represented only 7.1 percent of the Township’s population. As the “baby boomers” begin to reach retirement age, a smaller proportion of the population is participating in the workforce. Persons of retirement age have shown a preference for rural areas, including Onota Township, and further impact the age structure through in-migration. With a diminishing workforce, there are fewer people to contribute to pension funds and additional programs that support retirees. As the number of working persons decreases in comparison to retirees, there is distress over the future of programs such as Social Security.

**Table 2-4
AuTrain-Onota School District Enrollment
1997-2011**

School Year	Enrollment
2010-2011 (Pre-K thru 8 th)	50
2009-2010 (Pre-K thru 8 th)	50
2008-2009 (Pre-K thru 6 th)	42
2007-2008 (Pre-K thru 6 th)	45
2006-2007 (Pre-K thru 6 th)	42
2005-2006 (Pre-K thru 6 th)	38
2004-2005 (Pre-K thru 6 th)	43
2003-2004 (Pre-K thru 6 th)	34
2002-2003 (Pre-K thru 6 th)	35
2001-2002 (Pre-K thru 6 th)	34
2000-2001 (Pre-K thru 6 th)	34
1999-2000 (Pre-K thru 6 th)	29
1998-1999 (Pre-K thru 6 th)	38
1997-1998 (Pre-K thru 6 th)	48

The AuTrain-Onota School District offers educational Pre-K through the 8th grade at the Deerton School, after which the students have the option of attending schools at Marquette, Superior Central or Munising school districts. In recent years, the school population of the AuTrain-Onota School District has held fairly constant. The rather large decline in school population from the 1997-1998 school year to the 1998-1999 school year was the result of a number of Native American families leaving the area to reside in tribal housing. Enrollment has remained stable the past two years, with 50 students. Enrollment data is presented in Table 2-4.

Source: Fourth Friday Count, Marquette-Alger Intermediate School District.

2.4 Racial Composition

Nearly 97 percent of the Township’s population is identified as white. This compares to approximately 88 percent for Alger County and 80 percent within the entire state. Persons identifying themselves within the American Indian/Alaska Native racial category comprise the balance of the population. This information is shown in Table 2-5.

**Table 2-5
Racial Characteristics, Selected Areas, 2010**

Race	Onota Township		Alger County		State of Michigan
	Number	Percent	Number	Percent	Percent
One Race	345	98.0	9,338	97.3	97.7
White	340	96.6	8,286	86.3	78.9
Black/African American	0	0.0	612	6.4	14.2
American Indian/Alaska Native	3	0.9	397	4.1	0.6
Asian	1	0.3	32	0.3	2.4
Native Hawaiian/Pacific Islander	0	0.0	0	0.0	0.0
Some Other Race	1	0.3	11	0.1	1.5
Two or more races	7	2.0	263	2.7	2.3
TOTAL	352	100.0	9,601	100.0	100.0

Source: U.S. Census Bureau, Profile of General Demographic Characteristics for Michigan: 2010, Table DP-1.

2.5 Gender

Females typically outnumber males in the overall population by a small margin due to longer life expectancies. In Michigan, for instance, the 2010 census reflects a 51-49 percent favoring females. In Onota Township, females make up a majority of the population (52.3 percent). A higher percentage of males are indicated in the county population (54.4 percent) in part due to the incarcerated male populations at the Alger Maximum Correctional Facility.

Source: U.S. Census Bureau, Profile of General Demographic Characteristics for Michigan: 2010, Table DP-1.

Gender	Onota Township		Alger County		State of Michigan
	Number	Percent	Number	Percent	Percent
Males	168	47.7	5,224	54.4	49.1
Females	184	52.3	4,377	45.6	50.9

2.6 Educational Attainment

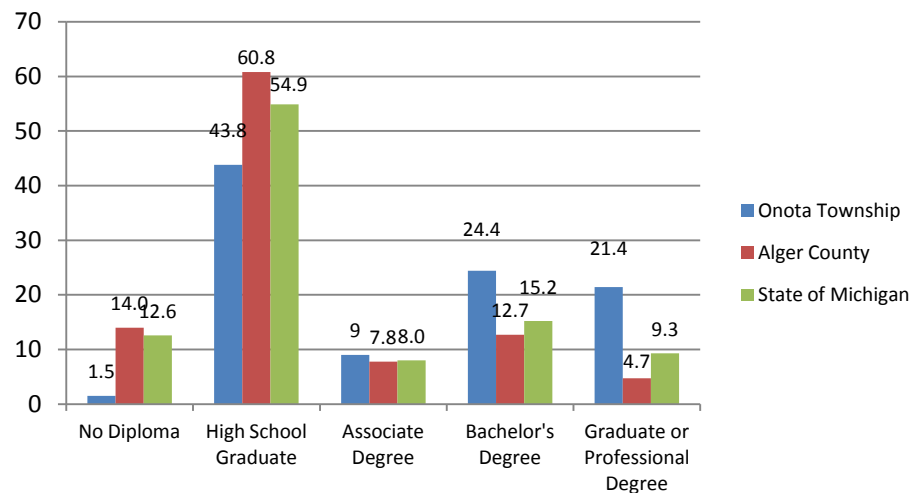
Education is one important factor in analyzing the capabilities of the local work force. The number of Onota Township residents over 25 years of age without a high school diploma based on American Community Survey estimates was 1.5 percent, which was significantly lower than the county and the state (Figure 2-3). Overall, 98.5 percent of residents over 25 years of age in the Township were high school graduates or higher, which was much higher than the county (86.0 percent), and higher than the state (87.4 percent). The percent of residents in the Township over 25 years of age with a bachelor’s degree or higher was higher than the rates reported by the county and the state. This may indicate that a larger percentage of jobs in the area require higher education skills.

Recent trends indicate that employers are now requiring their employees to have higher educational levels. The economy is increasingly global, with companies both acquiring goods and services in foreign countries and selling their products internationally. In this regard employers certainly want

individuals who have higher levels of technical competence. Employers are also looking for potential workers with high-level proficiency in more general higher-order skills, including communication, computation, problem solving and critical thinking.

Source: United States Bureau of the Census, American Community Survey 5-Year Estimates, 2005-2009.

**Figure 2-3
Educational Attainment of Persons 25 and Older, 2005-2009**



2.7 Household Characteristics

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

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 group or related or unrelated persons sharing 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.

In 2010, only 9.8 percent of Onota Township’s family households included children less than 18 years of age; this is a sharp decline from 2000 Census results (17.8 percent). The percentages for family households with children under 18 are 20.1 percent for the county and 28.6 percent for the state. Households are smaller in the Township (2.03 persons) than the county (2.20 persons) and the state (2.49 persons). Across the region and the United States, smaller household sizes have been the trend, largely due to an increase in the number of single-parent households. From 2000 to 2010, non-family households have increased from 46 to 50, with an increase in the number of householders living alone. From 2000 to 2010, there was a slight increase in the number of householders over the age of 65 living alone.

Household Type	Onota Township				Alger County		State of Michigan
	2000		2010		2010		2010
	Number	Percent	Number	Percent	Number	Percent	Percent
Family Households	100	68.5	123	71.1	2,479	63.6	66.0
With own children under 18 years	26	17.8	17	9.8	785	20.1	28.6
Married-couple family	93	63.7	111	64.2	2,035	52.2	48.0
With own children under 18 years	22	15.1	14	8.1	95	24	18.9
Female householder (no husband present)	4	2.7	7	4.0	276	7.1	13.2
With own children under 18 years	2	1.4	2	1.2	151	3.9	7.3
Non-family Households	46	31.5	50	28.9	1,419	36.4	34.0
Householder living alone	36	24.7	40	23.1	1,232	31.6	27.9
Householder 65 years or older	13	8.9	16	9.2	593	15.2	10.2
Total Households	146	100.0	173	100.0	3,898	100.0	100.0
Average Household Size	2.12		2.03		2.20		2.49

Source: U.S. Census Bureau, *Profile of General Demographic Characteristics for Michigan: 2010*, Table DP-1 and *Profile of General Demographic Characteristics for Michigan: 2000*, Table DP-1.

2.8 Issues and Opportunities

- Official 2010 Census figures officially set the Onota Township population at 352 persons, or 3.7 percent of the county total. The Township's population increased 13.5 percent between 2000 and 2010.
- The number of persons residing in Onota Township has increased in each of the last four decades.
- The population is aging at a rapid rate due to smaller families (low birth rates), retiree immigration and longer life expectancies. The median age of Onota Township is 56.6 years, the second highest among local governments of Alger County (the median age in Burt Township is 62.9 years).
- Young children under 10 years of age account for 2.0 percent of the Township's population. Meanwhile, persons 65 and older make up 27.2 percent of the total population.
- Over 45 percent of Township residents have attained at least a bachelor's degree, a measure that by far exceeds that of the county or state.
- While the number of households has increased, the average size has decreased to 2.03 persons.
- If Alger County's population continues to decline over the next ten years, many communities may consider consolidation of services to save money and to continue to maintain high level of services.

3.0 ECONOMIC BASE

3.1 Introduction

Central to a community’s stability and growth is its economic base. Two major sectors make up a community’s economy: one which provides goods and services for markets outside of the community (basic or export sector) and one which provides goods and services for local consumption (non-basic sector). Economic vitality and balance rely heavily on the creation and retention of local basic sector jobs. The factors that affect the economic base in a community extend beyond its boundaries; increasingly so as the effects of the global economy are realized. This chapter will not only include information which is specific to Onota Township, but it will also include comparative data from Alger County, the Upper Peninsula and the state. Much of the economic information presented is available only at the county level. The high degree of personal mobility may affect the accuracy of some information regarding the local economy.

Onota Township is bordered on the west by Marquette County with Lake Superior forming its entire northern border. Approximately 30 percent of the land area is in federal ownership (Hiawatha National Forest). Most development is found along and near state trunkline M-28 close to Lake Superior. There are only a handful of commercial establishments in the Township. Most employed residents commute to jobs in Marquette County or the Munising area. Fifty-seven percent of township dwelling units are used seasonally or recreationally.

**Table 3-1
2011 Millage Rates**

Taxing Jurisdiction	Rate	Purpose
Onota Township		
	0.5742	Operational-allocated
	1.9828	Operational
	1.4871	Fire (operational and truck)
	1.9828	Solid Waste
AuTrain-Onota Schools		
	6.0000	State education (homestead rate)
	18.0000	Operating (non-homestead)
Alger County		
	5.0770	Operational
	0.9998	Ambulance
	0.4957	Alger County Commission on Aging
	0.2999	Library
MSU Extension		
	0.2458	Operational
Marquette-Alger Regional Educational Service Agency		
	0.2048	Operational-allocated
	2.0000	Operational-voted

A total of 173 occupied housing units were recorded in the 2010 Census (95 in 1990 and 146 in 2000) in Onota Township. Residential land use is found in the unincorporated communities of Deerton and Onota and along Lake Superior shoreline at Shelter Bay, Laughing Whitefish Subdivision, Deer Lake, Sand River, Shore Drive, and AuTrain Bay.

The Township’s 2011 state equalized valuation was \$57,362,873. Taxable value was \$34,243,032. Residential properties make up about 97 percent of the total assessed value. Commercial properties were assessed at \$1,502,600.00 (3.0 percent). There were no properties assessed in the industrial or agricultural categories. The

2010 total millage for township property is 20.3628 (homestead) and 38.3628 (non-homestead). Tax levies are identified in Table 3-1. Source: Alger County Equalization Department, 2011.

3.2 Area Economy

Historically, the local economy, like that of the County, is closely related to natural resources and features. The proximity and abundance of forest products provide much of the raw material utilized in commercial enterprises such as paper and lumber mills.



Tourism has been, and continues to be, a major and growing industry in the area. Once limited primarily to the summer season, tourism has become much more of a year-around industry due at least in part, to the popularity of fall “color tours” and winter sports, especially snowmobiling (Michigan leads the nation in the number of licensed snowmobiles). Onota Township offers several resorts and cabins for daily, weekly and monthly rental opportunities.

As an industry, tourism is among the leaders in Michigan. The term “tourism” is comprehensive and includes a range of activities associated with natural and man-made attractions such as products and services for leisure and recreational pleasure. Alger County has an abundance of hiking and skiing trails, snowmobile trails, waterfalls, and opportunities for fishing, boating, kayaking and swimming.

Tourism and recreation have changed over the years as transportation options have increased personal mobility. Today’s tourists are more likely to travel frequently, take shorter trips and stay closer to home. Heritage-tourism and eco-tourism have increased in popularity. Heritage-tourism draws those interested in the historic and cultural offerings of a community or institution. Eco-tourism is popular among those desiring to experience nature through activities such as bird watching, hiking, and kayaking.

There are limited commercial establishments within Onota Township, such as the Pinewood Bed and Breakfast, Brownstone Restaurant, Seacoast Motel, Rock River Beach Cottages, Kimar’s Resort and Charters, Marine Sales and Excavating, Forest Products Land Company, Mike’s PC Repair, Shelter Bay Charters and General Repair, several gravel pits, Whitefish Lodge, logging operation, junkyards, Post Office and several rental cabins. The Township had its beginning with the natural resources based economy, which continues to this day with Heartwood Forestland Fund, charter fishing operations and sand/gravel pits. With 29.3-percent of the population age 65 or greater, the Township is becoming a retirement community as well as bedroom community of both the Marquette and Munising areas. In fact, approximately 46 percent of workers find employment outside of Alger County, presumably in Marquette County. The average employed resident of the Township spends about 24 minutes traveling to work.



3.3 Labor Force and Unemployment

The Michigan Employment Security Agency (formerly the Michigan Employment Security Commission) collects and analyzes unemployment and labor force data by county. Prior to 1965, unemployment figures were based on Bureau of the Census data. A comparison of unemployment and labor force data is presented in Table 3-2.

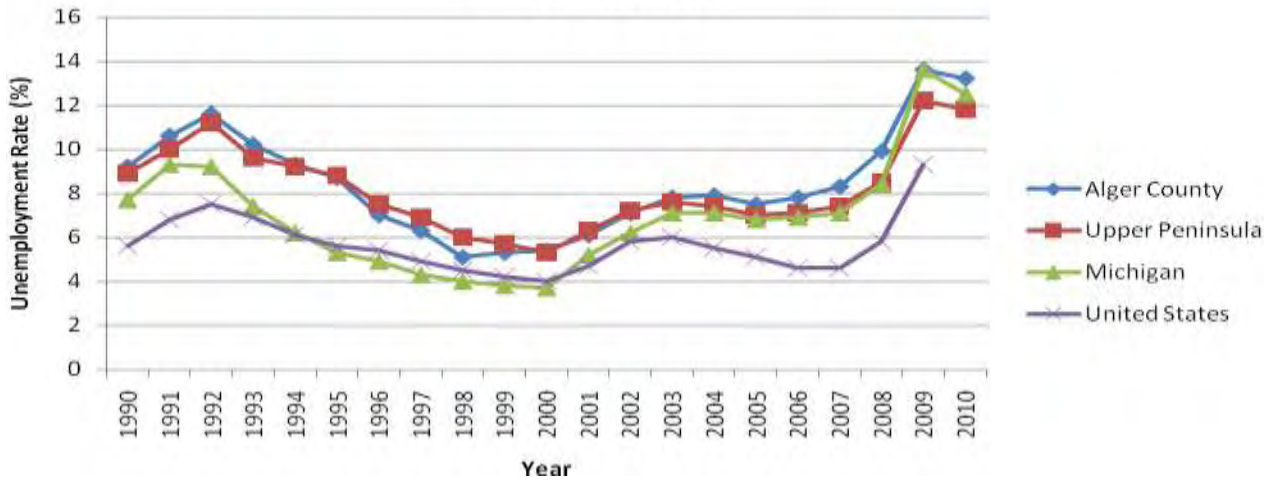
Unemployment rates in Alger County have generally followed the regional pattern. In nearly every year of the comparison, Alger County has experienced annual unemployment rates in excess of those recorded for the state and nation. 2010 data indicates a slight decrease in the unemployment rate for the County from a high of 13.6 percent in 2009; the 2010 rate was 13.2 percent. The civilian labor force fluctuates with prevailing economic conditions. The civilian labor force has decreased from a high of 4,478 in 2006 to 4,112 in 2010. Baraga County reported the highest unemployment rate for the Upper Peninsula, at 23.3 percent in 2010.

**Table 3-2
Labor Force and Unemployment, Selected Areas, 1990-2010**

Year	Alger County Labor Force			Unemployment Rates (Percentage)			
	Labor Force	Employed	Unemployed	Alger County	Upper Peninsula	State of Michigan	United States
1990	3,814	3,462	352	9.2	8.9	7.7	5.6
1991	3,869	3,458	411	10.6	10.0	9.3	6.8
1992	3,940	3,484	456	11.6	11.2	9.2	7.5
1993	4,008	3,600	408	10.2	9.6	7.4	6.9
1994	4,133	3,750	383	9.3	9.2	6.2	6.1
1995	4,242	3,871	371	8.7	8.8	5.3	5.6
1996	4,208	3,193	295	7.0	7.5	4.9	5.4
1997	4,273	4,003	270	6.3	6.9	4.3	4.9
1998	4,298	4,080	218	5.1	6.0	4.0	4.5
1999	4,403	4,169	234	5.3	5.7	3.8	4.2
2000	4,373	4,139	234	5.4	5.3	3.7	4.0
2001	4,432	4,161	271	6.1	6.3	5.2	4.7
2002	4,402	4,090	312	7.1	7.2	6.2	5.8
2003	4,431	4,084	347	7.8	7.6	7.1	6.0
2004	4,377	4,032	345	7.9	7.4	7.1	5.5
2005	4,381	4,052	329	7.5	7.0	6.8	5.1
2006	4,478	4,130	348	7.8	7.1	6.9	4.6
2007	4,412	4,046	366	8.3	7.4	7.1	4.6
2008	4,296	3,872	424	9.9	8.5	8.4	5.8
2009	4,288	3,705	583	13.6	12.2	13.6	9.3
2010	4,112	3,569	543	13.2	11.8	12.5	9.6

Source: Michigan Labor Market Information, <http://www.milmi.org/>, 2011.

Unemployment Rate, Selected Areas 1990-2010



Labor Force and Unemployment, Upper Peninsula Counties, 2010

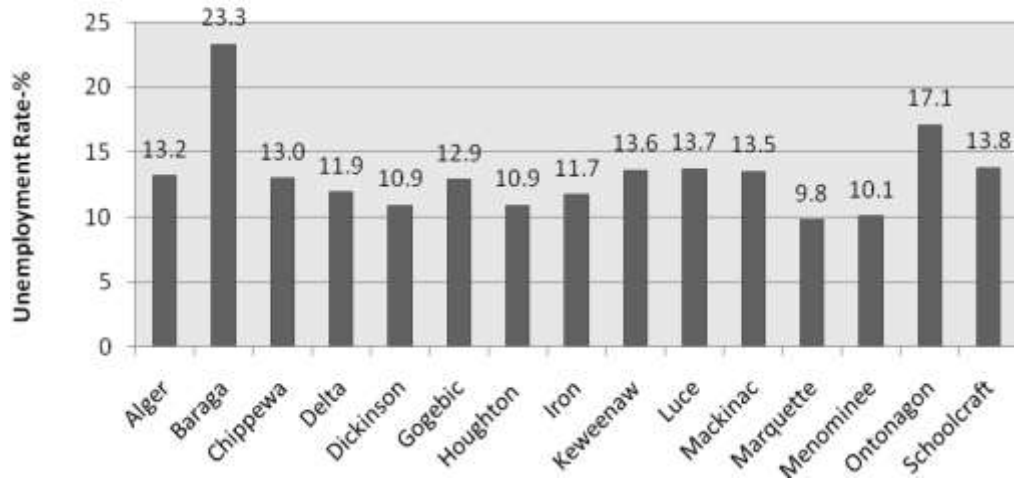


Table 3-3 provides occupational information for resident male and female workforce participants. Nearly half of Onota Township’s workforce is engaged in management, professional and related occupations. Approximately one quarter of workers are employed in services occupations, while one fifth work in sales and office occupations.

Table 3-3 Civilian Workforce by Major Occupational Category, Onota Township, 2005-2009		
Occupational Category	All Employed Persons 16 years and older	Percent
Management, professional, and related occupations	48	43.6
Service occupations	28	25.5
Sales and office occupations	24	21.8
Farming, fishing, and forestry occupations	4	3.6
Construction, extraction, and maintenance occupations	3	2.7
Production, transportation, and material moving occupations	3	2.7
TOTAL	110	100.0

Source: U.S. Census Bureau, American Community Survey 5-Year Estimates, Selected Economic Characteristics, 2005-2009.

The following table (Table 3-4) depicts the industry in which Onota Township residents are employed within.

Table 3-4 Civilian Workforce by Industry, Onota Township, 2005-2009		
Industry	All Employed Persons 16 years of age and older	Percent
Agriculture, Forestry, Fishing and Hunting and Mining	4	3.6
Construction	3	2.7
Manufacturing	0	0.0
Wholesale Trade	0	0.0
Retail Trade	10	9.1
Transportation and Warehousing, Utilities	2	1.8
Information	0	0.0
Finance And Insurance; Real Estate and Rental and Leasing	3	2.7
Professional, Scientific, and Administrative Services	5	4.5
Educational Services and Health Care and Social Services	40	36.4
Arts, Entertainment and Recreation, Accommodation and Food Service	16	14.5
Other Services (Except Public Administration)	3	2.7
Public Administration	24	21.8
TOTAL	110	100.0

Source: U.S. Census Bureau, American Community Survey 5-Year Estimates, Selected Economic Characteristics, 2005-2009.

The workplace as we have come to know it has been greatly influenced by technological advancements and economic globalization. It is expected that fully one-third of the 21st Century workforce will be independent regarding location; telephone and electrical services will be the only requirement. Communities that can offer quality living environments will be the locations of choice for these types of work arrangements.

3.4 Income

An examination of local income trends, and comparison of local income figures to state and national averages, provides information about the amount of wealth that is available locally for expenditures on goods and services. Income figures also reflect the wages and salaries paid to local workers.

Income is measured in three ways:

1. **Per capita income** is derived from the total income reported for a community divided by the total population.
2. **Household income** is the average income reported for all households including families.
3. **Family income** includes 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.

Earnings	Onota Township		Alger County		Marquette County	
	Number	Percent	Number	Percent	Number	Percent
Under \$10,000	12	9.3	349	9.3	2,700	10.6
\$10,000 to \$14,999	2	2.3	256	6.8	1,824	7.2
\$15,000 to \$24,999	15	11.6	506	13.4	3,112	12.3
\$25,000 to \$34,999	14	10.9	529	14.0	2,809	11.1
\$35,000 to \$49,999	24	18.6	526	13.9	3,576	14.1
\$50,000 to \$74,999	27	20.9	821	21.8	5,011	19.8
\$75,000 to \$99,999	13	10.1	467	12.4	2,057	12.1
\$100,000 or more	21	16.3	318	8.4	3,275	12.9
Median Household Income	\$46,250		\$41,234		\$43,692S	

Table 3-5 charts 2009 earnings for the Township and Alger and Marquette counties. Higher median household earnings were recorded for workers living in the Township than those of

Source: U.S. Census Bureau, American Community Survey 5-Year Estimates, Selected Economic Characteristics, 2005-2009.

either county. The income information for the two counties reflects larger percentages earning less than \$15,000 and lesser percentages earning above \$50,000 than for workers residing in the township.

Median Income	All Households	Family Households		Non-Family Households
		Married-couples	Female householder, no husband present	
	\$46,250	\$73,625	\$16,500	\$29,318

Household and family income is presented in Table 3-6. Median

Source: U.S. Census Bureau, American Community Survey 5-Year Estimates, Selected Economic Characteristics, 2005-2009, Tables B19126 and B19202.

incomes within single parent family households are much lower than family households of married-couples.

Table 3-7
Source of Household Income, Onota Township, 2005-2009

	Number	Percent	Mean Income
With earnings	97	75.2	\$56,638
With Social Security Income	54	41.9	\$15,628
With Supplemental Security Income	0	0.0	N/A
With public assistance income	2	1.6	\$150
With retirement income	54	41.9	\$16,313

Source: U.S. Census Bureau, American Community Survey 5-Year Estimates, Selected Economic Characteristics, 2005-2009.

41.9 percent of the total household income for the township is derived from retirement income.

Examining the source of household income, the majority is derived from wage and salary income or through self-employment. With 22 percent of the population age 65 or greater, it is not startling to find that

3.5 Employment by Place of Work

With Onota Township being located on the Marquette County border, it is not surprising to find many Township residents have jobs in Marquette County.

Source: U.S. Census Bureau, American Community Survey 5-Year Estimates, Selected Economic Characteristics, 2005-2009, Table B08007.

According to American Community Survey 5-Year Estimates, over 46 percent of the workers find employment outside of Alger County; presumably many of these would be located in

	Onota Township		Alger County	
	Number	Percent	Number	Percent
Worked in Michigan	110	100.0	3,386	99.3
Worked in Alger County	59	53.6	2,790	81.8
Worked outside of Alger County	51	46.4	596	17.4
Worked outside of Michigan	0	0.0	23	0.7
Total Workers	110	100.0	3,409	100.0

Marquette County. This is a higher percentage for Alger County as a whole, where only 17.4 percent of the workers commute outside of the county. Some residents find employment at home; the at-home workers comprise about 5.5 percent of the township's work force.

Table 3-9
Work Commuting Time for Residents Aged 16 or Older, Onota Township, 2005-2009

Residence to Work Travel Time	Percent
Less than 10 minutes	24.0
10 to 14 minutes	0.0
15 to 19 minutes	6.7
20 to 24 minutes	17.3
25 to 29 minutes	13.5
30 to 34 minutes	12.5
35 to 44 minutes	18.3
45 to 59 minutes	6.7
60 or more minutes	1.0
Mean Travel Time to Work: 23.8 Minutes	

Work commuting times are presented in Table 3-9. Except for persons working at home, the average employed resident of the Township spends 23.8 minutes traveling to work.

Source: U.S. Census Bureau, American Community Survey 5-Year Estimates, Selected Economic Characteristics, 2005-2009.

3.6 Issues and Opportunities

- The Township had its historical beginnings with lumbering, fishing and quarry operations. The natural based economy continues to this day with Heartwood Forestland Fund, charter fishing and some sand/gravel pits.
- The present (2011) unemployment rate for Alger County stands at 13.2 percent, a figure higher than that of the Upper Peninsula and the state of Michigan.
- Nearly half of the employed Township residents are engaged in managerial, professional or related occupations. Approximately one quarter of workers are employed in services occupations, while one fifth work in sales and office occupations.
- The median household income for the Township is \$46,250, a figure greater than that of either Marquette or Alger Counties as a whole.
- About 53.6 percent of township workers have jobs in Alger County and about 46.4 percent of the employed residents find employment outside of Alger County, likely finding work in Marquette County. The average commute time is almost 24 minutes.

