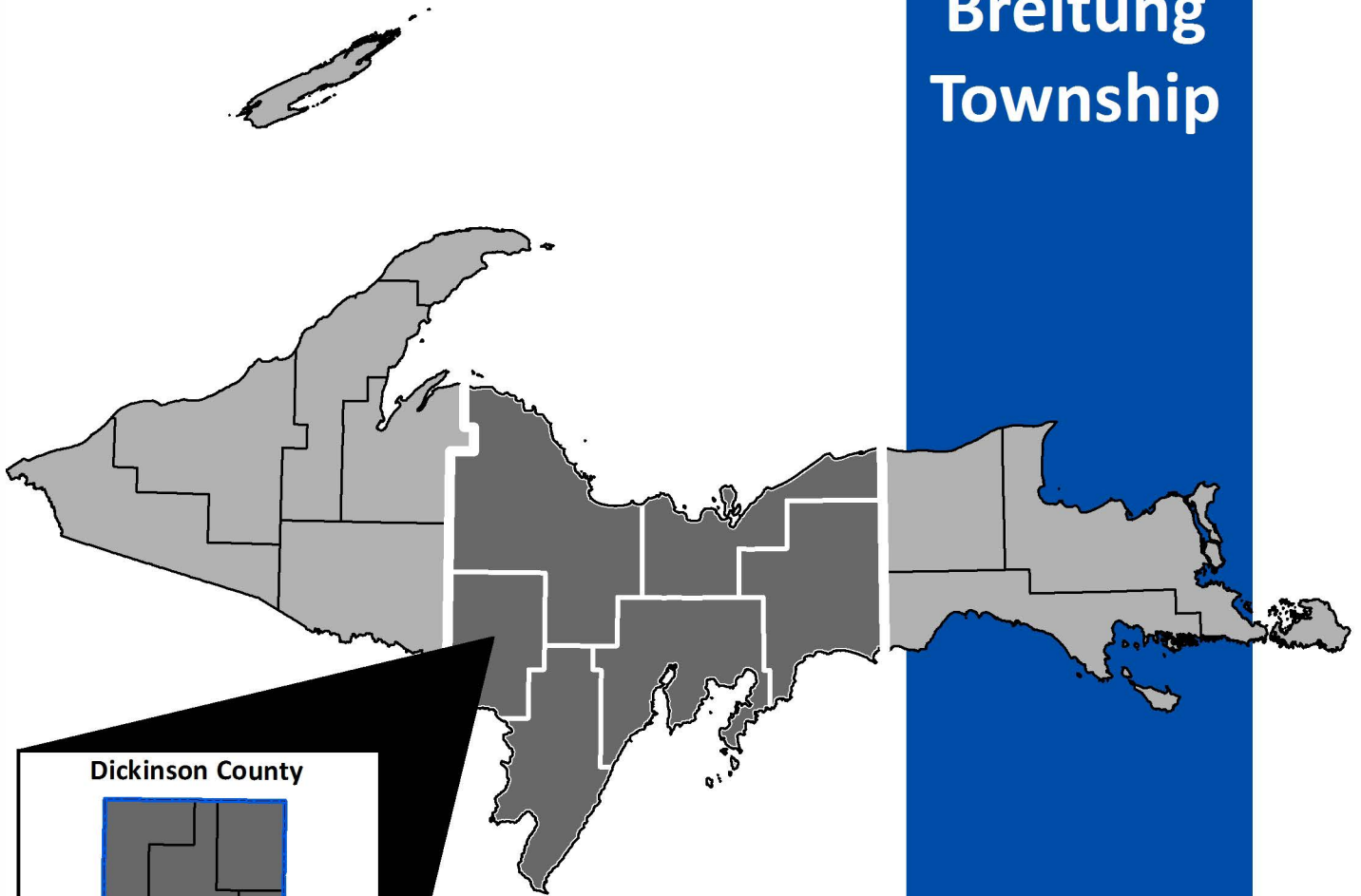
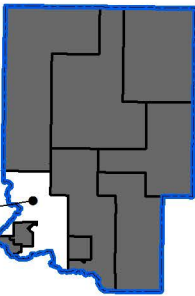


