INGALLSTON TOWNSHIP MASTER PLAN

2014

CUPPAD

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CHAPTER ONE: INTRODUCTION

1.1 INTRODUCTION

The preparation of this updated Master Plan represents many months of study, analysis and review by the Ingallston Township Planning Commission with technical assistance from the Central Upper Peninsula Planning and Development (CUPPAD) Regional Commission. The Menominee County Master Plan and Recreation Plan were consulted in preparation of this document. Additional information about the area can be found in these plans on the Menominee County website.

The Township derives its authority to prepare a Master Plan from the Michigan Planning Enabling Act, PA 33 or 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, housing, community facilities and services, recreation, transportation, natural features and land use. Each of these chapters, or elements, includes a summary of the points having the greatest relevance to future Township decision- making. Thus, this Plan addresses the issues of present conditions, Ingallston Township needs and desired future conditions, while also providing a means to achieve future development goals and objectives.

The development of the Master Plan is motivated by Ingallston Township's desire to protect the health, safety and welfare of its residents and property and to promote the appropriate development of Township resources.

1.2 CHARACTERISTICS OF A MASTER PLAN

- *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 guidelines 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 is not a Zoning Ordinance, nor is it a law or local ordinance. The Master Plan is a long-range policy guide for the physical development and land use arrangements within Ingallston Township. The Zoning Ordinance specifically regulates land use and the manner in which individual properties are used, and while it is very effective, it is only one of a number of tools utilized to implement the Master Plan.

In summary, the Ingallston Township Master Plan is intended for use as a guide for Township officials when considering matters related to development and land use within Ingallston Township. Planning is not a static process and it requires ongoing review and analysis. To that end, this Plan will remain a "work-in-progress" and will require timely and focused review to be of the greatest value.

CHAPTER TWO: POPULATION

2.1 INTRODUCTION

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

Because communities do not exist in a vacuum, it is important to examine trends in the surrounding areas as well. Residents of one community may work in another community, send their children to school in a different place and travel to additional locales to purchase goods and services. A portion of the population base in Ingallston Township may have located in the area due to the close proximity to the Cities of Menominee and Marinette with the benefits of rural living. The Township has also experienced an influx of former residents who have retired and moved back to the area.

Demographics -- age, income, gender, education, and occupation, among other related factors -- shape the development of a community as well as its growth. Analysis of these trends and patterns are a useful tool to determine the needs and demands of the future population of Ingallston Township. Included in this chapter is a thorough review of the current population, historic population trends and age distribution.

Data from the decennial census, as well as the American Community Survey (ACS) 5-Year Estimates from 2006-2010 will be used in the Master Plan. While the main function of the U.S. decennial census is to provide counts of people for the purpose of Congressional apportionment, the primary purpose of the ACS is to measure the changing social and economic characteristics of the U.S. population. As a result, the ACS does not provide official counts of the population in between censuses. Although the questions used in the ACS are very similar to those included on the long form used in the 2000 decennial census, there are some important differences between the two surveys. While the decennial census has provided a snapshot of the U.S. population once every 10 years, the ACS has been described as a "moving video image, continually updated to provide much needed data about our nation in today's fast-moving world." Because ACS data are collected continuously, they are not always comparable to data collected from the decennial census.

The margin of error is a statistic expressing the amount of random sampling error in a survey's results. The larger the margin of error, the less faith one should have that the poll's reported results are close to the "true" figures; that is, the figures for the whole population. Margin of error occurs whenever a population is incompletely sampled. In general, there is a large margin of error for Ingallston Township data presented.

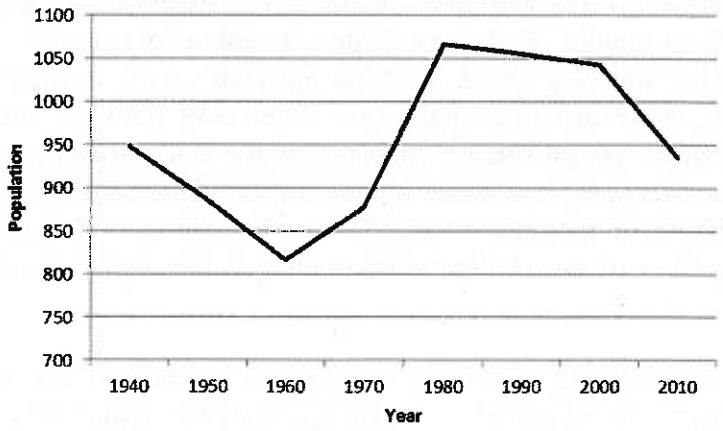
Table 2-1 presents a comparison of historic population trends for all Menominee County jurisdictions from 1940 to 2010. Menominee County's population has decreased slightly, from 24,883 in 1940 to 24,029 in 2010. Population increases during this time period are evident in the Townships closer to the City of Menominee (Mellen and Menominee).

Ingallston Township's population has gradually decreased from 1940-2010, decreasing from 948 in 1940 to 935 in 2010; a decrease of 1.4 percent (shown in Figure 2-1). Seven Menominee County jurisdictions experienced a population increase from 1940 to 2010. Those jurisdictions include: the Village of Powers, Menominee Township, the City of Stephenson, Harris Township, Gourley Township, Mellen Township, and Spalding Township. Of these seven communities, the Menominee Township experienced the greatest increase, at 98.2 percent.

The remaining Menominee County jurisdictions have all experienced a population loss over the same sixty year period; several communities have undergone a remarkable population decline. Areas experiencing population loss include: Cedarville Township, Daggett Township, the Village of Daggett, Faithorn Township, Holmes Township, Ingallston Township, Lake Township, the City of Menominee, Meyer Township, Nadeau Township and Stephenson Township. Holmes Township has experienced a 43.4 percent population decline from 1940 to 2010.

Many rural areas have been characterized by slight, but consistent long-term population loss, coupled with a lack of employment opportunities, low levels of infrastructure and business development, low educational attainment and skill development as well as limited access to medical facilities and health care professionals. In addition, continued out-migration of working age residents leaves behind a large number of both young and older residents whom require a large share of governmental services. Job creation in these communities should be a major priority in order to keep rural areas from declining further.

Figure 2-1
Ingallston Township Population 1940 - 2010



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

Table 2-1
Population and Percent Change, Selected Areas, 1940-2010

Area	1940	1950	1960	1970	1980	1990	2000	2010	% Change 1940-2010
Ingallston Township	**948**	**886**	**816**	**877**	**1,066**	**1,055**	**1,042**	**935**	**-1.4**
Cedarville Township	338	245	218	231	212	185	276	253	-25.1
Daggett Township*	923	885	739	777	803	745	740	714	-22.6
Village of Daggett	283	341	296	366	274	260	270	258	-8.8
Faithhorn Township	339	233	222	208	227	213	214	243	-28.3
Gourley Township	336	371	409	380	400	362	409	420	25.0
Harris Township	1,465	1,345	1,195	1,237	1,563	1,542	1,895	1,968	34.3
Holmes Township	627	539	408	336	253	292	296	355	-43.4
Lake Township	738	719	515	532	622	603	576	556	-24.7
Mellen Township	865	878	800	822	1,159	1,183	1,260	1,150	32.9
City of Menominee	10,230	11,151	11,289	10,748	10,099	9,398	9,131	8,599	-15.9
Menominee Township	1,760	2,097	2,670	3,212	4,026	3,956	3,939	3,488	98.2
Meyer Township	1,536	1,069	973	1,004	1,004	1,090	1,036	1,001	-34.8
Nadeau Township**	1,680	1,572	1,403	1,084	1,219	1,161	1,160	1,161	-30.9
Village of Carney	--	--	--	--	236	197	225	192	--
Spalding Township***	1,555	1,634	1,414	1,632	1,842	1,536	1,761	1,674	7.7
Village of Powers	258	510	415	560	490	271	430	422	63.6
City of Stephenson	612	791	820	800	967	904	875	862	40.8
Stephenson Township	931	884	826	707	733	695	716	670	-28.0
Menominee County	24,883	25,299	24,685	24,587	26,201	24,920	25,326	24,029	-3.4

Source: U.S. Bureau of the Census, years cited. Table DP-1, Profile of General Demographic Characteristics: 2010.
*Village of Daggett included in Township total
**Village of Carney included in Township total
***Village of Powers included in Township total

2.2 AGE COMPOSITION

The median age of Ingallston Township residents in 2010 was 53.0 years (Table 2-2). Median age in Ingallston Township increased considerably from 1980 (33.6) to 2010 (53.0), an increase of 19.4 years. The median age of residents in several neighboring Townships has also increased, with the median age of Mellen Township residents at 48.3 years in 2010 and Menominee Township residents at 49.0 years. The County's median age also increased in 2010, to 46.2 years.

Table 2-2
Median Age, Selected Areas, 1980-2010

Area	1980	1990	2000	2010	Change in Age
Ingallston Township	**33.6**	**38.7**	**45.2**	**53.0**	**+19.4**
Mellen Township	28.5	33.8	40.3	48.3	+19.8
Menominee Township	29.0	36.3	41.3	49.0	+20.0
Menominee County	30.7	35.8	40.4	46.2	+15.5
Michigan	28.8	32.6	35.5	38.9	+10.1
United States	30.0	32.9	35.3	37.2	+7.2

Source: U.S. Bureau of the Census, 2010 and 2000 Census Table DP-1 Profile of General Demographic Characteristics; 1990 Census of Population and Housing, Summary Population and Housing Characteristics, Table 1; 1980 Census of Population, General Population Characteristics, Table 44.

The term "Baby Boomers" can be used to describe those born between 1946 and 1964. Currently Boomers are approximately 100 million strong in the United States and by 2015 they will represent 35 percent of the US population. The term "Generation X" or "Gen Xers" is used to describe the age group of individuals born after the post World War II baby boom. The exact age range for this generation is in dispute but can generally be considered those born between 1965 and 1976; these individuals came of age in the 1980s. Generation X is much smaller than the Baby Boomers group or the Millenials. "Generation Y", or the "Millenials" were born during a baby bulge which took place between 1977 and 1994. Millenials are 60 million strong, more than three times the size of Generation X and have grown up in a more media-saturated and brand-conscious world than any of their predecessors. Millenials are also the most racially diverse in history (one third are not Caucasian), 75 percent have working mothers and 25 percent live in a single family home. Access to information is perhaps the biggest difference between Millenials and their predecessors, as they are the first generation to grow up with the internet. Retaining local Gen Xers and Millenials as well as attracting this age group to the area will be largely dependent on the availability of employment, technology and possibly even the environmental sustainability of the area.

Generally speaking, the aging population of Ingallston Township is following state and national trends that result from a combination of factors. Ingallston Township's older age structure is most likely the result of young adults (Millenials and Gen Xers) out-migrating to other areas with larger populations in search of educational and job opportunities.

Many Gen Xers across the country are dropping out of the general workplace culture and starting their own businesses; leading to many young residents moving out of the area to seek economic development opportunities. Millenials are considered to be extremely "tech-savvy" and many are seeking employment out of the area to meet those qualifications. Increased life expectancy, combined with the fact that the largest segment of the population, the "Baby Boomers" is aging is also a contributing factor. A trend toward smaller families, with many people choosing to delay childbearing or not to have children, also contributes toward an aging population.

Table 2-3 shows the 2010 population distribution of Ingallston Township by age. The age group of 45-54 years made up the largest portion of the total population at 190 persons, or 20.3 percent. The age group of 65-74 years is second, at 141 persons, or 15.0 percent. The Baby Boomers consists of persons between the ages of 46-65 and were born approximately between 1945 and 1964. Persons of the Baby Boomer Generation comprise over 41.8 percent of the Township's population. Generation X, those individuals born between 1965 and 1976 comprise approximately 9.2 percent of the Township's population. At the time of the 2010 Census, these individuals would have been between the ages of 34 and 45. The Millenials, ranging from ages 16 to 31 at the time of the Census, comprise approximately 10.0 percent of the Township's population. Persons in the Township over the age of 65 represent 211 residents or about 22.6 percent. As the working population ages, the type and amount of services the Township provides may need to change to accommodate an older population. Many persons 65 and older are moving back to the Upper Peninsula after retirement and have at least some discretionary income.

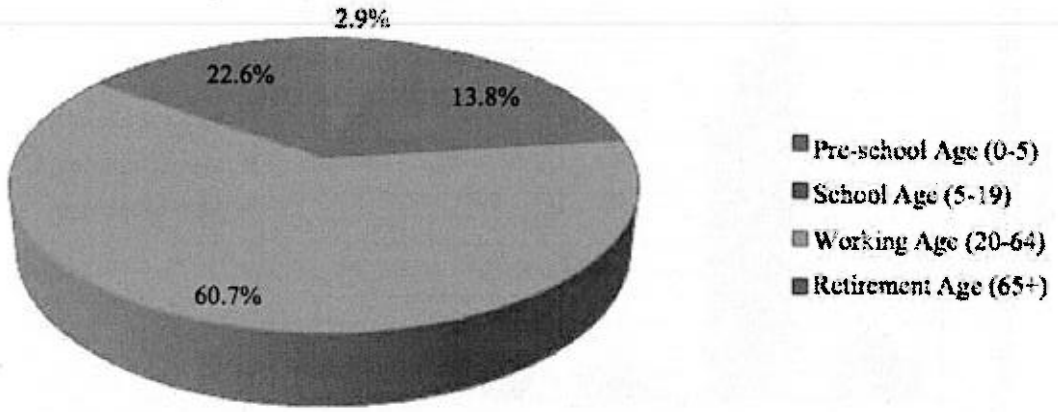
Table 2-3
Age Distribution, Ingallston Township, 2010

	2010	
Age Group	Number	Percent
Under 5	27	2.9
Preschool Age	*27*	*2.9*
5 to 9	35	3.7
10 to 14	51	5.5
15 to 19	43	4.6
School Age	*129*	*13.8*
20 to 24	25	2.7
25 to 34	66	7.1
35 to 44	86	9.2
45 to 54	190	20.3
55 to 59	97	10.4
60 to 64	104	11.1
Working Age	*568*	*60.7*
65 to 74	141	15.1
75 to 84	52	5.6
85+	18	1.9
Retirement Age	*211*	*22.6*
Total	935	100.0

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

Figure 2-3

Age Distribution
Ingallston Township,
2010



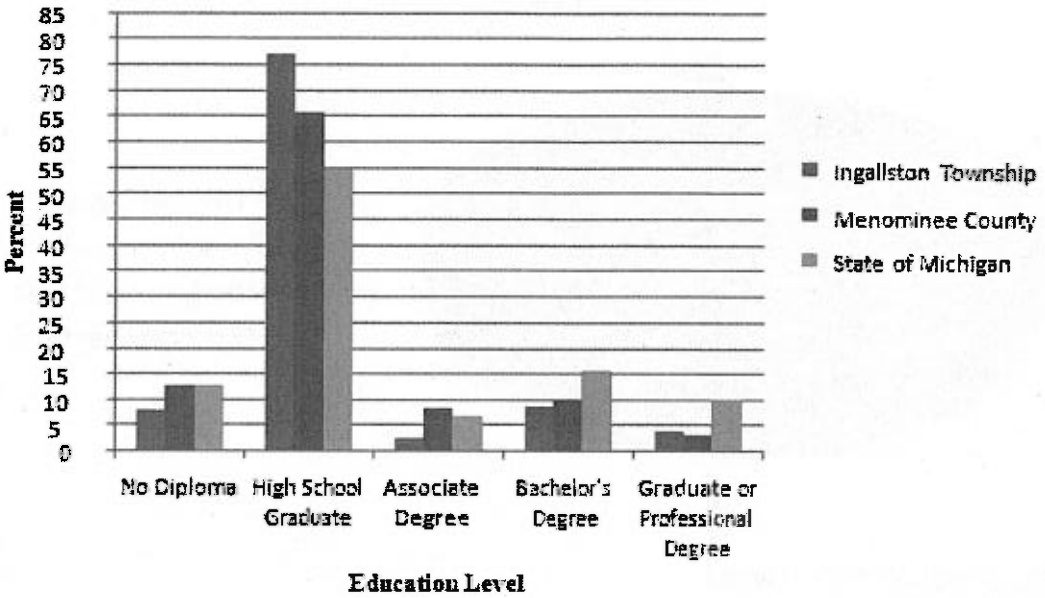
2.3 EDUCATIONAL ATTAINMENT

The number of Ingallston Township residents over 25 years of age without a high school diploma for 2006-2010 approximately 9.2 percent, which was lower than Menominee County and the State (Figure 2-4). Overall, 90.7 percent of residents over 25 years of age in Ingallston Township were high school graduates or higher, which was higher than Menominee County (89.3 percent), and higher than the State (88.0 percent). The percent of residents in Ingallston Township and County over 25 years of age with a bachelor's degree or higher was significantly lower than the rates reported by the State.

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.

Figure 2-4

Educational Attainment of Persons Over 25 Years of Age, 2006-2010



Source: U.S. Bureau of the Census, 2000 Table DP-2, Profile of Selected Social Characteristics; 1990 Census of Population and Housing, STF 3A, P057.

2.4 HOUSEHOLD CHARACTERISTICS

The U.S. Census defines a *household* as all persons who occupy a housing unit; e.g., a single family, one person living alone, two or more families living together, or any group of 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.

From 2000 to 2010, the population of Ingallston Township decreased by 107 persons (10.3 percent), however the number of housing units (by definition a household is the same as a housing unit) decreased by 3.5 percent during the same time period (Table 2-4). This scenario was caused by a decrease in the average household size, which was the result of an increase in non-family households.

The number of single-parent family households declined by 33 percent between 2000 and 2010, while the number of non-family households, including persons living alone, increased by about 1.4 percent overall. The number of non-family householders living alone increased from 140 to 142 between 2000 and 2010; about 33 percent of these households are elderly people living alone. The average household size decreased from 2.29 persons to 2.13 persons between 2000 and 2010.

Table 2-4 Household Characteristics for Ingallston Township, 2000-2010				
	2000		2010	
Household Type	Number	Percent	Number	Percent
Family Households	316	69.3	298	67.7
Husband-Wife Family	277	60.7	272	61.8
Female Householder	21	4.6	12	2.7
Male Householder	18	3.9	14	3.2
Non-Family Households	140	30.7	142	32.3
Householder Living Alone	125	27.4	124	28.2
Householder 65 or Over	57	12.5	47	10.7
Total Households	456	100.0	440	100.0
Average Household Size	2.29		2.13	

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

2.5 DISABILITY STATUS

The US Bureau of the Census defines disability as "a long-lasting physical, mental or emotional condition. This condition can make it difficult for a person to do activities such as walking, climbing stairs, dressing, bathing, learning or remembering. This condition can also impede a person from being able to go outside the home alone or to work at a job or business." For tracking disability status, the population is broken down into three groups: population 5-20 years (school age), population 21-64 years (working age) and the population 65 and older (retirement age). The Census only counted individuals who are not in the military and people who are not under formally authorized supervised care or custody in institutions and typically classified as "patients" or "inmates." Approximately 9.5 percent of school age children in Ingallston Township have a disability, while 18.1 percent of the working age population and 40.9 percent of the retirement age population reported having a disability in 2000. Assessments for providing services for individuals with a disability must depend on direct communication with these populations and the professionals who serve them. Disability status data is not available for the American Community Survey 2006-2010 for Ingallston Township.

Table 2-5 Disability Status, Ingallston Township, 2000		
Disability Status of the Noninstitutionalized Population	**Number**	**Percent**
Population 5-20 Years	200	100.0
With a disability	19	9.5
Population 21-64 Years	623	100.0
With a disability	113	18.1
Population 65+	193	100.0
With a disability	79	40.9

Source: U.S. Bureau of the Census, Table DP-2: Profile of Selected Social Characteristics.

2.6 POPULATION DENSITY

With a 2010 population of 935 persons and a land area of 70.8 square miles, Ingallston Township's population density was 13.2 persons per square mile (Table 2-6). This figure compares with a density of 23.0 persons per square mile for Menominee County and 175.0 persons per square mile at the state level. When compared to the other Townships in the County, Ingallston Township has the eighth highest population density.

Table 2-6
Population Densities, Selected Areas, 2010

Place	Land Area (Sq. Miles)	Population	Persons Per Square Mile
Ingallston Township	**70.8**	**935**	**13.2**
Cedarville Township	79.0	253	3.2
Daggett Township	35.9	714	19.9
Faithhorn Township	53.6	243	4.5
Gourley Township	35.7	420	11.8
Harris Township	143.1	1,968	13.8
Holmes Township	71.3	355	5.0
Lake Township	70.8	556	7.9
Mellen Township	30.8	1,150	37.3
Menominee Township	72.8	3,488	47.9
Meyer Township	89.8	1,001	11.1
Nadeau Township	80.7	1,161	14.4
Spalding Township	162.5	1,674	10.3
Stephenson Township	40.7	670	16.5
Menominee County	1,043	24,029	23.0
Michigan	56,539	9,883,640	175

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

2.7 ISSUES AND OPPORTUNITIES

- Census data indicates that Ingallston Township has experienced a steady population from 1940 to 2000, with a 10 percent decline in population from 2000 to 2010.

- A lack of career opportunities for local high school and college graduates has contributed to the declining population in some areas of Menominee County.

- From 2000 to 2010, the population of Ingallston Township decreased by 107 persons (10.3 percent), however the number of housing units (by definition a household is the same as a housing unit) only decreased by 3.5 percent during the same time period. This indicates a decrease in the size of the average household in the Township.

- The median age of Ingallston Township residents in 2010 was 53 years. The age composition and distribution within Ingallston Township indicates an older population base than state and national averages; the County's median age is 46.2 years.

- Baby Boomers account for about 41.8 percent of the Township's population, Gen Xers make up about 9.2 percent and Millenials comprise about 10 percent of Ingallston Township's population.

- Approximately 22.6 percent of Ingallston Township's population is over the age of 65. Many of these residents have moved back to the area to retire and may have discretionary income to spend. Ingallston Township may need to increase the amount of services offered to seniors as the population continues to age.

- The relatively high percentage of high school graduates or higher in Ingallston Township indicates that the Township offers a well-educated work force to potential employers within the area.

- The minor shift from family households to non-family households between 2000 and 2010 may indicate a change in the type of housing and other services demanded within the Township, such an increased need for apartments and other multi-family housing options.

CHAPTER THREE: ECONOMIC BASE

3.1 INTRODUCTION

Community growth and stability are directly linked to the local economic base. Two major sectors make up an economy: one that provides goods and services for markets outside the community (basic or export sector) and one that 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. In this chapter, data for Ingallston Township, the City of Menominee, Menominee County and Michigan will be presented for analysis and comparison.

The local economy is linked not only with the City of Menominee but also with the City of Marinette, WI and surrounding Menominee County communities. Residents readily travel back and forth between these communities for employment, shopping, entertainment, etc. A person living in Ingallston Township, for example, may work in the City of Menominee and send their children to school in the City of Stephenson and shop in Marinette.

Ingallston Township is situated at the southern end of the Upper Peninsula bordering Cedarville, Mellen, Stephenson, and Menominee Townships and the shore of Green Bay. Menominee County offers access via highways, water, rail, and air to markets throughout North America. A strong and diverse manufacturing base in the City of Menominee takes advantage of the port facilities at the mouth of the Menominee River, as well as other excellent transportation facilities. Most industrial operations are concentrated in the City, but others are located in communities throughout the County. Agriculture remains a significant land use in the County, although it has diminished over the last 30 years. The service sector, including tourism, also offers significant employment opportunities. Outdoor recreation opportunities abound throughout the county.

Past growth in Ingallston Township was directly related to lumbering and industry in the City of Menominee. Logs from inland forests were milled in Menominee with the lumber shipped to other areas. Growth has been fueled by the logging and paper industries, along with other manufacturing businesses. Ingallston Township has become a bedroom community, while the City of Menominee has evolved into the largest community in the County and an economic center.

3.2 AREA ECONOMY

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

The economy of the City of Menominee consists of a large manufacturing base, coupled with significant employment in the service industry and modest retail employment.