CHAPTER 4.0 NATURAL FEATURES

4.1 Introduction

Usually, natural features such as soils, geology, topography and surface waters determine a community's growth potential. Soil types and geology may affect the availability, quality and quantity of underground water supplies. Communities not having wastewater treatment facilities must rely on onsite septic systems where soil types are important. The abundance and types of natural resources (forests, minerals, etc.) present in a community also influence development.

These natural features are often interrelated, and disturbance in one area can potentially affect other areas. From a planning standpoint, understanding these interrelationships is fundamental to evaluating potential development.

4.2 Geology

Both bedrock and surface geology have an impact on development. Bedrock geology consists of the solid rock formations found below the soil that were formed millions of years ago. These formations have since undergone extensive folding, uplifting, eroding, and weathering and are now overlain by surface geology and soil.

A primary factor making geology important to a community's development is its ability to supply groundwater. The types of bedrock through which water passes before extraction influence the quality and quantity of groundwater. Certain types of bedrock increase the potential for groundwater contamination, particularly when such bedrock is close to the surface. Surface runoff is filtered through the soil and other materials that overlays bedrock. When bedrock is close to the surface and the filtering layer is thin, the opportunity for polluted runoff to enter the groundwater table is increased. If the bedrock is highly permeable, contaminants can quickly enter the same layers of groundwater used for domestic purposes.

Private well depths are typically in the 50-100 feet range. Production and quality are common problems throughout the Township. In some cases, production is inadequate to meet homeowner demand and recovery rates are low. The Deerton School has two low producing wells and must utilize a 450 gallon holding tank to provide sufficient water for daily use.

Water is typically hard with a high content of chlorides giving it corrosive qualities. Many homes treat water supplies by some method.

Local well drillers utilize hydrofracturing to increase well production. Basically pressurized water is introduced into the drilled well to create fractures in the bedrock. The fractures allow for the groundwater to flow to the well. Sometimes this procedure results in diminished water quality for the consumer.

The local health department has advised homeowners to drill a well before building to determine if sufficient water supply and quality is available ahead of making the investment for a new home.

4.3 Bedrock Geology

Three sandstone formations underlay the entire Township (Map 4-1). The thickest and most extensive is Jacobsville sandstone. This bedrock formation is not conducive to potable groundwater production due to its tightness.

4.4 Surface Geology

Categories of surface geology are based on the material content and formation process of the various deposits, as shown on Map 4-2. Glacial deposits occurred as a result of surface water, by moving streams or outwash, or by lake deposits.

Beaches ridges and dunes are found along Lake Superior at the eastern and western extremities of the Township. These areas are characterized by ridges parallel to the shoreline representing successive positions of a receding shoreline. Dunes are both active and vegetated. Dune sand has a very high permeability. These areas are located above the water table, which makes them an unlikely source of water. However, their high filtration capacities mean they serve as an important avenue of groundwater recharge.

Lacustrine sand and gravel is the surface geology found in the southeastern part of the Township along the Rock River is characterized by glacial drainage channels. Nearly level to very steep channels and terraces are evident. These deposits consist mainly of sand, although silt or clay may be mixed with the sand. The amount of silt or clay determines permeability and water yield. Concentrations of more than 25 percent silt or clay may impede drainage and often results in swampy or marshy areas. If silt and clay are not present in high concentrations, the deposits are usually moderately or highly permeable.

Thin to discontinuous glacial till over bedrock is about 90 percent of the total township area. This deposit is characterized by shallow to moderately deep sandy glacial deposition and loamy till overlying sandstone bedrock. This is known as a bedrock controlled moraine. These deposits will not yield supplies of water adequate for most uses.

Medium-textured glacial till is composed of poorly sandy clay and boulder till of low permeability, generally a thin veneer over bedrock. This deposit is found in an eastern portion of the township. These deposits will not yield supplies of water adequate for most uses. Many wells in these areas fail because of the impermeable drift or bedrock at a shallow depth.

Glacial outwash sand and gravel and postglacial alluvium is found in the northeast section of the township. Outwash deposits areas of stratified sand and gravel, which are left over from the glacial meltwater streams. This type of deposit contains little or no clay or silt which makes it most permeable of the glacial drift deposits in the township.

4.5 Soils

Soil formation occurs through the interaction of a number of factors. Physical, chemical and mineralogical composition of the parent material together with climate plant and animal life on and in the soil are major factors. Other factors include time and relief, or the lay of the land.

Results of an exhaustive soil survey of Alger County were published in May 2003 as an interim report by the U.S. Department of Agriculture, Natural Resources Conservation Service. An official Alger County Soil Survey will replace the interim report when published. This updates the county survey of 1929 and that of the Hiawatha National Forest which was published in 1977. Map 4-3 depicts the four soil associations found within Onota Township.

Soils types of the Sauxhead-Burt-Munising Association are most common in the Township along with the Munising-Abbaye-Deerton Association, Deer Park Association and the Chatham-Chippeny-Ruse Association. The first two are found on bedrock controlled moraines, while Deer Park is found on beach ridges and dunes and Chatham-Chippeny-Ruse is found on glacial drainage channels. The Sauxhead-Burt-Munising Association is found in areas with a slope range of 0 to 12 percent. The Munising-Abbaye-Deerton Association is found in areas with a slope range of 1 to 60 percent. The Deer Park Association is found in areas with a slope range of 0- 60 percent. The Chatham-Chippeny-Ruse Association is found in areas with a slope range of 0-15 percent.

Soil Name	Properties and Qualities
Sauxhead	Depth Class: Shallow Drainage Class: Moderately well drained Parent material: Sandy and channery glaciofluvial deposits Surface textural Class: Sandy loam Slope: Nearly level to moderately sloping
Burt	Depth Class: Shallow Drainage Class: Poorly drained Parent material: Sandy glaciofluvial deposits Surface textural Class: Muck Slope: Nearly level
Munising	Depth Class: Very deep Drainage Class: Moderately well drained Parent Material: Loamy till Surface Textural Class: Fine sandy loam Slope: Gently undulating

The “**Sauxhead-Burt-Munising Association**” is characterized in the Interim Report as “shallow to very deep, nearly level to moderately sloping, moderately well drained and poorly drained sandy loamy soils on bedrock controlled moraines.” Within the soil association are found Sauxhead and similar soils (25 percent), Burt and similar soils (25 percent), Munising and similar soils (20 percent) and minor soils (30 percent). The minor soils are Frohling soils found on very hilly to steep areas and Carbondale, Cathro, Ensley, and Skanee soils found in depressions and drainage ways. The soil properties of the individual soils within the association are described in Table 4-1.

Source: Interim Report, Soil Survey of Alger County Michigan, USDA, Natural Resource Conservation Service, May 2003.

The “**Munising-Abbaye-Deerton Association**” is characterized as “very deep to moderately deep, nearly level to very hilly, moderately well drained to well drained, loamy and sandy soils on bedrock controlled moraines.” Within the association are found Munising and similar soils (40 percent), Abbaye and similar soils (20 percent, Deerton and similar soils (15 percent) and minor soils (25 percent. The minor soils are Shingleton, Tokiahok, and Waiska soils found on nearly level to very hilly areas and Carbondale, Gay, Gongeau ,Jacobsville, Jeske, and Skanee soils found in depressions and drainage ways. The soil properties of the individual soils within the association are described in Table 4-2.

Table 4-2 Soil Properties and Qualities of the Munising-Abbaye-Deerton Association	
Soil Name	Properties and Qualities
Munising	Depth Class: Very deep Drainage Class: Moderately well drained Parent Material: Loamy till deposits Surface Textural Class: Fine sandy loam Slope: Nearly level to moderately sloping
Abbaye	Depth Class: Moderately deep Drainage Class: Excessively drained Parent Material: Loamy till Surface Textural Class: Fine sandy loam Slope: Gently undulating
Deerton	Depth Class: Moderately deep Drainage Class: Excessively drained Parent Material: Sandy outwash Surface Textural Class: Sand Slope: Gently undulating to very hilly

Source: Interim Report, Soil Survey of Alger County Michigan, USDA, Natural Resource Conservation Service, May 2003.

Table 4-3 Soil Properties and Qualities of the Deer Park Association	
Soil Name	Properties and Qualities
Deer Park	Depth Class: Very deep Drainage Class: Excessively drained Parent Material: Sandy beach and dune deposits Surface Textural Class: Sandy Slope: Nearly level to very steep

The “**Deer Park Association**” is characterized in the Interim Report as “very deep, nearly level to very steep, excessively drained sandy soils.” The Association is composed of Deer Park and similar soils (85 percent) and minor soils (15 percent). The minor soils are Crosswell soils found on nearly level

Source: Interim Report, Soil Survey of Alger County Michigan, USDA, Natural Resource Conservation Service, May 2003.

to gently undulating areas and Dawson and Tawas soils found in depressions. The soil properties of the individual soils within the association are described in Table 4-3.

The “Chatham-Chippeny-Ruse Association” is characterized in the Interim Report as “very deep, moderately deep and shallow, nearly level to gently sloping, well drained, very poorly drained loamy and mucky soils.” This Association is composed of Chatham and similar soils (40 percent), Chippeny and similar soils (18 percent), and Ruse and similar soils (15 percent and minor soils (27 percent. The minor soils are Carbondale, Nahma and Ensley soils and Ensign, Reade, Shoepac and Trenary. The soil properties of the individual soils within the association are described in Table 4-4.

Source: Interim Report, Soil Survey of Alger County Michigan, USDA, Natural Resource Conservation Service, May 2003.

Table 4-4 Soil Properties and Qualities of the Chatham-Chippeny-Ruse Association	
Soil Name	Properties and Qualities
Chatham	Depth Class: Very deep Drainage Class: Well drained Parent Material: Loamy glaciofluvial deposits Surface Textural Class: Gravelly fine sandy loam Slope: Nearly level to rolling
Chippeny	Depth Class: Moderately deep to bedrock Drainage Class: Very poorly drained Parent Material: Organic material over loamy deposits Surface Textural Class: Muck Slope: Nearly level
Ruse	Depth Class: Shallow to bedrock Drainage Class: Poorly drained Parent Material: Loamy till over bedrock Surface Textural Class: Mucky loam Slope: Nearly level

Soil conditions throughout the Township are poorly rated for septic tank absorption fields because of wetness and/or depth to bedrock. Because of the limitation soils place on septic systems most drain fields in the township utilize the mound system. In some instances a mound system may occupy at least half an acre. Mound systems are used frequently for properties along the lakeshore, depending on the elevation; inland systems vary. At one time, the Deerton School was on a pump and haul system for their sewage. A mound system was constructed in November 2000. There are areas along the lakeshore where the water must be treated, particularly along Shelter Bay.

4.6 Topography

The unique character of an area is derived from the physical features of its landscape. Topography describes this character in terms of elevation above mean sea level. Watersheds and areas where grades are not conducive to development, or should be avoided altogether, are revealed.

Steep topography, or slopes of 10 percent or greater (a rise in gradient of more than 10 feet in a horizontal distance of 100 feet), can be visually attractive locations for residential and commercial development. However, steep grades increase the likelihood of soil movement or slides. In addition, the weight of structures is an added force that encourages this movement. An increase in development expense is realized in excavation and site stabilization work such as retaining walls. Erosion is much more of a concern on steep grades. Natural water courses provide the pathway for water runoff and should be preserved.

Elevations range from 600 feet above mean sea level along the Lake Superior shoreline to 1,082 feet in parts of sections 4, 5, 7 and 8 in the southwest corner of the Township. Map 4-4 shows the high and low elevation locations, as well contour lines of the township’s topography.

4.7 Mineral Resources

There are three active sand and gravel pits located in the Township. There are several inactive pits that may be used occasionally in the Township.

4.8 Water Features

Lakes, streams, and rivers have very important functions as natural resources. Seventy percent of the earth’s surface is water. Surface water is a major source of drinking water in the state. According to the Michigan Department of Environmental Quality, surface water is the drinking water source for about half of all state residents.



Lake Superior

Lake Superior is the dominant water feature in the Township with approximately 21 miles of shoreline forming its mainland northern border. It is the largest of the Great Lakes with a surface area of 31,700 square miles. The Lake Superior drainage basin encompasses 49,300 square miles in Michigan, Wisconsin, Minnesota and Ontario, Canada. Privately-owned Au Train Island lies about one mile offshore and has an area of some 106 acres.

Deer Lake is the largest inland water body in the Township. It includes a surface area of 266 acres and reaches depths of 90 feet. Sand, Howes, Laughing Whitefish, Silver and Gimpole are other sizeable inland lakes. The Laughing Whitefish and Rock Rivers and their tributaries are the Township’s largest river systems. The lakes are identified on Map 4-5.

All of Onota Township is within the Betsy-Chocolay watershed which drains to Lake Superior. This is a major watershed that extends as far east as Luce County and west into Marquette County. A portion of seven identified sub-watersheds function within the Township. Watersheds, or basins, collect and drain water to a common point within a topographically defined area. Map 4-5 depicts the watershed boundaries within Onota Township.



Deer Lake

Three low hazard dams are found in the Township. Low hazard dams must be inspected every 5 years and are regulated by the Michigan Department of Environmental Quality. Names and locations are provided in Table 4-5.

Name	River	Township and Range	Section
Rock River Beach Dam	Rock River	47N - 21W	15, SE Quarter
Browns Dam	Rock River	47N - 21W	22
Reynolds Dam	Laughing Whitefish	47N - 22W	34

Source: Michigan Department of Environmental Quality.

4.9 Wetlands, Floodplains, and Areas of Special Concern

There are about 6,800 acres of wetlands in the Township according to data from the Michigan Resource Information System (MiRIS). Wetlands cover about 12 percent of the Township’s land area. Map 4-6 depicts wetland areas according to the federal Natural Wetland Inventory.

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. Any development occurring in wetland areas is subject to the regulatory authority of the Michigan Department of Environmental Quality.

The Federal Emergency Management Agency (FEMA) determines flood hazard areas in consonance with administration of the National Flood Insurance Program. The 100-year floodplain, or Base Flood Elevation (BFE) as it is now known, is a national standard used to describe “special flood hazard areas” that are depicted on Flood Insurance Rate Maps (FIRMS). The Township was participating in the National Flood Insurance Program until December 4, 2000. A new flood insurance rate map (FIRM) was prepared November 20, 2000 identifying Special Flood Hazard Areas. Since the Township Board did not adopt the new map by either through an ordinance or resolution, FEMA has suspended Onota Township from the program effective December 4, 2000; the Township is now a non-participating community. Flood insurance policies cannot be written or renewed. Policies in force at the time of suspension continued in force for the policy term.

To safeguard development in High Risk Erosion Areas, regulations establish required setback distances from the shoreline to prevent structures from being sited too close to eroding shorelines. Under the state’s Natural Resources and Environmental Protection Act, regulations are established for construction within designated areas. A permit is required for new construction, additions-including second floor additions; substantial improvements of existing structures even if there will be no expansion of the structure and the installation of a septic. The high risk erosion areas have been designated by the Michigan Department of Environmental Quality where active erosion has been occurring at a long-term average rate of one foot or more per year. The erosion is the result of a number of factors, including high

water levels, storms, wind, groundwater seepage or surface runoff. A High Risk Erosion Area has been identified at a single parcel along Shelter Bay (property number 02-07-066-035-00) and is subject to special setback requirements to protect new structures from erosion for a period of 30 to 60 years. The 60-year projected recession distance is 145 and the 30-year projected recession distance is 70 feet. The required distance depends on the type of construction activity. This parcel is identified on Map 4-7.

At the mouth of the Laughing Whitefish River is an area designated as a Coastal Barrier; a portion of the lands designated are owned by the Michigan Nature Association. The area is shown on Map 4-7. Originally the federal Coastal Barrier Resource Act of 1982 was to protect undeveloped coastal barrier islands. In 1990 the definition of a coastal barrier was expanded to include areas along the Great Lakes. An area designated as a Coastal Barrier restricts the use of federal expenditures and financial assistance, including Federal flood insurance and federal expenditures that would encourage development. Examples of prohibited federal expenditures include disaster relief, community development block grants, and flood control, construction of new federal highways, construction of new infrastructure and beach nourishment projects. The coastal barrier legislation is not intended to prevent or regulate development in these areas, but only directs that federal dollars not be spent for development purposes.



Laughing Whitefish River

4.10 Climate

Weather reporting stations in Munising and Chatham provide temperature and precipitation information. January is the coldest month, July the warmest. On average, September is the wettest month (approximately 4 inches). Average annual snowfall is about 150 inches with most coming in the December-February period. Afternoon thunderstorms are common during summer months. Although tornado activity has been recorded, it is rare since the Township lies north of the Midwest tornado belt. Wind speeds greater than 50 miles per hour have been recorded in every year since 1997. A thunderstorm with wind speeds up to 72 knots was recorded in Township on August 16, 1988.

4.11 Fish and Wildlife

The area supports a wide variety of wildlife, including game animals such as whitetail deer, black bear, ruffed grouse, beaver, muskrat, squirrels, snowshoe hare and rabbits. Non game species found within the Township include raccoon, pine marten, pileated woodpecker, mink, red squirrel, fox, mink, coyote, cougar, and moose. Game fish found within the Township include rainbow trout, lake trout, brown trout, brook trout, Coho salmon, and northern pike. Lake trout and whitefish are fished commercially and two charter fishing operations are based in Onota Township.

Within the Michigan Nature Association’s Hanford Memorial Nature Sanctuary near Laughing Whitefish Point, 75 plant species can be found including showy mountain ash, sweet gale, creeping snowberry, plantain orchids and the common swamp rose.

4.12 Scenic Areas

Forests, hills, rivers and water bodies provide abundant scenic sites within the Township and nearby. Alger County is home to 17 waterfalls, 4 lighthouses, 266 lakes, rivers and streams of about 600 miles in combined length, 85 miles of Lake Superior shoreline, the Pictured Rocks National Lakeshore, and the Hiawatha National Forest. Scenic areas within Onota Township are identified in Table 4-6.



Pictured Rocks National Lakeshore



Hiawatha National Forest

Table 4-6 Scenic Areas	
Name	Comments and Location
Sand River	No public access, mouth of the Sand River T47N, R22 W, Section 6
Laughing Whitefish River boat access	Public access site at mouth of the Laughing Whitefish River T48N, R22 W, Section 26
Deer Lake	Inland lake, roadside park T47N, R21 W, Section 17 & 18, maintained by MDOT
Shelter Bay	Bay along Lake Superior, no public access
M-28 Lake Superior Scenic Turn-Out (Scenic Area)	There are two Lake Superior public access sites off of M-28 with no facilities or services; maintained by MDOT
Lake Superior	21 miles of Lake Superior shoreline in the Township
Silver Falls	Falls located within the Hiawatha National Forest on Nelson (Hanson) Creek, T47N, R21W, Section 20
Laughing Whitefish Lake	Area owned by The Nature Conservancy
Rock River Falls	Falls located within the Rock River Canyon Wilderness Area T46N, R21W, Section 6
Rock River Canyon Wilderness Area	A natural area within the Hiawatha National Forest
Laughing Whitefish Falls Scenic Park	A portion of the park is located within Onota Township (440 acres), the falls are located in Rock River Township, T46N, R22W, Section 9 & 10.
Harry and Hattie Hanford Memorial Nature Sanctuary	45.78 acre parcel along the Lake Superior shoreline (1,270 feet) owned by the Michigan Nature Association

Located in the Hiawatha National Forest in Michigan, the Rock River Canyon Wilderness area is bounded on the east and north by Forest Roads 2279, 2276 and 2293. The south and east sides follow section lines. Rock River Canyon Wilderness is administered as a part of the Munising Ranger District of the Hiawatha National Forest. Old Road 5 provides trail access into the area, although no trail system has been marked. Due to its botanical features, the area has been proposed for Candidate Research Natural Area status.

Northern hardwoods cover the majority of the area. Swamp conifers and hardwoods are found along the streams and wetlands. Two canyons, Rock River and Silver Creek, lie within the area. Each canyon is about 150 feet deep. They are separated by a broad, flat ridge and are surrounded by relatively flat uplands. Elevations within the wilderness range between 680 and 1,000 feet above mean sea level.

The canyon area itself has been relatively undisturbed by humans. Little evidence of prior human activity can be found, except for an occasional old skid road or decaying stump. Dense undergrowth and brush covers most of the land. High ground around the canyons is covered by northern hardwoods and is easily traveled.

At the edge of the canyons are sandstone outcrops which water and weather have transformed into caves 10 to 40 feet deep. During winter, ice curtains are formed by water seeping over the canyon. Rock River Falls is a notable feature in the springtime when its waters cascade over a sandstone ledge into a pool 15 feet below.

Canyon slopes border Gimpole Lake on two sides. This shallow, secluded, 13-acre lake reflects the canyon slopes. The Rock River flows in and out of Gimpole Lake.

4.13 Issues and Opportunities

- Geologic conditions adversely affect both the quantity and quality of potable groundwater throughout the Township. In some cases, it is necessary to transport water from distant sources to meet demand. Private water treatment systems are commonly used. Well depths generally range from 50 to 100 feet; drilling deeper has not been an effective means of increasing supply or quality.
- Major field work for a county-wide soil survey was completed in 2002 and an interim report published in May 2003. Soil characteristics and capacities are important land use factors. Soil wetness and shallow depth to bedrock is characteristic throughout the Township and are poorly suited for septic absorption systems.
- The steepest area of the Township lies in the southwestern corner where the elevation reaches over 1,000 feet.
- The entire Township is within the Betsy-Chocolay watershed which drains to Lake Superior.
- There are three small, low hazard dams within the Township, subject to Michigan Department of Environmental Quality regulation.
- Wetlands cover about 12 percent of the Township's land area.
- Onota is a non-participating community with the National Flood Insurance Program. FEMA has suspended the Township because of the lack of the Township in adopting the FEMA prepared flood plain map. A map was prepared which identified special flood hazards exist within the Township.
- A parcel along Shelter Bay is subject to special setback requirements as an at-risk erosion area.
- At the mouth of the Laughing Whitefish River is an area designated as a coastal barrier. By law, federal funds cannot be expended within this area; thus flood insurance is not available to any homeowners, nor can any type of federal flood control measures be built.
- Numerous scenic areas abound in and around the Township.

CHAPTER 5.0 LAND USE

5.1 Introduction

An evaluation of land use is critical to community planning. Planning for future use of land, when done in an objective and thoughtful manner, can help communities balance the competing forces of preservation and development. Resource preservation and environmental protection issues are integral to the deliberative process.

5.2 Land Use Patterns

Current and past land use practices should be recognized and understood as decisions about future land use are considered. Further, it is important to determine any underlying factors that may affect land use decisions. Economic considerations are nearly always foremost among the factors that affect how land is used.

5.3 Land Use Factors

Organizational or individual self interests generally drive land use decision making. As such, land use decisions are commonly made without regard for what the impact may be on surrounding properties, roads, utilities, police and fire protection, etc. Such occurrences can have deep and lasting implications to a community.

Location is among the primary interests of businesses and home buyers. Land speculators gauge the market in anticipation of realizing a profit, while developers consider the supply and demand for housing, goods and services, industrial needs, or other factors.

Federal grant and loan programs place planning requirements on recipient communities. Funding assistance for community facilities, water and wastewater systems, housing, and economic development and planning efforts, for example, all stipulate that environmental issues be addressed.

The state of Michigan regulates land use and the development of wetlands, flood plains, coastal areas and other areas of environment concern. Regulation in these areas can directly affect local land use. State statutes permit local governmental units to implement planning and zoning measures to insure that local needs and priorities guide land use decision-making.

Other factors such as transportation, taxation, land values, natural features, changing technology, and natural and man-made hazards affect land use decisions. Lifestyles, family size, age, market factors, shopping preferences, special service needs, and overall economic conditions all factor into the decision-making framework.

The expansive network of roads and sufficient availability of fuel at prices consumers are willing to pay have enabled people to live substantial distances from their places of work. Commutes in excess of one-half hour are commonplace. Moreover, this is a growing lifestyle choice.

Land values in rural areas are usually lower than more populated areas. Generally, lower taxes are reflected in lower land values creating an attraction for families and businesses who are considering relocation. When considered with quality-of-life issues, families may elect to forego municipal services, cultural amenities, and short commuting times for lower taxes with “country living” where more open space exists, the pace of life less frenetic, and fear of criminal activity diminished. Adjusting to a living environment in which services are fewer, are likely more distant, and perhaps more expensive may be difficult for persons accustomed to living in an urbanized area. Technology permits telecommuting and other work arrangements that further mitigate the inconveniences associated with rural living.

Lifestyles are important to consider in assessing land use patterns. Families are smaller, mobility has never been greater, and the population is getting older. Housing preferences have shifted to larger homes on larger land parcels. And, workers do not seem hesitant to commute long distances.

5.4 Land Ownership

About 27 percent of Onota Township’s land area is publicly-owned, mostly within the Hiawatha National Forest (Map 5-1). Most of the state-owned land is part of the Escanaba River State Forest. Private landholdings enrolled in the Commercial Forest Act take in about 30 percent of the entire Township land area. Land meeting the CFA designation requirements must be devoted to commercial forest management, consist of at least 40 contiguous acres, be open to the public for hunting and fishing, and be guided by a professionally prepared management plan.

In July 2002, Heartwood Forestland Fund, a timber investment management organization based in North Carolina, acquired all Kamehameha (Bishop Trust) lands in the Upper Peninsula. The acquisition involved a total of 390,000 acres in ten U.P. counties and about 16,700 acres in Onota Township.

5.5 Current Land Use Inventory

A state-wide land cover/use inventory was completed in 1989. Land cover was determined by reviewing aerial photos with some ground verification. The project utilized 1978 photos and has not been updated since. Aerial photos are now available for most areas of the Upper Peninsula. The photos are actually digital orthophotos (computer-rectified aerial photos that provide ground features in the true map position), and are at once pictures and scalable maps. The existing inventory will be discussed in this section.

Land cover/use patterns are described in seven broad categories, each containing subcategories for more precise classification. The aerial photos were sufficiently detailed to identify the existing use of every 2.5 to 5.0 acres of land. The seven categories and results of the original inventory project are discussed in the succeeding paragraphs and in Table 5-1 and depicted on Map 5-2.

Table 5-1
Land Cover/Use Inventory, Onota Township
 Source: Michigan DNR, Division of Land Resource Programs, 1989

Category	Acreage	Percentage of Total
Urban and Built Up	365.7	0.6
Residential	303.7	
Extractive	62.0	
Agricultural	50.3	-
Nonforested	303.5	0.5
Herbaceous openland	136.3	
Shrubland	167.2	
Forest	48,572.8	85.6
Northern hardwood	38,763.6	
Aspen, white birch and associated species	2,622.4	
Pine	6,994.0	
Other upland conifers	181.8	
Water Bodies	625.3	1.1
Wetlands	6,790.6	12.0
Wooded lowlands	5,157.3	
Shrub/scrub	1,441.7	
Aquatic bed	43.3	
Emergent	148.3	
Barren	11.5	-
TOTAL	56,719.7	100.0

Urban and Built Up Land

Land areas used intensively and largely covered by structures are classified as urban and built up. This classification includes 365.7, or about 0.6 percent of the Township’s land area. It is intensive land uses that have the greatest potential to influence the environment adversely. Most of the area within this category is found along or near M-28.