# Breitung Township



Dickinson County



Breitung Township

## Master Plan

Prepared By:  
BreitungTownship Planning Commission  
&  
Breitung Township Board  
Adopted: December 26th, 2012



**Resolution No. 12262012-A**  
**Breitung Township Master Plan Adoption**

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

WHEREAS, On April 6, 2011, the Planning Commission notified each municipality contiguous to Breitung Township, the Dickinson County Planning Commission, each public utility company and railroad company owning or operating a public utility or railroad within Breitung Township, and other agencies for purposes of notification, of its intent to adopt a Master Plan and accompanying maps; and

WHEREAS, The Planning Commission encouraged public participation during the planning process via a recreation survey and regular Planning Commission meetings; and

WHEREAS, The proposed Master Plan and accompanying maps were submitted to the Breitung Township Board, who authorized distribution of the proposed Master Plan; and

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

WHEREAS, On December 13, 2012, after proper public notice, the Planning Commission held a public hearing on the proposed Master Plan and accompanying maps, during which members of the public were given the opportunity to comment on the proposed Master Plan and comments received were discussed and the Planning Commission recommended adoption of the Master Plan and accompanying maps by the Breitung Township Board.

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

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

Motion by Trustee Gaudette, supported by Clerk Coron to adopt the foregoing resolution.

Upon roll call vote, the following voted Aye: Trustee Garrett and Gaudette, Clerk Coron, Supervisor Olson and Treasurer Tayor.

Absent: Trustees Peterson and Dixon.

Supervisor Olson declared the resolution adopted on this 26<sup>th</sup> day of December 2012.

A handwritten signature in black ink, reading "Samantha Coron", written over a horizontal line.

Samantha Coron, Breitung Township Clerk

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## CHAPTER 1.0-OVERVIEW AND HISTORICAL BACKGROUND

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### 1.1 Introduction

The preparation of this updated Master Plan represents many months of study, analysis and review by the Planning Commission with technical assistance from the Central Upper Peninsula Planning and Development Regional Commission (CUPPAD). Michigan is a home rule state, with more than 1,800 units of local government (counties, cities, villages and townships) having legal authority to engage in land use planning and/or zoning. Breitung Township derives its authority to prepare a Master Plan from the Michigan Planning Enabling Act, PA 33 of 2008, as amended. The Act states:

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

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

Major elements discussed in this document include: population, economic base, 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. From this compilation of factual background information, conditions as they exist now have been established. After addressing the question “where are we now?” the next step was determining “where do we want to go in the future?” To answer the question, the Planning Commission developed goals based on Breitung Township’s needs that became evident as existing conditions were documented. Thus, this Plan addresses the issues of present conditions, Breitung Township needs and desired future conditions, while also providing a means to achieve future development goals and objectives.

The Master Plan has the following characteristics:

- It is a physical Plan. Although social and economic conditions are considered, the Plan will be a guide to the physical development of the community.
- It provides for a long range viewpoint. The Master Plan depicts land use and community development within a time frame of approximately ten (10) years.
- It is comprehensive, covering the entire Township and all the components that affect its physical makeup.
- It is the official statement of policy regarding such issues as land use, community character and transportation, which impact the physical environment. As a policy guide, it has been designed to be sufficiently flexible to provide guidance for changing conditions and unanticipated events.

## CHAPTER 1.0-OVERVIEW AND HISTORICAL BACKGROUND

### 1.1 Introduction continued

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 Breitung 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 Breitung Township Master Plan is intended for use as a guide for Township officials when considering matters related to development and land use within Breitung 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.