Tourism has been, and continues to be, a 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). 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. Menominee County has an abundance of opportunities for cross country skiing, fishing, boating, canoeing, kayaking, swimming, hiking, hunting and camping.

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.

Ingallston Township benefits from the diversity that exists among area businesses and industries. Businesses in the Cities of Menominee, MI and Marinette, WI provide employment for many Township residents. There are also a very small number of businesses located throughout the Township that provide employment.

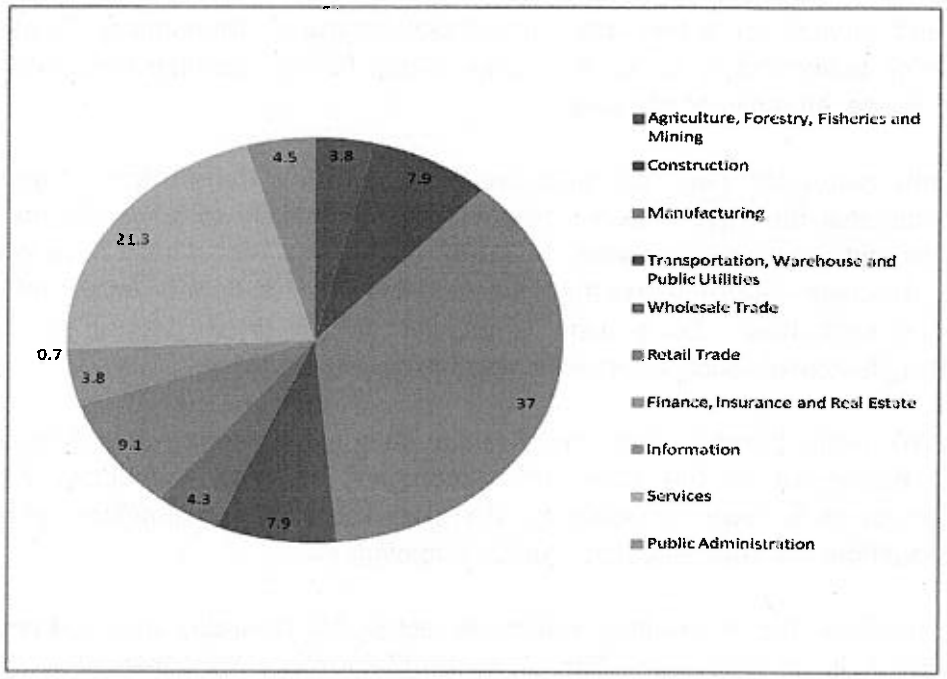
Economic activity in the service and retail trade sectors has favorably impacted employment as the tourist industry has grown. The Marinette Menominee Area Chamber of Commerce serves both the cities and counties of Marinette, Wisconsin and Menominee, Michigan. The Menominee County Economic Development Partnership, the Menominee Business Development Corporation and Michigan Works have worked to bring about programs to benefit the local economy. There are no economic development groups active in Ingallston Township.

3.3 EMPLOYMENT BY INDUSTRY GROUP

Employment information collected from the 2007-2011 Five-Year American Community Survey estimates is categorized by the North American Industrial Classification System (NAICS). Previous censuses utilized the Standard Industrial Classification system; because of the change comparisons from 1990 to 2000 are not accurate. The census information represents Township residents who may work outside Ingallston Township. The data presented is not indicative of the types of jobs provided in Ingallston Township.

According to 2007-2011 estimates, approximately 37.0 percent of Township residents who were working found their employment in manufacturing industry, while approximately 21.3 percent were employed within the service industry. Retail trade accounted for 9.1 percent of employed persons.

Figure 3-1
Employment by Industry Sector
Ingallston Township 2006-2010



Source: United States Bureau of the Census, American Community Survey 5-Year Estimates, Selected Economic Characteristics, 2007-2011.
*Includes categories: professional, scientific, management, administration, waste services, education, health and social services, arts, entertainment, recreation, food services, and other services.

Primary concentrations of industrial activity are found along the Menominee River, in the Menominee Industrial Park, along the Green Bay shoreline, at the Twin County Airport and between 10th and 13th Streets. Lloyd Flanders, a manufacturer of outdoor casual furniture, is one of the largest single manufacturing employers in the City of Menominee, with a workforce of approximately 125 employees. The manufacturing operations at the site date back to the late 1880's. Employment is expected to remain stable for the near future.

3.4 EMPLOYMENT BY PLACE OF WORK

Approximately 45.6 percent of Ingallston Township workers are employed in Menominee County. A large portion of the work force in the Township finds employment in Wisconsin. For the five year period between 2007 and 2011, about 54.2 percent of the employed work force worked in Wisconsin. This is indicative of the interstate nature of the local labor market. Comparative information is contained in Table 3-1. It is interesting to note that while 54.2 percent of employed individuals in Ingallston Township make the daily trip over one of the bridges into Wisconsin, only 13 percent of employed persons in the City of Marinette find employment in Michigan.

Table 3-1
Residents Aged 16 or Older by Place of Work, Ingallston Township, 2007-2011

Characteristics	2007-2011	
	Number	Percent
Total Township Residents Employed	564	100.0
Worked in Michigan	**264**	**46.8**
Worked in Menominee County	257	45.6
Worked outside of Menominee County	7	1.2
Worked outside of Michigan	**300**	**54.2**

Source: United States Bureau of the Census, American Community Survey 5-Year Estimates, Selected Economic Characteristics, 2007-2011.

Commuting times determined from census data reveals that about 5.2 percent of Ingallston Township's working population lived within 10 minutes of their place of employment (Table 3-2). Even with such a short commute time, many of these residents likely hold jobs outside of the Township. Approximately 60.2 percent of the population lived within 30 minutes or their place of employment. 10.7 percent of the population commutes over 60 minutes to work; this may suggest some individuals are willing to endure a long commute as a tradeoff for the quality of life found in the Township.

From 2007-2011, approximately 5.3 percent of the population worked from home in Ingallston Township. Technological advances and economic globalization will have a tremendous influence on the workplace as we know it. It is predicted that one-third of the 21st century workforce will be independent with regard to location; telephone and electrical services will be the only requirements. Places that can offer quality living environments will be the location of choice for these types of work arrangements. Improvements to local cellular and internet service may allow more residents to work from home in the future.

Table 3-2 Travel Time to Work (Residents 16 and Older), Ingallston Township, 2007-	
Home to Work Travel Time	**Percent**
Less than 10 minutes	5.2
10 to 14 minutes	11
15 to 19 minutes	8.4
20 to 24 minutes	15
25 to 29 minutes	25.8
30 to 34 minutes	16.7
35 to 44 minutes	4.7
45 to 59 minutes	2.4
60 minutes or more	10.7
Mean Travel Time to Work	29.2 minutes

Source: U.S. Bureau of the Census, American Community Survey Estimates 2007-2011, Table S0801.

Most workers drive alone to work. According to the 2007-2011 American Community Survey Estimates, 10.8 percent of commuters in the Township are part of a carpool. This represents an increase of 6.5% from previous Census data. This percentage may change as the result of higher gasoline prices over the last decade. The Michigan Department of Transportation has constructed parking lots specifically for carpool use in various communities; no lots currently exist in the Township or the City of Menominee. The only carpool lot currently located in Menominee County is in Powers.

3.5 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 3-3. Menominee County's unemployment rate compares favorably with the Upper Peninsula as a whole. The County's unemployment rates have generally been higher than those recorded by the state overall.

Labor force requirements are determined by economic conditions. The civilian labor force in Menominee County has fluctuated over the past 15 years. Beginning in 1990, the labor force expanded from 12,033 persons to 13,168 persons in 2000. Economic conditions then resulted in a contraction of the labor force to 12,014 persons by 2002. The 2011 labor force total of 12,118 has contracted from a peak high 13,504 in 2004; slumping economic conditions have significantly reduced Menominee County's labor force.

During this time period, the unemployment rate has also fluctuated. After a slight decrease from 1990 to 2000, the unemployment rate lingered between 5.2 and 7.1 percent from 2000 to 2008.

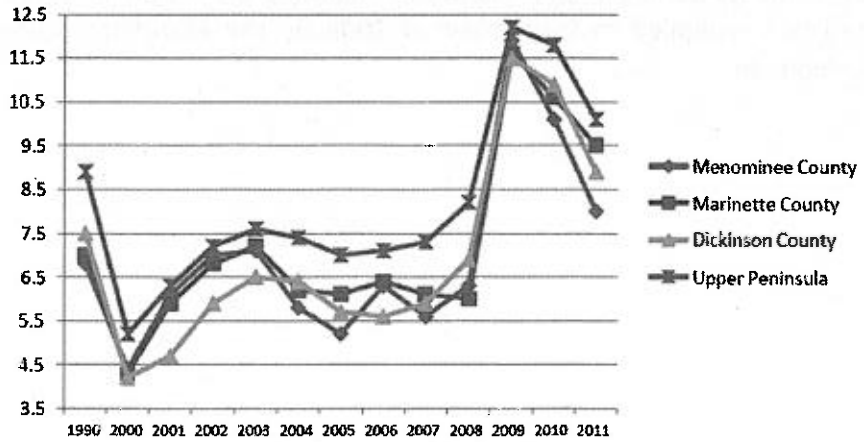
Recent economic figures indicate a declining economic situation for the County with a dramatic increase in the actual number of unemployed and a corresponding decrease in the number of employed. Compared to surrounding communities with high levels of manufacturing employment, the County exhibits a similar unemployment rate. The 2011 Menominee County annual average unemployment rate of 8.0 percent is the lowest of Upper Peninsula counties and remains lower than the Upper Peninsula and the State; the County's rate is higher than the United States unemployment rate.

Table 3-3
Labor Force and Unemployment, 1990-2011

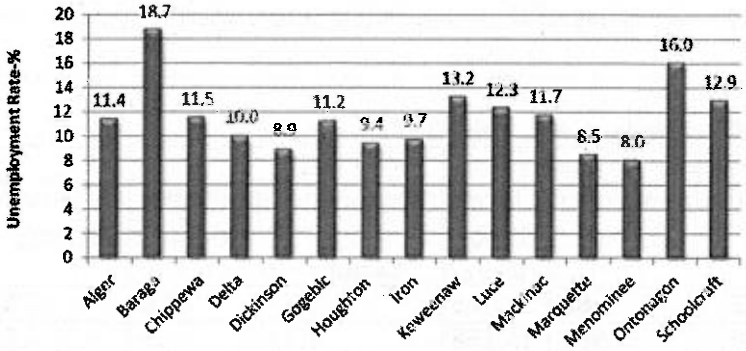
	Menominee County Labor								
Year	Employed	Unemployed	Total Labor Force	**Menominee County**	Marinette County	Dickinson County	Upper Peninsula	**State of Michigan**	United States
1990	11,213	82	12,033	**6.8**	7.0	7.5	8.9	**7.7**	5.6
2000	12,586	582	13,168	**4.4**	4.3	4.2	5.2	**3.7**	4.0
2001	11,831	768	12,599	**6.1**	5.9	4.7	6.3	**5.2**	4.7
2002	11,179	835	12,014	**7.0**	6.8	5.9	7.2	**6.2**	5.8
2003	11,232	852	12,084	**7.1**	7.2	6.5	7.6	**7.1**	6.0
2004	12,725	779	13,504	**5.8**	6.2	6.4	7.4	**7.1**	5.5
2005	12,591	697	13,288	**5.2**	6.1	5.7	7.0	**6.8**	5.1
2006	12,342	823	13,165	**6.3**	6.4	5.6	7.1	**6.9**	4.6
2007	12,575	749	13,324	**5.6**	6.1	5.9	7.3	**7.1**	4.6
2008	12,405	833	13,238	**6.3**	6.0	6.9	8.2	**8.3**	5.8
2009	11,541	1,559	13,100	**11.9**	11.6	11.5	12.2	**13.6**	9.3
2010	11,379	1,278	12,657	**10.1**	10.6	10.9	11.8	**12.5**	9.6
2011	11,147	971	12,118	**8.0**	9.5	8.9	10.1	**10.3**	8.9

Source: Dept. of Labor and Economic Growth, Employment Security Agency, Office of Labor Market Information 2012. Wisconsin Workforce and Labor Market Information System, 2012.

Unemployment Rates, Selected Areas, 1990-2011



Unemployment, Upper Peninsula Counties, 2011



Source: Michigan Department of Labor and Economic Growth, 2012.

3.6 MAJOR EMPLOYERS

Most major employers in Menominee County, those employing more than 100 persons, are located in the City of Menominee. The City also has a variety of small businesses employing Menominee County residents. However, one of the largest employers in the county is located in Harris Township in northern Menominee County. The Chip-in Island Resort and Casino, with an estimated workforce of 670 persons, is a major economic force in the County and beyond. It is owned and operated by the Hannahville Indian Community; the Indian Community itself has a workforce of 319 persons. The current gaming/resort facility opened in 1998. An expansion and renovation of the Convention Center was completed in 2011.

Major employers in Menominee and Marinette Counties are listed in Table 3-4 below. Data presented was compiled in September of 2008 by the Marinette Menominee Area Chamber of Commerce.

Table 3-4
Largest Employers, Menominee and Marinette Counties

Name	Product	Employees
Marinette County-Manufacturing		
Ansul Manufacturing	Manufacturing and Installation of Fire Protection Equipment	750
Biehl Construction Company	Asphalt Products/Sand and Gravel	35
Eagle Herald	Newspaper	65
Goodwill Industry-Corporate Office	Subcontracting, Light Manufacturing, Vocational Rehabilitation	100
KSU Industries	Pistons	1,200
Kimberly Clark	Paper Towel, Industrial Wipers	230
Marinette Marine Corporation	Ship Building, Marine Vessels	1100
Silvan Industries	Pressure Vessels, Compressor Tanks, ASME Code Tanks	340
Chem Design Products, Inc.	Specialty Chemical Products	93
John Veriha Trucking	Heavy Hauling Trucking	130
Waupaca Foundry	Automotive and Agricultural Products	745
Waupaca Pallet	Wooden Pallets, Paintings of Castings, Cores	31
Winsert, Inc.	Valve Seat Inserts	151
Marinette County-Non-Manufacturing		
Aurora Health Care	Health Care System	155
Bay Area Medical Center	Health Care Facility	800
Airgas	Welding Supplies, Industrial Gases, Contractor /Safety Supplies, Fire Equipment	52
Menards	Retail-Homebuilding	165
Northeast Wisconsin Technical College	Secondary Education	38 Full Time 47 Part Time
Wal-Mart	Retail	240
Wisconsin Public Service	Utilities-Electricity and Gas	55
Menominee County-Manufacturing		
Anchor Coupling	Hose Couplings	350
Clearwater Tissue Company	Paper Manufacturing	105
Enstrom Helicopter Corporation	Helicopters	108
L.E. Jones Company	Valve Seat Inserts	290
Lloyd Flanders	Wicker Furniture	125
SFK Pulp Recycling	Pulp Recycling	105

Source: Marinette Menominee Area Chamber of Commerce, 2008.

Anchor Coupling, Inc., located in the Menominee Industrial Park, has been a major manufacturer of high quality hydraulic hose assemblies since 1938. The firm is a subsidiary of Caterpillar, Inc. The firm has experienced significant growth within the past 12 months and expects modest growth in the near future. The firm had approximately 360 employees in 2008. Anchor Coupling expanded its operations in recent years. The improvements included a 25,000 square foot building expansion and new machinery.

Clearwater Tissue Company (formerly Menominee Paper Company) manufactures waxed paper and bleached white paper for the food products industry. The mill dates back to the early 1900's, when it was owned and operated by Hoskins Morainville. The mill was acquired in 1944 by Marathon Corporation and has had numerous owners since then. Today, Menominee Paper Company is owned by Clearwater Tissue Holdings, Inc. and concentrates on the production of white papers. Due to economic conditions affecting the paper industry in the late 1990's, the workforce was downsized considerably.

LE Jones Company manufactures engine valve seat inserts; their operations have been in the city since 1941. The firm is the sole supplier of exhaust valve inserts for Cummins and sole supplier for exhaust and intake valve inserts for Caterpillar.

Many area residents are employed at Marinette Marine Corp., located in Marinette, WI. Marinette Marine was awarded a $73.6 million contract from the National Oceanic and Atmospheric Administration in 2010. The contract is for construction of a new fisheries survey vessel. Funded through the American Recovery and Reinvestment Act, the fisheries survey vessel will study the marine ecosystem off the West Coast and in the eastern tropical Pacific Ocean, and it will be equipped with instrumentation for fisheries and oceanographic research, including advanced navigation systems, acoustic sensors, scientific sampling gear and extensive laboratories. The company has been awarded several large contracts over the past year and the parent company is pursuing additional contracts, which could create jobs at the company as well as with suppliers and vendors in the region.

While the majority of Ingallston Township residents travel to the City of Menominee and to Wisconsin for employment, there are a minimal number of businesses located in the Township. There is also agricultural activity in the area, consisting mainly of dairy and crop production, concentrated in the Northwest part of the Township. There are farms of a variety of sizes, mainly dairy and crops of soybeans, corn and hay, as well as several hobby farms. Farming has decreased in the area over the last 20 years; current farmland is being leased by farmers from out of the area for production.

3.7 ECONOMIC INITIATIVES

Economic activity is promoted by Menominee County through the operation of the Marinette Menominee Area Chamber of Commerce and Menominee Business Development Corporation (MBDC). The Marinette Menominee Area Chamber of Commerce serves both the cities and counties of Marinette, Wisconsin and Menominee, Michigan. The chamber works to assist the development of a positive business climate for the entire Marinette and Menominee area. The chamber is a private, non-profit organization funded by membership dues and income generated from management contracts and special events. The organization maintains an office in Marinette. The MBDC, incorporated as a non-profit corporation, was established through the cooperative efforts of the City of Menominee and Menominee County in 2004 to promote economic development and tourism throughout Menominee County. Previously, the City of Menominee had contracted with the former Menominee Area Chamber of Commerce for economic development activities.

3.8 INCOME

An examination of local income trends and comparison of local income information to state and national averages are useful in determining how much wealth is available locally to purchase goods and services. Income figures also reflect the wages and salaries paid to local workers. Comparisons of the Township, County and State annual household incomes are found in Table 3-5. State income figures are used as a standard of comparison.

- **Per capita income** is determined by dividing the total reported income within a unit of government by its official population.
- **Median household incomes** use incomes from all households including families.
- **Family incomes** include those of married-couple families and other households made up of persons related by blood, marriage or adoption. This category does not include persons living alone or unrelated persons sharing living quarters or other non-family households.

Per capita income in Ingallston Township is higher than the State and the County. The data indicates that households in Ingallston Township and Menominee County have incomes that are lower than statewide levels. On the other hand, housing and other costs are often lower in the Upper Peninsula, offsetting some of the impact of lower incomes.

Table 3-5 Income Levels, Selected Areas, 2007-2011			
	Ingallston Township	Menominee County	State of Michigan
Per Capita Income	**$28,217**	$21,624	$25,135
Median Household Income	**$47,537**	$41,332	$48,432
Median Family Income	**$53,125**	$49,394	$60,341

Source: U.S. Bureau of the Census, American Community Survey 5-Year Estimates, Selected Economic Characteristics, 2007-2011, Table DP03.

3.9 POVERTY RATES

The U.S. Bureau of the Census used a complex formula that included 48 different thresholds that vary by family size and the number of children within the family and the age of the householder to determine if a person is poor. Not every person is included in the poverty universe; institutionalized people, people in military group quarters, people living in college dormitories and unrelated individuals under 15 years old are considered neither as "poor" nor as "nonpoor." For example, for a two-person household, the weighted average threshold is $11,239, for a three-person household the threshold is $13,738 and for a four-person household the threshold is $17,603. The average Ingallston Township household size in 2010 was 2.17 persons.

The poverty rate for all persons in the Ingallston Township 2007-2011 was 4.2 percent, lower than that of the County and State. Poverty rates for female householder families with children under 5, as well as for persons 65 are lower for the Township than for the County and State. Poverty rates for other groups, including female householder families, particularly those with children, have decreased considerably. Statewide poverty levels are substantially higher than the Township and County.

Table 3-6 Poverty Rates, Selected Areas, 2007-2011			
Poverty Rates by Group (Percentage)	**Ingallston Township**	Menominee County	State of Michigan
All People	4.2	12.2	14.8
Children under 18	5.6	16.8	20.5
Persons 65 and older	2.8	10.9	8.3
All Families	2.7	8.0	10.6
Female Householder Families	0.0	32.4	31.8
Female Households with Children under 18	0.0	46.6	41.1
Female Households with Children under 5	0.0	64.7	50.3

Source: U.S. Bureau of the Census, American Community Survey 5-Year Estimates, Selected Economic Characteristics, 2007-2011, Table DP03.

3.10 ISSUES AND OPPORTUNITIES

- Historically, the local economy, like that of the County, has been closely related to natural resources and features and the utilization of those resources. Ingallston Township's economy and employment base are currently linked with the City of Menominee as well as Marinette, Wisconsin.

- Approximately 37 percent of Township residents found their employment in manufacturing industry, while approximately 21 percent were employed within the service industry.

- For 2007-2011, about 54 percent of the employed work force worked in Wisconsin. This is indicative of the interstate nature of the local labor market.

- About 5.2 percent of Ingallston Township's working population lived within 10 minutes of their place of employment, while 60.2 percent of the population lived within 30 minutes or their place of employment. The vast majority of residents worked outside of the Township, but may be willing to endure a longer commute to retain the quality of life found in the Township.

- Very few Township residents work from home at this time. Improving the availability of cellular phone and internet services may permit additional residents to work from home.

- There are two major economic centers in the County, with the hospitality/casino activities associated with the Island Resort and Casino in northern Menominee County and the manufacturing and service activities of the southern part of the county in the City of Menominee.

- Slumping economic conditions have significantly reduced Menominee County's labor force since 2000.

- Menominee County has typically had unemployment rates much lower than other UP counties and consistently lower than state levels. Lower unemployment rates are likely due to diversified employment opportunities.

- Most major employers in the County are located in the City of Menominee. There are numerous large employers located in Marinette, including Marinette Marine Corp.

- The Township has agricultural activity in the northwest, which mainly consists of dairy and crop farming.

- Economic development in the area is promoted by several groups, none located in or specifically dedicated to the Township.

- Median household and median family Incomes in Ingallston Township are higher than Menominee County, but lower than the State.

- Poverty rates for Ingallston Township are lower than poverty rates reported for the County and the State.

- There is concern that the Township, as well as the entire region, may be losing younger residents due to the lack of skills and training needed to match employment opportunities in the area.

CHAPTER FOUR: HOUSING

4.1 INTRODUCTION

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

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

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

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.

Nationwide trends indicate a rapid decline in housing prices. New home sales in the United States may remain relatively weak for some time, as the housing industry struggles with falling prices and rising mortgage foreclosures. From 1960 to 2005, the rate of homeownership nationwide was on the rise. From 2005 to 2011, the rate of homeownership has been steadily decreasing, while the number of households renting has been steadily increasing nationwide. While personal income is a major factor for many when deciding to rent or own their home, other considerations make renting a preferred choice for many households.

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

4.2 HOUSING CHARACTERISTICS

Trends

According to the 2010 Census, a total of 792 housing units were recorded in the Township (Table 4-1). In 2000, a total of 758 housing units were recorded in the Township. This represents a 4.5 percent increase in the number of housing units from 2000 to 2010. The number of housing units reported for the township in the 2010 Census differs from the American Community Survey Estimates from 2007-2011. In instances where 2010 Census data is available, the data will be used.

Table 4-1
Total Housing Units, Occupancy and Tenure, 2010

	Ingallston Township		Menominee County	
Housing Units	**Number**	**Percent**	Number	Percent
Total Units	**792**	**100.0**	14,227	100.0
Occupied	**440**	**55.6**	10,474	73.6
Owner	**408**	**92.7**	8,313	79.4
Renter	**32**	**7.3**	2,161	20.6
Vacant	**352**	**44.4**	3,573	26.4
Seasonal, Recreational or Occasional Use	**298**	**37.6**	2,743	19.3

Source: U. S. Census Bureau Table DP-1, 2010.