Agricultural Land

This classification includes pastures, croplands, etc. and applies to less than 0.1 percent of the total Township land area. Broadly defined, agricultural land is used for production of food and fiber.

Nonforested Land

These areas are recognized as supporting early stages of plant succession consisting of plant communities characterized by grasses and shrubs. About 0.5 percent of the land area meets this classification.

Forest Land

Forest cover was identified over 85.6 percent of the land area. Subcategories differentiate between forest types. Northern hardwoods (sugar and red maple, elm, beech, yellow birch, cherry, basswood, and white ash) are the most common.

Water Bodies

Area streams and lakes cover just over one percent of the land area. Township water bodies are discussed specifically in Chapter 4, Section 4.8

Wetlands

Defined as areas between terrestrial and aquatic systems where the water is at, near, or above the land surface for a significant part of most years, wetlands comprise 12 percent of the land area. Lowland forests are included in the wetland classification. Wetlands are discussed in Chapter 4, Section 4.4.

Barren Land

Rock outcrops, beaches and dunes are included in this classification.

5.6 Residential Land Use



A total of 173 occupied housing units were recorded in the 2010 Census (146 in 2000, and 95 in 1990) in Onota Township. Residential land use is found in the unincorporated communities of Deerton and Onota and along Lake Superior shoreline at Shelter Bay, Laughing Whitefish Subdivision, Deer Lake, Sand River, Shore Drive and AuTrain Bay.

5.7 Commercial Land Use

There are limited commercial establishments within Onota Township, such as the Pinewood Bed and Breakfast, Brownstone Restaurant, Seacoast Motel, Rock River Beach Cottages, Kimar’s Resort and Charters, Marine Sales and Excavating, Forest Products Land Company, Mike’s PC Repair, Shelter Bay Charters and General Repair, several gravel pits, Whitefish Lodge, logging operation, junkyards, Post Office and several rental cabins.

5.8 Industrial Land Use

Though no lands were identified with industrial activity in the 1997 Current Use Inventory, there are a number of small industrial uses within the township. Industrial uses in the township include several sand and gravel pits.

5.9 Agricultural Land Use

For the most part, agricultural lands are being used for growing of hay or for pasturing of horses. There are no large agricultural operations within the township.

5.10 Public and Quasi-Public Land Use

About 27 percent of the township is in public ownership. State and federal lands are open to public use and are not available for residential, commercial, or industrial development. About 1,549 acres are owned by the Michigan Department of Natural Resources, of which 1,024 are within the boundaries of the Escanaba River State Forest and 440 acres within the Laughing Whitefish Falls Scenic Park. The Hiawatha Natural Resources is a large public land owner with 14,846 acres. The Township owns a 10 acre parcel on Deerton Road, in addition to the Deerton Cemetery and the parcel where the township hall and fire hall are located.

Privately owned lands currently in Commercial Forest Reserve totals about 18,809 acres. Under state law, the lands are available for public use for hunting and fishing on foot only.

Other privately owned lands include those of The Nature Conservancy with approximately 1,400 acres surrounding and adjacent to Laughing Whitefish Lake and the Michigan Nature Association, a non-profit conservation organization, with about 46 acres near the mouth of the Laughing Whitefish River on Lake Superior. Michigan State University owns 440 acres for hardwood research.

5.11 Contaminated Areas

The Michigan Department of Environmental Quality maintains a listing of sites where contamination has been identified. As defined by the MDEQ, 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 harmful to the environment, or to the public health, safety, or welfare. No sites are identified in Onota Township.

Concern about leaking underground storage tanks has resulted in the imposition of more stringent requirements. Many fuel tanks that complied with guidelines in force at the time of installation have deteriorated allowing fuel to enter the surrounding soil. Remedial action has been completed at the now-closed Laughing Whitefish Trading Post site where petroleum products were once sold. The four underground tanks have been removed. The site remains listed as “open”; to remove the site from the list, a qualified underground storage tank consultant must certify and submit a closure report as described in Part 213 with information that documents that the release has been adequately investigated and that contamination does not exceed residential criteria as developed under Part 201 Environmental Remediation.

5.12 Hazards

Disasters cause an estimated \$50 billion in damage in the United States annually. This estimate includes only direct costs; long-term economic and social costs would boost the estimate considerably.

Natural and man-made hazards exist in all communities and the loss of life and property resulting from a single disaster can be devastating. Largely, disasters are a developmental issue. In recognition of this, federal and state emergency management agencies are encouraging communities to develop proactive measures that will eliminate or reduce their vulnerability to known natural and man-made hazards. The goal is to make communities more disaster resistant. This is hazard mitigation planning, an essential element of emergency management along with preparedness, response, and recovery.

Natural hazards include wildfires, floods, tornadoes, droughts, earthquakes, and severe storms of any season. Man-made hazards include structural fires, dam failures, hazardous materials incidents (fixed site or transportation related), infrastructure failure (water distribution, electrical and communication systems, etc.), oil and gas pipeline accidents, and transportation accidents. Civil disturbances including acts of war and terrorism should also be included.

There is always a possibility of accidents along transportation routes. Hazardous materials pass through the Township with regularity and pose a hazard due to the potential of release of spillage. This is a hazard that exists in all communities to some degree.

Alger County has developed a hazard mitigation plan; the plan is in the process of being updated. The current plan has identified seven high hazard risks: ice & sleet storms,

temperature extremes, snowstorms, infrastructure failures, drought, severe wind, and structural fires. The plan assesses risks and details mitigation strategies.

5.13 Land Use Trends

Throughout rural America open lands are being converted to more intensive uses. As discussed earlier in this chapter, the allure of rural living with its safe, spacious, affordable and quiet settings is increasingly popular. For working families, realizing this lifestyle goal is contingent upon the time and cost factors associated with necessary work commuting.

The demand for recreational properties has been strong and growing and has influenced property values. Boating, fishing, hunting, hiking, and snowmobiling are among the many recreational outlets that draw people to the area.

5.14 Issues and Opportunities

- Current consumer preferences for spacious residential land parcels and recreational acreage will likely continue with a corresponding increase in market values. Lengthy workplace commuting times are acceptable in today's lifestyles.
- Specially designated lands such as wetland areas are strictly regulated by the state of Michigan. The appropriate regulatory authority must grant approval before these areas can be legally disturbed and/or developed.
- Communities are being encouraged to identify natural and man-made hazards and implement measures that can help avoid or reduce the impact of disasters. To a large extent, disasters are a developmental issue.

CHAPTER 6.0 COMMUNITY FACILITIES AND SERVICES

6.1 Introduction

Facilities and services provided by and for residents are discussed in this chapter. These include those of community organizations and governmental agencies. The facilities located within Onota Township are shown on Map 6-1.

6.2 Township Hall

The Onota Township Town Hall (E 1461 Deerton-Sand Lake Road) was constructed in 1919 at a



Onota Township Hall

cost of \$2,150. The original structure has a large meeting room with a small office. A 30' by 26' addition was constructed in 1979. The addition has kitchen facilities, two restrooms, and a large meeting/work table. In the summer of 2011 the front entrance was remodeled and a new handicapped-accessible ramp was installed to access the side entrance of the hall. The township hall is available for use by township residents; there is no charge but the user is responsible for clean-up.

The township hall serves as the polling place for elections. There is one precinct for the entire township. Meetings held at the township hall include the Township Board, Planning Commission and Zoning Board of Appeals.

6.3 Fire Hall and Fire Protection

The Onota Township Volunteer Fire Department was organized in 1980 with 17 members; the current membership is eight trained and state certified volunteer firefighters. The township's goal is to have a total of 12 trained firefighters for the department. Currently, one firefighter is an EMT and one additional firefighter may receive the necessary training to become an EMT. The fire hall (E 1455 Deerton-Sand Lake Road) was constructed with 1980 with two more additions added in 1989 and 2001. The additions provided space for the new fire truck. The fire department provides annual chimney cleaning services for Township residents upon request.

A levy of 1.4871 mils (2011 millage rate) supports the operation of the township fire department.

Township-owned fire fighting equipment includes:

- MDNR 4WD Rescue truck for emergency services
- 1995 Kodiak 2000 gallon tanker
- 2001 Pierce pumper
- Generator to support building

There are two dry hydrants in the township, with another planned to be constructed:

- A dry hydrant is located on the Laughing Whitefish River at the Deerton-Sand Lake Road Bridge, near the township hall/fire department. The dry hydrant was repaired during repair work to the bridge.
- A dry hydrant is located at Kimar's Resort on M-28 near Deer Lake. The dry hydrant is on the stream flowing from Deer Lake into Lake Superior.

Mutual aid agreements are in force with the local Alger County fire departments, Chocolay Township and the Michigan Department of Natural Resources.

The fire department has improved the existing communication system with new radios. Grant funding may be pursued for additional equipment needs. There are no major future plans for the fire department identified in the capital improvement schedule.



Onota Township Fire Hall

Insurance ratings are determined by the Insurance Service Office Commercial Risk, Inc., using the Grading Schedule of Municipal Fire Protection.

Grading obtained under the schedule is used throughout the United States in establishing base rates for fire insurance. While ISO does not presume to dictate a community's level of fire protection, its findings are the recognized norm for assessing fire protection adequacy. Factors such as equipment, alarm systems, water supply, fire prevention programs, building construction and distance of potential hazard areas are considered in establishing a rating.

Those areas within five road miles of the Township fire department are given a Class 9 rating. Class 10 applies to properties located more than five road miles from the responding fire department. The rating schedule ranges from the greatest level of protection designated as Class 1 to the least protection, Class 10. Onota Township and the surrounding townships of Au Train and Chocolay have ratings of 9 and Rock River has a rating of 8a, for those properties located within five miles of a responding fire department.

6.4 Cemetery



The Deerton Cemetery, established in 1903, is located 0.9 mile south of M-28 on the west side of Deerton Road. The township clerk is responsible for the selling of the gravesites. A township employee (a part-time sexton) is responsible for the opening and closing of the graves. With most of the available gravesites in the 2 acre cemetery sold, the Township Board is in the process of purchasing additional land for cemetery expansion adjacent to the existing cemetery. There are two storage buildings located on the cemetery grounds and a decorative gate was added. The Township is in the process of adopting an ordinance providing regulations for the cemetery.

6.5 Township Administration

Onota Township was created in 1871 at Onota (Bay Furnace) as one of three townships composing Schoolcraft County. Onota (Bay Furnace) was the county seat of new county. The township was originally made up of portions of now Munising, Grand Island, Rock River, Mathias and Limestone Townships. Over the years, portions of the township formed other townships in Alger County. The present boundaries of the township were determined in 1905.

The boards and commissions that serve the community are detailed in Table 6-1.

Table 6-1 Boards, Commissions and Committees, Onota Township					
Name	Method of Selection	Number of Members	Term Length	Special Requirements	Function
Township Board	Elected	5	4 years	US citizen at least 18 years of age, resident of township	Policy-making
Board of Review	Appointed	3	2 years	US citizen at least 18 years of age, resident of township	Reviews and corrects tax roll; hears appeals regarding assessments
Planning Commission	Appointed	7	3 years	Resident of the township	Planning, advise Township Board on development matters, administers zoning ordinance

Table 6-1 Boards, Commissions and Committees, Onota Township					
Zoning Board of Appeals	Appointed	3	staggered	Resident of the township	Grants variances from the zoning ordinance and hears appeals concerning the zoning ordinance
AuTrain-Onota School District Board of Education	Elected	5	3	US citizen, registered voter, at least 18 years of age, resident of school district	Policy-making

6.6 Law Enforcement

The Michigan State Police and the Alger County Sheriff’s Department provide protection to township residents. In 2011, the Michigan State Police announced the adoption of a regional policing model designed to provide increased services while relying less upon traditional "bricks and mortar" post buildings. The plan emphasizes enhanced technology and data-driven policing without any trooper layoffs. The plan will close twenty-one posts across the state as part of a plan designed to save \$21 million. The changes take effect with the start of Michigan’s budget year in October 2011. The Munising post is slated for closure. Additional closures include posts in Detroit as well as Adrian, Bad Axe, Battle Creek, Bridgeport, Bridgman, Cheboygan, Corunna, Gladwin, Groveland Township in Oakland County, Hastings, Iron River, Ithaca, L’Anse, Manistee, Newaygo, Richmond, Stephenson, Traverse City and Ypsilanti.

The Sheriff’s Department operates a 25 bed jail on Park Avenue in the city of Munising. The facility includes four-4 man cells, two receiving cells, one detox cell and a 10 bed dormitory-type beds for trustees. The Sheriff’s Department has two road patrol officers.

6.7 Emergency Medical Services

Emergency medical services are provided primarily through the Alger County Ambulance Service, a part of the Alger County Sheriff’s Department. One mil is levied in the County to support the operations of the department, with renewal in 2013. The county maintains four ambulances, two advanced life support transporting ambulances and one basic life support transporting ambulance based at the Sheriff’s Department in Munising and one basic life support transporting ambulance based in Grand Marais. The Munising based ambulances are auspices of the Alger County medical Control Authority at Munising Memorial Hospital. The ambulances provide basic and emergency medical services are staffed with EMT personnel. There are fourteen advanced life support paramedics stationed in Munising, augmenting the efforts of eleven emergency medical technicians (EMT’s) trained in basic life support. There are eleven EMT’s and three medical fire responders stationed in Grand Marais.

Mathias Township has one basic life support, non-transporting unit maintained by two EMT's and one medical first responder. Rock River Township also has one basic life support, non-transporting unit maintained by three EMT's and two medical first responders.

Depending on the nature of the call and who may call for service, advanced life support from Marquette General Hospital may respond.

6.8 Building Permits

Building permits are issued by the Alger County Building Department.

6.9 Soil Erosion and Sedimentation Permits

Soil Erosion and Sedimentation permits are issued by the Alger County Building Department.

6.10 Well and Septic System Permits

Well and septic system permits are issued by the Luce-Mackinac-Alger-Schoolcraft District Health Department, Environmental Health Services.

6.11 Zoning Administration

A township board appointed zoning administrator is responsible for the issuance of zoning compliance permits and other administrative duties regarding the zoning ordinance.

6.12 Property Assessment

Property assessments are completed by the Township Assessor.

6.13 Education

AuTrain-Onota Public Schools

The Au Train-Onota Public School is located at N8790 Deerton Road in Deerton and serves students from Au Train and Onota Townships, as well as school-of choice students from nearby communities. The school offers Kindergarten through 8th Grade classes and preschool classes for three and four year old children. The School Board voted to add 7th and 8th grade classes in 2009; there are approximately 51 students that attend the school at this time. Kindergarten



Au Train-Onota Public School

classes meet three full days per week. Preschool children attend three afternoon sessions per week. All students attending Au Train-Onota School receive instruction in music, art and physical education each week. Students from the district continue their educations at Munising Public Schools, Superior Central Schools or Marquette Public Schools.

The Au Train-Onota Public Schools building in Deerton was built in 1926. The current structure has been renovated at different times; an addition was constructed in 1989, with the most recent renovations taking place during the summer of 2008. All windows were replaced and new driveway blacktop was installed. The school houses an Administration office, Staff and Board of Education room, supply and storage rooms, art classroom and a preschool-kindergarten class on the lower level of the building. There are three classrooms and a library on the upper level. Student restrooms, the kitchen, gym-lunchroom and learning disabilities classes are located in the newer section of the building. Building renovations and maintenance continue to be on-going. The Diane Kordich Children's Library became fully automated for the start of the 2008-09 school year.

Upon graduation, students have the option of attending schools at Marquette, Superior Central or Munising school districts. One of the factors in the selection of the school is the location of the student. Many students in the Sand River and Deerton area may chose Marquette since it closer than Munising or Eben Junction. The AuTrain-Onota School District provides transportation service to those attending either Munising or Superior Central schools; the AuTrain-Onota school bus will drop-off and pick-up students at a transfer location.

Alger-Marquette Regional Educational Service Agency

Technical education, early childhood education, special education, and general services are provided by the Alger-Marquette Regional Educational Service Agency. Administrative offices and instructional facilities are located in the city of Marquette. The RESA is a consortium of the 13 public schools in the two-county area. Beyond direct and support services to students, the RESA offers support services to teachers and administrators in areas such as professional development and regulatory compliance.

6.14 Library

Township residents are served by the Munising School/Public Library located on the 1st floor level of the high school. The facility is open on weekdays at 10:00 a.m. Hours of operation are limited during the summer months to weekdays. Extended hours of operation are observed during the school year and include Sunday afternoons.

Special services include Internet access with public use computers, copier and fax service, a large print collection, audio books and online books, newspapers, magazines, local newspapers for the past 100 years, and genealogy microfiche records. Special programs include children's story hours and a summer reading program. The library is supported by a millage of .2999 mils. Additional financial support of the library is through the penal fines levied in Alger County. Of the penal fines collected, all but \$2,000 are disbursed to the Munising Public Library.

6.15 Hospitals and Health Care

Munising Memorial Hospital

In October 2008 Munising Memorial Hospital opened a brand new, state-of-the art health care facility. The existing medical office building, which is now attached to the new facility, will

house several specialists. The new facility spans 59,000 square feet and incorporates all aspects of patient care under one roof. Features of the new facility include:

- A completely digitalized radiology department, with a general X-ray room, CT, Fluoroscopy, Ultrasound, Dexascan and mammography. There are also future plans for a mobile MRI unit to complete diagnostic testing locally.
- An operating room comprised of one main suite, a scope room and a five bed recovery area. The new OR will allow for same day outpatient surgery.
- Laboratory services received upgrades to equipment, computers and space.
- The Outpatient Rehabilitation department was moved into new building, allowing easier patient access and includes a new and updated gym. There are four treatment rooms and a hydrotherapy room.
- The new Emergency Room is three times the size of the old facility. The ER includes a walk-in area, three private exam rooms and a three-bay trauma room. The new building has also allowed for an enlarged ambulance garage. The two-bay garage also includes a decontamination area.
- Two conference centers are used for support groups, educational programs and administrative meetings.

Bay Care Medical Center is located within the hospital building. The medical office has 15 exam rooms, 6 physician offices and 2 procedures rooms. Electronic Medical Records have been implemented at Bay Care Medical.

Harbour View, a 20 bed assisted living facility built in 1999, is also located on the facility grounds. Harbour View offers a variety of living settings, including a choice of single room, luxury single room, a double room for couples and adjoining rooms.

Marquette General Hospital

Marquette General Hospital, the Upper Peninsula’s regional medical center, is located in the City of Marquette. The 352-bed specialty care hospital provides care in 54 specialties and subspecialties and 24-hour emergency services. Marquette General houses the Upper Michigan Heart Institute; the Upper Michigan Centers for Neuroscience, Rehabilitation and Cancer Treatment; and Upper Michigan Behavioral Health Service. The Family Practice Residency Program serves as a teaching facility affiliated with Michigan State University. The medical staff of more than 200 doctors work with the about 2,700 employees providing care to approximately 11,000 inpatients and 350,000 outpatients per year.

6.16 Postal Service

Three post offices serve Onota Township, Deerton (49822), AuTrain (49806), and Marquette (49855), depending on the address location. The Deerton post office serves residents from the east side of the Sand River Bridge to Shelter Bay area, AuTrain post office serves the area from Shelter Bay to AuTrain and the Marquette post office serves residents west of the Sand River Bridge.

The only post office with a location within the Township is the Deerton post office, located on M-28. The post office is open six days week. Mail collected is handled through the United States Postal Service Regional Distribution Center in Kingsford.



Deerton Post Office

6.17 Electrical Service

Electrical service in Onota Township is supplied by Alger-Delta Cooperative Electric Association and the Upper Peninsula Power Company, a subsidiary of Wisconsin Public Service Company. The distribution system (poles, lines, etc.) is owned and maintained by either the Alger-Delta Cooperative Electric Association or UPPCO.

6.18 Liquid Propane and Natural Gas

The Township does not have access to natural gas service; extension of natural gas service to Township residents would be beneficial. LP gas is provided by a number of firms serving the area.

6.19 Telephone/Internet Service

Local telephone service in Onota Township is provided by TDS Telecom. Long distance service can be obtained from several carriers which serve the area. Fiber optic lines for telephone service have been installed in the Township. There are no cellular towers located in the Township at this time.

Township residents rely on dial-up or satellite internet service provided by several companies. DSL (digital subscriber line) technology is limited in the Township.

6.20 Television

Cable television service is not available in Onota Township. Many residents rely on satellites television service from several providers.

6.21 Airports

Hanley Field is located on leased U.S. Forest Service land south of Wetmore in Munising Township. This site has been used as an airfield since at least 1928. The 4,000 foot turf runway is 120 feet wide and was used by an estimated 600 airplanes in 1999. It is operated seasonally from May 1 through October 15. The facility is county-owned and licensed as a “basic utility airport” by the Michigan Department of Transportation, Bureau of Aeronautics. There are no fixed-base operators and commercial activities are limited to occasional sightseeing flights covering the Pictured Rocks National Lakeshore and Grand Island.

There has been discussion at the County Board level about closing the facility due to budget constraints. Currently, the County Board budgets less than \$2,000 annually for airport

operations. Most of the appropriation is expended for liability insurance coverage.

Commercial passenger service is available from Sawyer International Airport in Marquette County approximately 36 miles distant, or from the Delta County Airport which is located approximately 80 miles from Deerton.

6.22 Alger County Road Commission

County road maintenance and winter snow plowing for Onota Township is handled out of the Munising district #1 garage. The facility was recently opened in November 2001, replacing an older structure located in the City of Munising. The new garage is located east of Wetmore on M-28. Three road commission district garages serve Alger County.

6.23 Alger County Transit Authority (Altran)

The Alger County Transit Authority was formed in 1982 under the authority of P.A. 196. ALTRAN currently occupies a 14,000 square foot facility located at 520 East Munising Avenue in Munising. The facility was completed and occupied in 1991. 8,000 square feet were recently added to the Altran building's maintenance facility. A new wash bay was completed in 2010. ALTRAN received funding through the American Recovery and Reinvestment Act for 2010 in the amount of \$186,218 for the purchase of one transit bus, energy improvements for the facility, dispatch software and operating assistance.



ALTRAN currently has five full-time and fourteen part-time employees. A fleet of fourteen buses provide demand-response service Monday through Saturday within Alger County between the normal operating hours of 5:30 am and 6:00 pm. All buses are lift-equipped vehicles. Passenger vans are also used for transportation. Extended hours of operation are available for weekends and holidays. Senior citizens and handicapped citizens comprise 60 percent of ALTRAN's annual ridership.

Altran remains as the sole provider active in the regional (R-Tran) arrangement launched in 1998 to connect the areas of Iron Mountain, Escanaba, Manistique, Marquette, and Munising. Under the R-Tran arrangement, Munising to Marquette service is provided three times daily during weekdays. Scheduling remains flexible to realize route efficiencies (deviated routes). Daily tours of Grand Island are available beginning June 15 and continuing until October 7. From July 1 through Labor Day, tours are offered twice daily. The tours are about two and one-half hours in duration and feature the history and natural features of Grand Island. Shuttle service to the island ferry landing is available every day. In addition, Altran provides extended and flexible shuttle service to accommodate persons backpacking along the Pictured Rocks National Lakeshore. Call and respond pick-up service is available in Onota Township.

6.24 Solid Waste

Great American Disposal provides weekly curbside pick-up for most of the residents in the township. Recyclable materials are not collected as part of the curbside collection service. The Township is in the last year of a four-year contract with the company. The township levies 1.9828 mils levied for support of the solid waste collection service. For those residents located where the garbage truck is not able to travel, the Township has a dumpster at the Township Hall for their wastes; depending upon the season about 12-50 families use the dumpster. There is a problem at the Township Hall dumpster site with some individuals dropping off large items. Once a year, the Township sponsors a clean-up day allowing residents to drop-off large items. No hazardous wastes are accepted. The Township would consider increasing the number of clean-up days based on available funding.

6.25 Churches

There are no churches in Onota Township. Nearby churches are located in AuTrain, Munising, Chatham and Harvey.

6.26 Newspapers

Local news is provided in the *Mining Journal* which is published daily and the *Munising News* which is published weekly. The *Munising News* is used for publication of official township notices.

6.27 Recreational Facilities

The large amount of leisure time available to most persons is a relatively new phenomenon. Healthy, socially acceptable outlets that channel leisure time in life-enhancing directions are a role for recreation. Thus, the provision of recreational opportunities is important to the overall quality of life in a community. The Township has opted-out of participating in Alger Parks and Recreation Department programming due to lack of use by residents. Township residents and visitors enjoy snowmobiling, 4-wheeling, walking and biking in the Township.



Table 6-2 Recreational Facilities, Onota Township		
Facility	Facilities	Ownership
Deer Lake Public Access Site	Hard surface ramp, with a courtesy pier, provides access onto Deer Lake, parking for nine vehicles	Parks and Recreation Division, MDNR
AuTrain Bay Boat Launch	Hard surface ramp with a courtesy pier, parking for 18 vehicles, provides access to Lake Superior, (the site needs considerable work due to ice damage, the site receives considerable use); Onota Township replaced ribbings using Township funds	US Forest Service, Hiawatha National Forest
John H. Hammer Public Access Site	Gravel ramp with access to Laughing Whitefish River near the mouth of the river, parking for 6 vehicles, (the site is in need of considerable work)	Parks and Recreation Division, MDNR
Tyoga Historical Pathway	1.4 mile walking trail through the historic community of Tyoga. New signage	Forest Management Division, MDNR
Deerton School	Play equipment, parking resurfaced, new roof on gym, heating and windows upgraded; in good condition	AuTrain-Onota Public School
Deer Lake Roadside Park	Picnic area on M-28 and Deer Lake	MDOT
Rock River Canyon Wilderness	Two canyons, Rock River and Silver Creek, lie within the area. Each canyon is about 150 feet deep. Elevations within the wilderness range between 680 and 1,000 feet above mean sea level. At the edge of the canyons are sandstone outcrops which water and weather have transformed into caves 10 to 40 feet deep. During winter, ice curtains formed by water seeping over the canyon.	Munising Ranger District of the Hiawatha National Forest
North Hiawatha Snowmobile Trail	Part of the trail system along the Rock River Road and the Onota-AuTrain Road	Trail located within the Hiawatha National Forest
North Country Trail	Part of the North Country Trail System stretching 4,600 miles from New York to North Dakota; passes along the Lake Superior shoreline.	Administered by National Park Service, maintained by volunteers in the North Country Trail Association and partners

6. 28 Historical Areas and Features

From the beginning, the economy of Onota Township has been based on its timber and other natural resource related industries, such as sandstone quarrying, farming and commercial fishing. These activities have become a part of its history. Below is a short synopsis of some of the historical features found in the township. For an extensive review of the history of the Township and of Alger County, the reader is encouraged to read *Alger County A Centennial History 1885-1985* published by the Alger County Historical Society. Information below was gleaned from that book and unpublished material from Edna Braamse, Peter Arsenault and Faye Swanberg.