### 1.2 Township Description

Breitung Township is located in the southwestern corner of Dickinson County and is bounded on the south and west by the Menominee River (Map 1-1, Base Map). The cities of Iron Mountain and Kingsford are surrounded by Breitung Township and a portion of the Township's eastern border is shared with the City of Norway. Breitung Township is approximately 100 miles north of Green Bay, Wisconsin and just over 200 miles from Milwaukee. It is nearly 200 miles from Breitung Township to the Mackinac Bridge and hundreds of miles more to lower Michigan's major metropolitan areas. Because of this border location, the local economy is linked to both Wisconsin and Michigan.



The Iron Mountain-Kingsford-Norway urban area contains the majority of Dickinson County's commercial and industrial development, as well as the largest concentration of population in Dickinson County. While much of this development is contained in the incorporated cities, a significant amount of development is located in Breitung Township, particularly along US-2/141. Breitung Township experienced rapid population growth during the 1970s, 1980s, 1990s and 2000s. Population growth has tapered off in recent years.

The historical development of Breitung Township dates back to the days of iron ore exploration. Breitung Township is located in the heart of the historic Menominee Iron Range, which was discovered in 1873 by Edward Breitung, Thomas and Barley Breen, Dr. Nelson Hulst and several industrious and adventure-seeking explorers. This iron range contained a total of 47 mines stretching from Waucedah in the east to Crystal Falls in neighboring Iron County. Among the mines which once operated in Breitung Township were the Quinnesec, Indiana, Keel Ridge, Cundy, Vivian, Illinois, Cuff, Forest and Traders Mines.

## CHAPTER 1.0-OVERVIEW AND HISTORICAL BACKGROUND

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### 1.2 Township Description continued

The first mine to operate in Breitung Township was the Quinnesec Mine, which opened in 1878. The lack of transportation facilities for iron ore delayed the opening of the mine for several years after discovery. When the railroad was extended to Quinnesec in 1877, it signaled the beginning of the local mining boom. From 1878 to 1881, over 164,000 tons of iron ore was produced from the Quinnesec Mine. Ore shipments continued until sporadically until 1910, and the last stockpiled ore was shipped in 1935.

The Indiana Mine opened in about 1882 and produced approximately 17,870 tons of ore in its first five years and continued in operation until the 1920s. The Keel Ridge Mine produced about 30,507 tons of ore from 1880 to 1881, but was closed as a result of depletion of the iron ore and a serious accident in 1883. It was reopened briefly in 1892, but produced only 2,440 tons. The majority of the Menominee Iron Range ores were carried by Chicago and Northwestern Railroad to Escanaba. There the ores were shipped to smelters and furnaces, generally in the lower Great Lakes.

Quinnesec, the oldest village on the Menominee Range, was founded by John Buel and platted in 1876. The name Quinnesec is an Indian word meaning "smoky waters," referring to the mist hanging over the nearby Menominee River. Buel was a strong believer in the future prosperity of the range and cleared a portion of the wilderness for the town site. He erected the first buildings, among them the Quinnesec House. The town grew quickly, but when the railroad line was extended to Iron Mountain following the discovery of the Chapin Mine, Iron Mountain became the predominant mining center in the region.

In 1877, Breitung Township was organized under Local Act 252. At that time, the Township included what is now Norway Township, the southern part of Sagola Township south of Randville and areas reaching as far west as Stager in what is now Iron County. Dickinson County was the last of Michigan's 83 counties to be organized and was initially a part of Menominee County. Dickinson County was designated as a separate county in 1891 by act of the Michigan Legislature and was named after Don M. Dickinson, a prominent Michigan Democrat who had been a part of President Grover Cleveland's cabinet.

The Panic of 1893 closed nearly all of the mines in the Upper Peninsula and the industry did not recover for several years. After the turn of the century, mining continued but Michigan lost its position as the top producer of iron ore in the US. The closing of the Chapin Mine in 1932 marked the end of the mining era, until the Groveland Mine to the north was reopened in the 1950s. Production of ore from that mine continued until 1981.