As referenced in Table 4-1, 55.6 percent of the total housing units in the Township are occupied; leaving 44.4 percent of the Township's housing units vacant. Many of the vacant units are used for seasonal, recreational or occasional use; 298 units or 84.7 percent of vacant units are used seasonally. There are also fewer occupied rental units in the Township (7.3 percent) than in and the County (20.6 percent). Rental units are often concentrated in areas with a higher population density, Ingallston Township is relatively low density. Most of the rental units in Menominee County are concentrated in the City of Menominee.

As presented in Table 4-2, the 2007-2011 American Community Survey estimates that within Ingallston Township, 87.1 percent of the housing stock consisted of single family homes. Menominee County exhibited 80.8 percent of its housing stock as single family homes. The Township reported a significant number of mobile homes (11.6 percent) when compared to the County; the County reported 9.0 percent. The City of Menominee has a much higher level of multi-family homes compared to the Township and County.

As discussed previously, multi-family homes are generally located in areas of population density, often within close proximity to goods, services and public transportation.

Table 4-2
Units in Structure 2006-2010

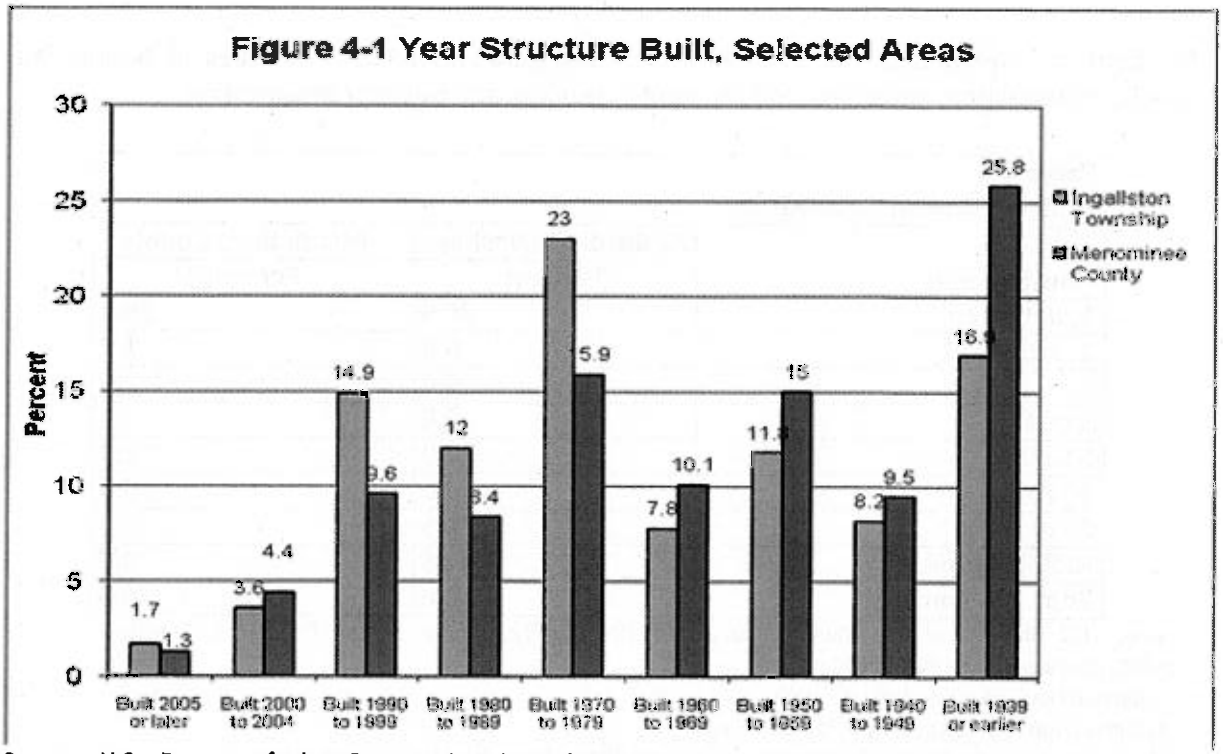
Housing Units	Ingallston Township Percent	Menominee County Percent
1, detached[1]	**86.6**	80.8
1, attached[2]	**0.5**	1.0
2	**0.0**	2.6
3 or 4	**0.0**	1.4
5 to 9	**0.0**	1.9
10 to 19	**0.0**	0.9
20 or more[3]	**1.3**	2.4
Mobile home	**11.6**	9.0
Boat, RV, Van, etc.	**0.0**	0.0

Source: U.S. Bureau of the Census, American Community Survey 5-Year Estimates, Selected Housing Characteristics, 2007-2011.
1: Detached housing units share no walls.
2: Attached housing units share at least one wall.
3: There are no structures with 20 or more units in Ingallston Township. This is a survey error.

Age of Housing

As presented in Figure 4-1, 41.9 percent of Ingallston Township's and 60.4 percent of the County's housing stock was built before 1960. About 20.2 percent of the Township's housing stock was built after 1990. The Township represents a mixture of older homes and newly built homes. Many homeowners are looking for larger homes on larger lots and frequently, surrounding townships have the space. There is often a concentration of older homes within cities, as the cities were established from the first concentrated areas of population within the County, therefore the homes are generally older, as is the case with the City of Menominee.

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



Source: U.S. Bureau of the Census, American Community Survey 5-Year Estimates, Selected Housing Characteristics, 2007-2011.

Housing Values and Rent

American Community Survey estimates from 2007-2011 reported that the median housing value in Ingallston Township was $148,400, a marked increase from past values. The Ingallston Township median housing value was also significantly higher than Menominee County ($97,300) and slightly higher than the State ($144,200).

Table 4-3
Median Housing Values, 2007-2011

Area	2006-2010
Ingallston Township	**$148,400**
Menominee County	$97,300
State of Michigan	$144,200

Source: U.S. Bureau of the Census, American Community Survey 5-Year Estimates, Selected Housing Characteristics, 2007-2011.

Gross rent refers to the total cost of rent plus basic utilities. This is differentiated from contract rent, which represents only the actual cash rent paid or (in the case of vacant units) the rent asked for a unit. Median gross rent in Ingallston Township is $518, higher than the Menominee County average of $487. Median gross rent for the State of Michigan is significantly higher, at $723 per month. It is important to note that the few rental units available in Ingallston Township are generally filled and additional rental units may be necessary in the future.

Table 4-4 Median Gross Rent, 2007-2011	
Area	2007-2011
Ingallston Township	$518
Menominee County	$487
State of Michigan	$723

Source: U.S. Bureau of the Census, American Community Survey 5-Year Estimates, Selected Housing Characteristics, 2007-2011.

A common method used to gauge the affordability of a community's housing stock is the percentage of income spent on housing related expenses. Ideally, housing costs (mortgage, taxes, etc.) should consume no more than 25 to 30 percent of gross household income. Income levels are presented in Chapter 3, Table 3-6. Tables 4-5 and 4-6 below show percentages of income directed to the cost of housing.

Although the Census data is limited, it does illustrate the greater impact housing costs have on lower income households. Approximately 33.9 percent of Township home owners spend more than 30 percent of their income on their mortgage, while 44.1 percent spend less than 20 percent of their income on their mortgage. Rates for Menominee County were comparable. Over 14 percent of renters in the Township spend more than 30 percent of their income on rent, while 5.7 percent spend less than 15 percent on rent. Rental costs as a percentage of income are higher for renters in the rest of Menominee County.

Table 4-5 Monthly Owner Costs as a Percentage of Household Income, 2007-2011		
Monthly Owner Costs as a % of Household Income	**Ingallston Township**	Menominee County
Less than 20.0 percent	**44.1**	40.9
20.0 to 24.9 percent	**10.6**	17.0
25.0 to 29.9 percent	**11.4**	11.3
30.0 to 34.9 percent	**12.2**	8.5
35.0 percent or more	**21.7**	22.3

Table 4-6 Gross Rent as a Percentage of Household Income, 2007-2011		
Gross Rent as a % of Household Income	**Ingallston Township**	Menominee County
Less than 15.0 percent	**5.7**	20.2
15.0 to 19.9 percent	**75.7**	11.4
20.0 to 24.9 percent	**0.0**	9.2
25.0 to 29.9 percent	**4.3**	13.0
30.0 to 34.9 percent	**0.0**	4.8
35.0 percent or more	**14.3**	41.4

Source: U.S. Bureau of the Census, American Community Survey 5-Year Estimates, Selected Housing Characteristics, 2007-2011.

The type of heating fuel utilized in occupied housing units is presented in Table 4-7 below. About 58 percent of Ingallston Township households use bottled, tank or LP gas for heating. Utility gas is the most popular fuel for heating in Menominee County. This reflects the availability of gas throughout densely populated areas of the County as well as its cost effectiveness. Bottled gas, fuel oil and wood were more commonly used in Ingallston Township than in the County as a whole, reflecting the rural nature of the area. There were no housing units in the Township that utilized solar power for heat at the time of the 2007-2011 American Community Survey. It may be feasible for such uses to occur in the future as the cost for the types of units continue to decrease, combined with popularity and legislative measures mandated by the state to supplement rising costs of traditional heating sources.

Table 4-7
Occupied Housing Unit Heating Fuel, Selected Areas, 2007-2011

Source	Ingallston Township		Menominee County	
	Number	Percent	Number	Percent
Utility Gas	**89**	**16.4**	5,769	53.1
Bottled, Tank or LP Gas	**314**	**57.8**	2,498	22.9
Electricity	**13**	**2.4**	508	4.7
Fuel Oil, Kerosene, etc.	**37**	**6.8**	461	4.2
Coal or Coke	**0**	**0.0**	0	0.0
Wood	**90**	**16.6**	1,504	13.8
Solar Energy	**0**	**0.0**	1	0.0
Other Fuel	**0**	**0.0**	98	0.9
No Fuel	**0**	**0.0**	33	0.3

Source: U.S. Bureau of the Census, American Community Survey 5-Year Estimates, Selected Housing Characteristics, 2007-2011.

4.3 PUBLIC AND SPECIALIZED HOUSING DEVELOPMENTS

Currently there are no public housing developments in the Township. Quality housing for low and moderate income families as well as the elderly may be needed in Ingallston Township in the future.

Subsidized housing is provided within the City of Menominee. Facilities are under the ownership and management of either Public Housing or HUD and are as follows: Bridgeview,1801 8th Avenue; North Hill Apartments, West 46th Avenue); Woodhaven Circle, East 46th Avenue; Interfaith Manor, 1220 9th Avenue; and Hay Creek Apartments, 38th Avenue. Elderly housing is provided at Bridgeview and Interfaith, while family housing is provided at North Hill and Woodhaven.
Hay Creek Apartments provide housing for both the elderly and families. Michigan State Housing Development Authority (MSHDA) also provides rental subsidies to families throughout Menominee County.

There are no specialized housing facilities located in the Township. With the aging population, additional facilities may be needed in the future.

4.4 PUBLIC AND PRIVATE HOUSING ASSISTANCE PROGRAMS

The United States Department of Agriculture (USDA) provides housing assistance through its Rural Development Program. USDA provides homeownership opportunities to rural Americans, as well as programs for home renovation and repair. USDA also makes financing available to elderly, disabled, or low-income rural residents of multi-unit housing buildings to ensure they are able to make rent payments.

The Michigan State Housing Development Authority (MSHDA) provides financial and technical assistance through public and private partnerships to create and preserve safe and decent affordable housing, engage in community economic development activities, develop vibrant cities, towns and villages, and address homeless issues. MSHDA provides assistance with Neighborhood Preservation, Rental Rehab and Homeowner Rehab programs as well. MSHDA also provides subsidized single family rentals in the Township.

4.5 PRIVATE HOUSING DEVELOPMENTS

Residential land use includes single family homes, multi-family homes and mobile homes, in a low to medium density pattern. Low density, scattered settlements prevail in Ingallston Township and many of the surrounding Townships. In general, housing is concentrated along the M-35 corridor. There are minimal if any multi-family housing units located in Ingallston Township; rents are reasonable and the units are typically full.

Housing in the Township is aging and few new homes have been built in recent years. Most building permits have been issued for additions, rather than new construction. Homes are generally in good condition. There has been an increase in the number of vacant homes, particularly in Ingalls, and several have fallen into a state of disrepair. Bayshore development has been very popular in the Township; there are few properties available for development along the Bay of Green Bay and any that become available sell quickly. The majority of homes along the bay have been for year-round use, with few homes used seasonally. Bayfront lots are typically small (50' to 100' wide with varying depth).

There are several natural and man-made limitations to residential development in the Township. Future residential development is limited by soil suitability and the presence of wetlands. Ingallston Township has many wetlands, which often means development is limited or not possible at all.

Under Michigan's Wetland Protection Act, a permit is required for the following activities: to deposit or permit the placing of fill material in a wetland; to dredge, remove, or permit removal of soil or minerals from a wetland; to construct, operate, or maintain any use of development in a wetland; or to drain surface water from a wetland. Residential development may also be limited by the lack of sewer and water service. There are no plans at this time to develop municipal water and sewer systems due to the high cost. Ingallston Township has substantial amounts of land available for residential development; the land is often held in large tracts and landholders may be unwilling to sell at this time.

4.6 ISSUES AND OPPORTUNITIES

- The Township has experienced a 4.5 percent increase in the number of housing units from 2000 to 2010.
- Approximately 56 percent of the total housing units in the Township are occupied; leaving approximately 44 percent of the Township's housing units vacant. The vast majority of the vacant units are used for seasonal, recreational or occasional use.
- There are few rental units in Ingallston Township. The Township is relatively low density and most of the rental units in Menominee County are concentrated in the City of Menominee. As a result, the Township reported a much higher rate of single-family homes when compared to the City, County and State.
- The Township reported that 11.6 percent of housing units consisted of mobile homes, but mobile home development has leveled off in recent years.
- The Township represents a mixture of older homes and a small amount of newly built homes.
- The Township median housing value for 2007-2011 ($148,400) was significantly higher values for Menominee County ($97,300) and slightly higher than the state ($144,200).
- Gross rent in the Township is comparable to Menominee County, but significantly lower than the State overall.
- For residents who rent, the percentage of income spent on housing was lower than for those who have a mortgage.
- Bottled gas, fuel oil and wood are more commonly used in the Township compared to Menominee County overall, reflecting the rural nature of the area.

- There are no public housing developments in Ingallston Township at this time; public housing is available in the City of Menominee.

- There are no assisted living facilities in the Township at this time. Additional facilities or specialized housing tailored to the elderly may be beneficial in the future.

- State and federal housing assistance is available to eligible residents; those residents should be encouraged to pursue available aid.

- Low density, scattered settlements prevail in Ingallston Township. Housing is concentrated near the M-35 corridor.

- Year-round residential development along the Bay of Green Bay has been popular in the Township. There are very few lots available and existing bayfront lots are small.

- Development in the Township is somewhat limited by the abundance of wetlands.

- There are no plans to develop a municipal water and sewer system.

CHAPTER FIVE: COMMUNITY FACILITIES AND SERVICES

5.1 INTRODUCTION

Services and facilities provided by local government are vital elements of a community's progress and well-being. Services include police and fire protection, water and wastewater systems, street and park maintenance and operations and solid waste disposal. Community facilities include government buildings, parks and maintenance and storage facilities. As a part of the Master Plan, Ingallston Township's services and facilities are described and evaluated as to their present condition and adequacy to meet present and future needs of the Township. Communities around the Upper Peninsula are facing many economic challenges. Current budget constraints limit numerous government services. Innovative and responsible spending techniques will be necessary to continue to provide a high level of services with reduced funding. Facilities are mapped in Appendix A: Maps, "Community Facilities and Structures."

5.2 TOWNSHIP FACILITIES AND SERVICES

Ingallston Township Hall

The Ingallston Township Hall is located at W3790 Townhall Lane, Wallace, Michigan; the Hall is located just off of County Road 338. The Hall is the site of Township Board meetings as well as Planning Commission meetings. Elections are also held at the Township Hall. The facility is available to rent for Township residents and/or property owners for activities such as birthdays, civic groups, community activities and weddings. A refundable deposit is charged for rentals and the facility has a large open meeting room but no kitchen facilities so the hall is very rarely rented.

The Township Hall was constructed in 1940 and is handicapped accessible. In general, the building is in good condition. There is adequate space available (40' x 60') at the Hall. Recent improvements include repainting of the exterior of the building and new cemented handicap ramp.

Fire Protection

All areas of Menominee County are served by local fire departments. The Menominee-Ingallston Fire Department is a volunteer fire department with approximately 27 volunteer firemen and women, including a Fire Chief and Assistant Fire Chief; the Department is always looking for additional volunteers. The two Townships are obligated by agreement to provide operating appropriations allocated approximately 69 percent by Menominee Township and 31 percent by Ingallston Township; the allocation is based on state equalized value (SEV) and the rate may fluctuate.

The Fire Department is governed by the Menominee-Ingallston Fire Services Association, a ten-member board which meets every other month. The Association is made up of the Menominee Township Board and the Ingallston Township Board members.

The Menominee-Ingallston Fire Department maintains two fire halls, one located at N4340 M-35 in Ingallston Township and the other at N3544 US-41 in Menominee Township, just north of Linsmeier Road. The Fire Hall in Menominee Township was built in 2007 and is in excellent condition. The hall has a meeting room and training room, as well as an extra bay for the new tanker. The Fire Hall in Ingallston Township is in fair condition and one truck is stored at this location.

The Townships maintain three pumper truck units (1975 Chevy Pumper, 1991 Ford F-800 Pumper and 2000 Freightliner Pumper) a grass fire pick-up truck (1986 Chevy Truck) and two tanker trucks (1993 3,000 gallon Ford Tanker) and a (2007 3,000 gallon Kenworth truck with a new tank). The 1975 pumper truck will eventually need to be replaced.

The Department has just purchased a hand-held thermal imager which replaces the old helmet camera . The Department also shares a breathing air compressor with Mellen and Cedarville Townships. The Department is also capable of performing ice rescue with two rescue suits and an open-ended rubber rescue boat. Additional equipment needed includes an equipment truck and an automated external defibrillator to treat potentially life-threatening heart issues.
The Menominee-Ingallston Fire Department relies on approximately eleven dry hydrants for water. A dry hydrant is a non-pressurized pipe system permanently installed in existing lakes, ponds and streams that provides a suction supply of water to a fire department tank truck; various ponds throughout the two Townships are used as dry hydrants. Several of the hydrants are winterized.

The Department averages approximately 70-80 calls per year. The Township passed a resolution 2013 January to provide for the collection of cost recovery fees for fire calls.

The Michigan Department of Natural Resources (MDNR) and the U.S. Forest Service are responsible for fighting wildfires that occur on state and national forest land. All fire departments in Menominee County are covered by mutual aid agreements, under which local departments respond, when needed, to help fight fires in neighboring units. Mutual aid agreements between fire departments provide for cooperation in the use of personnel and fire equipment for the safety, health and welfare of the people of the respective units of government in times of emergency. The Menominee-Ingallston Fire Department maintains mutual aid agreements with the City of Menominee, Cedarville Township, Mellen Township and Wagner Township (Wisconsin). Local fire departments also assist the MDNR with fighting wildfires in their areas if needed.

The adequacy of fire protection is evaluated by Insurance Service Office (ISO) Commercial Risk, Inc. through the use of the Grading Schedule for the Municipal Fire Protection. The schedule provides criteria to be used by Insurance grading engineers in classifying the fire defenses and physical conditions of municipalities. 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 the level of fire protection services that should be provided by a municipality, the findings of its Municipal Survey Office are frequently used by municipal officials in planning improvements to their fire fighting services.

The grading is obtained by ISO, based upon analysis of fire department equipment, alarm systems, water supply, fire prevention programs, building construction, and distance of potential hazard areas (such as the central business district) from fire station.

The Township's assigned fire insurance rating is a nine (9) rating as determined by the ISO. In rating a community, total deficiency points in the areas of evaluation are used to assign a numerical rating of 1 to 10. The best protection is 1 and a rating of 10 would indicate a community that is essentially unprotected. Where a single number is assigned, all properties within the classified area receive that rating. Where more than one classification is indicated, the first number applies to properties located within five (5) road miles of the responding fire department and within 1,000 feet of a fire hydrant. Class 9 applies to properties located within 5 road miles of the responding fire department but over 1,000 feet from a fire hydrant. Class 10 applies to properties located more than five miles from the responding fire department.

Public Works Department

The Township does not currently maintain a Public Works Department.

Water and Wastewater Services

All Ingallston Township residents rely on private wells and septic systems for water and wastewater services. The Township does not plan on establishing a municipal water system.

Solid Waste Disposal

The Township owns and maintains the Menominee-Ingallston Transfer Station jointly with Menominee Township. The transfer station is located at N2314 Rangeline Drive and the Menominee-Ingallston Transfer Station Board oversees operations. The 10-member Board is made up of the Menominee and Ingallston Township Boards. The transfer station is open Friday and Saturday from 7:30am to 4:30pm and the 2nd and 4th Monday of each month from 7:30am to 11:30am. Curbside pick-up of solid waste is provided by various private carriers at this time.

The Menominee-Ingallston Transfer Station is a Type B transfer station, using approximately 2 acres of the 40 acre site. The usage charge is currently 10 cents per pound for solid waste. Residents may drop off their recyclables at the transfer station. There is no charge for recyclable materials, including glass, cardboard, paper and plastic.

5.3 COUNTY AND OTHER AREA FACILITIES AND SERVICES

Menominee County Courthouse

The three-story brick Menominee County Courthouse, located at 839 10th Avenue was constructed in 1875. It is included on the state and national listings of historic places. Its original size was about 9,000 square feet which included a jail on the first floor. Later alterations to the side and rear of the building expanded the space to the current area of about 20,000 square feet. Building modifications, including an elevator, permit handicapped access to all floors and bathrooms.

Heat for the courthouse, as well as the jail, is produced by the adjacent 1,200 square foot brick boiler house. The boiler house also provides storage and workshop space for maintenance and ground personnel.

County offices located in the courthouse include: Clerk, Register of Deeds, Prosecuting Attorney, Treasurer, Administration, Emergency Services, District Court, Friend of the Court, Probate Court, Circuit Court, Veteran Officer and Equalization.

Building Permits

Building permits are issued by the Menominee County Building Code Department, located at S904 US-41 in Stephenson. Building permits are required for the following:

- Construction of any new structure over 200 square feet for residential buildings and 120 square feet for non-residential
- Additions, alterations, or remodeling of an existing structure
- Installation of any manufactured home
- Demolition of a structure
- Fences over 6' high
- Swimming pools more than 2' deep
- Signs and marquees
- Change in use and occupancy of a structure
- Temporary structures more than 120 sq. ft. including tents and stages (non-residential)

Permits are not required for roofing, siding, maintenance, minor repair or finish work.

Law Enforcement

Law enforcement is provided by the Menominee County Sheriff's Office. Constructed in 1974, the Menominee County Jail facility is located at 831 10th Avenue and provides about 14,000 square feet of space on a single level. This facility features 50 beds. An addition to the south side of the jail provides office and storage for the Building and Grounds and Parks Department. The Menominee County Sheriff's Department currently employs a Sheriff, Undersheriff, Lieutenant/Detective, Sargent/Jail Administrator and a Corporal/Road Patrol officer. A new six-year county road patrol millage (1.795 mils) was approved in 2011.

Police protection is also provided by the Michigan State Police.

911 Services

Menominee County Central Dispatch handles emergency calls for Menominee County. Central Dispatch is available 24 hours a day, 365 days per year; the E911 Director maintains office hours Monday-Friday from 8am to 4pm. The department dispatches for eleven fire departments, including: Cedarville, Daggett, Faithorn, Gourley, Harris, City of Menominee, Menominee-Ingallston, Meyer, Nadeau, Spalding and Stephenson. Dispatch also handles calls for five emergency medical services, including: Emergency Rescue Squad, Bay Area Paramedics, Mid-County Rescue Squad, Hermansville Rescue Squad and Faithorn Rescue Squad. Five law enforcement agencies rely on Central Dispatch, including, Menominee City Police Department, Menominee County Sheriff's Department, Michigan State Police (Stephenson), MDNRE, and the Hannahville Tribal Police Department. Water Rescue, Marine Patrol, Auxiliary Police, Department of Public Works, Menominee County Road Commission, Department of Human Services and others also rely on Central Dispatch.