Sand River Bridge

The Sand River Bridge was constructed in 1939. The single 56-foot span crosses the Sand River between the Village of Sand River and the shore of Lake Superior. Originally the bridge was M-94. The bridge is the longest of the rural rigid frame spans in Michigan. The Sand River Bridge is a significant well-preserved example of Michigan State Highway Department's design experimentation of the 1930's. The contractor was Alpine Excavating Company. The bridge was placed on the National Register of Historical Places in 1999.

Onota and the Union Fuel Company Charcoal Kilns

A post office, established at Glenwood Kilns, was the only post office in the Onota Township. Since the incoming mail was often addressed "Onota," the settlement was renamed Onota. The earlier settlement at Bay Furnace was also called Onota but had no connection with the new community. The community was a bustling charcoal manufacturing center during its heyday in the 1880's. Thirty-nine kilns were operated at one time with the charcoal going to the furnaces in the Marquette area. Robert Dilger was the first resident, possibly settling there before the 1880's besides building the first four kilns, he built a boarding house to take care of the workers in the area. Following close behind Dilger was Charles Schaffer who built the rest of the kilns, a narrow gauge railroad system complete with a round house and dinkey engine, a boarding house, store and a number of cabins for his workers. Schaffer soon became known as the "Charcoal King." Operation ended at the kilns not long after 1900 when the surrounding hills were cleared of hardwood. The Union Fuel Company Charcoal Kilns at Onota were placed on the National Register of Historical Places in 1977.

Rock River

Originally this community was located in Rock River Township, but with the reconfiguration of township boundaries in 1905, the community was located in Onota Township. The community was founded by Charles Johnson, a Swedish immigrant who added the "t" to his name when he arrived. The village was founded before the DSS&A railroad was built in 1881. The location of his house is indicated by the lilac bushes and a caved-in basement. A large mill, boarding house, store, depot, telegraph office and two story school house were once located in the town. The sawmill on the river was the heart of the town. Two miles east of Rock River, Charles Johnston also owned the Brownstone Quarry.

Rock Kilns

This community was located two miles west of Rock River. It was a busy charcoal producing community with more than 200 residents, mostly Swedes and Finns. There were 13 kilns in all, both the bee hive and tub type, which are still standing.

Tyoga

The community was located on the Laughing Whitefish River. The river provided access to thousands of acres of timbered forest lands to supply the sawmill. The Tyoga Lumber Company was incorporated on March 7, 1905. The original investors were from Tioga County, Pennsylvania. The company has another town called Tioga, so the new town had a slightly different spelling. Shortly after being incorporated, the Tyoga Lumber Company was sold to

another group of investors. The town was laid out with cottages, a 50-man boarding house, a men's camp, store, office and a school. In 1906 a post office was established. In 1906 a four-mile standard gauge railroad was constructed from the DSS&A Railroad, eliminating the need to haul the timber by sleigh. In March 1907 the Tyoga Lumber Company was sold to the Cleveland-Cliffs Iron Company. The mill was dismantled and set up at the CCI Mill site in Munising. The town quickly deserted.

6.29 Issues and Opportunities

- Township government provides limited services to its residents. The Township sends out a newsletter to all property owners to inform residents of events in the Township.
- The local school district is pre-kindergarten through the eighth grade. Upon graduation students attend one of the schools in the surrounding communities. Bus transportation service is provided to either Munising or Superior Central schools.
- Township residents do not currently have access to natural gas services. Expansion of natural gas would be beneficial.
- The Township does not provide any recreational facilities, though there are facilities available in the Township that are maintained by the school district, state and federal governments. The Township may consider developing recreational facilities when financially feasible.
- There are a number of historical locations within the Township. The Tyoga Historical Pathway traverses the historic settlement of Tyoga. Improvements are needed to the area.
- A millage supports the operation of an eight member volunteer fire department.

CHAPTER 7.0 HOUSING

7.1 Introduction

Housing is an important part of Onota Township’s land use and economy. The type, location, availability, affordability and quality of housing will determine what kinds of neighborhoods are present in the Township. Dilapidated and deteriorated housing can depress entire neighborhoods. Conversely, charming, well-designed neighborhoods can cultivate strong communities and are an asset to the residents of Onota Township.

Housing can also impact economic development. Commercial development generally follows rooftops and major employers are concerned about having an available workforce, reasonably close to the jobsite. Construction of new housing, as well as improvement of existing units, create jobs and foster spending for construction materials and home furnishings. While the housing industry creates positive economic activity, those housing rooftops also represent new demands for government services. New residential development can intensify existing traffic, pollution and water usage problems and creates additional costs to the local government for streets, schools and other infrastructure.

Researching housing statistics provides Onota Township the opportunity to inventory existing housing stock and its condition, occupancy and affordability characteristics; to assess its adequacy and suitability for serving current and future population and economic development needs; to articulate community housing goals; and to formulate an associated implementation program for the adequate provision of housing for all sectors of the population.

7.2 Housing Units

A total of 473 housing units were documented in the 2010 Census for Onota Township. This was a noticeable increase (26.8 percent) from the 2000 figure of 373. More than one-half of the structures are used for seasonal use. This percentage is higher than the surrounding townships, the county, and the six-county region.

Table 7-1 Comparison, Onota Township and Alger County, 1980-2010					
	1980	1990	2000	2010	Percent Change 1980- 2010
POPULATION					
Onota Township	228	244	310	352	+54.4
Alger County	9,225	8,972	9,862	9,601	+0.4
TOTAL HOUSING UNITS					
Onota Township	363	381	373	473	+30.3
Alger County	5,067	5,775	5,964	6,554	+29.3
HOUSEHOLDS (occupied housing)					
Onota Township	96	103	146	173	+80.2
Alger County	3,279	3,337	3,785	3,898	+18.9

The number of occupied homes (which is the same as households) increased by 80.2 percent from 1980 to 2010. At the same time, the population increased roughly 54.4 percent from 1980 to 2000.

Source: U.S. Bureau of the Census, 1980 Census 001, 003, 004; 1990 Census Table-1 Selected Population and Housing Characteristics; Census 2000 Table DP-1 Profile of General Demographic Characteristics (all SF1 data); Census 2010 Table DP-1 Profile of General Demographic Characteristics.

In examining the total Township housing units in 2010, more than 63 percent were

Characteristics	1980		1990		2000		2010	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
TOTAL HOUSING UNITS	363	100.0	381	100.0	373	100.0	473	100.0
Occupied	96	26.4	103	27.0	146	39.1	173	36.6
Owner occupied	78	81.3	84	81.6	137	93.8	163	94.2
Renter occupied	18	18.7	19	18.4	9	6.2	10	5.8
Vacant	267	73.6	278	73.0	227	60.1	300	63.4
Homeowner vacancy rate	2.6 percent		13.4 percent		0.7 percent		4.4 percent	
Rental vacancy rate	11.1 percent		5.0 percent		10.0 percent		0.8 percent	

Source: U.S. Bureau of the Census, 1980 Census 004, 027; 1990 Census Table-1 Selected Population and Housing Characteristics; Census 2000 Table DP-1 Profile of General Demographic Characteristics; Census 2010 Table DP-1 Profile of General Demographic Characteristics.

vacant. Seasonal and recreational dwellings accounted for nearly 90 percent of all vacancies. Among the vacant homes, the percentage in Alger County was 81.1 percent. Housing unit information is presented on Tables 7-1 through 7-5. The number of housing units reported for the Township in the 2010 Census differs from the American Community Survey Estimates from 2005-2009. In instances where 2010 Census data is available, the data will be used.

Housing Units	Onota Twp.		Au Train Twp.		Rock River Twp.		Chocolay Twp.		Alger County	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total units	473	100.0	1,212	100.0	689	100.0	2,824	100.0	6,554	100.0
Occupied	173	36.6	522	43.1	518	75.2	2,453	86.9	3,898	59.5
Owner	163	94.2	471	90.2	470	90.7	2,075	84.6	3,228	82.8
Renter	10	5.8	51	9.8	48	9.3	378	15.4	670	17.2
Vacant	300	63.4	690	56.9	171	24.8	371	13.1	2,656	40.5
Seasonal, recreational or occasional use	268	56.7	582	48.0	111	16.1	259	9.2	2,155	32.9

Source: U.S. Bureau of the Census 2010 Table DP-1 Profile of General Demographic Characteristics.

The majority (93.9 percent) of the housing units in Onota Township are single-family detached homes. About 6.1 percent of the homes are mobile homes. This is similar to that of the surrounding area, though Chocolay Township has fewer mobile homes as a percentage of the total housing stock.

Table 7-4 Year Round Units in Structure, Selected Areas, 2005-2009						
Housing Unit Types	Onota Township		Au Train Township	Rock River Township	Chocolay Township	Alger County
	Number	Percent	Percent	Percent	Percent	Percent
1, detached	385	93.9	92.9	87.2	88.8	84.8
1, attached	0	0.0	0.3	0.8	2.7	0.2
2	0	0.0	0.0	0.0	1.1	2.4
3 or 4	0	0.0	0.0	0.0	1.8	1.2
5 to 9	0	0.0	0.3	0.4	0.0	1.9
10 to 19	0	0.0	0.4	1.1	0.8	0.9
20 or more	0	0.0	0.0	0.0	1.6	1.4
Mobile home or trailer	25	6.1	6.2	10.5	3.1	7.1
Boat, RV, Van, etc.	0	0.0	0.0	0.0	0.0	0.0
TOTAL	410	100.0	100.0	100.0	100.0	100.0

Source: U.S. Bureau of the Census, American Community Survey 5-Year Estimates, Selected Housing Characteristics, 2005-2009.

Changes in the size and make-up of township households have the potential to affect housing demand in terms of the type of housing needs. Small families, families without children and more elderly residents living alone are all examples of recent trends in household size and composition.

As can be seen on Table 7-6, the proportion of family households have increased over the past 20

Table 7-6 Household, Onota Township and Alger County, 1990-2010							
	1990		2000		2010		Percent Change 1990-2010
	Number	Percent	Number	Percent	Number	Percent	
Onota Township							
Total Households	103	100.0	146	100.0	173	100.0	68.0
Family Households	68	66.0	100	68.5	123	71.1	80.9
Nonfamily households	35	34.0	46	31.5	50	28.9	42.9
Alger County							
Total Households	3,337	100.0	3,785	100.0	3,898	100.0	16.8
Family Households	2,435	73.0	2,587	68.3	2,479	63.6	1.8
Nonfamily households	902	27.0	1,198	31.7	1,419	36.4	57.3

years within the Township and nonfamily households have decreased. On County-wide comparison, the percentage of nonfamily households has increased. This trend is occurring both on a state level and nationally.

Source: U.S. Bureau of the Census, 1980 Census 016; 1990 Census Table-1 Selected Population and Housing Characteristics; Census 2000 Table DP-1 Profile of General Demographic Characteristics

**Table 7-7
Persons Per Household, Selected Areas, 1980-2000**

Governmental Unit	Persons Per Household				Percent Change 1980-2010
	1980	1990	2000	2010	
Onota Township	2.38	2.37	2.12	2.03	-14.7%
Au Train Township	2.75	2.55	2.37	2.18	-20.7%
Rock River Township	2.95	2.70	2.39	2.32	-21.4%
Chocolay Township	3.08	2.92	2.60	2.40	-22.1%
Alger County	2.76	2.52	2.35	2.20	-20.3%
State of Michigan	2.84	2.66	2.56	2.49	-12.3%

Source: U.S. Bureau of the Census, 1980 Census 034; 1990 Census Table-1 Selected Population and Housing Characteristics; Census 2000 Table DP-1 Profile of General Demographic Characteristics; Census 2010 Table DP-1 Profile of General Demographic Characteristics (all SF1 data).

The number of persons per occupied housing unit in the Township decreased from 2.38 persons in 1980 to 2.03 in 2010, as shown on Table 7-7. The household size for Onota Township is less than those of the surrounding communities, Alger County and the state. The percentage decrease over the past 20 years was substantially less. The smaller household size within these areas follow the national trend. This phenomenon is the result of smaller family sizes, an increase in single parent families and as in the case for Onota Township, a growing number of retired persons moving into the area.

7.3 Housing Age and Condition

**Table 7-8
Housing Units by Year Structure Built, Selected Areas**

Year Structure Built	Onota Township	Au Train Township	Rock River Township	Chocolay Township	Alger County
2005 or later	0.7	1.5	0.0	2.0	0.7
2000 to 2004	3.7	5.9	6.4	5.2	4.3
1990 to 1999	18.5	26.0	15.2	15.1	15.8
1980 to 1989	3.7	11.8	8.0	10.7	9.4
1970 to 1979	20.0	17.0	19.1	30.1	22.2
1960 to 1969	17.8	9.7	6.6	15.2	8.9
1950 to 1959	8.5	7.6	9.4	13.5	8.5
1940 to 1949	13.7	13.0	8.0	2.4	8.3
1939 or earlier	13.4	7.4	27.4	5.7	22.0

Source: U.S. Bureau of the Census, American Community Survey 5-Year Estimates, Selected Housing

Over 53 percent of the housing stock in Onota Township was constructed in 1959 or earlier; making the majority of housing at least 50 years old. While older housing is not necessarily inadequate or of poorer quality than new structures, such housing is more prone to deterioration if not adequately maintained. Older housing may be less suitable for an aging population because of increased maintenance needs and accessibility issues such as narrow doors and steep stairways.

According to the 2005-2009 American Community Survey, there are two occupied homes in the township that lack complete plumbing and none that lack a complete kitchen. The percentage of these substandard homes is slightly higher than found on a county-wide basis.

7.4 Selected Characteristics

**Table 7-10
Rooms Per Housing Unit, Selected Areas, 2005-2009**

Number of Rooms	Onota Twp	Au Train Twp	Rock River Twp	Chocolay Twp	Alger County
1	0.0	2.3	0.0	1.3	0.6
2	2.0	1.8	1.1	1.1	2.0
3	15.6	7.4	5.2	3.0	8.7
4	20.0	20.3	11.6	13.6	19.3
5	22.9	22.9	27.2	18.1	24.3
6	22.4	21.4	23.0	15.1	22.7
7	9.8	8.9	21.1	18.1	11.5
8	4.4	5.6	6.6	14.5	4.8
9 or more	2.9	9.3	4.2	15.2	6.2
Median	5.0	5.3	5.7	6.4	5.3

Sixty-four percent of the Township's housing units contain four rooms or less (Table 7-10). Living and dining rooms, kitchens, bedrooms, finished recreation rooms, enclosed porches suitable for year-round use, and rented rooms are included. Excluded are bathrooms, open porches, hallways and foyers, utility rooms and unfinished basements and attics. The median number of rooms in the Township is 5.0. For surrounding townships, Chocolay Township reported the highest median number of rooms, at 6.4; the county

Source: U.S. Bureau of the Census, American Community Survey 5-Year Estimates, Selected Housing Characteristics, 2005-2009.

reported 5.3 median rooms.

**Table 7-12
Occupied Housing Unit Heating Fuel, Onota Township, 2005-2009**

Fuel Type	Percentage of Housing Units
Utility Gas	13.2
Bottled, tank or LP gas	40.3
Electricity	4.7
Fuel oil, kerosene, etc.	8.5
Coal or coke	0.0
Wood	33.3
Solar energy	0.0
Other fuel	0.0
No fuel used	0.0

Liquid propane is the heating fuel of choice in the Township. Over 53 percent of Township housing units use propane while 33 percent rely on wood (Table 7-12).

The median value of owner-occupied homes in the Township in 2005-2009 was \$156,000, representing

**Table 7-13
Median Housing Values and Rents for Selected Areas, 2000 and 2005-2009**

	2000		2005-2009	
	Median Housing Value	Median Rent (per month)	Median Housing Value	Median Rent (per month)
Onota Township	\$117,900	\$325	\$156,000	--
AuTrain Township	\$103,900	\$415	\$136,000	\$498
Rock River Township	\$60,600	\$379	\$111,400	\$461
Chocolay Township	\$97,000	\$411	\$159,400	\$735
Alger County	\$117,900	\$325	\$111,700	\$515

a marked increase from 2000 (\$117,900) (See Table 7-13). This figure is \$44,300 more than the Alger County median value. The housing value of homes found in the bordering communities is shown to be less, with the exception of Chocolay Township.

7.6 Public Housing Development

There are several publicly-funded elderly and family housing projects in the area. Characteristics, number of units and locations are shown in Table 7-14.

Table 7-14
Subsidized Housing, Onota Township Area

Development Name	Location	Units	Type	Year Built
Chatham Apartments	Chatham	12	Elderly	1990
Jericho House	Munising	15	Elderly	remodel
Lakeshore Manor	Munising	74	Elderly & Family	1974/1983
Windjammer Apartments	Munising	24	Family	1982
Hillside Apartments	Munising	12	Family	1974
Bay View Apartments	Munising	4	Family	1974
Cherry Creek Village	Harvey	32	Elderly	1992
Lake Superior Village	Marquette	116	Family	1971
Lost Creek	Marquette	151	Elderly	1998
PineRidge Apartments	Marquette	140	Elderly	1969
Preserve at Oriana Ridge	Marquette	80	Family	2004
Propylon Nonprofit	Marquette	16	Elderly	1986
Snowberry Heights	Marquette	191	Elderly	1977
Sundara MR	Marquette	14	Elderly	1978
Whetstone Village	Marquette	134	Elderly & Family	1977
Willow Apartments	Marquette	20	Family	1973-74

Source: Michigan State Housing Development Authority Subsidized Housing Directory.

7.7 Housing Assistance Programs

Programs administered by the U.S. Department of Agriculture, Rural Development provide housing repair loans and grants to individuals meeting established income guidelines. In addition, Rural Development provides single family direct and guaranteed housing loans. Direct loans apply to low and very low income applicants. Guaranteed loans are less restrictive with regard to income limits.

Housing rehabilitation and weatherization assistance is provided through the Alger-Marquette Community Action Agency. In 2011, the Michigan State Housing Development Authority awarded Alger County a \$150,000 Community Development Block Grant to rehabilitate homes of low and moderate income persons; AMCAB operates the program on behalf of the County. AMCAB has administered a housing rehabilitation program on behalf of the County since 1981. The grant is expected to allow approximately ten homes throughout the County to receive repairs to make them safe, decent and energy efficient. With funds from the federal government, AMCAB also operates a weatherization program. Insulating, caulking, new windows, furnaces and the like are provided. With both programs, applicants must meet established eligibility requirements.

7.8 Specialized Housing

There is one state licensed skilled care nursing home located in Munising. There is one home for the aged located in Munising. There are six licensed adult foster care facilities in the County, five are located in Munising and one is located in Chatham.

7.9 Housing Trends and Preferences

Nationally, the American dream of home ownership has increased from 46.5 percent in 1900 to 65.1 percent in 2010. Long-term mortgage financing was not available in 1900, a major factor in the home ownership percentage.

Typical homes in 1900 had 700 to 1,200 square feet of living space, two or three bedrooms, and possibly a bathroom. The average price of a new home in 1900 was less than \$5,000, most likely purchased outright since long-term amortized loans were not available. The average price of a new home in 2000 was \$205,700 and included 2,265 square feet with three or more bedrooms, 2.5 baths and a garage large enough for at least two cars. According to the US Bureau of the Census, the average sale price of a new home in 2010 was \$272,900 and included 2,457 square feet. Fifty-seven percent of new homes included three bedrooms, with forty-one percent having four or more bedrooms; the average lot size was 17,590 square feet. Many experts predict that demand for large new suburban homes is declining¹. In rural communities, homeownership has long been the preferred form of tenure for the vast majority of households. Rural areas with natural amenities and recreational opportunities may see future population growth, or at least stability.

A large and growing percentage of households are headed by persons 55 or older. This is caused by the aging of the baby boom generation (born between 1946 and 1965). Since this age group controls most of the country's wealth and one-half of all discretionary income, housing characteristics will reflect their preferences. People in this age range tend to demand smaller homes and more transportation options than younger households².

7.10 Issues and Opportunities

- The total number of homes in Onota Township has increased substantially over the past 30 years. A 30.8 percent increase in the total number of housing units was recorded from 1980- 2010. At the same time the number of households increased by 80.2 percent. Several seasonal homes have been converted to year-round use.
- Approximately 57 percent of Township housing units are not used as principal residences and are used seasonally, recreationally or occasionally.

¹ Helen Chernikoff and Al Yoon (2010), Smart Money in Real Estate Is on Smart Growth, ABC News (<http://abcnews.go.com>); at <http://abcnews.go.com/Business/wireStory?id=11311919>.

² Dowell Myers and Elizabeth Gearin (2001), "Current Preferences and Future Demand for Denser Residential Environments," Housing Policy Debate, Vol. 12, Issue 4, Fannie Mae Foundation (www.mi.vt.edu/web/page/580/sectionid/580/pagelevel/1/interior.asp).

- Most (81.3 percent) housing units are occupied by their owner.
- The average household size in the Township consists of 2.03 persons. This is due in part to the growing population of retired persons moving to the area.
- Housing value for Onota Township homes have substantially increased over the past 10 years. The median value of an Onota Township home is greater than countywide figures.
- Single family housing makes up the township’s entire housing stock. This includes mobile homes which comprise 6.1 percent.
- Over 53 percent of the housing stock in Onota Township was constructed in 1959 or earlier; making the majority of housing at least 50 years old. Building construction standards did not require fire stops until the mid-1960s. Less than one percent of the occupied homes in the township could be considered as “substandard.”
- Propane is the most widely used heating fuel source followed by wood. Natural gas service is not available in the Township.
- Income-based housing rehabilitation and assistance programs are available throughout the county.
- The strong preference for large houses is expected to decrease due to declining household size and an aging population.
- The influence of older persons on housing issues, because of both their population numbers and financial capabilities, will increase. This can be seen in the small household size and the increase in housing value.

CHAPTER 8.0 TRANSPORTATION

8.1 Introduction

Transportation allows for the movement of people and goods within and outside an area. It is vital to the economy and development of an area and central to land use patterns.

Roads and other transportation systems have been largely influenced by physical barriers present such as rivers, lakes, swamps and rugged terrain. Therefore, transportation routes generally were established where physical features offered the least resistance.

An inventory of existing transportation facilities in Onota Township and surrounding areas is presented in this chapter. According to data from the Michigan Department of Transportation, there are about 622 miles of public roadway in Alger County with an additional 235 miles of federal roads.

8.2 Road System

Michigan 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. Roads within the Township, classified under Act 51, are identified on Map 8-1.

Counties, cities and villages receive approximately 61 percent of the funding allocated through Act 51 for local roads. State highways under the jurisdiction of the Michigan Department of Transportation receive the remaining 39 percent. Road funding allocations are determined by a formula that includes mileages.

The five roads for roads categorized by Act 51 include, state trunkline, county primary, county local, city/village major, and city/village minor.

A description of the categories applicable to roads within Onota Township follows.

State Trunkline Highway

Road prefixes "M" and "US" denote state and federal highways respectively and are included in this category. State trunklines provide the highest level of traffic mobility for the public. While the highway system carries more than half the total statewide traffic, it is only 9 percent of the Michigan roadway network length. State and federal highways are designed by the prefixes "M" and "US" respectively. The township's most important route M-28 extends the entire width of the Township, a distance of 14 miles. M-28 is one of the two principal east-west routes across the Upper Peninsula. At 290 miles in length, the roadway is the longest state highway in Michigan. The western terminus is at US-2 in downtown Wakefield and the eastern terminus is at M-129, south of Sault Ste. Marie.

County Road System

County roads are classified as either primary or local.

Primary roads facilitate the movement of traffic from areas of smaller population to larger population centers within a county not served by state trunklines. The primary system also serves as an important supportive road network to the state trunkline system.

Within Alger County there are 197.15 miles of county primary roads, with 10.10 miles located within Onota Township. Deerton Road is the only paved primary road within the Township, a distance of about 1¼ miles. The road was repaved in 2011. The other primary roads within the Township, Peter White Road and Rock River Road, are gravel.

Roads not classified as primary are considered local. Local roads comprise the most miles in the county system, but have the lowest level of traffic. The roads in this system are often referred to as “township roads,” though the county road commission maintains jurisdiction of those roads. There are a total of 294.29 local roads within Alger County, with 28.19 miles being in Onota Township.

Federal Roads

There are several roads that are part of the Federal Forest Roads system in Onota Township; county-wide there are 235 miles of roads located on the Hiawatha National Forest and in the Pictured Rocks National Lakeshore. Jurisdiction of the Rock River Road (HO1) is claimed by both the Alger County Road Commission and the Hiawatha National Forest; both agencies work together in instances of “shared jurisdictions.” Within Onota Township there is about 23 miles of federal forest roads, in addition to about 15 miles of skid trails. Most of the federal roads are seasonal in nature and often accessed by high clearance vehicles.

8.3 Private Roads

Within Onota Township, a few residential areas are served by private roads. The maintenance of these roads (snow plowing, grading, dust control, drainage ditch maintenance, etc.) becomes



Laughing Whitefish Point-Private Road

the responsibility of the residents living along these roads, who usually accomplish these tasks either on their own or through a contract agreement with a private entity. The Road Commission will not provide any maintenance service to privately owned roads. The condition and location of private roads may affect some of the services provided to the residents such as fire protection, garbage collection, and emergency services. Access for fire and emergency vehicles on private roads

can be difficult, especially if the roads are badly maintained, narrow, and/or lack enough space for turning around. As further development occurs along private roads, the possibility of conflict over maintenance issues may occur between residents. Often residents will request the Road Commission pay for maintenance of private roads. Residents living on private roads need to be aware that school bus service may not be provided. Generally, school buses will pick-up students only on public roadways.

Situations have occurred in Onota Township where structures along private roads have been placed on existing easements. To remedy these problems in the future, Onota Township should consider including stipulations in its zoning ordinance or land division ordinance that requires private roads serving new residential areas to conform to certain dimensional and maintenance standards. It is also possible to prohibit subdivision and development of property unless the resulting parcels have direct access to public roads. Zoning ordinance provisions may require that the structure be constructed a specified distance from the centerline of a private road or easement. However, even if a road is constructed to county road commission standards, the Alger County Road Commission may not accept it into the county road network.

Residents living on a private road petition the Township for permission to name the private road. Before the Township Board approves the road name, the name is first presented to the Planning Commission for their review and recommendation. The Planning Commission, after being assured that a majority of the property owners on the road concur with the name chosen, determine if the name is appropriate, not confusing or similar in sound to existing roads, or has been used elsewhere in the Township.

8.4 National Classification of Roads

Federal, state and local transportation agencies use the National Functional Classification as a planning tool. Developed by the Federal Highway Administration, the system classifies roads according to their function as it relates to greatest mobility/greatest access. Principal arterials provide the greatest mobility. In order of functional importance, principal arterials are followed by minor arterials, major collectors, and minor collectors. Local roads provide the greatest access to property.

The functional system creates more categories than is provided under P.A. 51. All roads in the functional road classification system that are arterials and collectors are considered either state trunklines or primary roads in the county road system under P.A. 51.

Principal Arterial

Roads within this classification function mainly to move traffic over medium to longer distances quickly and safely and efficiently. Often the movement is between regions or major economic centers. In Onota Township, M-28 is classified as a principal arterial, a distance of about 14 miles.

Minor Arterial

Roads within this classification function to move traffic over medium distances within a community or larger area at a moderate to a quick rate. There are no roads within this classification in Onota Township.

Collector Roads

A collector road provides access between residential neighborhood and commercial/industrial areas. Its function is to provide a more general service, e.g., area-to-area rather than point-to-point. A collector usually serves medium trip lengths between neighborhoods on moderate to low traffic routes at moderate speeds and distributes traffic between local and arterial roads. Usually, this involves trips from home to places of work, worship, education and where business and commerce are conducted.

Within Onota Township, Rock River Road is considered a “major collector road” and Deerton Road is considered a “minor collector road.” Together these two roads consist of about seven miles of collector roadway classified in the Township.







Rural Local Roads

All roads not serving as arterials or collectors are classified as local. The predominant function of roads in this classification is to provide direct access to adjacent land uses. A local road serves as the end for most trips within a community. Local roads include all streets not classified as arterials or collectors. The Township’s 30.8 miles of local roads provide direct access to adjacent land uses and should be designed to move traffic from an individual land parcel to places of business and employment via collector roads.

8.5 Road Condition Evaluation

The ACRC evaluates the condition of county roads every other year using the PASER (**PA**vement **S**urface and **E**valuation and **R**ating) system. A survey team drives the roads to inventory surface type and condition. Segments of road are rated on a scale from one to ten based on factors such as surface distress, pavement strength, and deflection. A rating of "10" indicates the pavement surface is in excellent condition, displaying no visible signs of distress, and having a quality rating of "new construction". A roadway given the rating of "1" represents a failed roadway condition with extensive loss of surface integrity.

PASER ratings are often classified into three asset management strategies which are listed and described in Table 8-1. The three strategies are color-coded with red being “poor”, blue being “good”, and purple being “excellent” condition. The asset management approach shifts from the traditional “worst first” approach to one that incorporates a “mix of fixes.” Investing smaller amounts of money in roads that are in “good” condition extends the life of the road.

PASER Ratings	Strategy	Description/ maintenance technique	
1-4 	Structural Improvement	Total reconstruction, resurfacing, gravel resurfacing, patching with major overlay	
5-7 	Capital Preventive Maintenance	Crack sealing, asphalt overlay, chip seal	
8-10 	Routine Maintenance	Street sweeping, shoulder maintenance	

Surface condition ratings (asphalt surface type) from 2010 have been analyzed. Unless improvements have been made to roads in the township, the condition of the road system has likely deteriorated since the evaluation took place. Map 8-2 displays the ratings by segment. The only two federal-aid eligible roads in the township that were rated include portions of Deerton Road and M-28. Based on the survey results, approximately 52 percent of the miles rated were in poor condition, while approximately 48 percent were in excellent condition.

8.6 Financing

Local Funding

The Township does not levy millage for road improvement projects, but does budget general fund monies for road work. In 2011, the Township Board approved the following road and bridge projects: replacement of the Karvonen Road Bridge, resurfacing Military Road and improving Onota Hill Road. The Alger County Road Commission has applied for a grant to replace the bridge on Sand River Road at the outlet of Sand Lake. The Deerton Road was repaved in 2011.

Michigan Transportation Fund

Revenues collected from fuel taxes and motor vehicle registration fees are distributed to county road commissions, cities, and villages by formula through the Michigan Transportation Fund, established under P.A. 51 of 1951. Road classification, road mileage, and population are factored into a formula to distribute funds to all the county road commissions. A percentage of the funding received by each road commission is also set aside for engineering, snow removal, and urban roads. For 2010, the Alger County Road Commission was allocated a total of \$2,013,348 from the Michigan Transportation Fund, compared to \$2,154,434 received in 2005, a decrease of 6.5 percent in funding.

Michigan Transportation Economic Development Fund

The establishment of this fund in 1987 set forth a mission “to enhance the ability of the state to compete in an international economy, to serve as a catalyst for economic growth of the state,

and to improve the quality of life in the state.” Investing in highway, road and street projects necessary to support economic expansion is the purpose of the TEDF. The six funding categories of the TEDF are as follows:

1. Category A-target industries
2. Category B-state trunkline takeover
3. Category C-urban congestion
4. Category D-rural primary
5. Category E -forest road
6. Category F - urban area

Other

Federal assistance for state highways is supported mainly through motor fuel taxes. Construction and repair costs associated with state trunkline systems are generated from these taxes. The Intermodal Surface Transportation Efficiency Act of 1991, and its reauthorization as the Transportation Equity Act for the 21st Century (TEA-21), has resulted in allocation changes that have benefitted Michigan. Under the concept of “intermodalism,” transportation planning is supposed to engender cooperation among the different transportation modes that interconnect at shared hubs, or intermodals.

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

8.7 Traffic Flow and Volume

It is anticipated that travel demand will grow by 50 percent in the next decade. Each year sees more cars, more drivers and fewer carpoolers. Nationally, two car households increased from 10 million in 1960 to 40 million in 2000. The largest population growth is occurring in suburbs where dependence on private automobiles is greatest. New road construction is not keeping pace with this growth and roads are becoming increasingly crowded.

According to the Michigan Department of Transportation, highway travel in Michigan is increasing at a far greater rate than the state population. Michigan roads have experienced an increase in traffic volume. In 1940, travel logged on Michigan roads totaled 14.6 billion miles. The total travel volume in 2001 was 96.6 billion miles, an increase of more than six and one-half times more than 1940. Volumes are usually presented as an average daily traffic (ADT) figure, and are calculated for a particular intersection or section of roadway.

Traffic counting devices are used by the Michigan Department of Transportation to record volumes at set points along state trunklines. Tables 9-1 and 9-2 offer comparisons of MDOT traffic volume data from 1989 to 2010 taken along M-28 in Alger and Marquette Counties.

Traffic count at the Onota Township location has increased 11.6 percent between 1989 and 2010, while the Sand River location showed a 35.3 percent increase and the Au Train counter revealed a 9.2 percent increase during the same time period. Commercial traffic, shown in Table 8-2, has decreased approximately 31 percent from 1994 to 2010.

Table 8-2 Average Annual Traffic Counts for Selected Years								
Route	Counter Location	1989	1994	1998	2000	2005	2010	Change 1989-2010
M-28	Sand River, Marquette County (Chocolay Twp.)	2,300	5,900	4,200	3,400	3,842	3,113	+35.3%
M-28	Just east of Alger County line (Onota Twp.)	3,000	3,600	3,600	3,600	3,415	3,348	+11.6%
M-28	Au Train near junction of H-03 (AuTrain Twp.)	3,100	3,600	3,500	4,300	3,614	3,389	+9.3%

Source: Michigan Department of Transportation, Annual Average 24-Hour Traffic Volumes, years cited.

Table 8-3 Average Annual Commercial Traffic Counts for Selected Years							
Route	Counter Location	1994	1998	2000	2005	2010	Change 1994-2010
M-28	Sand River, Marquette County (Chocolay Twp.)	230	410	450	181	159	-30.9%
M-28	Just east of Alger County line (Onota Twp.)	230	410	450	181	159	-30.9%
M-28	Au Train near junction of H-03 (AuTrain Twp.)	230	410	450	181	159	-30.9%

Source: Michigan Department of Transportation, Commercial Traffic, years cited.

As the number of vehicles on a roadway increases, turning onto or off of the roadway becomes more difficult. At the same time, as the traffic level increases, frontage along the road becomes more desirable for development. Often, such development occurs with little, if any, attention to how entrances and exits will affect traffic movement and safety.

Congestion created by strips of roadside commercial land uses is one of the most objectionable impacts of development. Businesses naturally located on the most accessible land, but the many driveways they require, and the congested intersections they create, impede travel to all locations. Road users, landowners, and businesses then suffer from reduced accessibility.

Access management consolidates driveways, provides better vehicle and pedestrian circulation and otherwise reduces the impact of roadside land use on the efficiency of the road system. It

requires a good relationship among road agencies, local, government and property owners to develop an access plan and possibly adopt an overlay zoning district. This approach has yielded successes for some communities. Such a strategy may be useful along M-28 before such a problem will occur.

8.8 Public Transportation

Countywide public transit services were initiated in January 1982. The Alger/Marquette Community Action Board was the third-party operator of transit services for Alger County until March 1990. ALTRAN, an Act 196 transit authority, was created in March 1990 to provide countywide transit services. ALTRAN currently occupies a 14,000 square foot facility located at 520 East Munising Avenue in Munising. The facility was completed and occupied in 1991. 8,000 square feet were recently added to the Altran building's maintenance facility. A new wash bay was completed in 2010.

ALTRAN currently has five full-time and fourteen part-time employees. A fleet of fourteen buses provide demand-response service Monday through Saturday within Alger County between the normal operating hours of 5:30 am and 6:00 pm. All buses are lift-equipped vehicles. Passenger vans are also used for transportation. Extended hours of operation are available for weekends and holidays. Senior citizens and handicapped citizens comprise 60 percent of ALTRAN's annual ridership.

ALTRAN remains as the sole provider active in the regional (R-Tran) arrangement launched in 1998 to connect the areas of Iron Mountain, Escanaba, Manistique, Marquette, and Munising. ALTRAN provides 3 trips from Munising to Marquette daily. Medical appointment trips to the Peninsula Medical Center and Marquette General Hospital are provided free of charge to passengers. Work trip runs are provided to Harvey twice a day. School transportation is also provided.

Daily tours of Grand Island are available beginning June 15 and continuing until October 5. From July 1 through Labor Day, tours are offered twice daily. The tours are about two and one-half hours in duration and feature the history and natural features of Grand Island. Shuttle service to the island ferry landing is available every day. Beginning in 2010, an environmentally friendly hybrid bus will be available for tours on the island. In addition, Altran provides extended and flexible shuttle service to accommodate persons backpacking along the Pictured Rocks National Lakeshore. A grant has also been applied for to provide a hybrid bus for Pictured Rocks National Lakeshore.

ALTRAN received funding through the American Recovery and Reinvestment Act for 2010 in the amount of \$186,218 for the purchase of one transit bus, energy improvements for the facility, dispatch software and operating assistance.

8.9 Rail Service

There is no rail service in Onota Township. The former Wisconsin Central Railroad tracks were removed in 1999. The rail bed now serves as a snowmobile trail from Munising to Cacalia.

8.10 Air Transportation

Hanley Field is located on leased U.S. Forest Service land south of Wetmore in Munising Township. This site has been used as an airfield since at least 1928. The 4,000 foot turf runway is 120 feet wide and was used by an estimated 600 airplanes in 1999. It is operated seasonally from May 1 through October 15. The facility is county-owned and licensed as a “basic utility airport” by the Michigan Department of Transportation, Bureau of Aeronautics. There are no fixed-base operators and commercial activities are limited to occasional sightseeing flights covering the Pictured Rocks National Lakeshore and Grand Island.

There has been discussion at the County Board level about closing the facility due to budget constraints. Currently, the County Board budgets less than \$2,000 annually for airport operations. Most of the appropriation is expended for liability insurance coverage.

Commercial passenger service is available from Sawyer International Airport in Marquette County approximately 36 miles distant, or from the Delta County Airport which is located approximately 80 miles from Deerton.

8.11 Non-motorized Transportation Facilities

In recent years, the construction of non-motorized facilities has increased in response to public interest. Walking and bicycling are among the top five individual exercise activities according to a national survey¹ (walking is number one). Alternate modes of transportation are encouraged and made safer by facilities such as bike lanes and walking paths.

Sidewalks have served to connect residents to their neighborhoods, schools, stores and workplaces for as long as they have been around. In the absence of sidewalks, people will either drive to where they need to go or use the street as they would a sidewalk. Sidewalks are pedestrian transportation corridors. The recommended standard for requiring sidewalks is where lot sizes are 10,000 square feet and smaller. Wider shoulders, for instance can provide an added measure of safety for bicyclists and pedestrians.

8.12 Complete Streets

Michigan Public Act 135, defines complete streets as “...roadways planned, designed, and constructed to provide appropriate access to all legal users in a manner that promotes safe and efficient movement of people and goods whether by car, truck, transit, assistive devices, foot or bicycle.” Communities across the United States are instituting policies to “complete the streets” and provide “roads for all modes.”

¹ National Sporting Goods Association, Sports Participation in 1998

Complete streets policies can improve safety for all users. Complete streets also encourage walking and bicycling for health and address climate change and oil dependence. These policies may also provide transportation options for residents who do not drive, including children under 16, elderly, disabled or low income residents. Complete streets also play an important role in developing a livable community; providing connections to key destinations is essential.

There is no one design recommendation for complete streets. Components that may be found on a complete street include: sidewalks, bike lanes (or wide paved shoulders), special bus lanes, comfortable and accessible public transportation stops, frequent crossing opportunities, median islands, accessible pedestrian signals and curb extensions. One of the issues often mentioned when discussing implementation of a complete streets policy is the fear of additional costs. Careful planning can minimize costs. When complete streets policies are in place, engineers can incorporate facilities for all travelers into projects during the planning and design phase when appropriate. The township has the opportunity to work closely with the Alger County Road Commission to plan for and implement improvements related to non-motorized facilities, transit, carpooling and commercial vehicle infrastructure where feasible.

Implementation of these policies will require the development of partnerships with other municipalities and stakeholder groups. Acceptance and implementation of complete streets will also require a cultural change in moving away from the automobile as the primary mode of transportation.

8.13 Issues and Opportunities

- The ability of the Alger County Road Commission to keep up with maintenance and construction needs on the county road system has decreased in recent years. If additional funding cannot be secured, the Road Commission will continue to defer maintenance, and the condition of many county roads will continue to deteriorate.
- With many roads in poor condition in the Township, the County Road Commission does not have enough funding to reconstruct the existing roads to proper road standards.
- The Township Board and the Planning Commission should continue to work with the Alger County Road Commission and MDOT to ensure that transportation deficiencies are not impediments to investment in the Township.
- Onota Township should continue to prioritize local road improvement projects and work with the Alger County Road Commission to schedule these projects as local and road commission funds become available.
- The Township should continue to encourage the construction of private roads that are built up to County Road Commission specifications, to ensure that emergency services can be provided to these residents.

- Traffic volumes may continue to increase along the state trunkline in Onota Township; commercial traffic has decreased.
- The Township may wish to consider the development of an ordinance or an amendment to the zoning ordinance to protect future property owners from highway noise impacts.
- The opportunity may exist to work with MDOT to develop access management plans for areas along M-28 in the Township, in order to reduce the potential for future safety hazards.
- The aging of the local population could result in future needs for additional transportation services for the elderly and/or disabled.
- Limited public transportation is available locally on a demand-response basis. Daily bus transportation is available from Munising to Marquette.

CHAPTER 9.0 GOALS AND RECOMMENDATIONS

9.1 INTRODUCTION

Throughout the preceding chapters of this Master Plan, detailed information has been presented defining the historical trends and current situation in Onota Township. Public input was received via public comment at regular Planning Commission meetings. This background information has helped the Planning Commission gain an understanding of the forces which have shaped the growth and development of the Township to this point.

In order for a community to have a sound plan for growth and development, it is essential that goals be set. Goals are broad statements which reflect the desired future conditions and are based on the background information, assumptions, alternatives and policy variables presented in earlier chapters. More specific recommendations are then developed, defining actions that can be taken to implement the goals. The final stage of the planning process, implementation, begins once the goals and recommendations have been defined. The first step in implementation is the adoption of this plan by the Planning Commission and the Township Board following a public hearing and consideration of any public comments received.

Plan implementation continues through adherence to the goals and recommendations set forth in this plan. It should be emphasized, however, that these goals and recommendations are only a guide and provide long-term vision; ideas and projects mentioned are adjustable per a community's needs. While the Planning Commission has developed these goals and recommendations based on the best information available, and the needs of the community at a point in time, changing needs and desires within the community, or changes in the local population or economy may mean that these goals and recommendations will need to be re-evaluated. All of the goals and recommendations discussed will be ongoing over the next several years. This plan must remain flexible enough to respond to changing needs and conditions, while still providing a strong guiding mechanism for future development. The Planning Commission and Township Board, together with other groups, organizations and individuals, can use this plan as a dynamic decision making tool, and should assure that the plan is referred to frequently and updated periodically.

To assist in understanding the nature of the goals and recommendations presented on the following pages, the following definitions are presented:

Goal: A broad statement of a desired future condition, the generalized end toward which all efforts are directed. Goals are often stated in terms of fulfilling broad public needs, or alleviating major problems. Goals are generally difficult to measure and are idealistic.

Recommendation: A course of action that is advisable. Recommendations are opinions about what could or should be done about a situation or a problem to achieve desired goals. Many recommendations stated in the plan are long-term and may need to be reevaluated periodically to meet new goals developed by the Township.

9.2 POPULATION

Discussion: Onota Township has experienced population increases in every decade since 1970. The largest increase occurred from 1970 to 1980 - 78 percent. From 2000 to 2010 Onota Township’s population increased by 13.5 percent to 352 persons recorded in the 2010 census. Adjacent townships of AuTrain and Chocolay showed increases during recent years as well. The population is aging at a rapid rate due to low birth rates, retiree in-migration and longer life expectancies. The median age of township residents is 57.5 as recorded in Census 2010, compared to 41.2 years in the 1990 Census.

Goal: Continuously monitor population trends and opportunities to retain population density in the township as part of the Master Planning process.

Recommendation	Groups Involved
Incorporate new Census information into the Master Plan when data becomes available.	Planning Commission
Emphasize the area’s low crime rate, cost of living advantages, strong community commitment, close proximity to Munising and Marquette and overall quality of life.	Planning Commission, Township Board, Residents
Provide affordable housing options.	Planning Commission, Township Board, Developers
Ensure that the Zoning Ordinance effectively preserves and protects the rural character of the Township.	Planning Commission, Township Board, Zoning Administrator

9.3 ECONOMIC BASE

Discussion: The Township’s historic beginnings were with lumbering, fishing and quarry operations. Natural-based economy continues with Heartwood Forestland Fund, charter fishing and gravel/sand pits. Nearly half of Onota Township’s workforce is engaged in management, professional and related occupations. Approximately one quarter of workers are employed in services occupations, while one fifth work in sales and office occupations. Most working persons commute to jobs outside of the township since employment opportunities within the Township are very limited. The average commute time is almost 24 minutes; about 46 percent of the employed persons find employment outside Alger County. The commute generally involves M-28, though some use Rock River Road. With few employment opportunities within the township, the local economy is largely dependent on outside influences.

Goal: Provide reasonable opportunities for the establishment of commercial and industrial uses which meet the needs of township residents.

Recommendation	Groups Involved
Encourage the balance of a “rural township” lifestyle with the potential for an increased tax base with additional business.	Planning Commission, Township Board, Private Developers
Identify areas that are suitable for commercial or industrial development but will not adversely impact adjacent land uses.	Planning Commission, Township Board, Zoning Administrator
Encourage commercial and industrial development where utilities already exist or where utilities could be easily extended.	Planning Commission, Township Board, Residents,
Support the tourist industry and encourage growth; market the Township as a four season recreation destination.	Planning Commission, Township Board, Residents
Encourage the establishment of home-based and natural resource-based industry through promotion of area’s rural setting and overall quality of life.	Planning Commission, Township Board, Business Owners
Review zoning regulations so small and home-based businesses are encouraged within the Township.	Planning Commission, Township Board, Zoning Administrator
Encourage existing businesses and industries to remain in the Township.	Planning Commission, Township Board, Residents
Support the efforts of the Alger County Road Commission and other entities when seeking funding for improvements to the road network.	Planning Commission, Township Board
Explore reuse options for vacant properties throughout the Township.	Planning Commission, Township Board, Private Developers
Support public/private partnerships.	Planning Commission, Township Board, Business Owners, Residents

9.4 HOUSING

Discussion: A total of 473 housing units were documented in the 2010 Census for Onota Township. This was a noticeable increase (26.8 percent) from the 2000 figure of 373. More than one-half of the structures are used for seasonal use. The number of persons per occupied housing unit in the Township decreased from 2.38 persons in 1980 to 2.03 in 2010. Smaller household size sizes within these areas follow the national trend. This phenomenon is the result of smaller family sizes, an increase in single parent families and as in the case for Onota Township, a growing number of retired persons moving into the area. The vast majority of homes are single-family homes. Over 53 percent of the housing stock in Onota Township was constructed in 1959 or earlier; making the majority of housing at least 50 years old.

Goal: Develop a housing stock offering a broad range of cost, type and location.

Recommendation	Groups Involved
Encourage the development of various residential housing types appropriate for all income levels, the elderly and persons with special needs.	Private Developers, Planning Commission, Township Board
Pursue HUD grants to improve existing housing.	AMCAB and CUPPAD
Promote housing assistance programs offered by AMCAB and other agencies.	AMCAB, Planning Commission, Township Board
Support residents who want to utilize energy efficient building techniques.	Planning Commission and Township Board
Encourage owners and/or occupants to maintain dwellings and yards properly so as to avoid blighted or unsafe conditions.	Planning Commission and Township Board
Encourage activities for a community clean up day.	Township Board
Encourage the enforcement of applicable ordinance and code regulations.	Planning Commission, Zoning Administrator, County Building Inspector

9.5 NATURAL FEATURES

Discussion: About 12 percent of the Township’s land area is categorized as wetlands. However, soil conditions through much of the Township are poorly constituted to adequately support septic tank absorption systems and complicate road and building construction. A dominant feature of the township is the 21-mile Lake Superior shoreline, which forms the Township’s northern border. The environment invites a variety of popular outdoor activities such as fishing, hunting, canoeing, and snowmobiling. There are a number of scenic areas in the Township, most are easily accessible.

Goal: Preserve and enhance the natural environment of the Township, while allowing for compatible development to occur in suitable areas.

Recommendation	Groups Involved
Require that rezonings consider soil conditions, surface water proximity and parcel size.	Planning Commission, Township Board
Encourage watershed and lakeshore improvement efforts and protection of ground and surface waters.	Planning Commission, Township Board, Residents, Superior Watershed Partnership, Alger County Conservation District
Utilize zoning and other land use controls to minimize the ecological disturbance of natural features and maintains the area’s rural character.	Planning Commission, Township Board
Partner with local organizations and agencies who share common concerns and interest in the Township’s natural features.	Planning Commission, Township Board, Residents, Superior Watershed Partnership, MDNR, MDEQ, Alger County Conservation District, Nature Conservancy
Maintain the rural atmosphere of the Township by preserving open space and agricultural lands.	Planning Commission, Township Board
Improve access to water features in the township; pursue the development of additional boat landings, docks, boardwalks and trails where feasible.	Planning Commission, Township Board, USFS, Recreation Committee, Alger Parks and Rec, MDNR
Encourage and participate in planning for natural emergencies and mitigation of hazards.	Planning Commission, Township Board, Local Emergency Planning Committee
Encourage energy efficient development where appropriate.	Planning Commission, Township Board

Encourage continued monitoring of water quality on Deer Lake by Deer Lake Association.

Planning Commission,
Township Board, MDEQ,
Deer Lake Association

9.6 LAND USE

Discussion: Publicly-owned and Commercial Forest Reserve lands together comprise about 57 percent of the township’s total area. Lands categorized as urban and built up represent only 0.16 percent of all land within the township. Forested areas comprise 85 percent of the township land cover. Residential use is less than 1 percent of the total township acreage.

The 2010 Census showed 173 occupied housing units, up 27 homes from ten years ago. Most of the residential development is along or near M-28. Total housing units increased about 27 percent during the same time period, with a total of 473 homes recorded in the 2010 Census figures. Agricultural land use is less than 0.1 percent of the total land area. Seasonal homes have been converted into year-round use in recent years. Increased activity will impact land values, roadway capabilities and township facilities and services.

Goal: Achieve a pattern of land use that will allow for manageable and compatible development in areas where adequate facilities exist or can be provided, while preserving open space and the community’s rural character.

Recommendation	Groups Involved
Provide that land uses are adequately supported by existing infrastructure and natural features.	Planning Commission, Township Board
Development should ensure that adequate land area exists for private wells and septic fields.	Planning Commission, Township Board
Ensure that driveways and private roadways are designed and constructed to provide safe ingress and egress.	Planning Commission, Township Board
Encourage preservation of large land tracts.	Planning Commission, Township Board,
Review recurring incidents of similar variance requests to determine whether zoning provisions should be modified.	Planning Commission, Township Board, Zoning Administrator
Review the zoning ordinance to insure that it reflects the location of suitable sites, design guidelines and the desired future character of the area.	Planning Commission, Township Board, Zoning Administrator
Solicit comments from agencies, organizations, and residents regarding land use matters.	Planning Commission, Township Board, Zoning Administrator, Interested Agencies

Neighborhoods, businesses and public entities should be vigilant regarding physical appearances, sanitation and general ownership responsibilities.	Planning Commission, Township Board, Zoning Administrator, Residents
Encourage property owners to improve dilapidated properties.	Township Board, Residents
Review the Township Master Plan and Zoning Ordinance on a regular basis.	Planning Commission, Township Board, Zoning Administrator, Interested Agencies and Adjacent Communities

9.7 COMMUNITY FACILITIES

Discussion: The Township provides limited services to its residents, though the most important one is fire protection. A 1.4871 mill levy supports the operations of the eight volunteer firefighters. Other services provided include the township cemetery. The Township Hall is available for use by Township residents. No recreational facilities are provided by the Township; the school district and state and federal agencies provide a number of recreational facilities.

Goal: Provide, maintain and continuously improve the efficiency and quality of community facilities and services in a cost-effective manner.

Recommendation	Groups Involved
Ensure that Township structures, infrastructures and equipment are maintained in good repair.	Planning Commission, Township Board
Ensure adequate fire protection coverage and emergency medical technician service to all areas of the Township.	Township Board
Maintain the present level of service provided to Township residents.	Township Board
Continue to develop a multi-year Capital Improvement Plan to be used as a long-range planning and budgeting tool.	Township Board
Expansion of facilities and/or services should be predicated on the Township’s ability to sustain operational and maintenance expenses.	Planning Commission, Township Board
Encourage residents to utilize the annual dumpster roll-off to dispose of large household waste items.	Planning Commission, Township Board, Residents
Pursue the development of a hazardous waste drop-off with other Alger County communities.	Township Board, Alger County Municipalities

Recommendation	Groups Involved
Pursue grant funding for fire department equipment, gear and vehicles.	Township Board, Fire Chief, USDA Rural Development
Augment local revenue resources with federal and state grant and loan programs to provide improved facilities and services.	Township Board, Planning Commission, CUPPAD
Explore recycling opportunities; consider working with adjacent Townships on future recycling endeavors.	Township Board, Planning Commission, Adjacent Communities, Alger County Recycling Committee
Continue to develop the Township newsletter to keep residents informed.	Township Board

9.8 RECREATION

Discussion: Tremendous recreational opportunity exists in and around the Township due to the abundance of land open to the public and facilities of both state and federal agencies. There is no township sponsored recreation facilities, though the local school district does maintain a playground on school property in Deerton. There are a number of historical features located in the township associated with the early timber and natural resource related industries.

Goal: Maintain and improve recreational opportunities for residents and visitors of all ages.