Emergency Medical Services

Primary emergency medical services are provided by Mid-County Rescue Squad, out of Stephenson. Mid-County Rescue Squad is a volunteer-based service. The Township is also served by Bay Area Ambulance Service and is part of the emergency services department of Bay Area Medical Center. Bay Area Medical Center provides two Paramedic-level teams to respond to emergency calls. The ambulance service operates four transporting ambulances and a quick response vehicle used to provide advanced life-support (ALS) intercept services to outlying EMS agencies.

Emergency Management & Homeland Security Division

The Menominee County Emergency Management and Homeland Security Division offices are located at 839 10th Avenue at the Menominee County Courthouse. The goal for this office is to foster, promote, and implement an emergency management system that encourages communities and citizens to prepare for all hazards to protect themselves from the effects of emergencies and disasters. The County employs an Emergency Management Coordinator and has a Local Emergency Management Committee (LEPC). The Emergency Management Coordinator and LEPC, along with the public, have worked with CUPPAD in the past to develop the County's Hazard Mitigation Plan. Menominee County also has a Community Emergency Response Team (CERT) Program. The Emergency Management office has developed a CERT program that is designed to help neighborhoods prepare for and respond after catastrophic disasters such as a tornado or other major emergency.

Menominee-Marinette Twin County Airport

Twin County Airport, located in the western portion of the City of Menominee, began operation in the early 1940s. The facility operated as the Menominee County Airport until 1976 when a partnership formed with Marinette County, Wisconsin to operate the facility jointly. The airport is discussed in greater detail in Chapter 6. Township residents generally travel to Green Bay for commercial air service.

Road Commission

The Menominee County Road Commission provides road maintenance, construction and snow removal services throughout the county from its three district garages in Powers, Stephenson, and Menominee. Administrative offices are co-located at the Stephenson facility. The Menominee facility, the former maintenance/office building, takes up 7,800 square feet and was constructed in 1936. It is currently used exclusively for cold storage. A 5,202 square foot maintenance shop was built in 1967 and is currently in use. Facilities at this site also include a 50' by 50' salt shed that was constructed around 1970. The district foreman and eight full-time employees (union) work from this facility and serve the southern areas of the County from Menominee to County Road 348 and M-35 to Delta County.

EDUCATION

Menominee Area Public Schools

The Menominee Area Public School District provides development kindergarten through 12th grade education, with 2009/2010 enrollment of approximately 1,690 students. The district encompasses the City of Menominee, and parts of Menominee and Ingallston Townships with a land area of about 75 square miles. The district has three schools: Central Elementary School (Developmental Kindergarten-1st grade), 2100 18th Avenue; Blesch Intermediate School (grades 4 through 6), 1201 13th Avenue; Menominee Junior High School (grades 7 and 8); and Menominee High School (9-12), 2101 18th Street.

Stephenson Area Public Schools

Students living on the north side of No. 8.5 Road and the northeastern part of Ingallston Township attend Stephenson Area Public Schools. Stephenson High School, located at W526 Division Street in Stephenson, is a grade 6-12 building serving approximately 419 students with 23 middle/high school teachers, two aides, an administrator, and two secretaries. Stephenson Elementary, located at W 535 River Road in Stephenson, is a PreKindergarten-5th grade school serving approximately 318 students. There are twenty-four qualified teachers and staff members that strive to help the students get a well balanced education.

Higher Education

Higher education is provided to the southern Menominee County area by University of Wisconsin-Marinette Center and Northeastern Wisconsin Technical College, both located in the City of Marinette. Bay de Noc Community College in the City of Escanaba (45 miles) and University of Wisconsin-Green Bay in the City of Green Bay (70 miles) are higher education facilities within commuting distance of Ingallston Township.

Electrical Service

Electrical service in Ingallston Township is primarily supplied by Wisconsin Public Service, a subsidiary of Integrys Energy Group. In the Northeast portion of Ingallston Township the power is provided by the Alger-Delta Co-Op.

Natural Gas

Natural gas availability is limited in the Township. Along Highway M-35 approximately four miles into the Township, service is provided by Wisconsin Public Service. A number of residents

throughout the Township use propane gas. Propane service is provided by a variety of private companies throughout the area.

Telephone Service

Local telephone service in Ingallston Township is provided by various companies, including Michigan Broadband Services and by AT & T. Long distance service may be obtained from several carriers that serve the area. Verizon, AT&T and Cellcom provide cellular phone service. Cellular service within the Township has improved with additional cell towers.

Cable Service

Cable service is very limited in Ingallston Township. Cable service is available along M-35 and on the extreme southern end of the Township. Service is provided by Time Warner Cable. Most residents utilize satellite television, which is offered via multiple providers.

Internet Services

Internet service is supplied by multiple providers including: Alphacomm, Time Warner, Cyber Zone (dial-up), Hughes Net (satellite), Wildblue(satellite)and Cellcom. The vast majority of the Township does not have access to broadband services; expansion of broadband throughout the Township would be advantageous.

Health Care

Bay Area Medical Center (BAMC) is located at 3100 Shore Drive in the City of Marinette and is a non-profit corporation primarily serving Menominee and Marinette counties. BAMC came into existence in 1985 when Menominee County Lloyd Hospital and Marinette General Hospital consolidated. The hospital is a 115 bed acute care facility that serves as a regional hub of select and advanced medical services. Services include diagnostic radiology, rehabilitation, ambulatory surgery, obstetrics, cancer treatment and urgent care. BAMC has formed partnerships with Bellin Health and Marquette General Hospital to provide additional care.

Aurora Health Center is located at 4061 Old Peshtigo Road in Marinette. Services include family medicine, internal medicine, cardiology, gastroenterology, ophthalmology, hematology, nephrology, oncology, rheumatology, ophthalmology surgery and orthopedic surgery. The health center also maintains a laboratory, x-ray unit and pharmacy.

Township residents may also choose from several area medical clinics, including facilities in the City of Menominee, the City of Marinette, the City of Stephenson and Daggett.

Public Health, Delta and Menominee Counties

The agency provides programs and services aimed at prevention and control of diseases and environmental health hazards. Public Health, Delta and Menominee Counties provides personal health services, community health promotion, environmental health services, alcohol and other drug services and emergency preparedness services. Currently, Delta and Menominee Counties maintain offices in counties, one in Escanaba and one in Menominee. The Menominee Health Department is located at 909 10th Avenue in Menominee and the Escanaba Health Department is located at 2920 College Avenue in Escanaba.

Library

Library services are provided by the Menominee County Library, located at S319 Railroad Street in Stephenson. The Menominee County Library is open on Monday from 9am to 1pm, Tuesday through Friday from 8am to 5pm and on Saturday from 9am to 1pm. There is a branch library in Hermansville and a bookmobile that serves the entire County, including the schools and community stops. Services available include Internet and wireless access, interlibrary loan, story-time and summer reading programs, copier and fax machine, reader's advisory and reference. Library resources include bestseller, adult and children's books, large print and audio books, DVDs, videos, paperbacks, magazines and newspapers. The library also maintains the Menominee County Journal on microfilm from 1893 through 2008. Bookmobile services are also provided in the Township by the library.

Animal Shelter

The Menominee Animal Shelter is located next to the airport on Haggerson Court in the City of Menominee and has been in operation since March of 1998. The shelter is open to the public during the following hours: Tuesday-Friday from Noon to 6:00pm and on Saturday from Noon to 5pm. The shelter serves both Menominee and Marinette Counties. The shelter actively seeks to find adoptive homes for dogs and cats in their care.

Marinette Menominee Area Chamber of Commerce

The Marinette Menominee Area Chamber of Commerce serves both the cities and counties of Marinette, Wisconsin and Menominee, Michigan. Their mission is the promotion of economic, social and cultural welfare of its membership. The chamber organizes seminars and workshops, community events, and distributes area promotional information. The chamber office is located at 601 Marinette Avenue in Marinette. Tourism efforts are also administered from those offices.

Menominee Business Development Corporation

The Menominee Business Development Corporation (MBDC) provides one-stop assistance to existing businesses and those seeking to locate in the City of Menominee or Menominee County. The MBDC is a public/private sector partnership, funded in part by the City and Menominee County.

5.4 ISSUES AND OPPORTUNITIES

- The Township Hall is currently in good condition and is available for Township for rent.
- The Township is served by 25-27 volunteer fire fighters. The Township recently purchased a new fire tanker and has adequate fire equipment at this time.
- Township residents rely on private wells and septic systems. Recycling is available in Ingallston Township.
- Building permits must be obtained from the Menominee County Building Code Department. Ingallston Township is zoned and zoning permits are obtained from the zoning administer which currently is the Ingallston Township Supervisor.
- Police protection is provided by the Menominee County Sherriff's Office and the Michigan State Police.
- The Twin County Airport provides limited daily air cargo service; many residents travel to Green Bay for commercial air service.
- Ingallston Township roads are maintained by the Menominee County Road Commission. Funding is limited and road projects are completed when adequate funding is available.
- Cellular service has improved in the last few years but still is limited in certain areas of Ingallston Township; residents may benefit from construction of additional cellular towers.
- Broadband internet service is limited in Ingallston Township; the Township could look to the Broadband Initiatives Program or other grants to possibly expand broadband services.

CHAPTER SIX: RECREATION

6.1 INTRODUCTION

Information provided in this chapter is intended to provide current and comprehensive data to guide Ingallston Township decision makers regarding future park development and/or acquisition. Ingallston Township does not have a Recreation Plan. Existing parks and other recreational facilities and events are discussed in the context of location, features and use. Requirements set forth under the Americans with Disabilities Act (ADA) of 1990 will also be discussed.

There are a limited number of both private and public recreational facilities within Ingallston Township. Recreation related to tourism is vital to area economics and is an expanding industry nationwide. Attractions and facilities located in close proximity to the township present many opportunities for active and passive recreation. Menominee County is rich in natural resources, drawing a number of visitors each year. Heritage based tourism and ecology based tourism are becoming increasingly popular. Having adequate recreational facilities to meet the needs of visitors and as well as residents is vital to the community.

6.2 INGALLSTON TOWNSHIP ORGANIZATIONAL STRUCTURE

The five-member Ingallston Township Board is responsible for recreation planning and development within the Township and serves as the Recreation Board under Public Act 156 of 1917.

6.3 INGALLSTON TOWNSHIP RECREATIONAL FACILITIES

There are several recreation opportunities for residents and visitors in Ingallston Township as well as a variety in the surrounding communities. The following rating scale was used:

- 1 = none of the facilities/park areas meet accessibility guidelines
- 2 = some of the facilities/park areas meet accessibility guidelines
- 3 = most of the facilities/park areas meet accessibility guidelines
- 4 = the entire park meets accessibility guidelines
- 5 = the entire park was developed/renovated using the principals of universal design

Table 6-1
Stoney Point Boat Launch Public Access Site • Owned by Menominee County • Concrete boat ramp, courtesy pier, vault toilet, gravel parking lot, lights
Hayward Lake Flooding Public Access Site • Owned by Michigan DNR • Gravel/mud carry in boat launch
North Shore Golf Club • Privately owned 18 hole golf course open to the public • Driving range, clubhouse

6.4 MENOMINEE COUNTY OWNED RECREATION FACILITIES

Menominee County owns eight recreation facilities, discussed in Table 6-2. The county updated the 5-Year Recreation Plan for these facilities in 2011.

Table 6-2
Menominee County Owned Recreation Facilities

Facility	Location	Acres	Inventory of Facility
Airport Park	M-35 in Ingallston Township	6 .0	Picnic tables, grills, trash cans, seasonal portable toilet, carry-down boat landing, wildlife viewing
Bailey Park	M-35 in Ingallston Township	74.0	4,800' of sand beach on Green Bay, picnic area, unsupervised swimming beach, boating, fishing
Kleinke Park	M-35 in Ingallston Township	24.0	34 site campground (18 sites w/electrical hook-up, pavilion, service building w/flush toilets and showers, sewage dump station, well, day use area w/picnic area, swimming beach, pavilion, carry-down boat ramp, fishing)
Longrie Park	Lake Township	6.0	Undeveloped w/stands of White and Norway pine
Mason Park	38th Avenue in Menominee Township	10.0	Boat ramp on Little River, picnic tables and nature trails.
River Park	Located off of River Drive (County Road 581) in Menominee Township	29.0	Picnic tables, portable toilets, pavilion, swimming, fishing, 1,700' of Menominee River frontage

Table 6-2 Menominee County Owned Recreation Facilities			
Facility	Location	Acres	Inventory of Facility
Shakey Lakes Park	County Road G-12 in Lake Township	215.0	148 site campground (120 with electrical hook-up), shower building, flush toilets, sewage dump station, baseball field, horseshoe pits, basketball hoops, shelters, playground, concession stand, unsupervised swimming, beach house, boat launch ramp, nature trails, 11,000 feet of water frontage, 100 car parking lot, site of annual county fair, located on County Road G-12
Stoney Point Boat Landing	M-35 in Ingallston Township	3.0	Boat launch w/courtesy pier, vault toilet, lights, gravel parking lot

6.5 AREA RECREATIONAL FACILITIES

Throughout Menominee County, townships, villages, cities, school districts, the MDNR and various utility companies operate a variety of recreation facilities. Many Ingallston Township residents may travel outside of the community to experience a wider variety of recreational opportunities. The City of Menominee's extensive range of facilities is a draw to many Menominee County residents and visitors; the close proximity of these sites to the Township is a benefit to residents. These facilities are described in Table 6-3.

Table 6-3 Area Recreation Facilities		
Facility	**Ownership**	**Inventory of Facility**
Cedarville Township		
Fox Park	Cedarville Township	Picnic area with grills and tables, playground equipment, swimming beach, primitive campground, vault toilets (former County park)

Table 6-3
Area Recreation Facilities

Facility	Ownership	Inventory of Facility
JW Wells State Park	MDNR, Parks and Recreation Division	Day use area with picnic area, tot lot, softball field, shuffleboard, horseshoe pits, open field, 600' swimming frontage w/beach, bath house, pavilion, shore fishing, boat launch, multi- purpose room, hiking/ski trails, 3 miles water frontage, campground. Park is open year-round for winter recreation such as cross-country skiing, ice fishing and snowshoeing.
Cedar River North Campground	MDNR, Forest Management Division	State forest primitive campground, swimming, carry-down launching area, fishing
Cedar River Mouth Public Access Site	MDNR, Parks and Recreation Division	Hard surface boat ramp on Lake Michigan, parking, vault toilets, 125-slip marina/harbor-of-refuge
Village of Daggett		
Heidenreich Park	Village of Daggett	Lighted softball diamond, dugouts, playground equipment, pavilion/restroom/storage building, and tennis/basketball court
Peterson Park	Village of Daggett	Lighted shelter, grills, picnic tables, restrooms, and footbridge, over the little Cedar River
Legion Ballfield	Village of Daggett	Fenced-in softball field, large batting cage, small batting cage, bleachers, and scoreboard
Sorenson Hill	Village of Daggett	Sledding hill
Daggett Township		
Peterson Park	Village of Daggett	Picnic tables, grills, shelter, vault toilets
Faithorn Township		

Table 6-3
Area Recreation Facilities

Facility	Ownership	Inventory of Facility
Sturgeon Bend Park	Faithorn Township	Campground, picnic area w/table, vault toilets, water, hard surface boat ramp on the Menominee River
Holmes Township		
Gerald Welling Memorial Public Access Site	MDNR, Parks and Recreation Division	Hard surface boat ramp on Menominee River, parking, vault toilets
Recreation Area #1	WE Energies	Boat launching, primitive camping, vault toilets
Chalk Hill Recreation Area #3	WE Energies	Boat launching, primitive camping, vault toilets
Chalk Hill Recreation Area #4	WE Energies	Boat launching, primitive camping, vault toilets
Recreation Area #30	WE Energies	Boat launching, vault toilets
Ingallston Township		
North Shore Golf Club	Private	18 hole golf course
Hayward Lake Flooding	MDNR, Wildlife Division	Carry down launching area, parking
Lake Township		
Koss Landing Public Access Site	MDNR, Parks and Recreation Division	Hard surface boat ramp on Menominee
Lake Ann	MDNR, Parks and Recreation Division	Gravel surface boat ramp, vault toilets, parking
Lake Mary	MDNR, Parks and Recreation Division	Gravel surface boat ramp, vault toilets, parking
Sturgeon Landing Public Access Site	MDNR, Parks and Recreation Division	Hard surface boat ramp on Menominee
Marson & Woessner	Lake Township	Undeveloped (former County Park)
Mellen Township		

Table 6-3
Area Recreation Facilities

Facility	Ownership	Inventory of Facility
Mellen Township Ballfeld	Mellen Township	Ballfields, portable toilets
East Bay #2 Public Access Site	Wisconsin Public Service	Concrete boat ramp, boat dock, fishing pier, portable toilets
Sturgeon #3 Public Access Site	Wisconsin Public Service	Concrete boat ramp, boat dock, fishing pier, portable toilets
DeYoung Family Zoo	Privately owned	Home to over 400 animals, petting zoo.
Menominee Township		
Birch Creek Roadside Park	Menominee Township	Picnic area with tables and grills, portable toilets and well. Closed during late fall and winter months. Approximately 9.8 acres, 1 acre is developed for the Roadside Park. Accessible with the exception of the portable toilets.
Elmwood Wildlife Observation Area	Private-Waste Management	Wildlife observation area at the Menominee Landfill. 20 acre complex home to numerous wetland and vegetation species, waterfowl and other local wildlife. Waste Management created an observation area to allow students, community groups and residents to visit a completed wetland mitigation reserve.
Little Nugget Golf Course	Private	9-hole golf course located off of US-41.
Township Hall Park	Menominee Township	Ball field, swings and portable toilet. Approximately 9.37 acres.
Webber-Chappee	Menominee County Historical Society	Historical site, well and picnic area.
City of Menominee		
Tourist Park	City of Menominee	Swimming beach, restroom, picnic tables

Table 6-3
Area Recreation Facilities

Facility	Ownership	Inventory of Facility
Duby Park	City of Menominee	Softball field, practice field, basketball courts, playground structure, restroom/warming shelter, 2 ice rinks, portable toilet
Marina Park and City Marina	City of Menominee	263 boat slips, fishing pier, benches, 1,100' of water frontage, club house, picnic area, boater's lounge, bike racks
Veterans Memorial Park	City of Menominee	Lighted path, benches, picnic tables, beach w/lifeguards, restrooms, volleyball
Higley Triangle Park	City of Menominee	Stone fountain, picnic tables, play area, benches, parking
Reindl West End Park	City of Menominee	Benches, playground, water fountain, playscape, drinking fountain, picnic tables
Water Tower Park	City of Menominee	2 lighted softball fields, pavilion w/grill and picnic tables, 4 tennis courts, concession/storage bldg, bleachers, benches, balance beam, playground, walking trails, sledding hill, ice rink, parking, restrooms
Henes Park	City of Menominee	Fenced in deer area w/shelter, play area, beach house, beach and swimming area, horseshoe pits, picnic tables, nature trails, grills, pavilions, several playgrounds
River Park Campground	City of Menominee	Campground, playground, gazebo, picnic area, play area, fire pits, restroom w/showers

Table 6-3
Area Recreation Facilities

Facility	Ownership	Inventory of Facility
Menominee River Access	City of Menominee	Triple boat ramp, parking, picnic tables, fish cleaning stations
Swings and Things	City of Menominee	Playground equipment, picnic tables
Northeastern Wisconsin Hydro River Access	Northeastern Wisconsin Hydro Company	Single boat ramp, boarding pier, parking
Lighthouse Ann Arbor Park	State of Michigan	Restroom, walkway to lighthouse pier, boarding pier, double boat ramp, parking
Spies Field	City of Menominee	2 baseball diamonds, batting cages, benches, press boxes, scoreboards, practice field, concession stand, restrooms, dugouts, bleachers, utility building, football field, handicap access pathway
Fisherman's Park	Northeastern Wisconsin Hydro Company	Accessible picnic tables, wooden fish station, shore fishing area, parking
Menominee Junior High School, Menominee High School and Central Elementary	Menominee Public Schools	Flag football fields, playground equipment, football fields, tennis courts, parking, bleachers, storage buildings, baseball diamonds, restrooms, bike racks, basketball areas, scoreboards, track
Lincoln Elementary School	Menominee Public Schools	Playground equipment, benches, bike racks, picnic table
Menominee Blesch Intermediate School	Menominee Public Schools	Football stadium, basketball courts, picnic tables, small playscape, bleachers, portable toilet
Catholic Central South School	Private	Large play apparatus, play area, sandbox

Table 6-3
Area Recreation Facilities

Facility	Ownership	Inventory of Facility
Greater M & M YMCA	Private	Restrooms, gyms, youth center, tot watch, flag football field, weight lifting, locker rooms, aerobic studio, handball/racquetball courts, swimming pool, martial arts studio, hot tubs, steam rooms, sauna, basketball court
Daughters of the American Revolution Boys	Private	Arts and crafts, gym, lunch room, library, kitchen, game room, ping pong, wood shop, outdoor play area
Menominee River Golf and Dining	Private	18 hole golf course
Meyer Township		
Arthur A. Schaefer Roadside Park	Meyer Township	Restrooms, picnic area with tables and grills
Humansville Lake	Meyer Township	Shelter pavilion, well, restrooms, parking lot, picnic tables, grills, and 200 feet of swimming beach
Meyer Township Recreation Area	Meyer Township	Bleachers, dugouts, Babe Ruth ball field, parking lot, volleyball courts, ice skating rink, picnic area, playground equipment, well, little league ball field, and restrooms
Community Center	Meyer Township	Library, gymnasium, and senior citizen center
North Central Elementary School	Meyer Township	Playground equipment, open area for games, tennis court, and basketball court
Meyer Township continued		
Spalding to Lab ranch Snowmobile Trail	Meyer Township and Spalding Township	-
Nadeau Township		

Table 6-3
Area Recreation Facilities

Facility	Ownership	Inventory of Facility
Carney-Nadeau School	Carney-Nadeau School	2 large swing sets, small multi-play apparatus, slide, fenced-in baseball diamond, dugouts, concession stand, benches, off-street parking area, median multi-play apparatus, spring play apparatus, climbing apparatus, aluminum bleachers, partially fenced-in basketball/tennis court
Ballfield	Private	Swing set, backstop, 3 wooden bleachers, outfield
St. Bruno's Church	Private	Paved parking lot used for basketball, hoop and net located
Skating Rink	Nadeau Township	Warming shed, lighting, picnic area, sledding hill
Carney-Nadeau School Forest	Carney-Nadeau School	Consists of 2 separate 120 and 160 acre parcels with a cross-country trail
Carney Evangelical Free	Private	Neighborhood recreation site
T.J. Faderski Memorial Park	Nadeau Township	Bench, swing set, small swing set, 8 picnic tables, port-a-pot, grill, pavilion w/electricity, round wood tables, landscaping
Village of Powers		
Powers-Spalding Elementary and High School	--	Playground equipment, tennis court, basketball court, baseball and football field, outdoor track,
Lions Club Little League Field	Powers Lions Club	Softball field
Spalding Township		
Veterans Memorial Park	Spalding Township	Rustic campground, playground equipment, picnic area, pavilions, beach area, horseshoe pits, softball field, volleyball, ice skating rink

Table 6-3 Area Recreation Facilities		
Facility	**Ownership**	**Inventory of Facility**
North Central Area Schools	Spalding Township	Playground equipment, tennis court, basketball court, baseball and football field, outdoor track,
City of Stephenson		
American Legion Memorial Park	City of Stephenson	Picnic area, parkway
Erickson Park	City of Stephenson	Ballfield, playground equipment, flush toilets, picnic area, 100' water frontage on little cedar river,
Fireman's Park	City of Stephenson	New pavilion, picnic tables, rest rooms, horseshoe courts, playground equipment, 600' water frontage on little Cedar River, light fixtures, volleyball court
Weber Park	City of Stephenson	Tennis courts, basketball court
Stephenson High School	Stephenson Area Public Schools	Play areas, football field, track, Cory Field
Indian Hills Golf	Private	18 hole golf course
Stephenson Township		
North Lake Public Access Site	MDNR, Wildlife Division	Carry down launching area
Coyote Campground	Private	Campground with electricity

6.6 PARK ACCESSIBILITY REQUIREMENTS

The Americans with Disabilities Act (ADA) identified specific standards that would ensure that persons with disabilities would have an equal opportunity to participate fully, live independently and be economically self-sufficient with society. The ADA consists of five sections: Employment, Public Accommodations, Transportation, State and Local Government Operations and Telecommunications.