Recommendation	Groups Involved
Ensure that recreational facilities are safe, clean and accessible to users of all ages.	Planning Commission, Township Board
Ensure that recreational facilities are, to the maximum extent possible, developed for multipurpose and/or year-round uses to optimize cost and benefits accrued to the public.	Planning Commission, Township Board
Encourage the preservation of historical features within the township.	Planning Commission, Alger County Historical Society, Residents
Encourage public participation in the provision of Township recreational facilities.	Planning Commission, Township Board

Seek improvements and work with interested groups and individuals interested in preserving and renovating the Tyoga site.	Planning Commission, Alger County Historical Society, Residents
Explore the possibility of developing a township/community historical society or center to preserve and promote the historical aspect of the Township.	Planning Commission, Alger County Historical Society, Residents
Explore the possibility of establishing a Township community park through the involvement of a cross section of the community in the planning efforts.	Planning Commission, Township Board, Residents
Collaborate with adjacent communities to develop non-motorized facilities that are compatible and link when possible.	Adjacent Communities, Planning Commission, Township Board Rec Committee, Alger Parks and Rec, MDOT, MDNR
Continue to update the Township’s 5-Year Recreation Plan to submit to the MDNR.	Planning Commission, Township Board, Alger Parks and Rec, MDNR, Volunteers, CUPPAD
Pursue MDNR Trust Fund grants, Land and Water Conservation grants and foundation grants to improve recreational opportunities.	Planning Commission, Township Board, Alger Parks and Rec, MDNR
Pursue grant funding from the Alger Regional Community Foundation to finance projects and activities.	Planning Commission, Township Board, Alger Community Foundation

9.9 TRANSPORTATION

Discussion: Onota Township residents are faced with long distances to access basic needs such as employment, medical services, and other professional services. This factor makes the road system especially important to residents. Many of the roads within the Township are gravel or dirt, and not constructed to county road standards. Due to conditions of some of the Township roads, solid waste pick-up is not available. In 2011, the Township Board approved the following road and bridge projects: replacement of the Karvonen Road Bridge, resurfacing Military Road and improving Onota Hill Road. The Alger County Road Commission has applied for a grant to replace the bridge on Sand River Road at the outlet of Sand Lake. The Deerton Road was repaved in 2011.

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

Recommendation	Groups Involved
Encourage repair and reconstruction by the Alger County Road Commission of roads identified in the Township’s Road Improvement Listing.	Planning Commission, Township Board, Alger County Road Commission
Promote traffic access points that provide the greatest measure of safety.	Planning Commission, Township Board
Ensure that driveways are adequately designed and constructed.	Planning Commission, Township Board
Support the improvement and development of trails for motorized and non-motorized uses.	Planning Commission, Township Board, Alger County Road Commission, MDOT, Residents
Promote visual enhancements along highways; discourage signage that is redundant, gaudy or in poor condition.	Planning Commission, Township Board
Seek assistance from MDOT to include access management provisions in the zoning ordinance.	Planning Commission, Township Board, MDOT
Discourage or at least minimize the placement of billboards along M-28.	Planning Commission, Township Board
Continue with the practice of review by the Planning Commission of proposed names for private drives before approval by the Township Board.	Planning Commission

CHAPTER 10.0-FUTURE LAND USE AND ZONING PLAN

10.1 Introduction

The previous chapters of the Master Plan provide an overview of the existing conditions in Onota Township and surrounding areas. 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 could be carried out. It is based on analyses of environmental opportunities and constraints, existing trends and conditions and projected future land use needs. While developing the Future Land Use/Zoning Plan, the Planning Commission was asked to take on the difficult task of envisioning development in the Township over the next 5, 10 and 20 years. The goals and recommendations presented in Chapter 9 and principals of sound land use planning are the foundation upon which the Future Land Use Chapter is based. The Future Land Use Plan consists of the text within this chapter as well as the Future Land Use Map.

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. 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 Township’s 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.

A “zoning plan” is another term for a “zone plan” which is used in the Michigan Zoning Enabling Act (PA 110 of 2006) and the Michigan Planning Enabling Act (PA 33 of 2008). Section 33(2) (d) of the Michigan Planning Enabling Act requires that a Master Plan include:

“...a zoning plan for various zoning districts controlling the height, area, bulk, location, and use of buildings and premises. The zoning plan shall include an explanation of how the land use categories on the future land use map relate to the districts on the zoning map.”

A zoning plan describes:

- The purpose, general location, and main uses allowed for each existing and proposed zoning district;
- The difference between the land use categories of the Future Land Use Map and those found on the zoning map;
- The recommended standards for the schedule of regulations concerning height, bulk, setback, yard, lot size and related features.
- The existing zoning map, along with proposed changes, clearly details the circumstances under which those changes should be made.
- Standards or criteria to be used to consider rezonings consistent with the Master Plan.

The relationship between the Master Plan and Zoning Ordinance is often misunderstood. The Master Plan is a guide for land use for the future; the Zoning Ordinance regulates the use of land in the present. The Master Plan is not a binding, legal document; the Zoning Ordinance is a law that must be followed by the community’s residents and others wishing to develop or do business in the Township. The future land use recommended for an area may be the same as the existing zoning for that area, while in some cases the future land use recommended is different from the existing zoning. The Future Land Use Map does not change the existing zoning in an area. A property owner must use the property as it is currently zoned.

The Future Land Use Map does not change the existing zoning in an area. A property owner must use the property as it is currently zoned.

The Future Land Use Map reflects the assumption that land use patterns in Onota Township will continue to be heavily influenced by the desire for residential development along the lakeshore as well as other water features and also subject to the vast amount of land dedicated as commercial forest reserve, the Hiawatha National Forest and the Escanaba River State Forest. Other major considerations which helped shape the future land use map are a desire to establish appropriate uses and densities throughout the Township and to provide adequate areas for residential and compatible commercial and industrial development. Potential updates to the Onota Township Zoning Ordinance are discussed throughout the following sections. These changes can be pursued as the need or opportunity presents itself. The Planning Commission can identify major policies it wishes to implement and begin to work on the corresponding zoning changes at the same time.

10.2 Zoning Districts and Zoning Plan

Onota Township is currently divided into seven zoning districts. The intent and general purpose will be depicted for each district. The permitted and conditional uses within each zoning district are listed in the specific district provisions of the Onota Township Zoning Ordinance. A schedule of regulations is included for the existing zoning districts.

Existing Zoning Classifications

R, Residential District

Intent: To establish and preserve quiet neighborhoods for single-family homes, free from other uses except those, which are both compatible with and convenient to the residents of the district.

R-5, Residential Five District

Intent: To establish and maintain for low intensity recreational and residential uses those areas, which because of existing development, natural characteristics and accessibility are suitable for development of this type. All essential government services may not be provided in this district.

LS/R, Lake Shore and River District

Intent: To establish and maintain for recreational and residential uses those areas with frontage on lakes and rivers, which, because of existing development, natural characteristics and accessibility, are suitable for development of this type. All essential governmental services may not be provided in this district.

TD, Town Development District

Intent: To establish and preserve a town district for single-family dwelling units, mobile homes and for retail commercial uses that are compatible with a small town setting and serve the residents and tourists. This district is designed for small-unincorporated town areas where a mix of residential and retail commercial is consistent and compatible with established patterns of use and the needs of nearby residents.

RP, Resource Production District

Intent: To establish and maintain for low intensity use those areas which because of their location, accessibility, soils, drainage, and other characteristics are suitable for a wide range of agricultural, forestry and recreational use.

TP, Timber Production

Intent: To maintain for timber production purposes and recreational use, those lands, because of their soil, drainage and other characteristics, are especially suited for timber production.

I, Industrial District

Intent: To establish and preserve areas for necessary industrial and related uses of such a nature that they require isolation from many other kinds of land uses.

Schedule of Regulations						
District	Minimum Lot Size (Square Feet or Acreage)	Minimum Lot Width (Feet)*	Minimum Setback (Feet)			Maximum Height of Structure (Feet)
			Front	Side	Rear ^c	
R	40,000	100	30	15	35	30
R-5	5 Acres	250	30	30	30	30
LS/R	1 Acre	120	30	15	40	30
TD	1 Acre	120	30	10	35	30
RP	40 Acres	660	35	35	40	30 ^D
TP	10 Acres	330	30	30	40	30
I	1 Acre	150	40	E	20	D

Footnotes to the Table

- * The maximum lot depth to width ratio shall be no greater than 4:1, except along the Lake Superior shoreline where the maximum lot depth to width ratio shall be no greater than 7:1.
- A. Two family dwellings.
- B. Multiple family dwellings, subject to density requirements in Article IV, Sec. 4.02
- C. Waterside minimum setback shall be 50 feet for main structures and 30 feet for accessory structures.
- D. Not to exceed the horizontal distance to any lot line.
- E. No minimum side yard required, however, a minimum thirty (30) foot wide clear and unobstructed access way and/or easement shall be provided to the rear yard of each lot or parcel. Setbacks from existing residential parcels shall be: 50 feet for all buildings: 25 feet for driveways, entrances or exits: and 10 feet for parking areas.
- F. Measured at sidewalk.

10.3 The Relationship Between Zoning and the Future Land Use Plan

The Future Land Use Map is not the same as the Zoning Map, either in the legal sense or in its purpose. A land use map is a graphic representation of how land is physically being used. The future land use map is general in nature and is an official description of where and to what level future zoning should be permitted. The zoning map is a graphic representation of the boundaries for which zoning regulations have been adopted by Onota Township.

The Future Land Use Map, along with its associated descriptions for future land use classifications make up the Future Land Use Plan. The Future Land Use Map should serve as a guide for making decisions on the rezoning of land. However, the Planning Commission and Township Board should consider the map to be one of many tools available to help them in making land use recommendations and decisions. The information contained on the map should be complemented by site-specific information as considered necessary by Township officials.

The Future Land Use Map is not the same as the Zoning Map, either in the legal sense or in its purpose. The Future Land Use Map should serve as a guide for making decisions on the rezoning of land.

Future Land Use Classifications

Future Land Use Classifications and Associated Zoning Districts	
<u>Future Land Use Classification</u>	<u>Zoning District(s)</u>
HR High Density Residential	R Residential District
MR Medium Density Residential	R-5 Residential Five District
WR Waterfront Residential	LS/R Lake Shore and River District
MU Mixed Use	TD Town Development District
NR Natural Resources	RP Resource Production District
FP Forest Production	TP Timber Production District
M Manufacturing	I Industrial District

The Future Land Use Map, Map 10-1, may be found in Appendix A.

10.4 Commercial Development

Mixed use development was common before the advent of modern zoning and land use practices. Proper implementation of mixed land uses ensures the compatibility of the commercial and residential uses and makes sure that the appearance and effects of buildings and uses are harmonious with the character of the area in which they are located. Development should complement and highlight a community's special features, not disturb them. Mixed use development should be encouraged along the major transportation corridor in the Township, M-28. Mixed use development interests will also be promoted in and around the Shelter Bay area, along Deerton Road and down Whitefish Road. The Township needs to create a sense of place; in the modern economy, place matters more than it did in the past. Mixed uses create opportunities for vibrant communities and may serve to help develop the Township's sense of place. Attracting knowledge based workers that can work wherever they choose, should be a priority.

The mixed use district has been incorporated along the M-28 corridor, Shelter Bay, Whitefish Road and Deerton areas to encourage compatible residential, retail and service development, along with certain governmental uses. Mixed use development will be encouraged in areas that require a mix of residential and compatible retail uses; serving residents and tourists. Home occupations will also be provided for in residential districts as appropriate; given the general location of the Township, home occupations may provide many prime opportunities for commercial development.

10.5 Industrial Development

The Township has three areas designated for industrial uses at this time. These locations consist of gravel pits. The Township maintains regulations for industrial uses in the Zoning Ordinance and would encourage additional compatible industrial development in designated areas. Lack of infrastructure, such as public water and sewer, somewhat limits industrial development in the Township. Ideally, any future industrial development would preserve the rural character of the area by utilizing landscaping and additional natural features preservations techniques.

10.6 Residential Development

The vast majority of housing in the Township consists of single-family units. The Township is home to a mix of year-round residents and seasonal residents. The vacancy rate for housing in the Township is very high, due to the large number of homes that are not used as principal residences and are used seasonally, recreationally or occasionally. The Township is a popular tourist destination as well, with resorts and lodges available for rent. Onota Township will continue to provide areas that allow various recreational structures.

High-density residential development is shown on the Future Land Use Map in one area, along the Sand River and north of Sand Lake. Residential development also exists along the lakeshore, across the length of the Township where development is feasible. The waterfront residential district is shown along the south side of Sand Lake, along the western shoreline of Lake Superior, as well as areas east of Shelter Bay and north of M-28, providing for areas establishing and maintaining residential and recreational uses.

Maintaining a high level of water quality is important to Onota Township. In the past, some residents have experienced difficulties obtaining water via private wells in site specific locations. For residents to continue to be able to install private wells and septic systems and maintain water quality around Deer Lake, it is recommended that this area remain in larger parcels. Medium density residential development is shown surrounding Deer Lake, for Au Train Island and along the Lake Superior shoreline, from the north-central shore area, east to approximately Shelter Bay. The area along the Lake Superior Shoreline currently consists of parcels that are approximately 10 to 20 acres in size at this time. Residential development is also permitted in the mixed use district, along with compatible commercial uses. Residences are found all along the M-28 corridor, as well as along Deerton Road, Whitefish Road and adjacent properties.

Low density residential development is permitted throughout the vast majority of the remainder of Onota Township, which consists of the Natural Resources District and the Forest Production District. Residential development may be limited in these areas, due to a lack of services and also because of the shortage of land available. Much of the Natural Resources District and the Forest Production District is part of either the Hiawatha National Forest or the Escanaba River State Forest or designated as commercial forest land. Should the State or USFS-owned land become available, areas may be suitable for seasonal dwellings or low-density residential development.

10.7 Recreational Development

Currently, the Township does not maintain any recreational facilities. Onota Township has opted-out of participating in Alger Parks and Recreation Department programming due to lack of use by residents. Township residents and visitors enjoy snowmobiling, 4-wheeling, walking and biking in the Township. There may be opportunities to develop recreational facilities in the future, should the desired properties be available for sale and if funding is available.

10.8 Forest Production

The vast majority of Onota Township has been designated as Forest Production, considered as low density residential areas, allowing for single family homes, forestry, natural resource and recreational uses. Additionally agricultural activities are suitable for this land use designation, after obtaining a conditional use permit. This is the largest future land use district, reflecting the community's rural residential character. It should also be noted that the bulk of this district is part of the Hiawatha National Forest or Escanaba River State Forest, thereby limited for development.

10.9 Transportation

Onota Township does not levy a millage for road improvements. The ability of the Alger County Road Commission to keep up with maintenance and construction needs on the county road system has decreased in recent years. If additional funding cannot be secured, the Road Commission will continue to defer maintenance, and the condition of many county roads will continue to deteriorate. With many roads in poor condition in the Township, the County Road Commission does not have enough funding to reconstruct the existing roads to proper road standards. The Township Board and the Planning Commission should continue to work with the Alger County Road Commission and MDOT to ensure that transportation deficiencies are not impediments to investment in Onota Township.

10.10 Alternative Energy Resources

Onota Township recognizes the importance of alternative energy resources. The Township would like to encourage residents to utilize alternative forms of energy such solar panels and wind energy systems where appropriate. On-site wind energy systems are permitted in all districts, subject to specific requirements and are limited in height. The manufacturing, forest production and natural resource districts could potentially serve as prime areas for utility-grid wind energy systems. To the greatest extent possible, zoning standards for developing

alternative energy resources are based on the protection of single family dwellings from noise and vibration issues. Regulations regarding alternative energy sources have been developed by the Planning Commission and have been presented to the Township Board for approval.

Wind energy is an emerging technology that required the Township to consider updates to the zoning ordinance. Regulations have been added for small and large scale wind turbines. Small wind generally serves private homes, farms or small businesses and turbines up to a certain height may be permitted for each single family dwelling; minimum lot sizes have been considered. Zoning definitions have been updated and added. The types of turbines differ by use, height or capacity. Appropriate development standards have been created for each type of wind energy facility.

10.11 Potential Zoning Ordinance Updates

As discussed throughout the Master Plan, zoning must be based on a plan. The plan is the guide for all zoning decisions. The main purpose of zoning is to improve the health, safety, and welfare of the population and to direct land use towards implementation of the Master Plan. Through land use planning and land use controls, including zoning, Onota Township intends to allow for reasonable growth to be accommodated with minimal land use conflicts or negative environmental impacts, while allowing for the continuation of existing industrial, commercial, residential and recreational uses.

Potential Zoning Ordinance amendments include:

- Update entire Zoning Ordinance to comply with the MZEA, PA 110 of 2006, as amended.
- Review and update definitions.
- Revise zoning districts to correspond to districts included in the Future Land Use and Zoning Plan.
- Review and revise permitted, conditional and accessory uses in all districts.
- Revise zoning district regulations.
- Include regulations to accommodate new trends in land use and zoning, including but not limited to: Outdoor Wood Burners, Wind Energy and Solar Energy.
- Update all administrative procedures and standards.
- Review reclamation requirements for gravel pit operations.
- Review and revise all general regulations and sign regulations.
- Update site plan review procedures and standards.
- Review and revise non-conforming use regulations.
- Update the Zoning Map.

The current Onota Township Zoning Ordinance was adopted in 1994.

The Zoning Ordinance has not been completely revised since that time. Substantial amendments to the Onota Township Zoning Ordinance will be necessary upon the adoption of the Master Plan.

10.12 Conclusion

Planning is intended to guide the forces of change in ways that encourage desirable outcomes while striking an appropriate balance with development and preservation. The Master Plan should be reviewed on an annual basis and amending the plan as necessary will maintain its use as a reliable planning tool. State law requires that the Master Plan must be reviewed at least every five years to establish if updating is necessary.

As the developers and most frequent users of this document, the Planning Commission will be responsible for reviewing the recommendations and progress of the Plan. An outdated plan that is not frequently reviewed can diminish the decision making process. Therefore, the Planning Commission should conduct an annual review of the Plan and amend it as appropriate. Amendments that should occur include:

- Delete goals and recommendations that have been accomplished and add new recommendations as needs and desires arise.
- Modify the Future Land Use Map to reflect any zoning decisions that have changed the direction of development in the township.
- Update demographic information when Census data is available.

This Master Plan represents over a year of effort by the Planning Commission and residents. Development of the plan involved collection and analysis of data on population, housing, land use, transportation, infrastructure and socioeconomic conditions. The Master Plan process also considered results from a past citizen survey to obtain suggestions and comments from residents to incorporate ideas into the plan. The plan sets forth recommendations, and as such, this plan will only be as successful as the implementation measures taken to achieve the vision set forth in previous chapters.



Au Train Bay

Appendix A

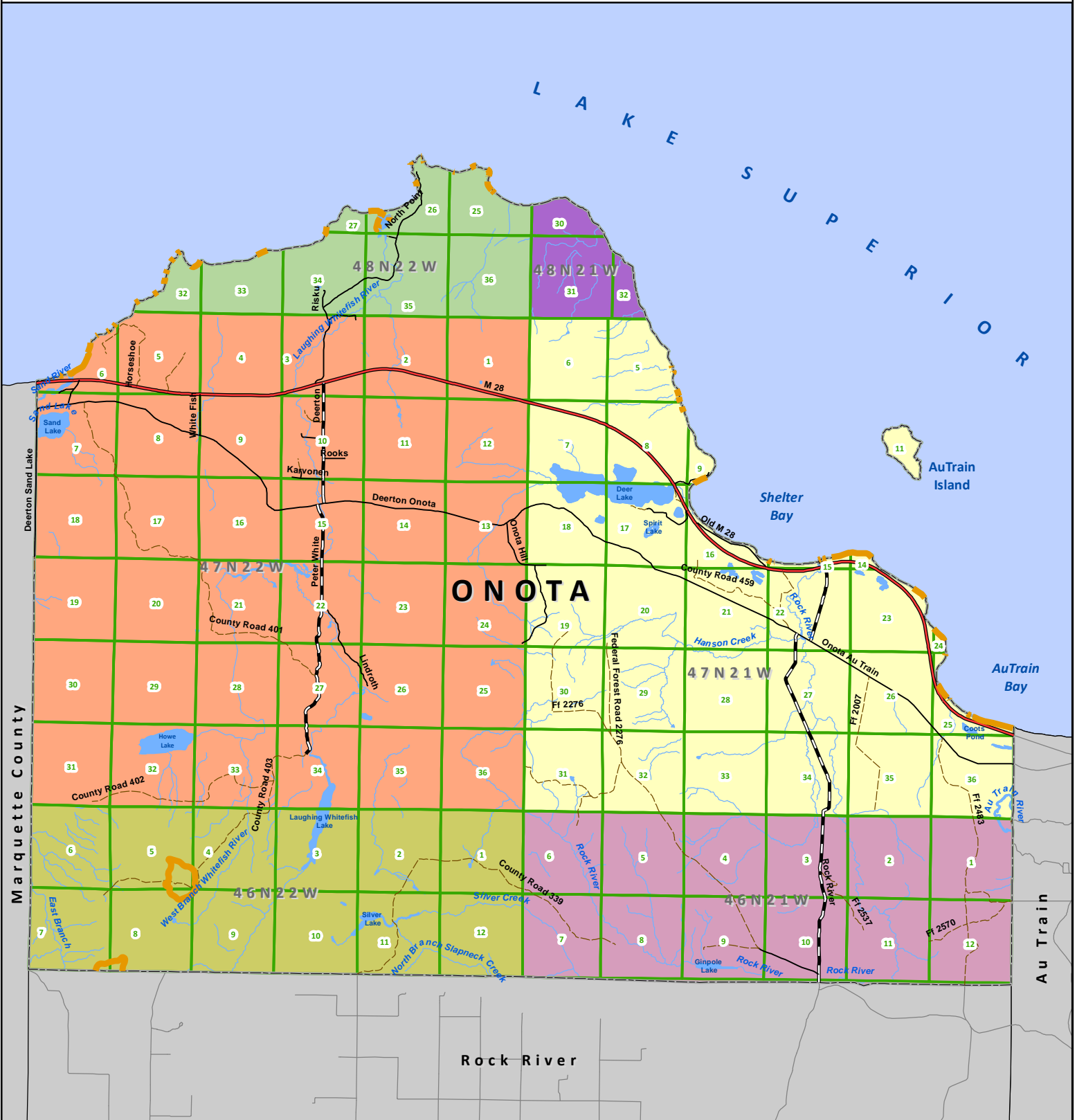
Maps

Map 1-1	Base Map
Map 4-1	Bedrock Geology
Map 4-2	Surface Geology
Map 4-3	Soils
Map 4-4	Topology
Map 4-5	Watershed Boundaries
Map 4-6	Wetlands
Map 4-7	High Risk Erosion & Coastal Barrier
Map 5-1	Land Ownership
Map 5-2	Land Use
Map 6-1	Community Facilities
Map 8-1	ACT51 Roads
Map 8-2	2010 Surface Condition Rating
Map 10-1	Future Land Use

Onota Township

Base Map

Map 1-1

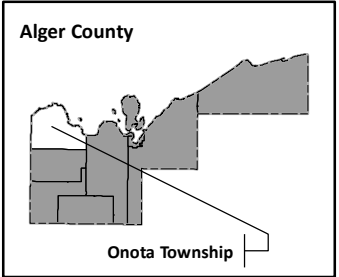


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Roads	
	State Trunkline
	County Primary
	County Local
	Uncertified with a Fundclass
	Township Boundary
	Section Lines
	Rivers
	Lakes

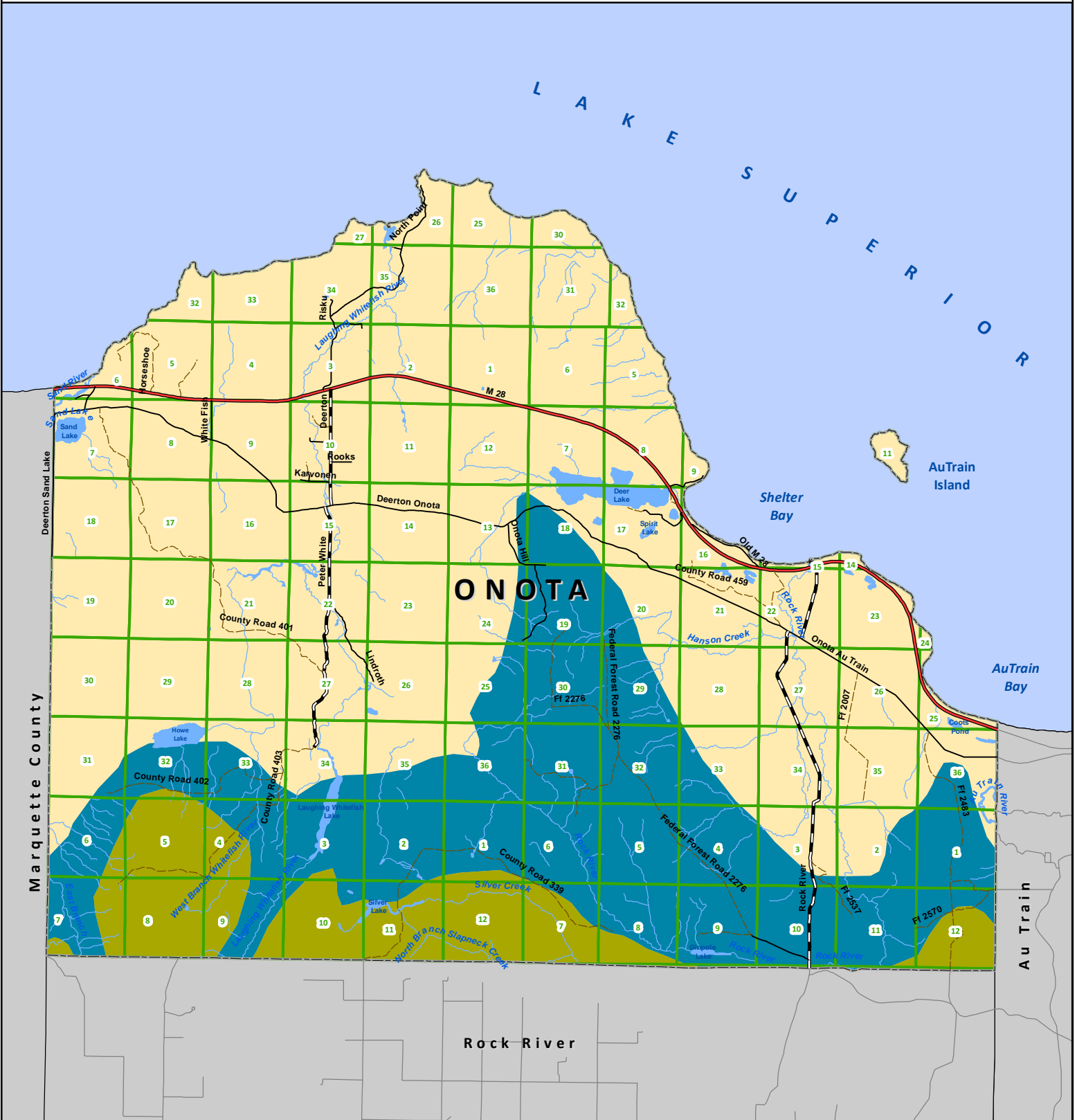
Township & Range	
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	T46N R22W
	T47N R21W
	T47N R22W
	T48N R21W
	T48N R22W