Title II of the ADA, Public Accommodations, pertains to the level of accessibility and equal provisions of service at publicly owned recreation sites. The ADA requires that "reasonable accommodations" be made to the needs of the estimated one in five people who are disabled nationwide. As Ingallston Township does not have existing recreation facilities, future facility development will be fully compliant with accessibility rules required by applicable laws, including the Americans with Disabilities Act.

6.7 HISTORICAL RESOURCES

Heritage tourism, or tourism oriented toward the cultural legacy of an area, is becoming increasingly popular. Heritage tourism involves visiting historical sites to gain an appreciation of the past. The Menominee County Historical Society holds educational sessions throughout the city and the Historical Museum (904 11th Avenue) is open Memorial Day through Labor Day. Special historical significance is recognized through listings of the State or National Register of Historic Places. Properties may receive designation from both. Identification and preservation of historical sites can enhance a community's awareness of its past.

The West Shore Fishing Museum is on the State Register of Historic Places or and may qualify for the National Register of Historic Places. It is located on M-35 in Bailey Park. It is dedicated to preserving and portraying fishing life on the West Shore of Green Bay in prehistoric, pioneer, and modern times. The museum features an 1880's Victorian home, several exhibit buildings, and an extensive collection of fishing boats with the tools and articles for using them. There is a welcome center and gift shop. There are beautiful gardens and walking trails. The museum and Bailey Park lie along more than a mile of Green Bay shoreline with a public sand beach, hiking trails, woodlands and wildlife viewing.

M-35 is a Heritage Route and part of the Lake Michigan Circle Tour.

6.8 ISSUES AND OPPORTUNITIES

- The Ingallston Township Board is responsible for the determination of policy and funding matters regarding parks and recreation in the township.
- Residents often travel to the City of Menominee and surrounding communities to experience a variety of recreation opportunities.
- All future recreation area updates will be designed to meet ADA guidelines.
- Trail development in Menominee County is restricted by large amounts of land that is privately owned. Obtaining the easements necessary for sufficient trail development may be difficult.

CHAPTER SEVEN: TRANSPORTATION

7.1 INTRODUCTION

The basic objective of a road system is to facilitate the safe and efficient movement of vehicles. Communities depend on the safe and effective movement of people and goods to sustain a functioning economy. Transportation efficiency is a key factor in decisions affecting land use and development.

Physical barriers such as rivers, lakes, swamps and rugged terrain have largely influenced roads and other transportation systems. Transportation routes were generally established where physical features offered the least resistance. A summary of the existing transportation facilities in the township, along with a discussion of future transportation improvements and services are also discussed.

7.2 ACT 51 ROAD SYSTEM

Michigan Public Act 51 of 1951 requires that all counties and incorporated cities and villages establish and maintain road systems under their jurisdiction, as distinct from state jurisdiction. Counties, cities and villages receive approximately 61 percent of the funding allocated through Act 51 for local roads. State highways under the jurisdiction of the Michigan Department of Transportation (MDOT) receive the remaining 39 percent. The roadways in Menominee County fall into one of three general classifications: state trunklines, county roads or city streets. MDOT maintains two categories of trunklines that run through the county: US highways and regular "M" state trunklines. Roads are identified by type on Table 7-1.

State Trunkline Highway

The state trunkline system includes state and federal highways that connect communities to other areas within the same county, state and other states. These roadways provide the highest level of traffic mobility for the traveling 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 designated by the prefixes "M", "US" and "I" respectively. Act 51 requires that the state transportation department bear all maintenance costs consistent with department standards and specifications for all state highways including those within incorporated communities.

There are approximately 18 miles of state trunkline highway in Ingallston Township. M-35 runs northeast/southwest along the length of the township by the bay of Green Bay. M-35 begins at its intersection with US-41 which is 3 miles north of the Interstate Bridge between

Marinette, WI and Menominee, MI. The trunkline is two lanes, undivided, except for sections in Escanaba and Menominee and a passing lane to the north in Cedarville Township.

County Road System

County roads are classified as either primary or local. Road funding is based on the mileage of each road system. Primary roads facilitate the movement of traffic from areas of smaller population to larger population centers within a county. The primary road system serves as an important supportive road network for the trunkline system. There are approximately 41.8 miles of county primary and 36.21 miles of county local roads in Ingallston Township. Examples of primary and local roads in Ingallston Township are listed in Table 7-1. For the roads listed in Table 7-1, portions of the road may be considered primary and some segments may be considered local; all of the primary roads listed are paved. All of the roads in Ingallston Township are under the jurisdiction of the Menominee County Road Commission.

Table 7-1
County Primary Roads, Ingallston Township

Name	County Primary/Local
County Road 571	Primary
County Road 338	Primary
County Road 346	Primary
County Road 348	Primary
County Road 320	Primary
Jimtown Road	Primary
Million Dollar	Primary
Pinewoods Loop	Local
Kay Drive	Local
Harbor Point Road	Local

Source: CUPPAD, 2011.

7.3 SEASONAL ROADS

A seasonal road is defined as being a county road, or a portion thereof, which, during specified month (generally November through April), has minimal use by motor vehicles, does not provide sole access to a building which is used as a principal residence during the specified months and is not normally maintained or snowplowed by a road commission during specified months. The Menominee County Road Commission does not have a seasonal road policy; therefore Ingallston Township has no seasonal roads.

7.4 PRIVATE ROADS

Maintenance of private roads (snow plowing, grading, dust control, drainage ditch maintenance, etc.) is the responsibility of property owners along these roads, who usually

accomplish these tasks either on their own or through a contract agreement with a private entity. There are only a few private roads in Ingallston Township at this time.

The Township may include stipulations in the zoning ordinance that require any future private road development 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. However, even if a road is constructed to County Road Commission standards, the Menominee County Road Commission may not accept it into the county road network.

7.5 ROAD CONDITION EVALUATION

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

Future state trunkline system conditions are forecasted using the Pavement Management System data in conjunction with the Road Quality Forecasting System. It is anticipated that the percentage of pavement in poor condition will decrease over the next ten years. Bridge rehabilitation and replacement is scheduled on a "worst first" basis, assuming that funding is available for construction.

The Menominee County Road Commission 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 the following table. 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.

Table 7-2: Asset Management Strategies			
PASER Ratings	Asset Management 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	

PASER Ratings for a sampling of Ingallston Township's federal aid roads are included in Table 7-3. Generally, one-half of the roads in the Federal Aid eligible system are rated every year. Currently, ***11.7*** percent of the township's roads are considered to be rated in the "good" category and ***64.8*** percent are rates as "poor." There were no roads considered to be "excellent" in the township. Approximately ***15.2*** percent of the roads were not rated.

Table 7-3
PASER Ratings, Ingallston Township, 2011

Road Name	From Name	To Name	PASER Rating	Year of Rating
US-41	*12 Road*	*12.5 Road*	*3*	*2010*
US-41	*County Road 342 (G08)*	*Smith Street*	*5*	*2010*
County Road 342 (G08)	*Shore Drive*	*County Road 581*	*4*	*2010*
County Road 348	*Q Road*	*County Road 348*	*1*	*2010*
County Road 577	*12 Road*	*13 Lane*	*3*	*2010*
County Road 581	*12.75 Lane*	*12.85 Road*	*5*	*2010*

Hayward Lake 16 Road	*P1 Road*	*O2 Lane*	*1*	*2010*

Source: CUPPAD and MCRC, 2011.

7.6 FUNDING

Federal Assistance

Federal assistance is supported mainly through motor fuel taxes. Construction and repair costs associated with state trunk line 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 benefited Michigan. Under the concept of "intermodalism," transportation planning is supposed to encourage capital investments that include integrated modes of transportation that improve the reliability, safety, usability, and attractiveness of the regional public transportation system, including walking paths and bicycle lanes. Ingallston Township does not have bicycle lanes, sidewalks or walking paths.

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 Public Act 51 of 1951. The formula uses factors such as road classification, road mileage, and population to distribute funds accordingly. A percentage of the funding received by each road commission is also set aside for engineering, snow removal and urban roads. For 2011, the Menominee County Road Commission was allocated a total of $3,137,618 from the Michigan Transportation Fund, $2,426 for snow removal and $118,411from the local program fund ($3,258,454 total), compared to a total of $3,333,337 received in 2008, a 2.2 percent decrease.

Michigan Transportation Economic Development Fund (TEDF)

This program was established in 1987 by the Michigan Legislature. The purpose of the program is to assist with road improvement that attract industry and create and retain jobs in Michigan. The program provides funding to allow the state, local agencies and businesses to work together to meet the often-extensive urgent demands placed upon the transportation system by economic development. There are five separate funding categories, four of which are applicable to Menominee County. Two programs are of a competitive nature and two are a formula allocation to the road commission.

Category A: Economic development road projects: Road projects related to target industry development and redevelopment opportunities. Eligible projects are those that address a transportation need that is critical to an economic development project in one of the following target industries: manufacturing, high technology

research, agriculture/food research, forestry, mining, tourism and office centers. This is a statewide competitive grant program.

Category D: Secondary all-season road system: Road improvements in rural counties to create an all-season road network. These funds can only be used for construction; right-of-way acquisition and engineering are not eligible costs. This is a formula based program that benefits the Menominee County Road Commission.

Category E: Forest roads: Construction or reconstruction of roads essential to the development of commercial forests in Michigan. Eligible recipients are county road commission in each county in which a national lakeshore or national park is located or in which 34 percent or more of the land is commercial forestland. This is a formula based program that benefits the Menominee County Road Commission.

Category F: Cities in rural counties: Road and street improvements within Small Urban Areas designed to create continuity with the established all-season road network. The road improvement project must be to a federal-aid road (arterial or a major or minor collector). This is a statewide competitive grant program.

Local Funding

The Menominee County Road Commission each year allocates a certain amount of funds towards improvements to the local road system in each of the communities, primarily using monies from the Michigan Transportation Fund (MTF). The percentage of local road improvement funding allocated to each community varies year to year depending on the financial conditions of the Road Commission. For each local road project, the community is required to pay for 50 percent of the road construction cost, with the County Road Commission paying for the other 50 percent. The township is responsible for 100 percent of the cost for paving. The Menominee County Road Commission has experienced sharp budget cuts in recent years and has had limited funding to fix local roads.

7.7 LOCAL IMPROVEMENTS

Ingallston Township does not currently levy a millage for maintenance and repair to county roads in the Township. Funding from the Township's general fund is used to match the 60 percent match required for local construction projects and the 100 percent local contribution required for paving. Recent and future projects include: County Road 338 was paved and construction was done on South Pinewoods Loop. Paving will be done on South Pinewoods Loop when the Township has the necessary funding. The Menominee County Road

Commission provides the dust control service; Ingallston Township pays $2,500 per year for dust control on 41.41 miles of gravel roads.

Menominee County had a three-way road program that involved funding from the county, the Menominee County Road Commission and participating municipalities (any township, city or village may participate). An ad hoc committee was appointed to review the program and potential projects submitted by various municipalities for consideration. Ingallston Township contributed approximately $3,229 for road work and received about $30,000 in road work under the three-way road program.

7.8 BAY OF GREEN BAY

The bay of Green Bay lies along the eastern edge of Ingallston Township. The bay has always been tied to the area's economic history. Early in Menominee County's history, it served as the primary transportation route for the ships bringing in supplies and carrying lumber from mills and wood industries located in Cedar River and Menominee. This major waterway and its tributaries were essential to the early growth of commercial fishing, timber and wood product manufacturing industries which dominated the economic development of the region. Today, the bay still functions as a shipping route and also recreational attraction for boating and fishing.

7.9 AIR SERVICE

Menominee-Marinette Twin County Airport, located in the western portion of the City of Menominee, began operation in the early 1940s. The facility operated as the Menominee County Airport until 1976 when a partnership formed with Marinette County, Wisconsin to operate the facility jointly.

Twin County Airport meets the "general utility" licensing requirements set forth by the Michigan Department of Transportation. It has paved marked runways of 5,100 and 5,999 feet respectively. The facility serves private and corporate aviation needs, dispenses fuel, and handles a significant amount of air freight. Improvements to the airport include a ramp overlay that was completed in the fall of 2006 to accommodate aircraft up to that of a Boeing 737. The potential for economic development loans through Marinette and Menominee counties, and other government loan assistance, low lease rates, available office and hangar space, and hundreds of acres of convertible airport property, make Twin County Airport a potential hub of opportunity.

The airport adopted its own master plan update in September of 2006. The Michigan Department of Transportation requires that airports update their master plans every five years. An updated plan is necessary to access funding from the US Department of Transportation Airport Improvement Program for needed improvement projects at the

facility. The plan details the main goals and objectives of the airport in the next 20 years and prioritizes the improvement projects that the airport wants to complete.

The airport is managed by the Twin County Airport Commission. It consists of six members: two of whom are members of the Board of Supervisors of Marinette County, two of whom are members of the Board of Commissioners of Menominee County, one of whom is a lay person who is a resident of Marinette County and one of whom is a lay person who is resident of Menominee County. The Airport Commission authorizes management to control the day to day operations of the airport; to hire airport employees; to establish the terms and conditions of the airport employment; make expenditures for airport purposes within the budget provided by the County Boards; and to lease airport property not required for airport operations.

7.10 RAIL SERVICE

There is no rail service in the Ingallston Township but there is a track two miles west of the west boundary of the township provided by Canadian National Railroad. The Canadian National track originates just south of the City of Negaunee. It runs southeast from this location to the City of Escanaba, then southwest to the Village of Powers, where it connects with the rail line that runs west to the City of Iron Mountain. From the Village of Powers, the rail line runs directly south to the Cities of Menominee and Marinette, Wisconsin. From the Menominee-Marinette area, the track runs south through the cities of Peshtigo and Oconto, WI before terminating in the City of Green Bay, WI.

7.11 ADDITIONAL TRANSPORTATION SERVICES

Indian Trails provides daily intercity service from an agency location in Menominee. Agency locations are operated by independent agents whose services and hours of operation vary, although ticketing is usually provided. There is no public transportation system in Menominee County.

7.12 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." All modes of transportation may not be appropriate for all of the roads in a community. Establishing a complete streets policy helps to ensure that transportation planners and engineers consistently design the entire

roadway with all users in mind - including bicyclists, public transportation vehicles and riders and pedestrians of all ages and abilities.

Complete streets policies can improve safety for all users. A Federal Highways Administration review found that streets designed with sidewalks, raised medians, better bus stop placement, traffic-calming measures and treatments for disabled travelers improve safety. 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. MDOT is currently using context sensitive solutions for their road projects, which creates road projects that blend with the current aesthetics and infrastructure in a community. The township may have the opportunity to work with MDOT and the MCRC to plan for and implement improvements related to non-motorized facilities, transit, carpooling and commercial vehicle infrastructure.

7.13 ISSUES AND OPPORTUNITIES

- One state trunkline, M-35, passes through Ingallston Township. There are no seasonal roads in Menominee County.

- There are only a few private roads in Ingallston Township. When amending the Zoning Ordinance, standards and regulations regarding private roads may be included.

- Numerous bridges and culverts are located in Ingallston Township; all are under the jurisdiction of the Menominee County Road Commission.

- The ability of the Menominee 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 may defer maintenance, and the condition of many roads will continue to deteriorate.

- Roads in Ingallston Township are generally in fair condition; there is potential for roads that are currently paved, but in poor condition, to revert to gravel.

- Ingallston Township does not currently levy a millage for road repairs and maintenance; projects are limited by the amount of funding available.

- Ingallston Township is required to pay for 50 percent of the road construction cost, with the County Road Commission paying for the other 50 percent. The Township is responsible for 100 percent of the cost for paving for local roads.

- Ingallston Township has developed a road priority list of potential road projects. PASER data can be used to help determine roads in need of repair.

- Ingallston Township should continue work with the Menominee County Road Commission to schedule repair and maintenance projects as local and road commission funds become available.

- Ingallston Township is currently focused on preventative maintenance measures to keep roads in good condition.

- The aging of the local population could result in future need for additional transportation services for the elderly and/or disabled.

- Ingallston Township and Road Commission should incorporate Complete Streets policies into future road improvement projects when feasible and cost effective

- There is no daily bus service available in Menominee County at this time.

- Air service is available at Twin County Airport.

CHAPTER EIGHT: NATURAL FEATURES

8.1 INTRODUCTION

A direct relationship exists between an area's natural features and the development that occurs in that area. Often, communities are established, or grow and shrink based on one or more natural features and resources. In the case of Menominee County, the presence of natural resources was critical to the development of the region. Logging, sawmills, fishing, fur trading and farming were mainstays of the early local economy in Menominee County. These natural features are often interrelated and disturbances in one area have the potential to affect other areas. An understanding of these relationships is important for effective planning.

Several documents should be noted for content pertaining to the natural features of Ingallston Township and Menominee County; much of the data is available on a County-wide level. A significant amount of information was collected from these authoritative publications and is included in this chapter. These publications include the Soil Survey of Menominee County (USDA) issued September 1989 and Floodplain Management for Local Officials (MDEQ) revised 2008.

8.2 GEOLOGY AND BEDROCK GEOLOGY

Bedrock is the solid material that forms the earth's crust. Bedrock geology consists of rock formations found below the soil formed during the early periods of the earth's development that form the earth's crust. These formations have undergone extensive folding, uplifting, eroding and weathering during the millions of years that have since passed and are now overlain by surface geology and soil.

Among the primary factors that makes geology important to development is its ability to supply groundwater. Bedrock types, and the layers through which moisture passes, 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. When bedrock is close to the surface, the opportunity to filter out contaminants is diminished. In such instances, the potential for polluted runoff to enter the groundwater table is increased.

The "Bedrock Geology" map in Appendix A details Ingallston Township's two types of bedrock, Black River Group and the Trenton Group. Trenton and Black River Limestone are the rock formations that make up the upper layer of bedrock within the Township. The water capacity of these rock formations is generally low. Wells that are drilled within this formation are adequate for domestic or farm use; however, in most areas it would not be sufficient for supplying water to large industrial users or irrigators. The water from this upper bedrock layer contains high concentrations of hydrogen sulfide gas, which may give it a sulfur odor. To lower

the concentrations of hydrogen sulfide gas in the water, wells are dug as shallow as possible, since shallower beds of limestone tend to be free from this gas.

Groundwater supplies are adequate throughout the County and are drawn from varying depths and formations. Most wells are less than 100 feet deep. Deeper wells are necessary to meet the supply demands of municipal and industrial users. Hardness (high iron content) is common in many areas of the county and foul-smelling "sulfur" water is a problem in the southern part of Menominee County.

Construction activities of all types are affected by the depth to bedrock. See the "Depth to Bedrock" map in Appendix A, which shows that most areas in Ingallston Township have a depth greater than 5'. In most instances where bedrock is at or near the surface, buildings will be constructed without basements. Site preparation, utility installation and street construction all will be more costly in areas where bedrock is exposed or covered by only a thin layer of soil. On-site sewage treatment/disposal systems are typically not permitted in areas where bedrock is encountered within twenty-four inches of the ground surface.

8.3 SURFACE GEOLOGY

Surface geology is an important factor in terms of the ability to filter contaminants, the ability of the soil to support structures, roads, etc. and the suitability of a site for various uses. Immense masses of ice passed through the region, removing soft surface materials. Melting glaciers left materials behind. The glacial deposits occurred in one of three ways: materials (till) deposited directly by glaciers, with little or further movement as a result of surface water; materials deposited by moving streams, or outwash; and materials deposited by glacial lakes, known as lake deposits. End or recessional moraines are a type of till, deposited at the edge of a glacier, or left as the glacier melts and recedes.

Surface geology deposits in Ingallston Township are primarily the result of glacial action of the Wisconsin Period. The categories of surface geology are based on the material content and formation process of the various deposits. The surface geology in the southern end of Menominee County consists primarily of lake plains created by shallow glacial lakes that were ancestors of Lake Michigan. These deposits consist mainly of sand, although clay may be mixed with the sand in some areas. The amount of clay determines permeability and water yield. Concentrations of more than 25 percent clay impede drainage, and often result in swampy or marshy areas. If clay is not present in high concentration, glacial lake plain deposits are usually moderately or highly permeable.

The two types of surface geology deposits present in Ingallston Township are described as follows:

- Glacial Outwash Sand and Gravel and Postglacial Alluvium: These formations consist of stratified sand and gravel deposited by glacial melt-water streams and flows "washed out" in front of the glacier. They are commonly very permeable and range from ten feet to as much as 300 feet in depth. Outwash deposits are composed of sand and gravel, with few fines.
- Medium-textured Glacial Till: Glacial till is unsorted or poorly sorted un-stratified drift, deposited directly underneath a glacier without subsequent reworking by wind or water. It is a very heterogeneous material, ranging from clay fines to large boulders; thickness may range from 6-60 feet. Various deposits are distributed around the County.

8.4 SOILS

A firm understanding and knowledge of the soil types, soil suitability and soil permeability within the Township is useful when considering future land use development. For example, some soil types limit infiltration of fluids, presenting limitations to the use of on-site wastewater treatment systems. These limitations can be very important to developers given that the entire Township relies upon on-site wastewater treatment systems. Soil is the surface layer of the land that was formed through the interaction of many factors. Physical, chemical and mineral composition of the parent material combined with climate, plant and animal life on and in the soil are major factors. Other factors include time and relief, or lay of the land.

Parent materials are the result of glacial deposition or outwash from meltwater. Glaciers, moving slowly over bedrock material and exerting massive pressure, created finely ground material. The different types of soil created from the contractions of these glacial sheets were deposited throughout the area in no particular order. Most of the field work Menominee County's soil survey was completed in 1984. Generalized soil classifications for Ingallston Township are shown in Appendix A. There are five generalized soil classifications present in Ingallston Township, including Deford-Wainola-Rousseau, Onaway-Lupton, Onaway-Nadeau-Lupton, Solona-Pickford-Cathro, and Lupton-Loxley.

- The Deford-Wainola-Rousseau is defined as deep, nearly level to hilly, poorly drained, somewhat poorly drained and well drained, sandy soils on lake plains and outwash plains.
- The Solona-Pickford-Cathro soils are deep, nearly level, somewhat poorly drained to very poorly drained, loamy, silty, and mucky soils on moraines and lake plains.

- The Onaway-Lupton soil association is characterized by deep, nearly level to steep, well drained and very poorly drained loamy and mucky soils on drumlins and till plains. The majority of Menominee County consists of this association. These soils are used mainly as woodland or cropland.
- The Onaway-Nadeau-Lupton is deep, nearly level to steep, well drained and very poorly drained, loamy and mucky soils on drumlins and outwash plains.
- The Lupton-Loxley is deep, nearly level, very poorly drained, mucky and peaty soils on lake plains

Development planning should include a thorough assessment of soil suitability for the type of land use being considered. For example, residential subdivisions should avoid areas where soils are shallow and/or poorly drained, or where a high water table is present. Such conditions are not suitable for onsite septic systems and are problematic for road construction. Road construction techniques can overcome most limitations; however, the additional effort may be costly and environmentally unsound. Moreover, more frequent maintenance may be necessary to sustain a good condition. Soil limitations for building site development include areas where the soil depth over bedrock is shallow, where wetness is persistent, and where steep slopes are found.

Data regarding the suitability for septic tank absorption fields is presented in Appendix A. The rating is based on soil properties, site features, and observed performance with the soils. Some soils provide good foundation for houses, but others do not. A high water table, depth to bedrock, large stones, slopes and flooding affect the ease of excavation and construction. Limitations for building site development include the presence of shallow bedrock that can make the construction of basements difficult. If the rock is soft or fractured, excavations can be made with trenching machines or backhoes. If the rock is hard or massive, blasting or special equipment generally is needed for excavation. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect the specified use. "Not limited" indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. "Somewhat limited" indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. "Very limited" indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Wastewater is treated by private, on-site septic systems throughout the majority of the township. Septic tank absorptions fields are areas in which effluent from a septic tank is distributed into the soil through subsurface tiles or perforated pipe. With very few exceptions, most of Ingallston Township is rated severe for septic tank absorption fields. The ratings are based on soil properties, site features and observed performance of the soils.

Permeability, a high water table depth to bedrock and flooding can affect absorption of the effluent. Unsatisfactory performance of septic tank absorption fields, including excessively slow absorption of effluents and surfacing of the effluent can affect public health. Large stones and bedrock would interfere with installation. Shallow soil depths and permeable bedrock heighten potential for contamination of wells and river systems. On site soil evaluations are performed by the health department to determine soil suitability for on-site sewage disposal systems. As shown on the maps, the majority of the township is rated as "very limited" for septic tank absorption fields, while remaining areas are rated as "somewhat limited."

8.5 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 source of drinking water for about half of the state's population. Surface water is vital for some industries, electric power generation, a myriad of recreational uses, and for its scenic attraction. Water bodies can also form physical barriers to development and result in increased transportation system costs. Coastal areas in the Upper Peninsula are a valuable and sometimes fragile resource. These areas offer scenic beauty which attracts residents and visitors. They provide habitat for a variety of wildlife species and are also desirable locations for human habitation. Due to the many benefits they provide, these areas often suffer from development pressures. Waterfront property is very desirable for residential development and is vital for certain commercial and industrial uses. Much of the new construction over the past 20 years in the Upper Peninsula has been in waterfront areas, either along the Great Lakes or along inland lakes and rivers.

Green Bay forms Ingallston Township's Eastern boundary. Ingallston Township borders Green Bay's shoreline for approximately 12 miles with access to the public available for boat launching at Stoney Point Boat Landing. The public has access to the shores of Green Bay for viewing or picnicking at Airport Park and Bailey Park. Overnight camping and picnicking are available at Kleinke Park. West Shore Fishing Museum also allows visitors to walk down to the shores of Green Bay for Viewing.

Watersheds, or basins, collect and drain water to a common point within a topographically defined area. Two major watersheds have been identified by the U.S. Geologic Survey. Each covers about half of the County's land area. The Menominee River Drainage Area, or western watershed, extends from northern Meyer Township south to the City of Menominee. The eastern half of the County drains directly to Green Bay, an arm of Lake Michigan.

8.6 FLOODPLAIN AND WETLAND AREAS

Floodplains and wetlands are important from a planning standpoint due to their potential limitations on future development. Conversely, it is important to consider how development can impact floodplain and wetland areas. Wetland areas provide many natural functions including water storage, water quality protection and wildlife habitat. With floodplains, it is important to consider the possible impacts on existing development.

A plain that may be submerged by flood waters defines a floodplain. Floodplain areas have been identified and mapped by the Federal Emergency Management Agency. The 100-year floodplain is defined as the area in which there is a one (1) percent chance of a flood occurring in any given year. Since the meaning of the term "100-year floodplain" has proved confusing to many, the National Flood Insurance Program has elected to replace it with the designation "base flood elevation" (BFE). There are restrictions on development in these areas due to the potential for property damage, as well as health and safety risks. Flooding is a natural occurrence and development within identified floodplain areas assumes a certain risk.

The Federal Emergency Management Agency determines flood hazard areas in consonance with its administration of the National Flood Insurance Program. Floodplain hazard areas have been identified for Ingallston Township. Ingallston Township participates in the National Flood Insurance Program and adopted updated floodplain maps in 2012; the map is in Appendix A: Maps, "Floodplain Map (FEMA)."

Flood insurance is a condition of federal or federally-related financial assistance for construction or acquisition of buildings located within the special flood hazard areas shown on Federal Insurance Administration maps. This includes regular mortgage loans offered through federally-regulated lending institutions, as well as mortgage guarantees through FHA and VA. Areas prone to erosion along the Lake Michigan shoreline are subject to special setback requirements established by the Michigan Department of Environmental Quality. Ingallston Township has participated in the regular program of the NFIP since 1993. Floodplain maps have been published for the Township at this time, and the community is still participating in the NFIP.

Areas between terrestrial and aquatic systems where the water table is at, near, or above the land surface for a significant part of most years define wetlands. Commonly referred to as a swamp, bog or marsh, a wetland area 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. Soil types described as "poorly drained" or "very poorly drained" are generally associated with wetland areas. Any development occurring in wetland areas is subject to the regulatory authority of the Michigan Department of Environmental Quality. Wetland areas occur throughout Ingallston Township and Menominee County.

8.7 CLIMATE

Weather data for Menominee County is collected at Stephenson and Spalding. Average annual precipitation at Stephenson for the 30-year period ending in 1980 was 32.63 inches; at Spalding it was 29.99 inches. More than two-thirds of the annual precipitation is received in the April through October period. August is the wettest month, February the driest. Mean snowfall during this period was 65 inches with the highest monthly average occurring in December. Temperatures vary substantially from the Green Bay coastline to interior locations.

The proximity to Lake Michigan influences both precipitation and temperature (lake effect). Tornado activity is infrequent due to the Township's location at the northern fringe of the Midwest tornado belt and the cooling effect of Lake Michigan. Storms with damaging winds and heavy precipitation can occur during any month but are more likely in the summer.

8.8 FISH AND WILDLIFE

An abundance of habitat provides for large wildlife and fish populations. Hunting is popular throughout Menominee County with white-tail deer, black bear and wild turkeys being the leading game. Other game animals include ruffed grouse, woodcock, squirrel, rabbit and waterfowl. Other species include red fox, coyote, gray wolf, beaver, otter, muskrat, raccoon, weasel, skunk, porcupine and opossum. Area streams and Great Lakes waters offer good sport fishing for many species.

8.9 FOREST RESOURCE

About 75 percent of Menominee County's land area is forested. Approximately a third of County forestland is found within wetland areas where northern white cedar and spruce dominate. Northern hardwoods dominate upland soils and include sugar maple and basswood. Among major species groups, soft hardwoods (red maple, basswood, aspen) and other softwoods (conifers) are the leading growing stocks. A considerable portion of Ingallston Township is forested land.

8.10 ISSUES AND OPPORTUNITIES

- Patterns of settlement and land use were shaped by the area's natural features and resources.
- Groundwater supplies are generally adequate throughout Menominee County.

- Major portions of Ingallston Township contain limitations on development due to geology, soils, wetlands, environmental areas, etc. While these limitations do not necessarily preclude all types of development, they may be prohibitively expensive to overcome. In addition, if development occurs in areas not compatible with such activity, there may be increased future costs to local units of government.

- There are areas in the Township where the future use of private septic systems may be of concern. Future development may be limited by the lack of sewer and water service.

- Soil data should be reviewed for all development proposals.

- Ingallston Township is bordered to the east by Green Bay.

- Ingallston Township participates in the National Flood Insurance Program.

- Ingallston Township has an abundance of wetlands, which often means development is limited or not possible at all.

- The climate of Menominee County presents a variety of challenges. Examples include: the need for snow removal from streets and parking lots and building codes which provide adequate support for snow loads. The local climate may be attractive to a number of people and can be suitable for businesses or industries which specialize in certain types of goods or services/seasons.

CHAPTER NINE: LAND USE

9.1 HISTORIC LAND USE PATTERNS

Patterns of land use evolved from economic necessity. The economy was firmly linked to trade routes that followed natural features such as lakes and streams. The general historic land use patterns which are common to the Upper Peninsula are reflected in the patterns that have developed in the Menominee County area. Settlements were established at, or close by, active points of commercial activity, namely timber production, fur trading and fishing. This chapter will discuss current land use and ownership throughout Ingallston Township. A land use map is in Appendix A.

The territory now known as Menominee County was inhabited exclusively by native Indians until early in the nineteenth century. This changed with the establishment of fur trading posts by a small number of French Canadians along and near the mouth of the Menominee River. Fishing and lumbering were basic commercial activities of the first European settlers. Major growth in the lumbering industry and intensive settlement followed completion of the first area sawmill in 1836 near the mouth of the Menominee River. Nearby farms produced hay and other feed for work animals. A small group of German families established farms north of the City of Menominee in 1855. These were the first farming settlements inland from the Menominee River. As the main commercial activities, logging and agriculture were the principal determinants of land development in the county. Post-World War II changes in employment, lifestyle, personal income, personal mobility, demographics and markets have significantly influenced land use patterns.

9.2 FACTORS AFFECTING LAND USE

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

Location tends to be the most important factor for home buyers and commercial interests. The availability of public and private services, accessibility, existing conditions of the area and price are other important considerations. Owners of business and industrial ventures decide to start, expand or close their operations based on economic probability. Many factors may be considered in determining economic feasibility including supply and demand for the goods or services produced, cost and quality of transportation and site availability. Local decisions have a bearing on these factors.

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

Laws and Regulations

Laws and regulations have been enacted giving local units of government the means to deal with land use issues. These legal tools allow federal, state and local governments to address the overall compatibility and appropriateness of development and land use.

Federal legislative actions have created a number of loans and grant programs for community facilities, water and wastewater systems, housing, economic development and planning. Drinking water standards, air quality and many other environmental factors are addressed in federal regulations.

The traditional role of the state has been limited to providing the enabling legislation for local units of government to regulate growth and development through planning and zoning. Consolidated zoning enabling legislation, PA 110 of 2006, and consolidated planning enabling legislation, PA 33 of 2008, were adopted to guide local units of government on statutory requirements. The State of Michigan regulates land use and development in regions of environmental concern including wetlands, floodplains and coastal areas, which can have a direct effect on local land use. The state also enforces standards for municipal water systems and wastewater systems that are at least as strict as federal standards. A community's ability to provide water and wastewater treatment systems is directly affected by these regulatory standards.

Proper sewage treatment and disposal must be considered including whether municipal sewer or suitable soil conditions for an on-site sewage treatment/disposal system are present. Public Health Delta & Menominee Counties Sanitary Code, On-site Water and Sewage Regulations sets minimum criteria for site approval for on-site sewage treatment/disposal systems.

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

Transportation

The transportation system that serves a community determines how quickly and easily raw materials and finished goods can be received and shipped. It also is directly related to product cost, a crucial factor for business. The vast network of roadways in the U.S., together with the proliferation of private automobiles, has enabled residents of rural areas to commute to larger communities for employment and shopping and has increased the accessibility of many areas to tourists. This increased mobility has, in many cases, facilitated suburban residential development. One negative impact of suburban residential development often referred to as "sprawl," frequently converts open space and forested agricultural lands to more intensive uses. Alternatively, carefully planned road systems and improvements to existing roads can guide where future residential development will occur. One state trunkline highway, M-35, traverses north-south through Ingallston Township.

Land Values

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

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

In general, land values are highest in areas that have been deemed suitable for development and where infrastructure such as utilities and roads has been established. Land values are also generally peak in urban areas, where development has been established. Suburban areas that have access to urban areas, jobs and services via transportation corridors often demonstrate higher land values as well. In Ingallston Township, the highest land values are associated with water frontage.

Land Ownership

Land ownership in Ingallston Township, has been dominated by private landowners. While private landholders of small parcels exist, many of the parcels are 40 acres or more in size. There are very few large corporately owned tracts of land in the Township.

In general, the state of Michigan is a large landholder in the Upper Peninsula, and owns land in Ingallston Township. Large tracts of land throughout Menominee County are part of the Escanaba River State Forest, including portions of Ingallston, Lake, Daggett, Cedarville, Holmes, Nadeau, Faithorn, Gourley, Harris and Spalding Townships.

Natural Characteristics

The physical characteristics of the land have a considerable effect on the determination of potential land use. Slope, soils and drainage are just several natural characteristics that have an effect on land use. The natural characteristics of Ingallston Township are described in detail in Chapter 8; soil suitability is a concern for development.

9.3 LAND USE AND LAND COVER

Although the terms "land cover" and "land use" are sometimes used interchangeably, they are actually different. Simply put, land cover is what covers the surface of the earth and land use describes how the land is used. Land cover is the natural landscape recorded as surface components: forest, water, wetlands, urban, etc. Land use is the documentation of human uses of the landscape: residential, commercial, agricultural, etc. Land use can be inferred but not explicitly derived from satellite and aerial imagery. In 1978, the Michigan Resource Information System (MIRIS) Land Use maps were produced. The data obtained from the maps generated an inventory of land cover for the state. Ideally, the MIRIS data was to be updated by the State every five years; the efforts have proved to be cost prohibitive and the maps are currently outdated.

The Land Use map in the appendix was produced using 2006 data provided by NOAA. Land covrt in Ingallston Township is dominated by forested wetlands and deciduous forests. Cultivated crops are scattered throughout Ingallston Township, with farming concentrated in the Northwest portion of the Township. There are very few areas of developed land shown on the map; developed areas are mainly found along the M-35 corridor. Acreages for each land use category found in Ingallston Township are presented in Table 9-1.

Table 9-1 Land Cover	
Land Use Category	**Acres**
Palustrine Forested Wetland	25,800
Deciduous Forest	4,647
Palustrine Scrub/Shrub Wetland	3,436
Pasture/Hay	2,753
Evergreen Forest	2,751
Mixed Forest	1,956
Palustrine Emergent Wetland	1,384
Developed, Low Intensity	721
Grassland/Herbaceous	648
Cultivated Crops	633
Open Water	537
Scrub/Shrub	244
Developed, Open Space	144
Bare Land	100
Developed, Medium Intensity	25
Unconsolidated Shore	6
Developed, High Intensity	2

9.4 LAND USE

Residential Land Use

Urban and built up land is a general land use category that encompasses "developed" land uses such as residential, commercial, extractive, institutional and industrial. Residential land use includes single family homes, multi-family homes and mobile homes, in a low to medium density pattern. Low density, scattered settlements prevail in Ingallston Township and many of the surrounding Townships. In general, housing is concentrated along Highway M-35 next to the waters of Green Bay.

Housing in Ingallston Township is aging and few new homes have been built in recent years. Most building permits have been issued for additions, rather than new construction. Homes are generally in good condition. There has been an increase in the number of vacant homes. Bay front development has been Land Cover Category ıship; there are few properties available for development along M-35 on Green Bay. The majority of homes along the bay have been for year-round use, with very few homes used seasonally. Waterfront lots are typically small (50 'X 100') and varying depths.

Future residential development is limited by soil suitability and the presence of wetlands. Residential development may also be limited by the lack of sewer and water service. There are no plans at this time to develop municipal water and sewer systems due to the high cost.

Ingallston Township represents a mixture of older homes and a small amount of newly built homes. Many homeowners are looking for larger homes on larger lots and frequently, outlying townships have the space. Ingallston Township has substantial amounts of land available for residential development; the land is often held in large tracts and landholders may be unwilling to sell at this time. Currently the Township does not have curbs and sidewalks. The need to develop curbs and sidewalks has not been widely expressed in the Township. Future development could consider building wider roads that would include a bike lane or walking paths.

Commercial Land Use

As discussed in Chapter 3, the Township has somewhat limited commercial development. Few residents are employed in the Township; many residents are employed in the City of Menominee or across the bridge in Wisconsin. While the majority of Ingallston Township residents travel to the City of Menominee and to Wisconsin for employment, there are a variety of businesses located in the Township, employing a number of residents. These businesses include, but are not limited to: saw mills, logging, construction, and automotive sales, that employ a number of Township residents. Most of the commercial development in the Township is located along M-35. There are also several home based businesses in the Township.

There are areas of Ingallston Township that could be utilized to further expand commercial enterprises. There are 4 parcels of industrial property, and 9 commercial parcels. Ingallston Township should take advantage of M-35, and close proximity to port and air services as well as several Class A roads to attract commercial and industrial users.

Agricultural Land Use

There is agricultural activity in the Township, consisting mainly of crop production, concentrated in the Northwest portion of the Township. There are farms of a variety of sizes, mainly producing soybeans, corn and hay, and dairy farms, as well as several hobby farms. Numbers of farms have decreased in the Township over the last 20 years; current farmland is being leased by farmers from out of the area for production. Contrary to nationwide trends, the total number of farms in Menominee County actually increased from 372 farms (98,755 acres) in 2002 to 419 farms (103,636 acres) in 2007, according to the 2007 Census of Agriculture.

Wetlands

Extensive wetland areas are present in the County. Marshes, swamps, and bogs where natural vegetation is found growing in shallow water are easily recognized wetland areas.

9.5 CONTAMINATED SITES

The Michigan Department of Environmental Quality (MDEQ) maintains a listing of sites identified as containing contaminants. Environmental contamination means the release of a hazardous substance, or the potential release of a discarded hazardous substance, in a quantity which is or may become injurious to the environment, public health, safety or welfare. The presence of hazardous substances at these sites may restrict future development. There are no sites of environmental contamination currently listed by the MDEQ in the Township. Current sites are listed by the MDEQ and are available at the MDEQ website. These sites will remain listed until corrective action plans begin. An OPEN L.U.S.T. site means a location where a release has occurred from an underground storage tank system, and where corrective actions have not been completed to meet the appropriate land use criteria. An OPEN L.U.S.T. site may have more than one release. The database will only provide the last owner of record, and this person may not be the liable party. There are no OPEN L.U.S.T. sites listed for Ingallston Township.

9.6 ISSUES AND OPPORTUNITIES

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

- Continued enforcement of the Ingallston Township Zoning Ordinance provides regulations for development and allows the Township to have an influence on land use changes.

- Planned transportation systems and strategic road improvements can guide where future development will occur.

- The highest land values in Ingallston Township are associated with water frontage.

- Low density, scattered residential development prevails in the Township. Residences are concentrated along the M-35 corridor.

- There is potential for expansion of commercial activity along M-35.
- Agricultural production has increased in Menominee County since the previous Census of Agriculture.
- Development in the Township is limited by the overwhelming presence of wetlands; development may also be limited by the lack of water and sewer service.

CHAPTER TEN: GOALS AND RECOMMENDATIONS

10.1 INTRODUCTION

Throughout the preceding chapters of this plan, detailed information has been presented defining the historic trends and current situation in Ingallston Township. 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. These goals are broad statements which reflect desired future conditions and are based on the background information, assumptions, alternatives and policy variables presented earlier. 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 a guide and provide a long-term vision; ideas and projects mentioned are adjustable per the township's needs. While the Planning Commission has developed goals and recommendations based on the best information available, 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. This plan must remain flexible enough to respond to changing needs and conditions, while still providing a strong guiding mechanism for future development. This plan should also be the basis for the Ingallston Township Zoning Ordinance.

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.

10.2 POPULATION

Discussion: Ingallston Township's population was steady from 1940-2010, decreasing from 948 persons in 1940 to 935 residents in 2010; a decrease of 1.4 percent. Population data for 2010 indicates a 10 percent population decrease for the township since 2000. A portion of the population base in Ingallston Township may have located in the area due to the proximity to employment opportunities in the Cities of Marinette and Menominee. The median age of Ingallston Township residents in 2010 was 53 years; communities such as Ingallston Township are experiencing declines in the birth rate and a rapid increase in the proportion of elderly people, contributing to the increase in median age. When compared to the other townships in Menominee County, Ingallston Township has the eigth highest population density.

Goal: Continuously monitor population trends in the Township and surrounding as part of the Master Planning process.

Recommendations:

- Update Master Plan demographic information when new Census data becomes available.
- Support land use policies that maintain the population density in the Township.
- Continue to improve opportunities, such as recreation and transportation, to attract families with children to the area.
- Encourage services and activities for all residents.

10.3 ECONOMIC BASE

Discussion: Historically, the local economy, like that of Menominee County, has been closely related to natural resources and features and the utilization of those resources. The local economy is linked not only with the City of Menominee but also with the City of Marinette, as well as surrounding Menominee County communities. Ingallston Township has become a bedroom community, while the City of Menominee has evolved into the largest community in Menominee County and an economic center. The Township's labor force is employed largely outside of the Township; there are a few small businesses that employ a small number of Township residents. A large portion of the work force in Ingallston Township finds employment in Wisconsin.

There are farms of a variety of sizes, mainly producing soybeans, corn, hay, and dairy as well as several hobby farms. The number of farms has decreased in the area over the last 20 years; current farmland is being leased by farmers from out of the area for

production. Ingallston Township has minimal of land available for commercial expansion. Ingallston Township has limited commercial development at this time.

The proximity to M-35, rail, port and air services as well as several Class A roads within the Township may also provide expansion opportunities.

Goal: Improve the Township's existing economic base and make an effort to attract new businesses.

Recommendations:

- Encourage and support existing businesses, including home based businesses where appropriate and feasible.
- Allow for commercial development on the Future Land Use map where appropriate.
- Promote Ingallston Township as a friendly environment for small business development.
- Improve cellular and internet service.

10.4 HOUSING

Discussion: Residential land use includes single family homes, multi-family homes and mobile homes, in a low to medium density pattern. Low density, scattered settlements prevail in Ingallston Township and many of the surrounding townships. In general, housing is concentrated along the M-35 corridor. Rents are reasonable and the units are typically full. Housing throughout the Township is aging and few new homes have been built in recent years. Homes are generally in good condition. There has been an increase in the number of vacant homes, and several have fallen into a state of disrepair. Bayfront development has been very popular in Ingallston Township; there are few properties available for development along the bay of Green Bay and any that become available sell quickly. The majority of homes along the bay have been for year-round use, with very few homes used seasonally. Bayfront lots are typically small (50 'to 100') with varying depths.

There are no public housing developments in the Township at this time and there are no assisted living facilities. Additional facilities or specialized housing tailored to the elderly may be beneficial in the future.

There are several natural and man-made limitations to residential development in Ingallston Township. Future residential development is limited by soil suitability and the presence of wetlands. Ingallston Township has many wetlands, which often means development is limited or not possible at all. Ingallston Township has substantial amounts of land available for residential development; the land is often held in large tracts and landholders may be unwilling to sell at this time.

Goal: Develop a varied housing stock that meets the needs and preferences of the Township's residents.

Recommendations:

- Promote the quiet, rural, safe and affordable nature of Ingallston Township.
- Encourage rehabilitation and improved efficiency of existing housing. Continue the enforcement of Township ordinances.
- Encourage single family home development.

10.5 COMMUNITY FACILITIES AND SERVICES

Discussion: Current budget constraints require innovative and responsible spending. In general, the Ingallston Township Hall is in good condition. There is adequate space available (35 x 42') at the Hall and there are no plans for expansion at this time. Recent improvements include repainting of the interior and exterior of the building, a handicap ramp, and addition of a restroom. There is an additional township hall on M-35, not in use. The Menominee-Ingallston Township Fire Department maintains two fire halls; the Fire Hall on US 41 in Menominee Township was built in 2007 and in excellent condition. The Fire Hall on M-35 in Ingallston Township was built in 1991 and is in fair condition with two bays and one truck is stored at this location.

All Ingallston Township residents rely on private wells and septic systems for water and wastewater services. The Township does not plan on establishing a municipal water system.

The Menominee-Ingallston Transfer Station provides recycling and garbage disposal located on Rangeline Drive.

Goal: Continue to provide and maintain the quality and efficiency of community facilities and services in a cost-effective manner.

Recommendations:

- Improve cable, internet and cellular service in the Township.
  Support rural broadband expansion.
- Continue to pursue grant funding to improve fire department equipment options.
- Explore options for intergovernmental cooperation opportunities.
- Support the repurposing and reuse of existing vacant commercial buildings for commercial or light industrial purposes.
- Support the expansion of natural gas services.

10.6 RECREATION

Discussion: There are limited public recreation facilities within Ingallston Township. There are no Ingallston Township owned recreation facilities. The Ingallston Township Board is responsible for the planning of future development and usage of any future township-owned recreation facilities.

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

Recommendations:.

- Strive for all future recreation facilities improvements to exceed ADA requirements.
- Identify historical sites to promote tourism.