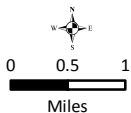
Onota Township

Bedrock Geology

Map 4-1



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Roads

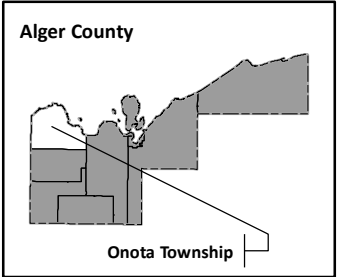
LEGALSYST

- State Trunkline
- County Primary
- County Local
- Uncertified with a Function
- Township Boundary
- Section Lines
- Rivers
- Lakes

Bedrock Geology

Formation

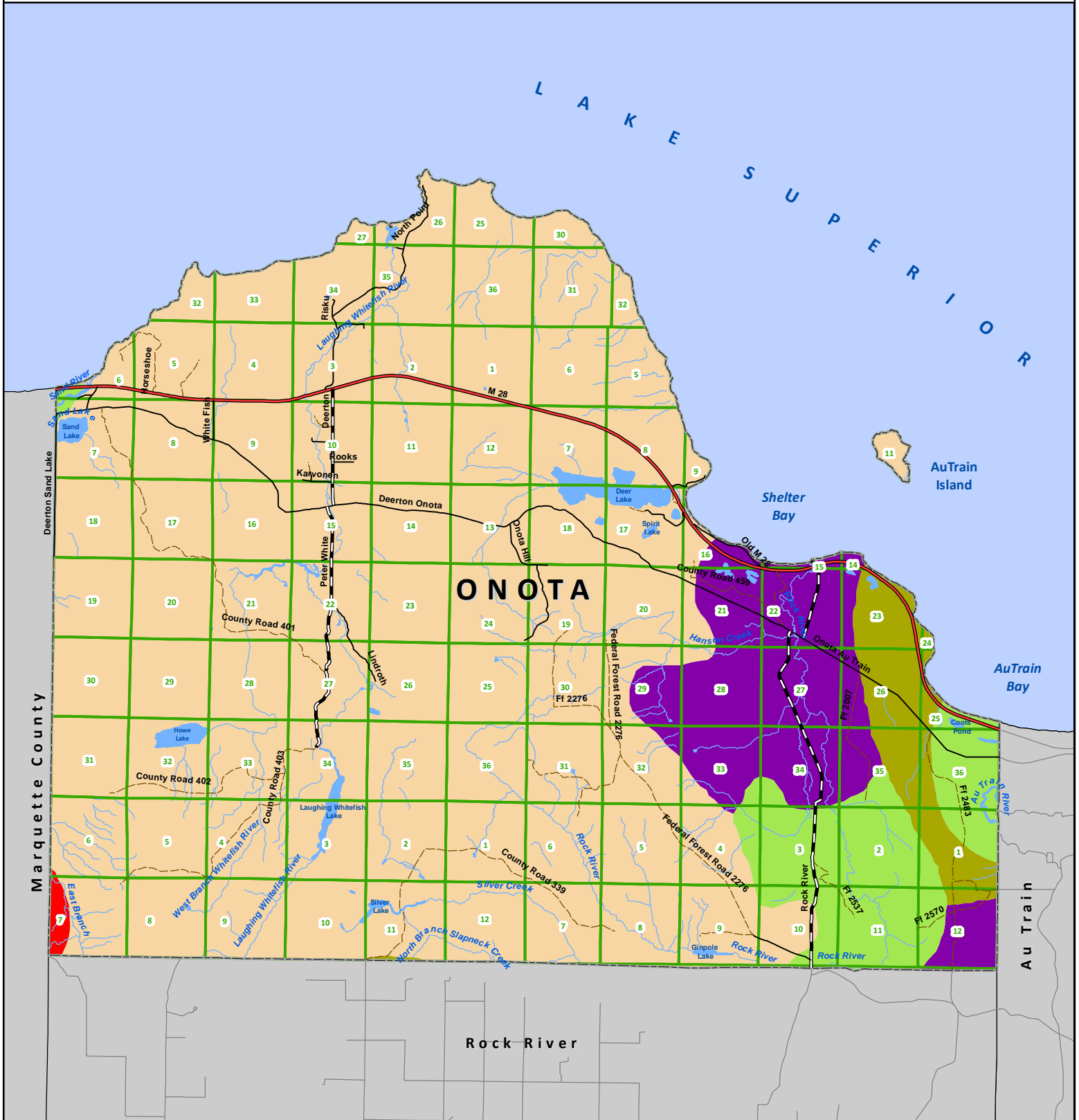
- JACOBVILLE SANDSTONE
- MUNISING FORMATION
- TREMPÉALEAU FORMATION



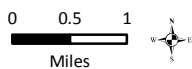
Onota Township

Surface Geology

Map 4-2

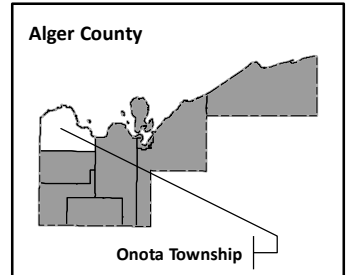


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Roads	
	State Trunkline
	County Primary
	County Local
	Uncertified with a Function
	Township Boundary
	Section Lines
	Rivers
	Lakes

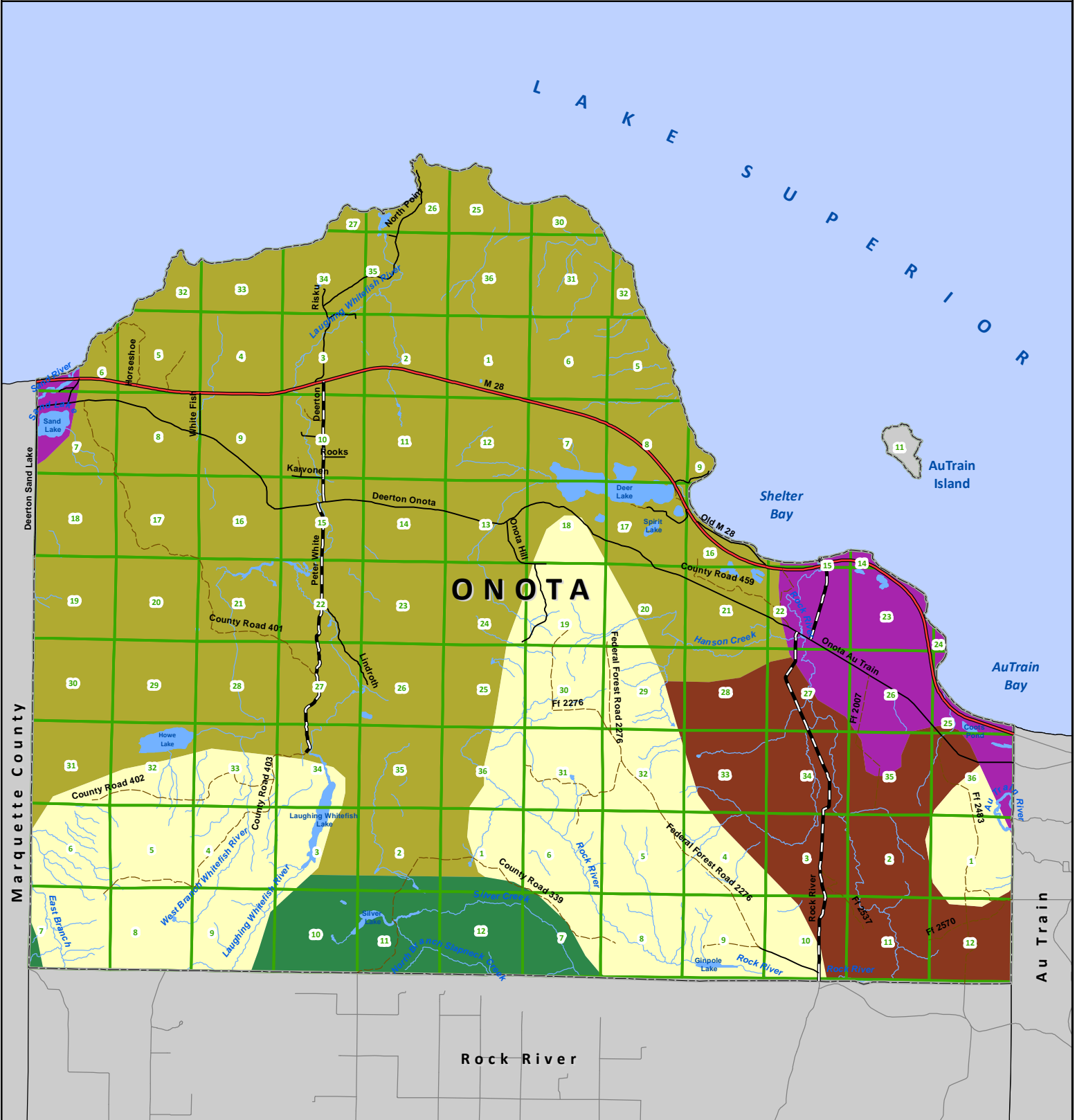
Surface Geology	
LABEL	
	End moraines of coarse-textured till
	Glacial outwash sand and gravel and postglacial alluvium
	Lacustrine sand and gravel
	Medium-textured glacial till
	Thin to discontinuous glacial till over bedrock



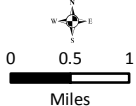
Onota Township

Soils

Map 4-3

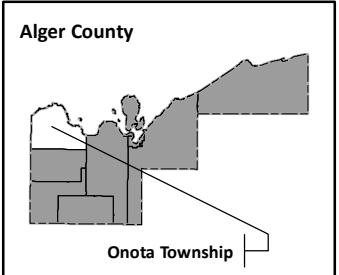


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Roads	
	State Trunkline
	County Primary
	County Local
	Uncertified with a Fundclass
	Township Boundary
	Section Lines
	Rivers
	Lakes

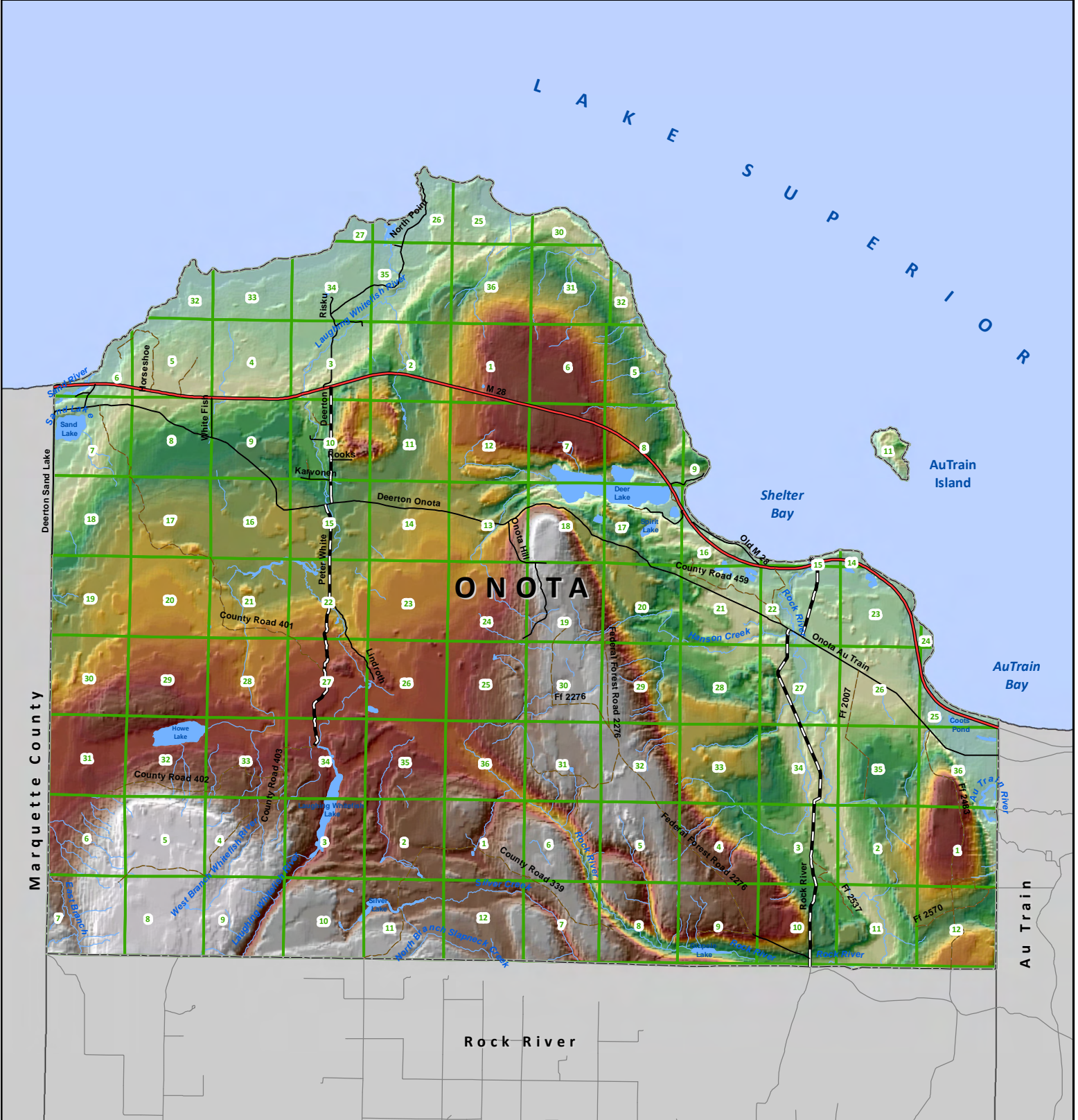
Soils	
	Chatham-Chippeny-Ruse Association
	Deer Park Association
	Kalkaska-Tawas-Waiska Association
	Munising-Abbaye-Deerton Association
	Sauxhead-Burt-Munising Association



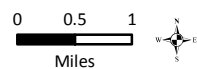
Onota Township

Topology

Map 4-4



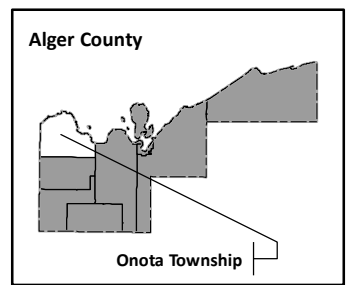
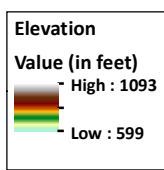
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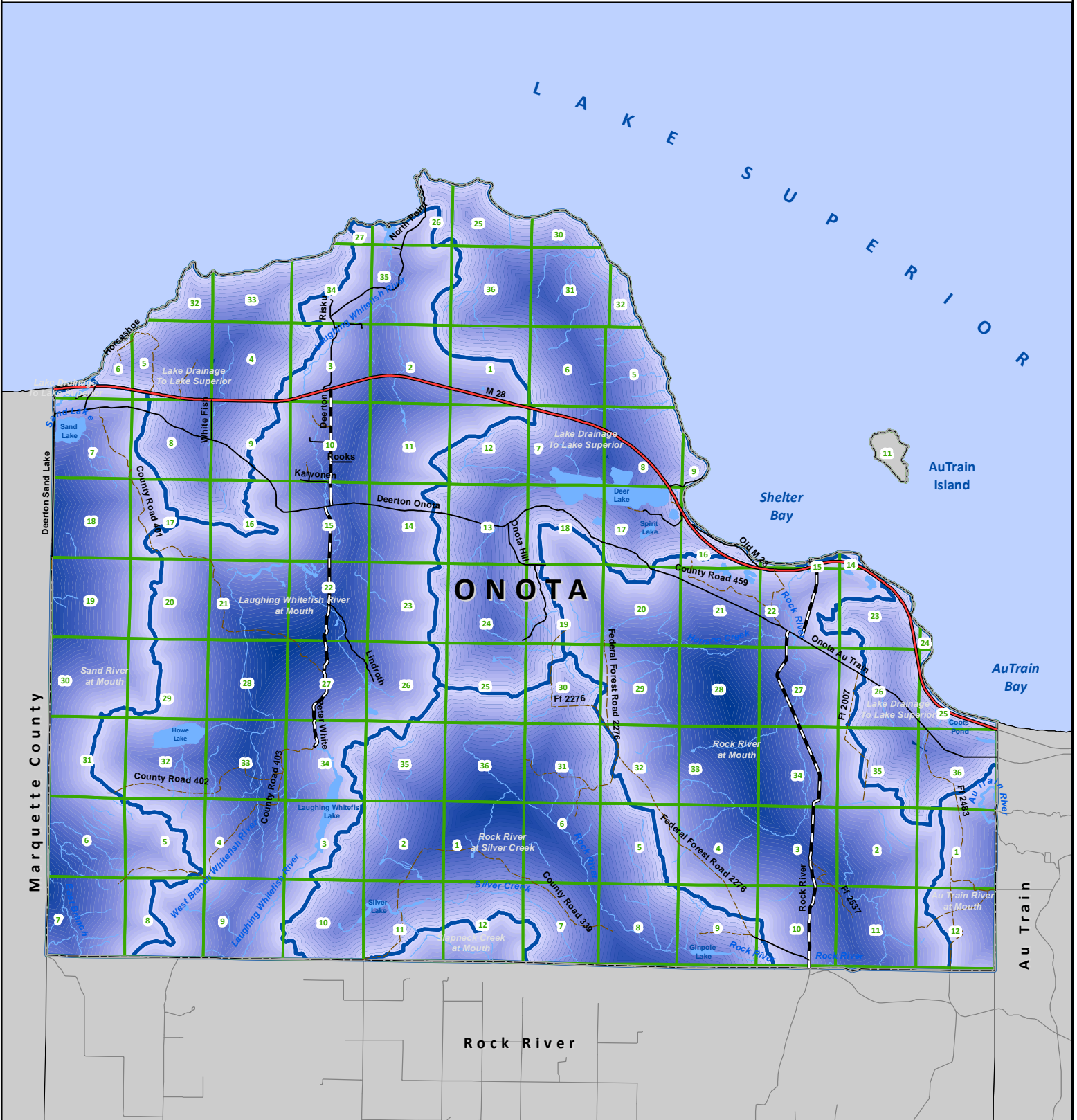


Roads

LEGALYST

- State Trunkline
- County Primary
- County Local
- Uncertified with a Funclass
- Township Boundary
- Section Lines
- Rivers
- Lakes



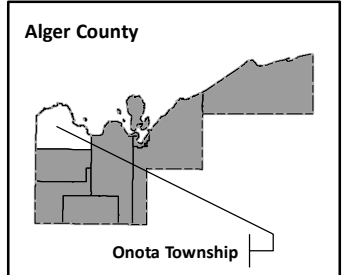


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Roads	
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	County Primary
	County Local
	Uncertified with a Fundclass
	Township Boundary
	Section Lines
	Rivers
	Lakes

Watershed Boundary

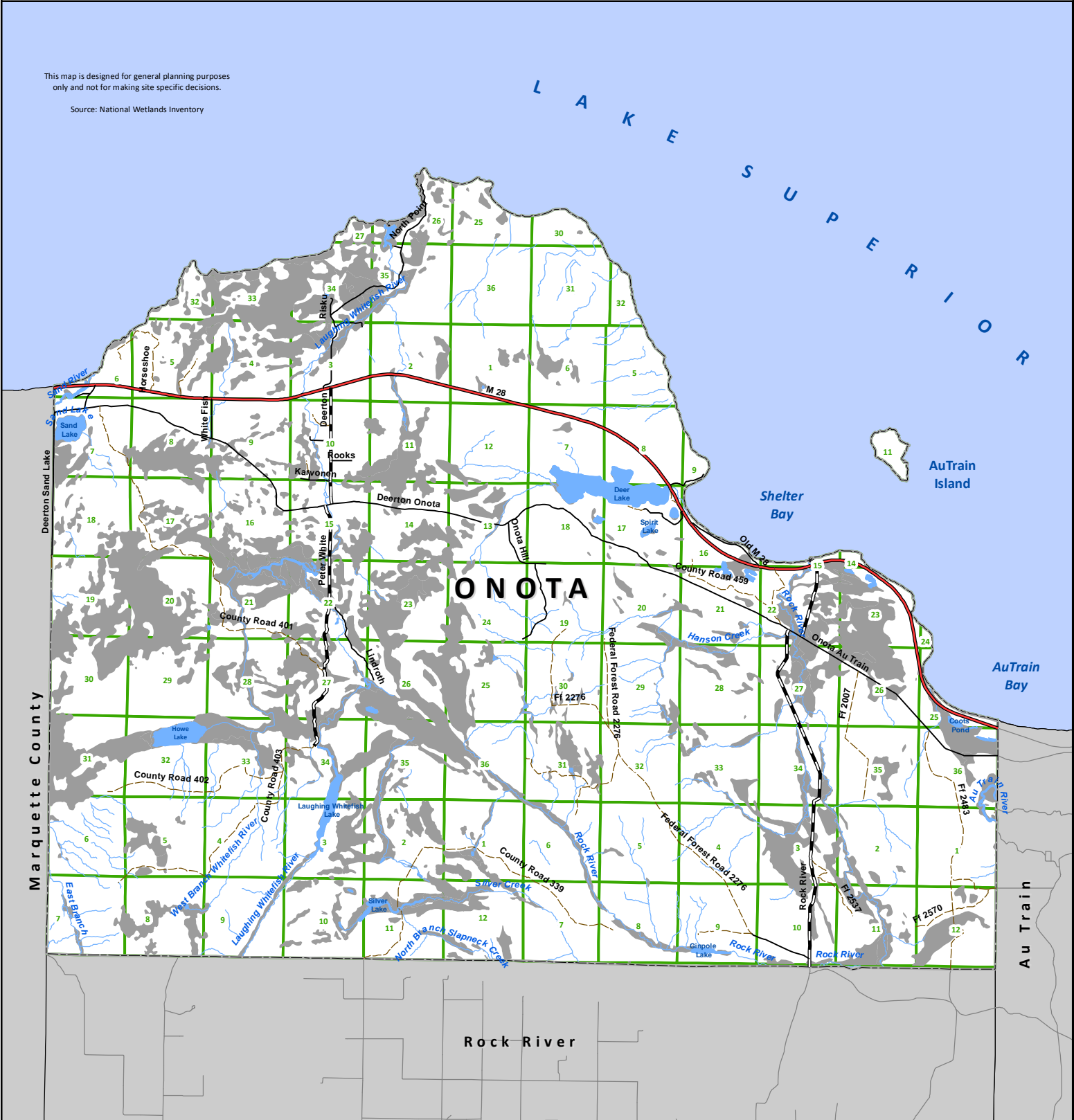


Onota Township Wetlands

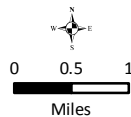
Map 4-6

This map is designed for general planning purposes only and not for making site specific decisions.
Source: National Wetlands Inventory

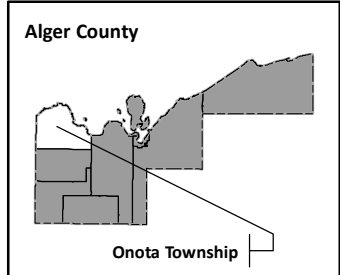
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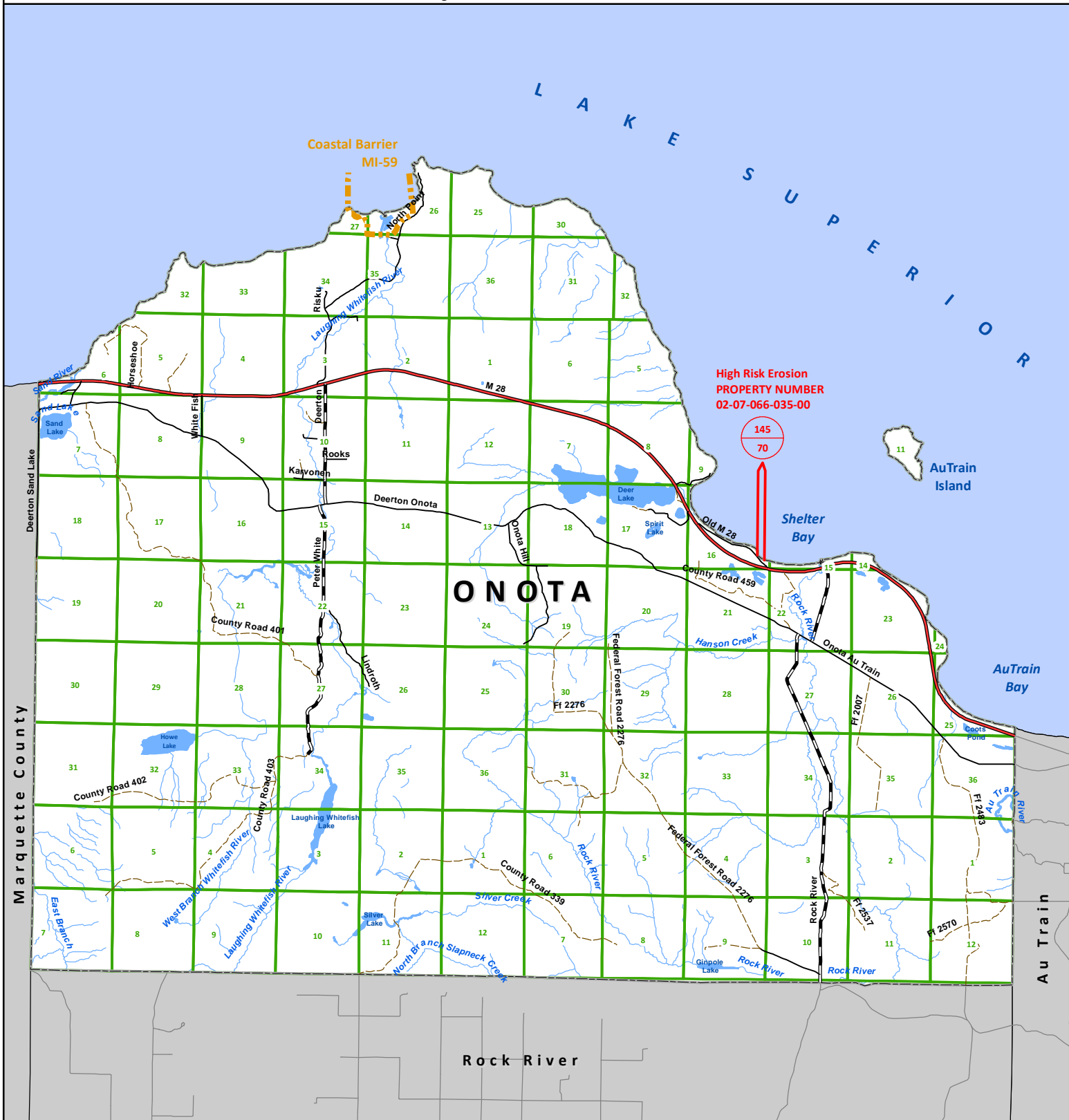
Roads	
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	County Primary
	County Local
	Uncertified with a Fundclass
	Township Boundary
	Rivers
	Lakes
	Section Lines