10.7 TRANSPORTATION

Discussion: Communities depend on the safe and effective movement of people and goods to sustain a thriving economy. The ability of the Menominee 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 may defer maintenance, and the condition of many roads will continue to deteriorate.

Ingallston Township does not currently levy a millage for maintenance and repair to county roads in the Township; the Township would like to participate in any future projects stemming from the proposed three-way county road fund. Funding from the Township's general fund is used for the 50 percent match required for local construction projects and the 100 percent local contribution required for paving. One state trunkline, M-35, traverses through the Township. M-35 has been designated as a Heritage Route as well as part of the Lake Michigan Circle Tour.

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

Recommendations:

- Continue to develop a road priority list for future projects.
- Continue to review Complete Streets policies and incorporate into the Township's planning efforts as appropriate.
- Utilize asset management and preventative maintenance techniques to maintain the quality of the roads in Ingallston Township that are currently in excellent, good and fair condition.
- Continue to pave and improve existing roads when feasible.
- Continue to work with MDOT and the Menominee County Road Commission on road projects.
- Continue to work with the MCRC to provide dust control measures.

10.8 NATURAL FEATURES

Discussion: Original settlement and land uses were directly related to the area's natural features and resources. Major portions of Ingallston Township contain limitations on development due to geology, soils, wetlands, environmental areas, state owned land, etc. Typically, limitations may be overcome using site-specific engineering techniques. Ingallston Township has an abundance of wetlands, which often means development is limited or prohibitively expensive. Ingallston Township has participated in the regular program of the NFIP since 1993, and FEMA has produced floodplain maps for the area.

Goal: Preserve the natural setting of the Township, while allowing for compatible development to occur at suitable sites.

Recommendations:

- Ingallston Township should continue to participate in the National Flood Insurance Program.
- Support zoning regulations.
- Ingallston Township should support and participate in Menominee County-wide emergency preparedness planning.
- Promote preservation of family farms.

10.9 LAND USE

Discussion: Land ownership in Ingallston Township has been dominated by private landowners. While private landholders of small parcels exist, many of the parcels are 40 acres or more in size. There are very few large corporately owned tracts of land in Ingallston Township but considerable state owned land. Approximately 94% of the land in the Township is categorized as forested or wetlands. The highest land values are associated with waterfront development. Low density, scattered single-family home development prevails. In general, housing is concentrated along M-35. Housing development in the Township has been popular along the bay of Green Bay. Ingallston Township has limited commercial land uses. Limited commercial development is located along M-35. There are also limited home based businesses. There are areas of the Township that could be utilized to further expand commercial development. The Township should take advantage of M-35, and close proximity to port and air services as well as several Class A roads to attract commercial and light industrial users. There is agricultural activity, consisting mainly of crop production and dairy, concentrated in the northwest portion of the township. Extensive wetland areas are present in Ingallston Township, somewhat limiting development. The Township currently makes use of a Zoning Ordinance to regulate land use.

Goal: Ensure the orderly growth and development of the Township.

Recommendations:

- Review and update the Zoning Ordinance to regulate land use and development in the township.
- Follow Menominee-Delta County Health Department residential density standards consistent with the natural capacity of soils to handle on-site septic systems.
- Encourage compatible commercial development along the M-35 corridor. Encourage compatible small business development.
- Encourage compatible home based businesses.

CHAPTER ELEVEN: FUTURE LAND USE

11.1 INTRODUCTION

The previous chapters of the Master Plan provide an overview of the existing conditions in Ingallston Township. 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 should be carried out. Recommendations are based on analyses of environmental opportunities and constraints, existing trends and conditions, and projected future land use needs.

Future land use planning establishes the desired amounts and locations of residential, commercial, and industrial development; public facilities; open space; environmental conservation and recreational areas; non-motorized transportation facilities; and changes or improvements to the local traffic circulation systems. When making future land use decisions, township officials should carefully review adjacent land uses in bordering jurisdictions for compatibility.

The Michigan Planning Enabling Act (PA 33 of 2008) requires a Master Plan to 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 Districts on the Zoning Map" (Section 33(2)(d)).

Consequently, this chapter also contains information about Ingallston Township's current zoning districts and recommendations for any potential modifications to the districts based on the future land use plan. The Future Land Use map is in Appendix A.

11.2 FUTURE LAND USE DESCRIPTIONS

The following descriptions provide a general outline of the vision and intent for future land use in Ingallston Township. Descriptions are based on the goals and objectives mentioned in previous chapters, as well as best practices in planning.

Each future land use category description is accompanied by a picture. These examples are taken from various rural locations in the United States, and are provided to illustrate the intended use and general character of each land use designation. The examples are not intended to dictate any particular architectural style, building standard or arrangement, or to limit the uses of a land use designation to those depicted.

Rural Residential

Residential development in the Township should occur in such a way as to preserve open space and the rural character of the Township, and to provide adequate space for private wells and septic systems. The existing zoning districts should generally be sufficient to accommodate any new residential rural development.

Image: Rhode Island Dept. of Environmental Management

Recreational

The Township should protect the area's rural character without unduly restricting the residential and recreational potential given the region's popularity as a vacation destination. The existing zoning districts should generally be sufficient to accommodate such uses.

Image: North Shore Golf Club

Agriculture and Forest

Much of the Township has suitable soil characteristics for growing of crops and raising animals. This land should be preserved for such uses as well as forestry and similar agricultural operations. The existing zoning districts should generally be sufficient to accommodate any new agricultural production.

Image: Michigan Farmer

Commercial

Ingallston Township should take advantage of M-35, and close proximity to port and air services as well as several Class A roads to attract commercial and industrial users. Commercial development should maintain the area's rural character.

Image: Sonoma Weekends

11.3 ZONING DISTRICTS AND ZONING PLAN

Ingallston Township is divided into four zoning districts. The attached zoning map shows the zoning districts, and the following text describes the intent and general purpose for each district. The permitted and conditional uses within each district and schedule of district regulations are included in the Ingallston Township Zoning Ordinance (Adopted May 2011). A review of the current districts is pertinent to the discussion of any Zoning Ordinance revisions efforts as well as future land use.

Current Zoning Districts

District R-1: Residential One

The R-1, Residential One, District is intended for the establishment and preservation of single-family homes. The R-1 District is designed to accommodate residential opportunities as well as limited recreational opportunities. It is reasonable to require spacious lots to ensure safe potable water supply and treatment of wastewater on the same lot.

District RR: Residence and Recreation

The RR, Residence and Recreation, District is composed of lands in a rural area where recreational activities along with residential uses are likely to occur. The uses established within this district are designed to protect the character of the district without unduly restricting the residential and recreational potential. The district will provide for commercial/retail development suitable for a rural setting.

District AF: Agriculture and Forests

The AF, Agriculture and Forest, District is intended to maintain for agriculture those lands which because of their soil characteristics, drainage and other factors are suited for farming, dairying, forestry operations and other similar agricultural operations. The district will provide for limited recreational uses.

District C: Commercial

The C, Commercial, District is established to provide areas within the township for general commercial businesses for the convenience of township residents, the traveling public and people from the surrounding area.

Relationship Between Zoning and Future Land Use

The following table lists future land use categories and their corresponding existing zoning districts, along with notes when applicable. Currently, the existing zoning districts align with the goals and recommendations discussed in previous chapters. However, if the needs of Ingallston Township change in the future, amendments to the zoning map and districts may be necessary.

Table 11.1
Future Land Use Classification and Associated Zoning Districts

Future Land Use Category	Zoning District
Rural Residential	R-1
Recreational	R
Agriculture and Forest	AF
Commercial	C

11.4 CONCLUSION

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

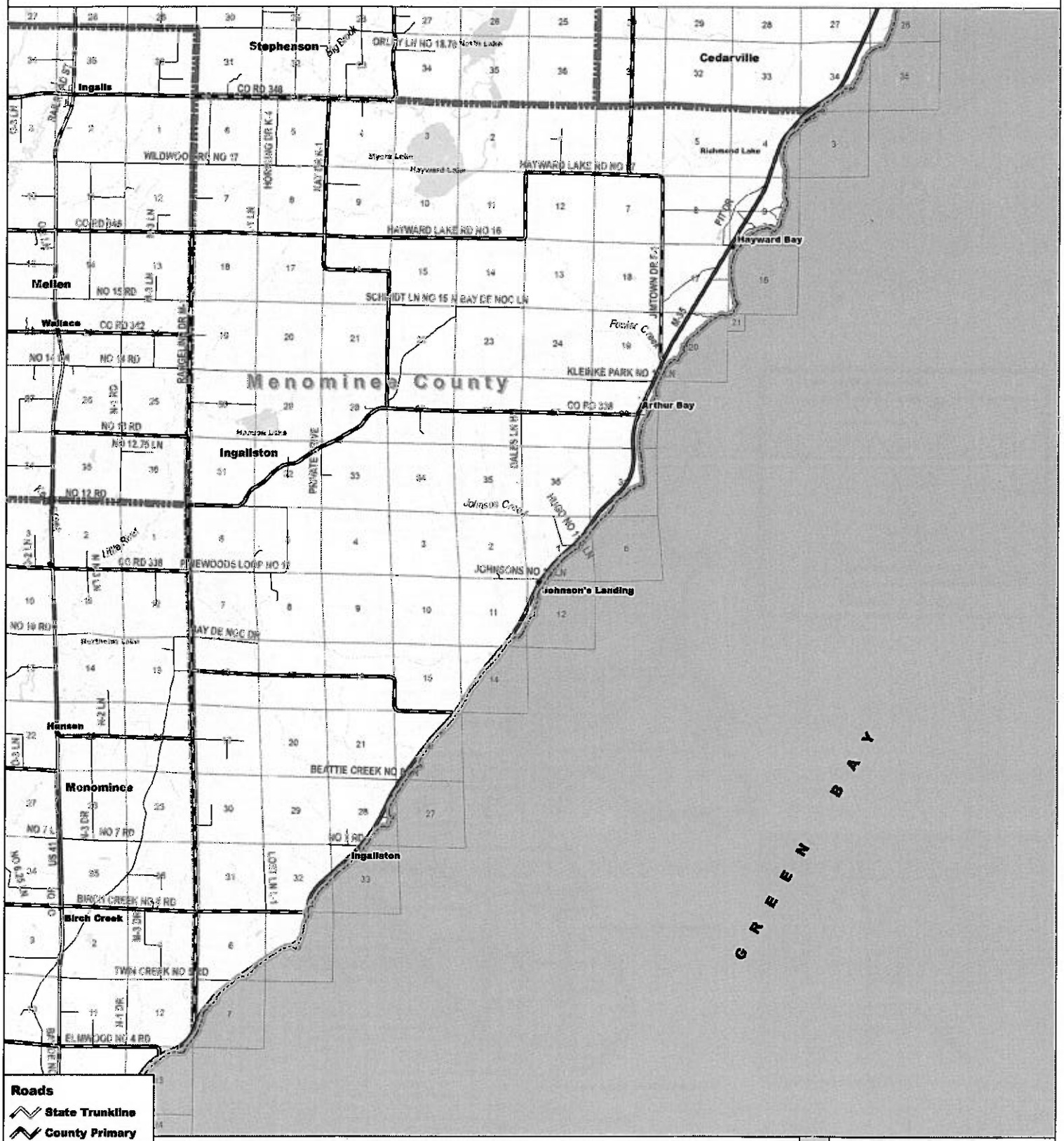
As the developers and most frequent users of this document, the Planning Commission will be responsible for reviewing the objectives and progress of the Plan. Amendments that should occur include:

- Deleting goals and objectives that have been accomplished.
- Adding new objectives as needs and desires arise.
- Modifying the Future Land Use Map to reflect any zoning decisions that have changed the direction of development in the Township.

APPENDIX A: MAPS

Ingallston Township

Base Map



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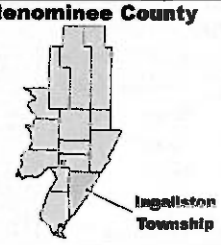
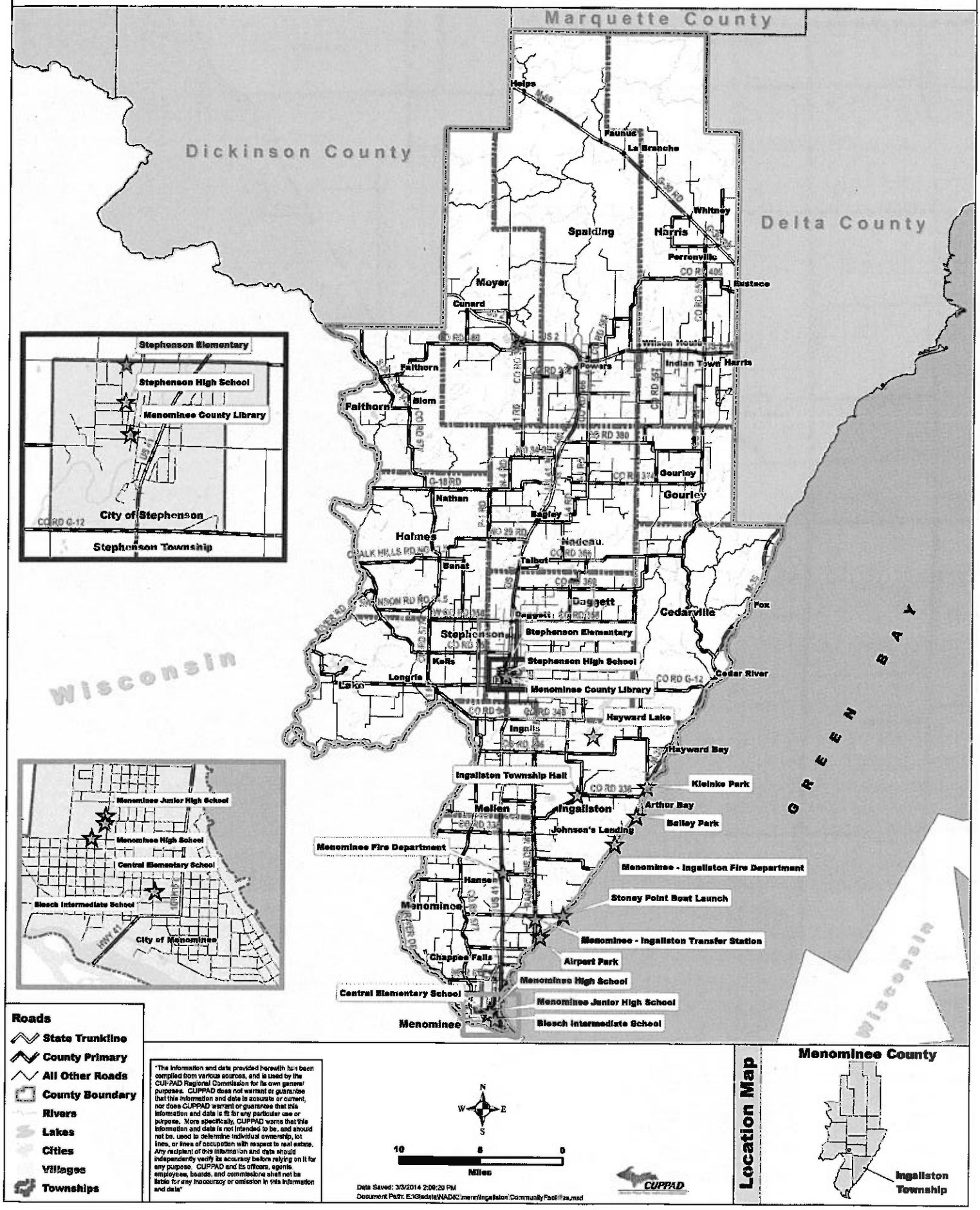
Location Map

Menominee County



Ingalston Township

Community Facilities and Structures



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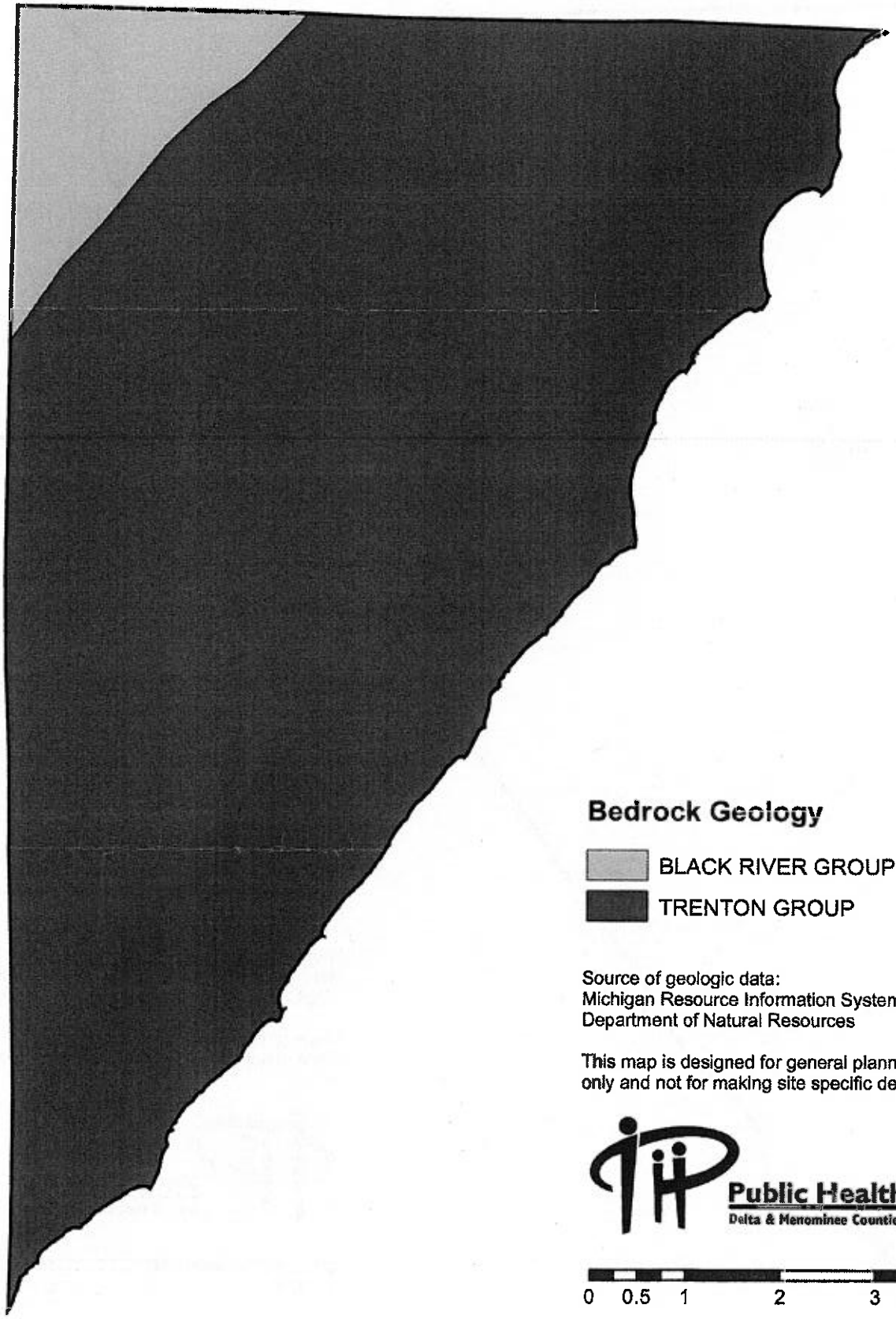
Ingallston Township
Bedrock Geology



Bedrock Geology

BLACK RIVER GROUP

TRENTON GROUP

Source of geologic data:
Michigan Resource Information System, Michigan Department of Natural Resources

This map is designed for general planning purposes only and not for making site specific decisions.

Public Health
Delta & Menominee Counties

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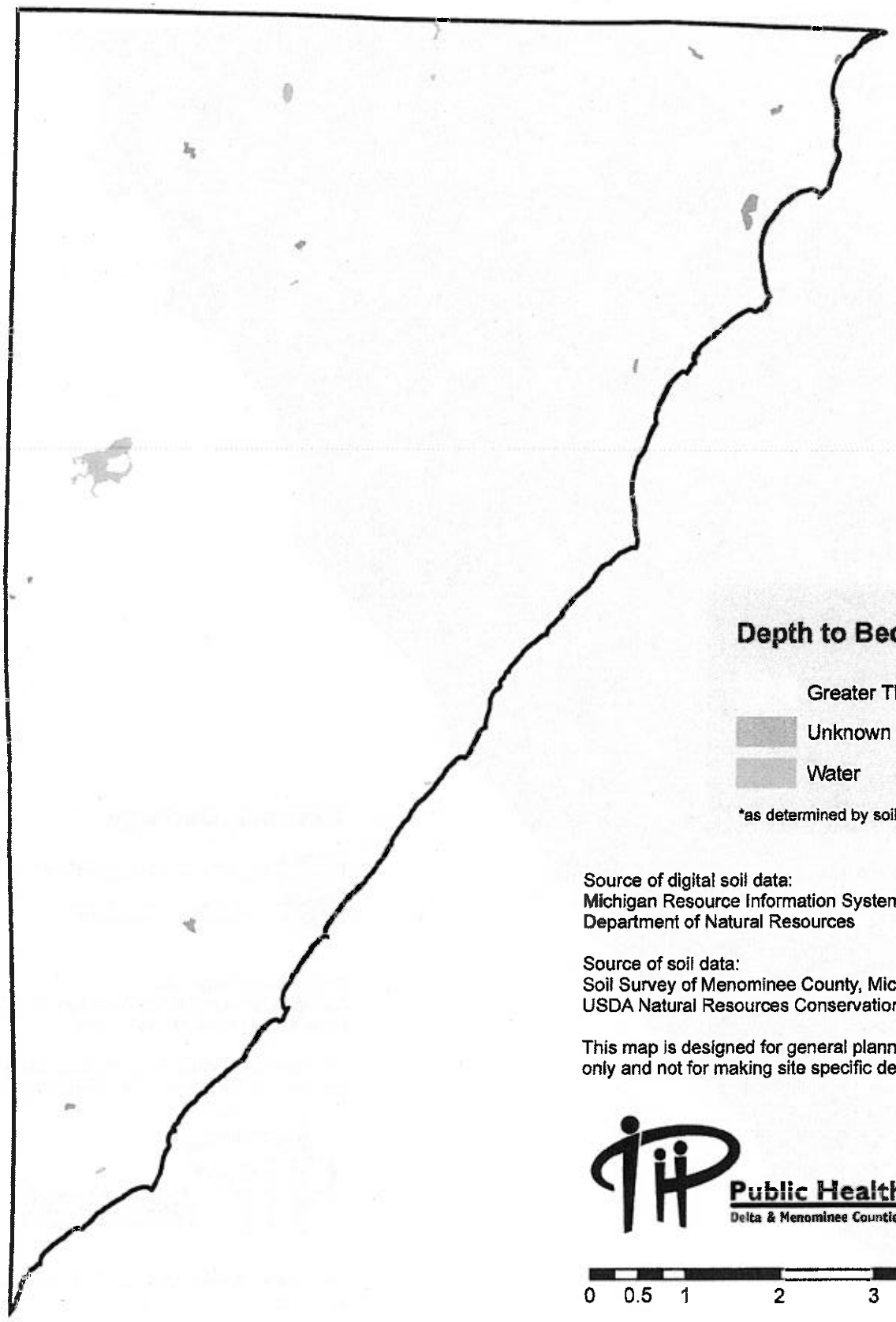
Ingallston Township
Depth to Bedrock



Depth to Bedrock*

Greater Than 5'

Unknown

Water

*as determined by soil type

Source of digital soil data:
Michigan Resource Information System, Michigan Department of Natural Resources

Source of soil data:
Soil Survey of Menominee County, Michigan;
USDA Natural Resources Conservation Service

This map is designed for general planning purposes only and not for making site specific decisions.

Public Health
Delta & Menominee Counties

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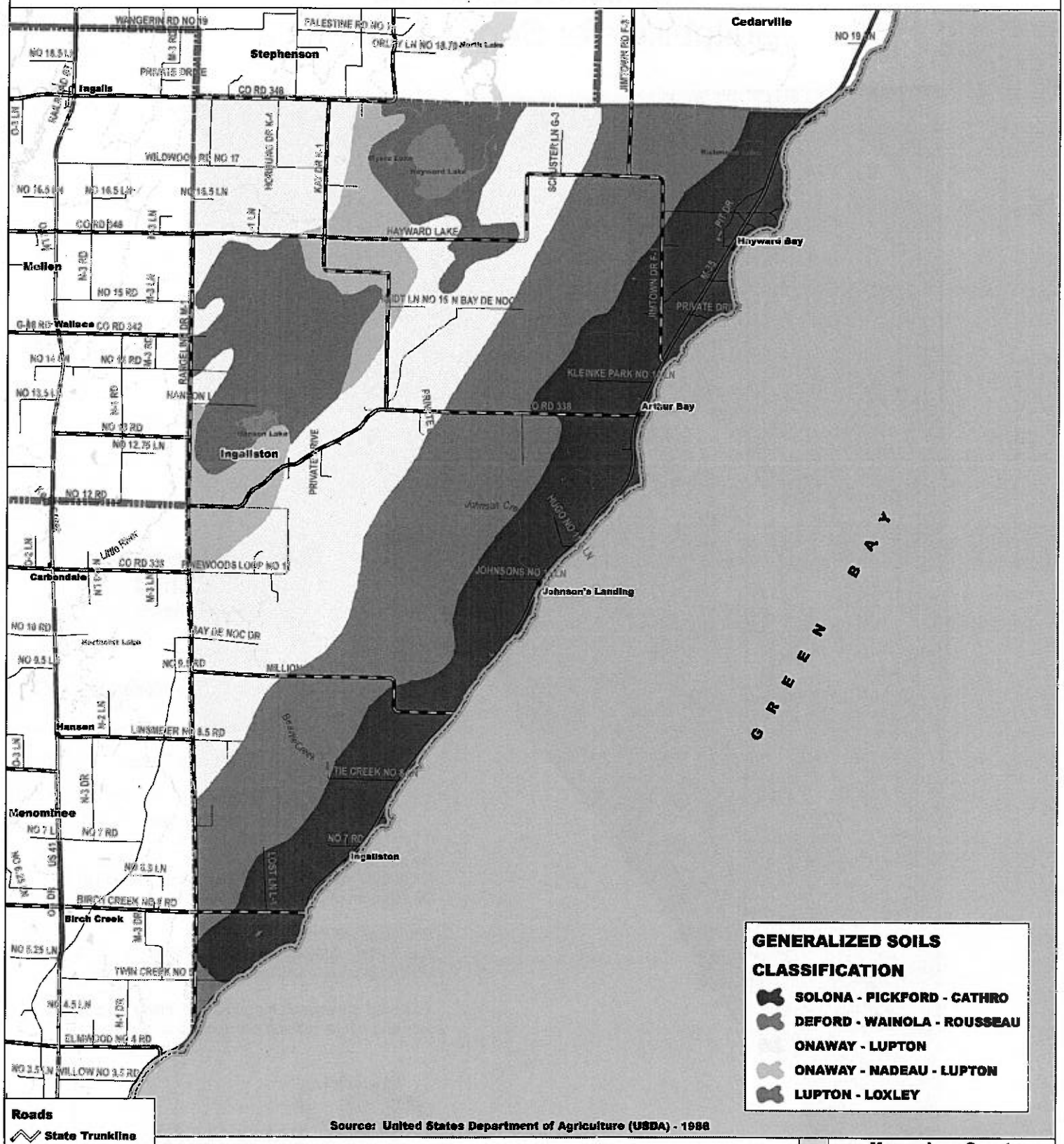
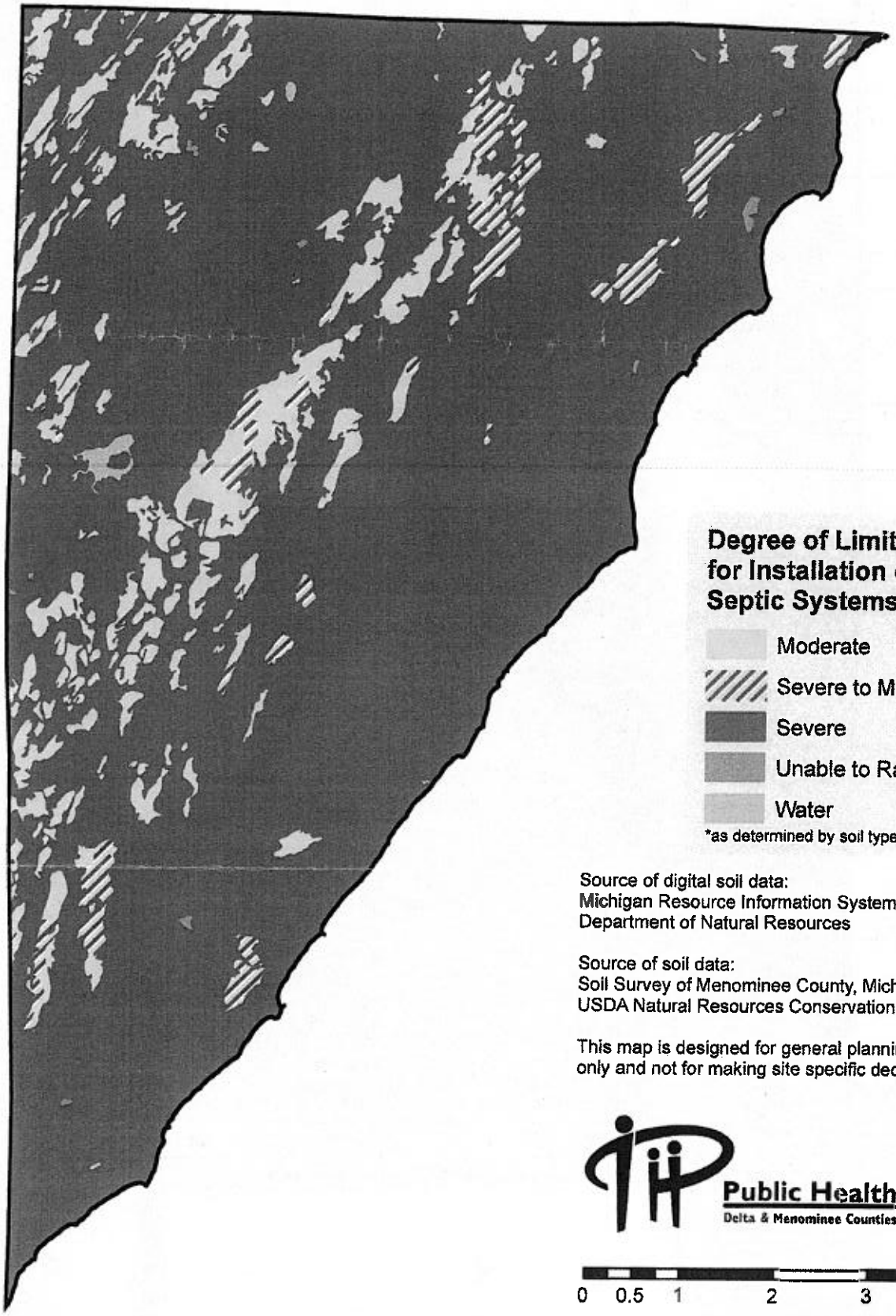
Ingalliston Township

Generalized Soils



Ingallston Township
Suitablility for Septic Systems



Degree of Limitations for Installation of Septic Systems*

- Moderate
- Severe to Moderate
- Severe
- Unable to Rate
- Water

*as determined by soil type

Source of digital soil data:
Michigan Resource Information System, Michigan Department of Natural Resources

Source of soil data:
Soil Survey of Menominee County, Michigan; USDA Natural Resources Conservation Service

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Public Health
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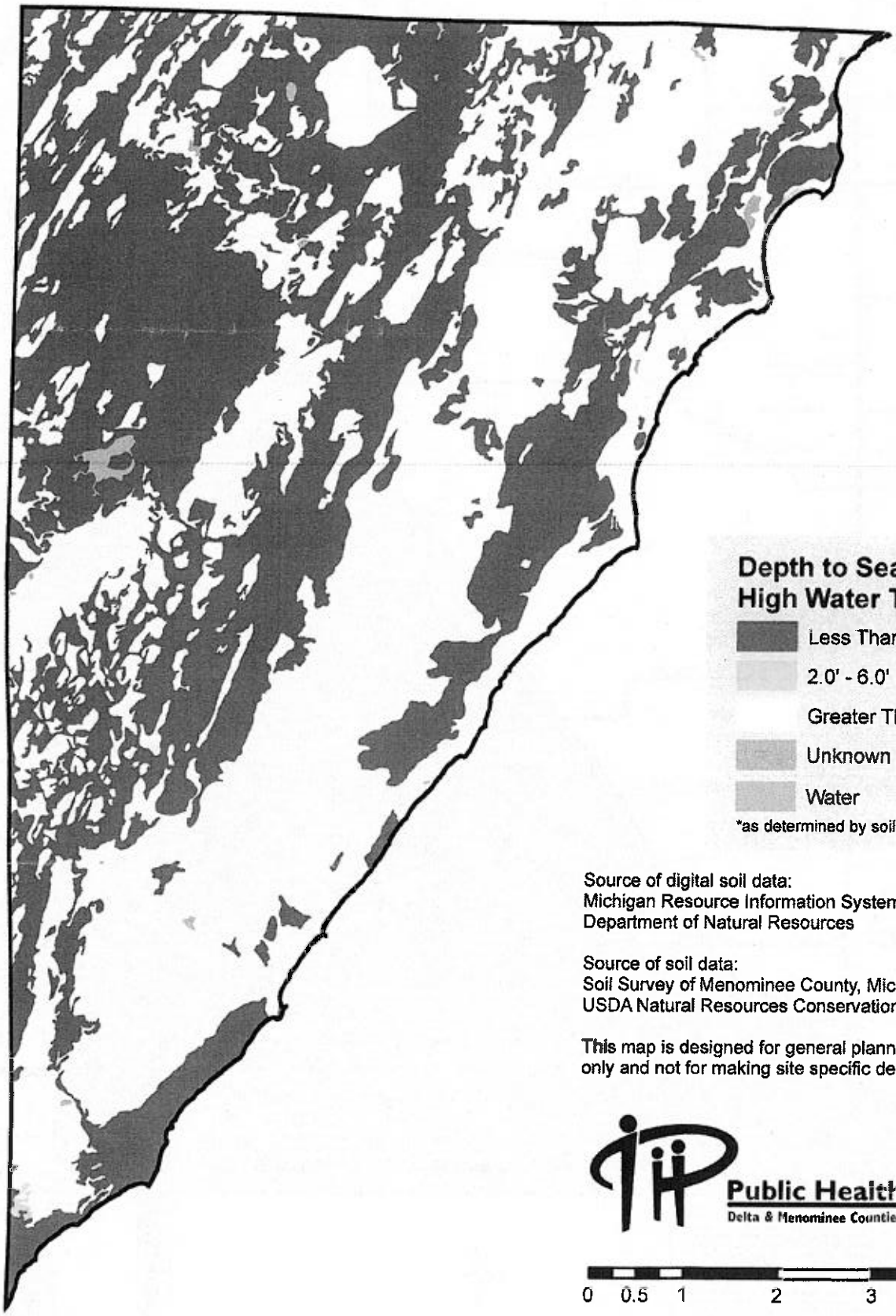
Ingallston Township
Depth to Seasonal High Water Table



Depth to Seasonal High Water Table*

- Less Than 2'
- 2.0' - 6.0'
- Greater Than 6'
- Unknown
- Water

*as determined by soil type

Source of digital soil data:
Michigan Resource Information System, Michigan Department of Natural Resources

Source of soil data:
Soil Survey of Menominee County, Michigan;
USDA Natural Resources Conservation Service

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Public Health
Delta & Menominee Counties

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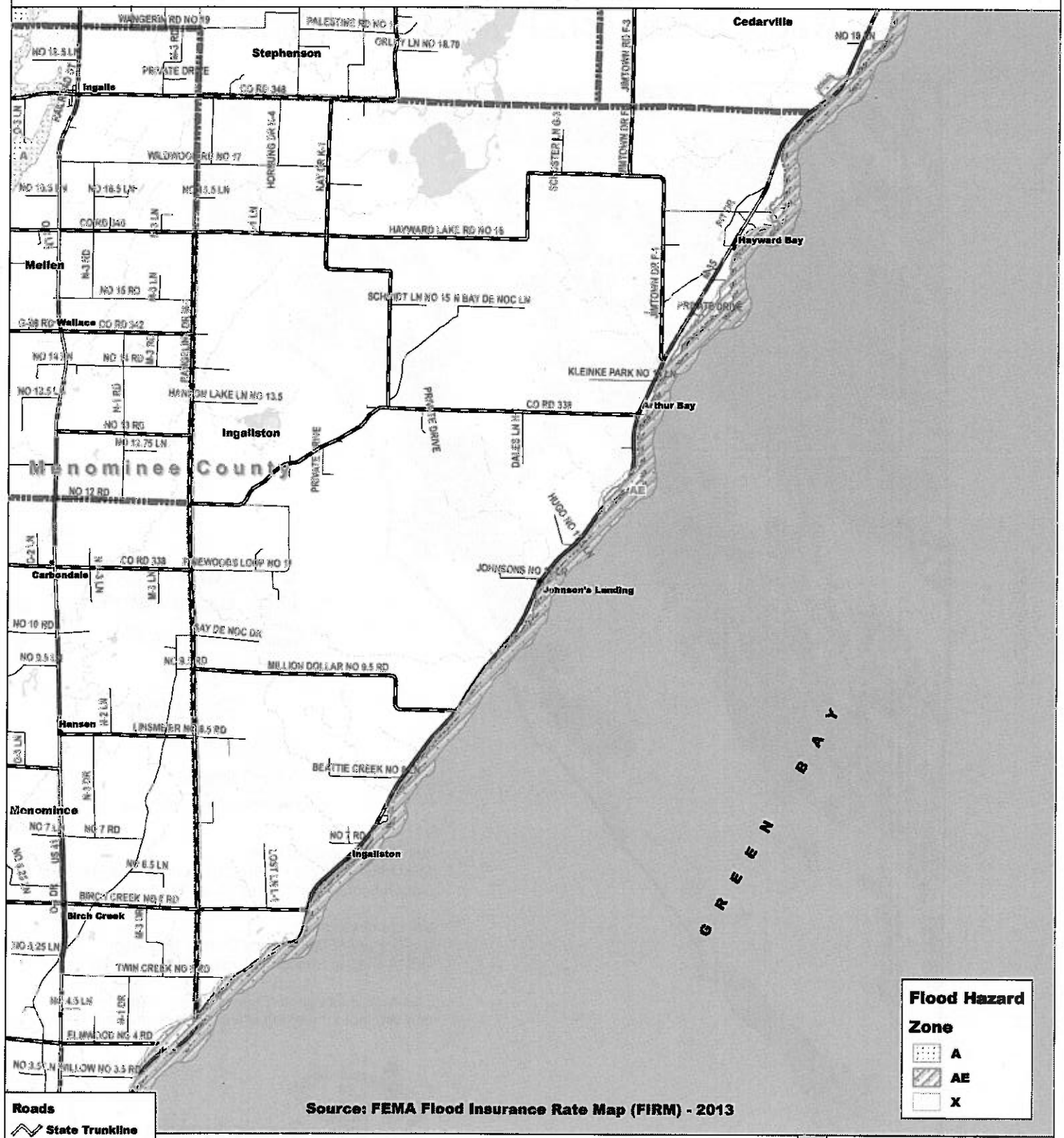
Ingallston Township

Floodplain Map (FEMA)



Source: FEMA Flood Insurance Rate Map (FIRM) - 2013

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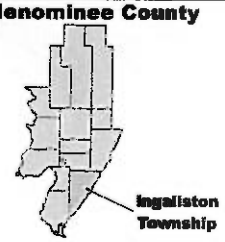
CUPPAD

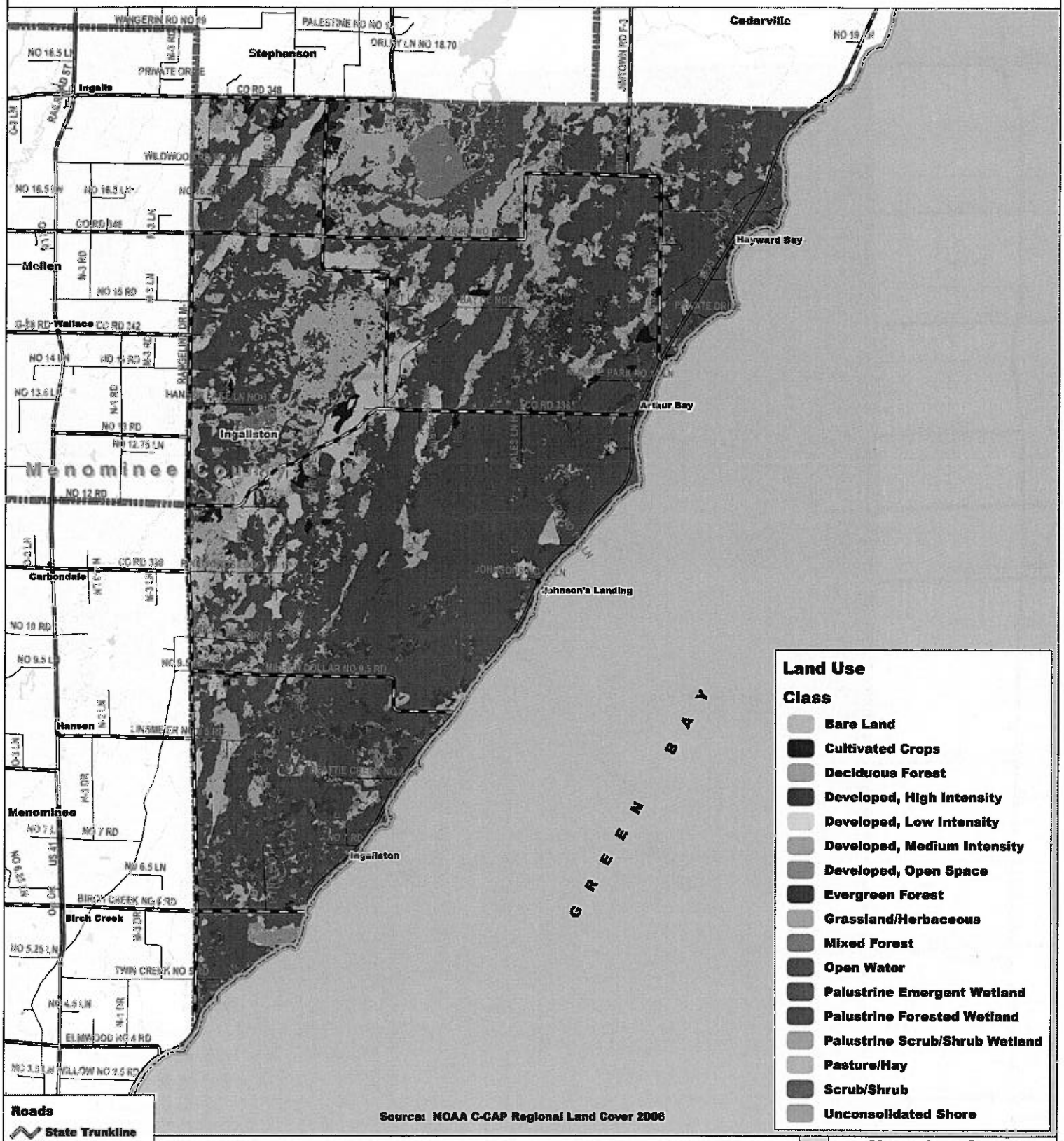
Location Map

Menominee County



Ingallston Township

Land Use



Source: NOAA C-CAP Regional Land Cover 2006

Roads

- State Trunkline
- County Primary
- All Other Roads
- County Boundary
- Rivers
- Lakes
- Cities
- Villages
- Townships

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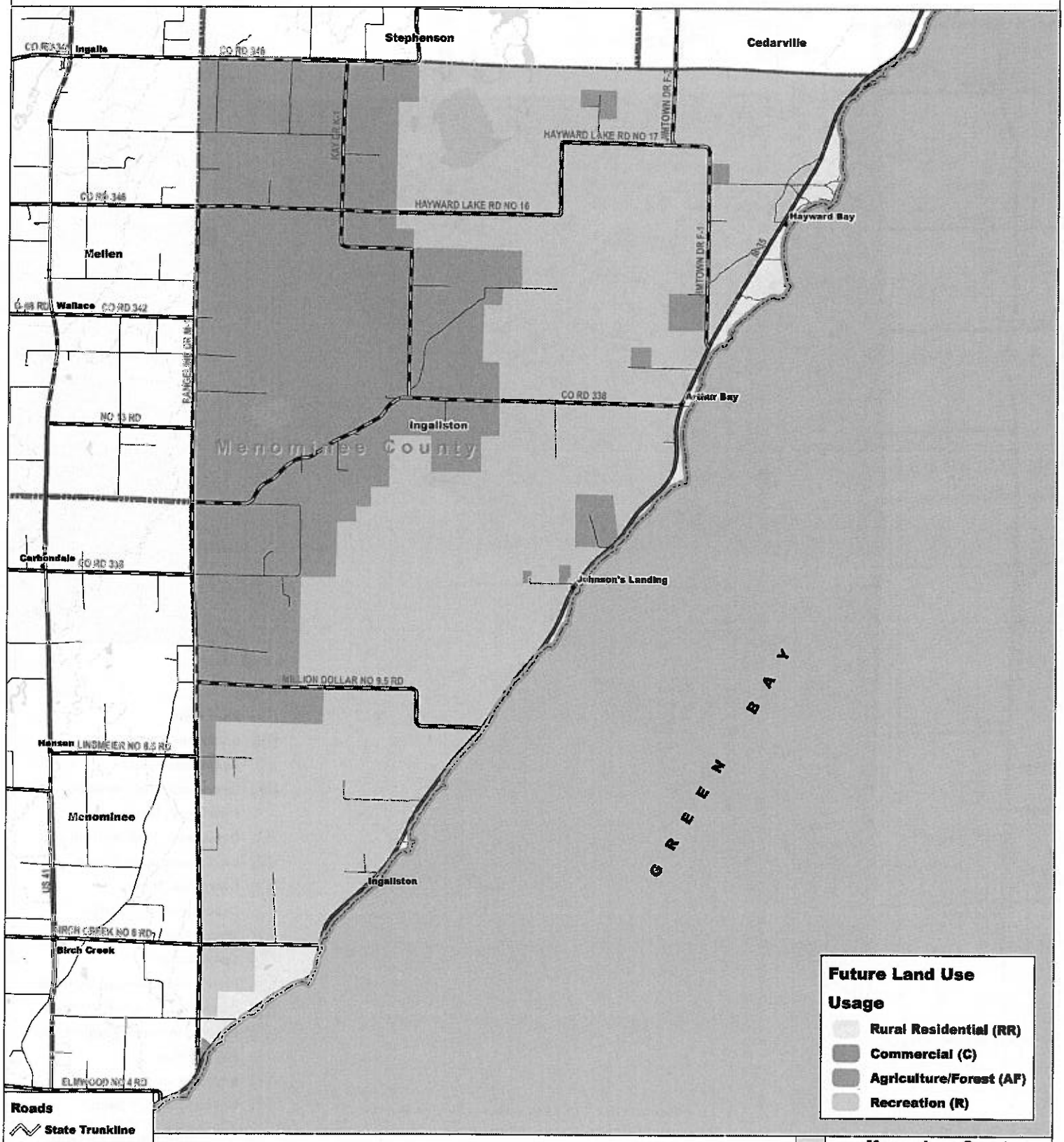
Location Map

Menominee County

Ingallston Township

Ingalston Township

Future Land Use



Roads

- State Trunkline
- County Primary
- All Other Roads
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- Cities
- Villages
- Townships

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Location Map

Menominee County