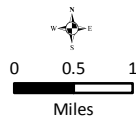
Onota Township

High Risk Erosion & Coastal Barrier

Map 4-7



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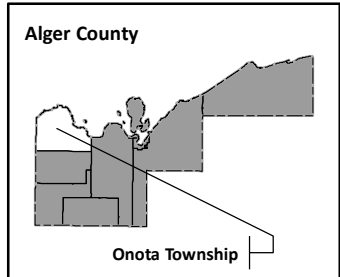
Roads

LEGALSYST

- State Trunkline
- County Primary
- County Local
- Uncertified with a Fundclass
- Township Boundary
- Section Lines
- Rivers
- Lakes

AREAS OF CONCERN

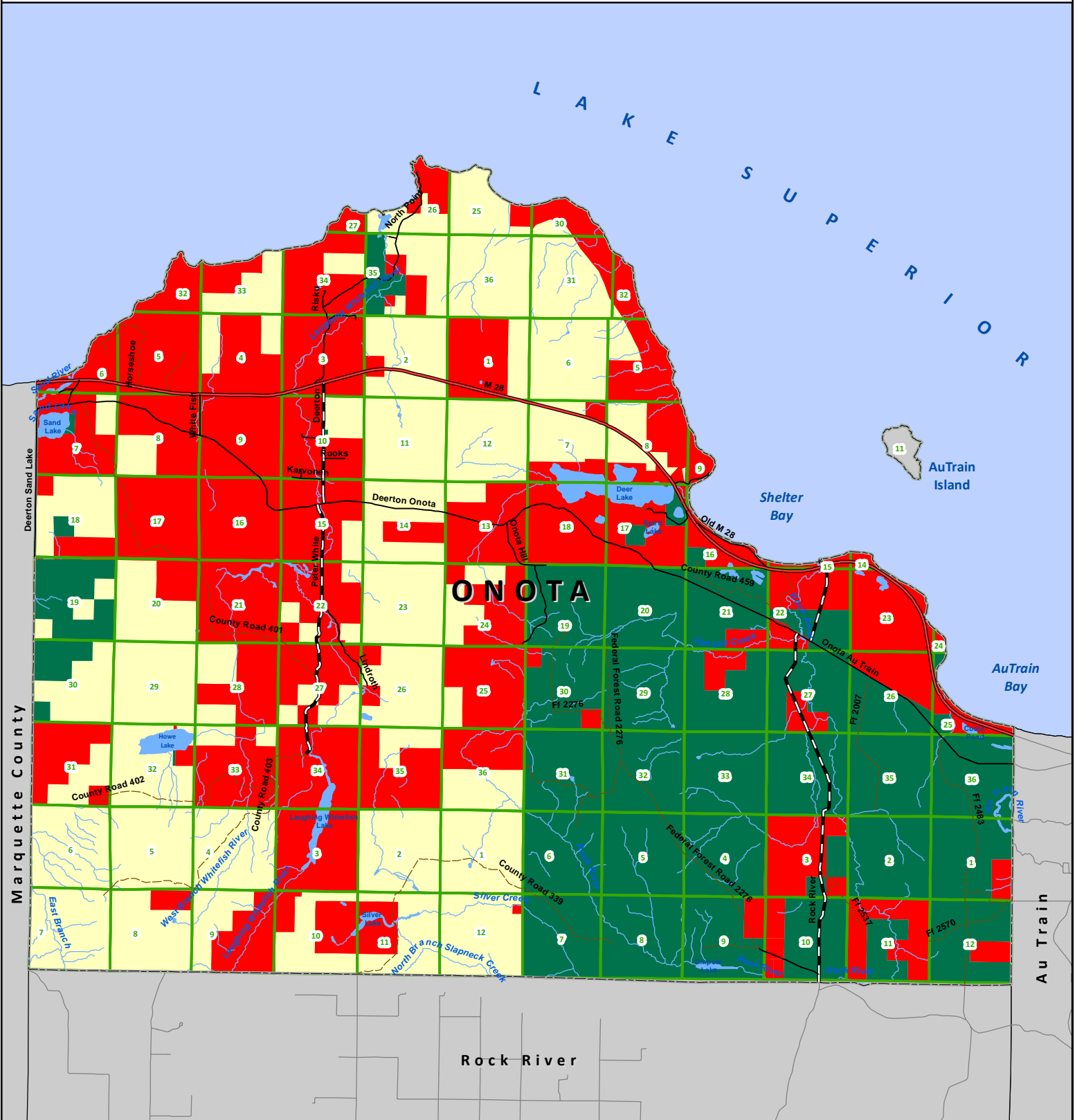
- COASTAL BARRIER
- HIGH RISK EROSION



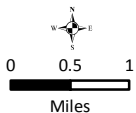
Onota Township

Land Ownership

Map 5-1



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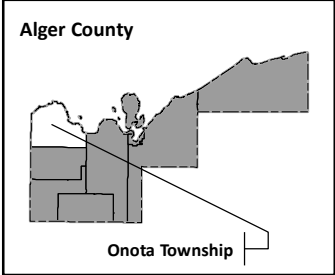
Roads

LEGALSYST

- State Trunkline
- County Primary
- County Local
- Uncertified with a Function
- Township Boundary
- Section Lines
- Rivers
- Lakes

Land Ownership Type

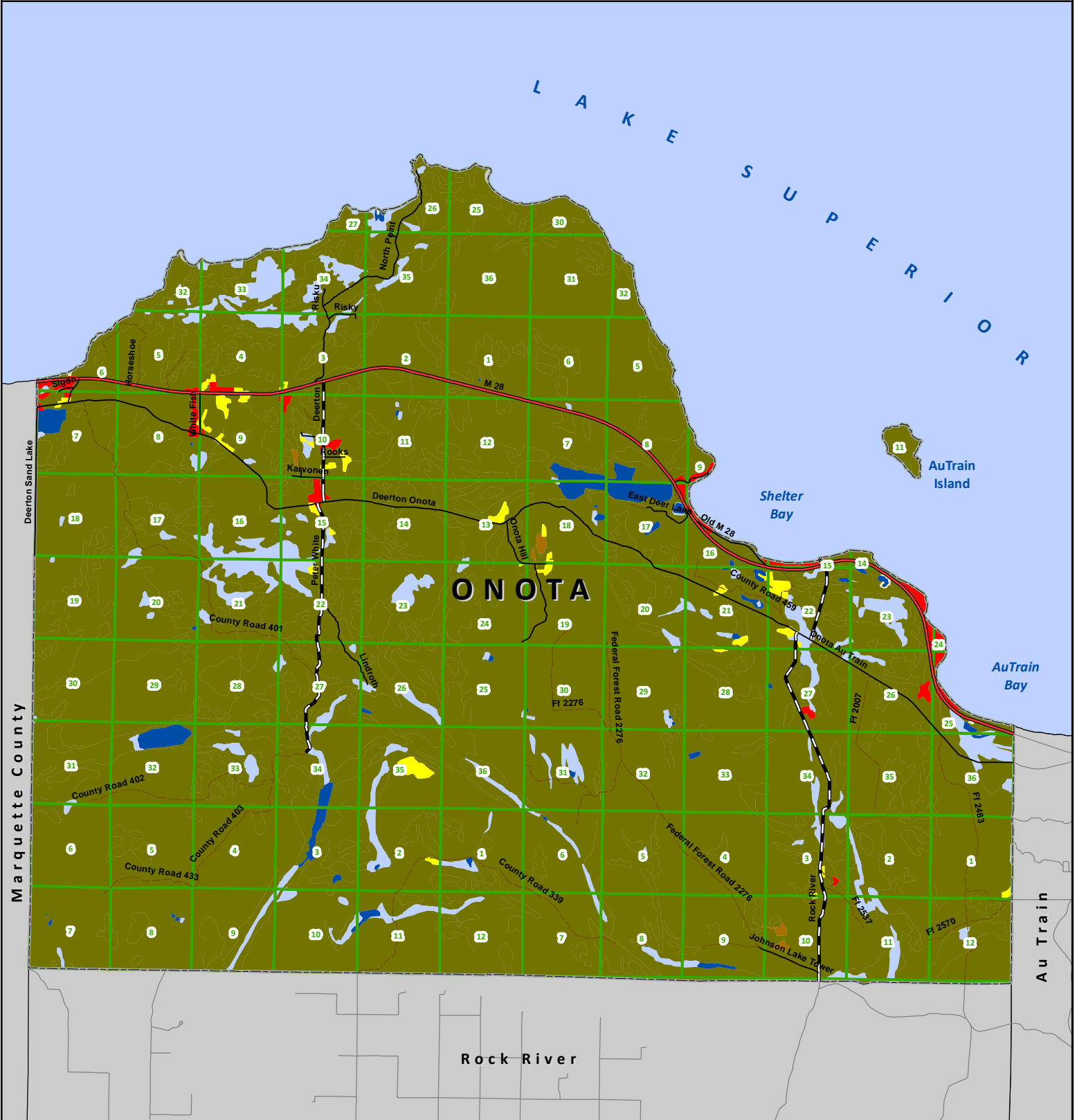
- CFR
- Private
- Public



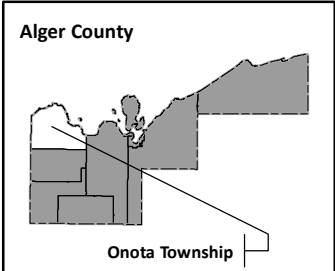
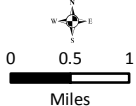
Onota Township

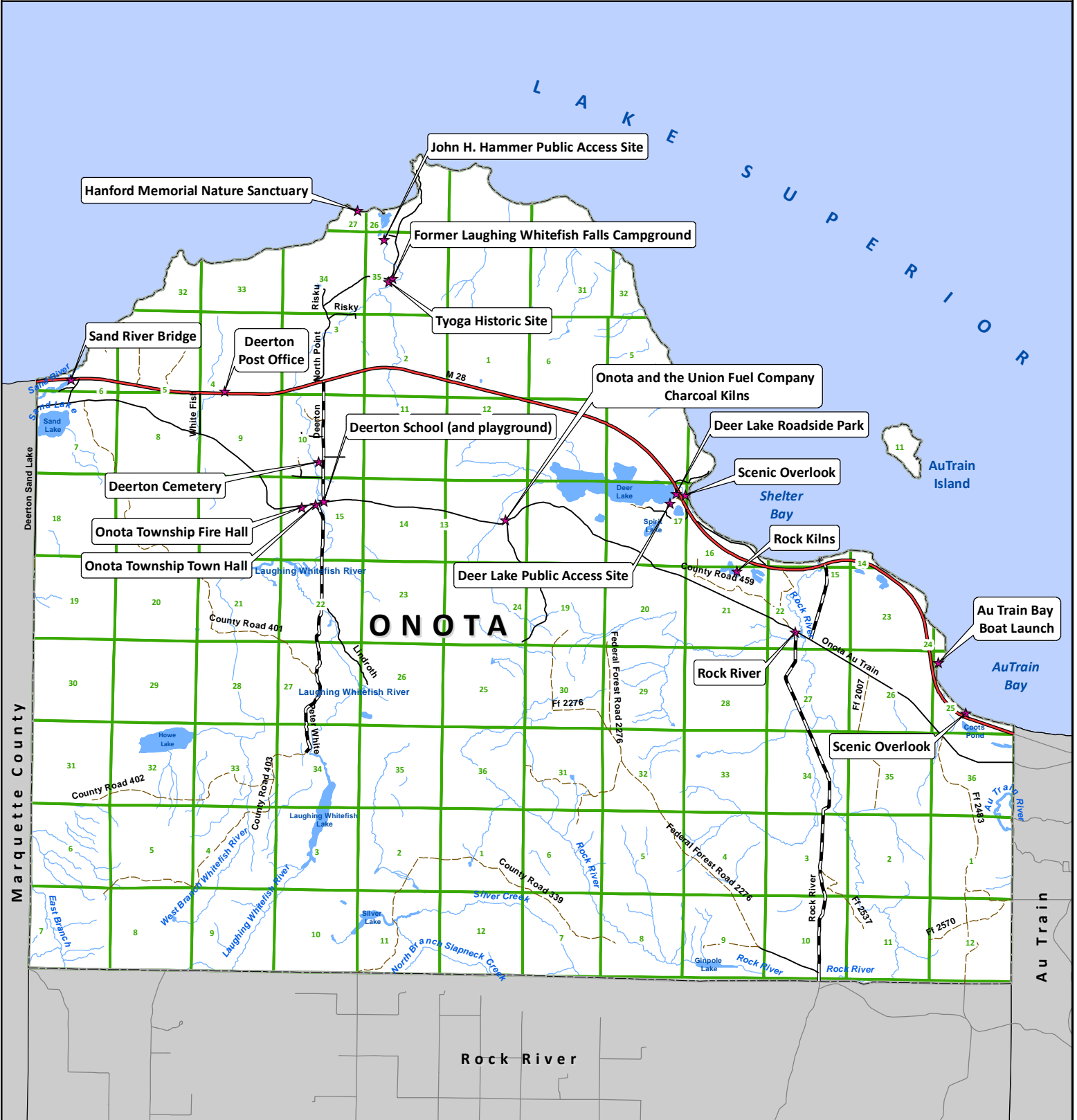
Land Use

Map 5-2

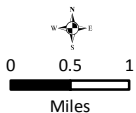


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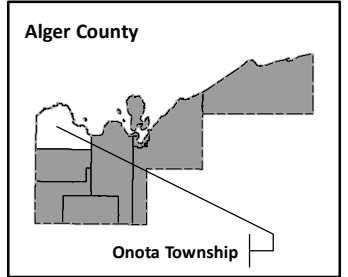
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Roads

LEGALSYST

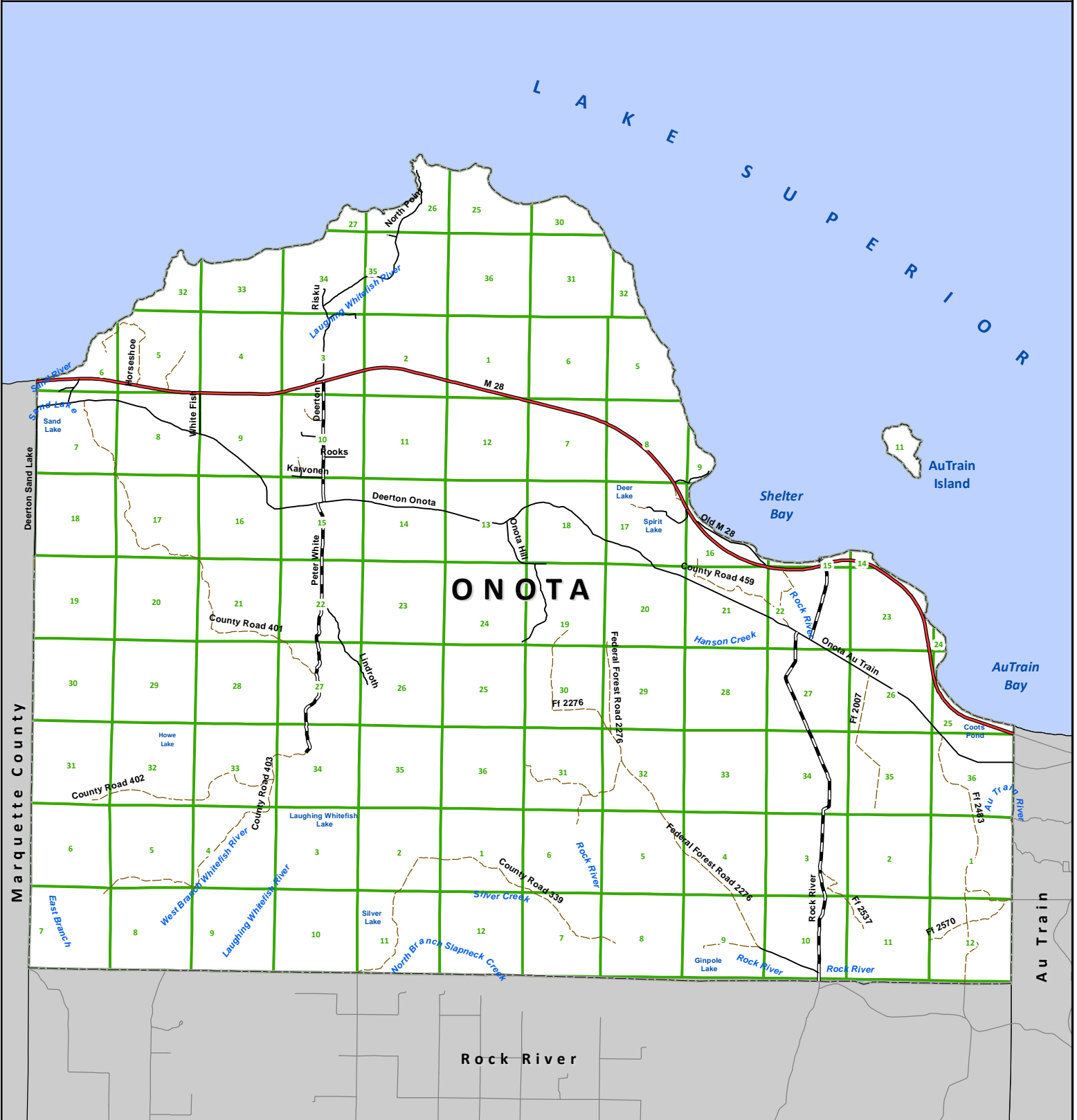
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- County Primary
- County Local
- Uncertified with a Fundclass
- Township Boundary
- Section Lines
- Rivers
- Lakes



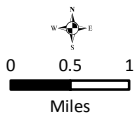
Onota Township

ACT 51 Roads

Map 8-1

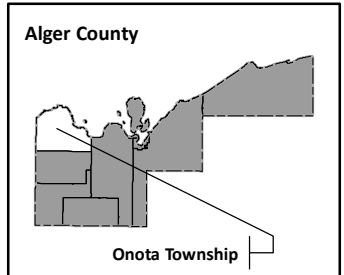


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Roads

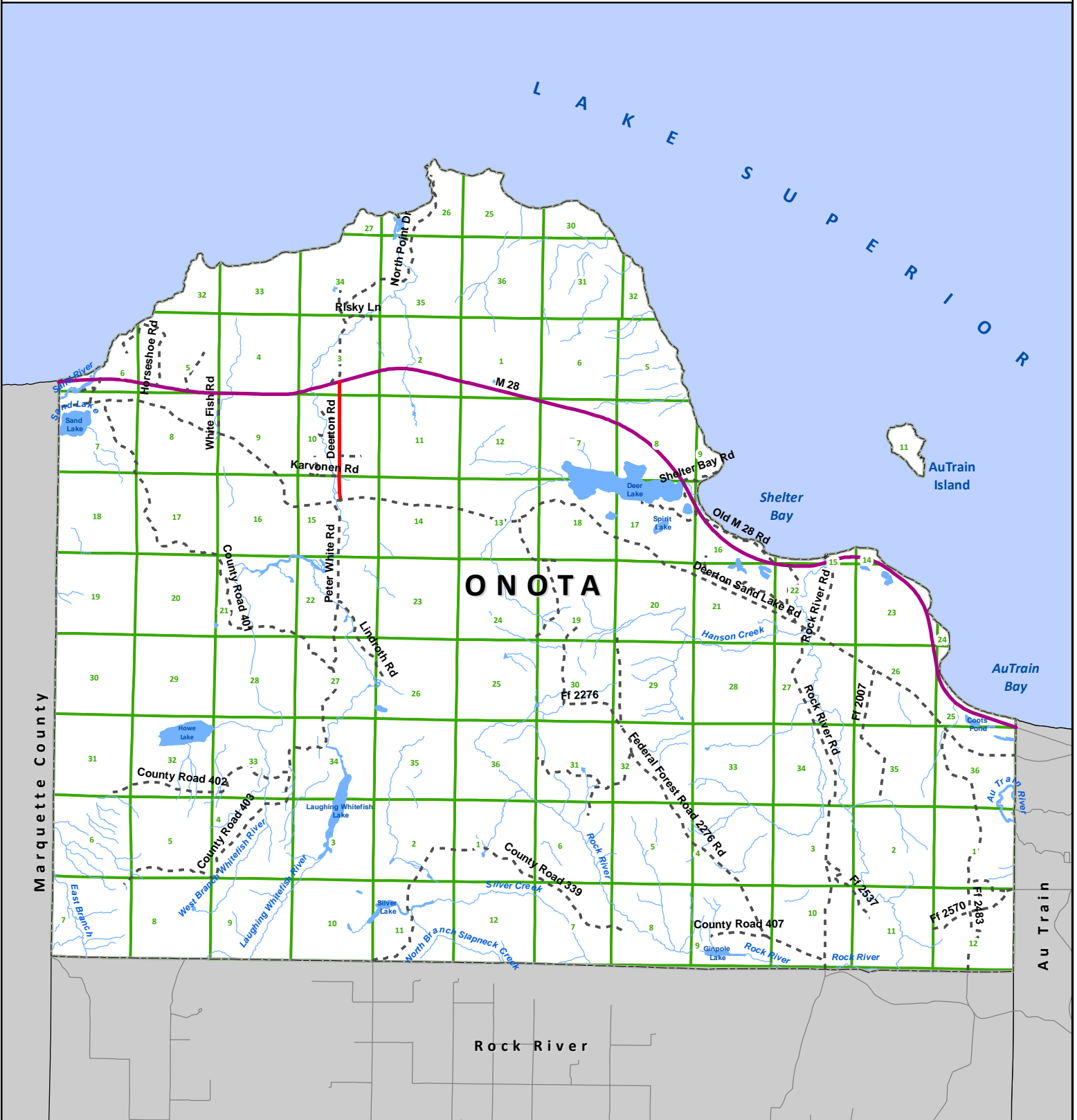
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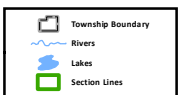
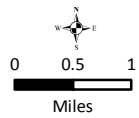
Onota Township

2010 Surface Condition Rating

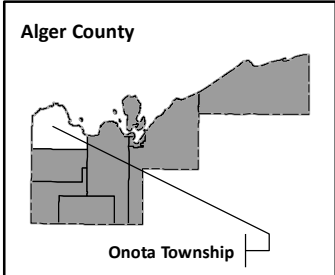
Map 8-2

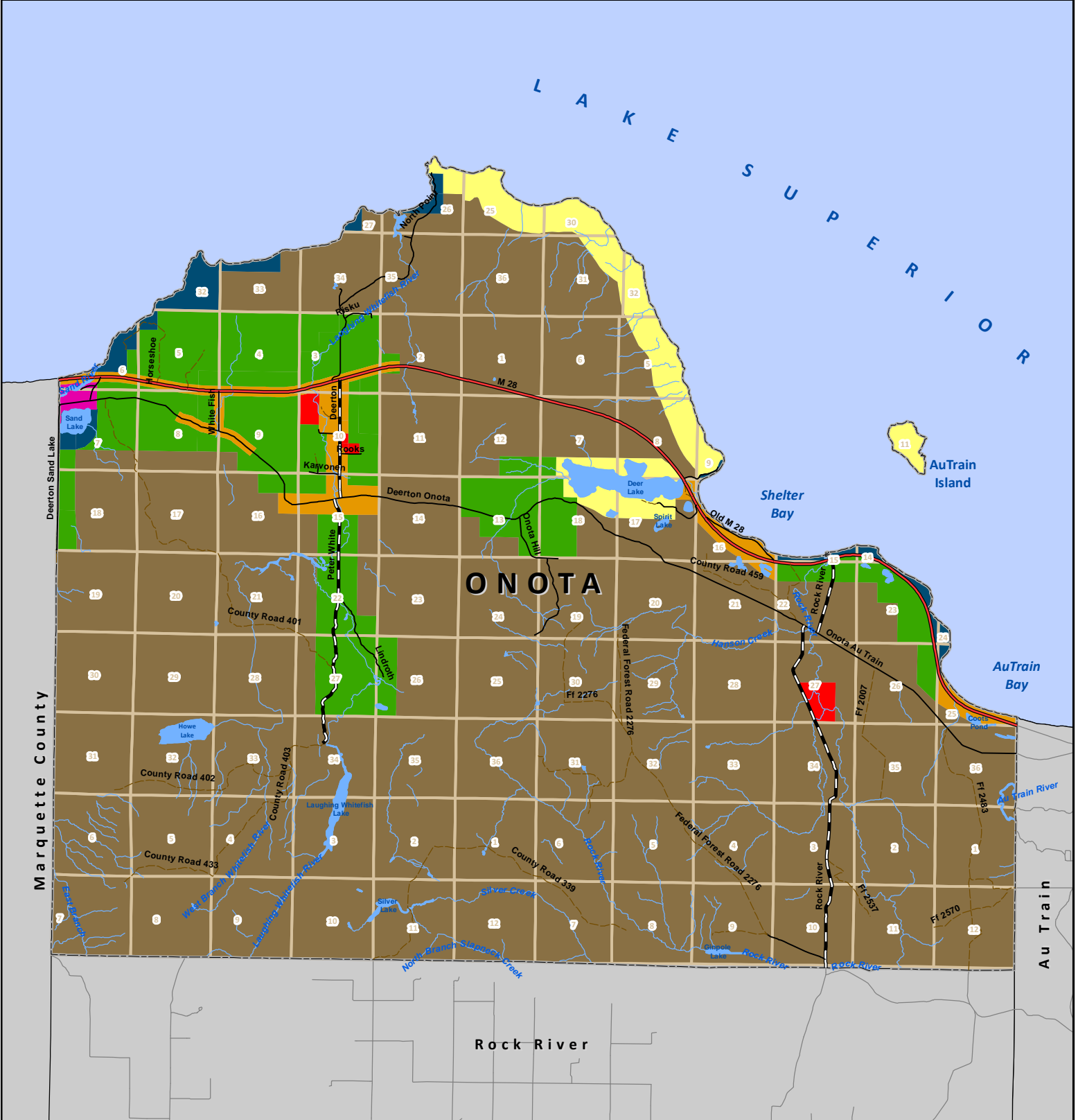


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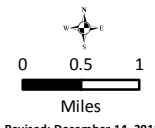


2010 Surface Condition Rating	
-----	Not Rated
-----	1-4 Structural Improvements (15.46 mi)
-----	8 - 10 Routine Maintenance (13.99 mi)





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- Roads**
- ACT 51
 - State Trunkline
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 - Lakes
 - Section Lines

- Future Land Use District**
- HR, High - Density Residential
 - MR, Medium - Density Residential
 - WR, Waterfront Residential
 - MU, Mixed Use
 - NR, Natural Resources
 - FP, Forest Production
 - M, Manufacturing