## CHAPTER 1.0-OVERVIEW AND HISTORICAL BACKGROUND

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### 1.2 Township Description continued

Although the principal early industry in Breitung Township was mining, the entire County contained rich timber lands and timber was floated down the Menominee River to mills in Menominee and Marinette. The known logging companies which operated around Quinnesec were the Hamilton and Merriman Company, the Quinnesec Logging Company and the Menominee River Lumber Company. In 1906, a disastrous fire destroyed Quinnesec's entire business district and several homes in the area. Little by little the business area rebuilt.

The year 1920 marked the conversion of the County's economic structure from mining and lumbering to manufacturing. In the 1920s iron ore prices declined sharply and mechanization made it possible to produce iron with less manpower, which resulted in hundreds of jobless miners throughout the UP. However, in 1920 the Ford Motor Company announced it was establishing a sawmill and a body plant at Iron Mountain. By coming into the area when mining was on its way out, Ford became the greatest industrial factor in the area and was responsible for keeping the local economy going while other communities were struggling through lean years. Iron Mountain became the fastest-growing community in the Upper Peninsula and the Village (now City) of Kingsford sprang up almost overnight.

In the early years, the principal products of the Ford Plant were the wooden parts for Model "T" Flivvers. As time went on, the plant switched to production of the Model "A" and the V-8 and in 1940 began building station wagons. Peak employment occurred in the mid 1920s, with 7,500 on the payroll in 1925. Employment at the plant gradually declined until the plant closed in 1951. The former Ford plant was developed as an industrial park by the City of Kingsford and many of the buildings are now used by other industries.

In November 1978, Breitung Township reorganized into a Charter Township, as a result of a referendum vote. The Charter Township Act allows townships with a population of at least 2,000 to become charter townships; such townships are afforded added local discretion and general taxing power. Charter Townships also have greater territorial integrity than General Law Townships under certain conditions. Charter Townships are required to have four trustees, in addition to the Township Supervisor, Clerk and Treasurer. The Township Supervisor serves as the Township Superintendent if there is no separate Superintendent position. Breitung Township has a Superintendent.

With regard to annexation, Charter Townships generally enjoy greater protection from annexation than General Law Townships. Charter Townships organized after June 15, 1978 are protected from annexation initiated by a City Council under certain conditions, subject to review by the State Boundary Commission. Exempt Townships must have a state equalized valuation of \$25 million, a population density of 150 persons per square mile and a Zoning Ordinance or Master Plan, either under its own jurisdiction or that of the County.

## CHAPTER 1.0-OVERVIEW AND HISTORICAL BACKGROUND

### 1.2 Township Description continued



The Township must also provide fire protection, solid waste disposal services, water and/or sewer services and police protection. There are also special annexation procedures which allow an annexation to proceed based on a vote of residents in the area to be annexed, along with the annexing City; “islands” of Township completely surrounded by a City; or annexation by resolution of the governing bodies of both the Township and the City. Breitung Township does not have sufficient

population density to meet the above test, nor does it provide its own police protection.

Commercial and industrial development in Breitung Township was primarily limited to relatively small firms until the construction of the Champion International pulp mill (formerly International Papers, Inc., now Verso Paper Corp.) began in 1981. Completed in 1985, the mill produced only pulp until the addition of a paper machine in 1988-90. The mill is currently one of Dickinson County's major employers and Verso Paper Corp. is one of Breitung Township's principal landowners.

Commercial development in Breitung Township is found along the US-2/141 corridor, with recent developments occurring near the Iron Mountain corporate limits. Commercial enterprises are attracted to Breitung Township because of the available large tracts of land, proximity to the three cities in the urban area and direct access onto US-2/141.

Limited water and wastewater infrastructure, commercial development pressure along the US-2 corridor and a recent wane in residential growth are among the challenges that face Breitung Township. It is desirable for growth to occur in areas where services are adequate, where land use conflicts are minimized and where the physical environment is suitable for development. The area provides a high quality of life, with a clean environment and abundant natural beauty where residents and businesses can enjoy many of the benefits of small urban areas without the drawbacks of crime and urban blight. This Master Plan will help to identify Breitung Township's strengths and weaknesses and provide a framework for the future growth and development of the area.



## CHAPTER 2.0-POPULATION

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### 2.1 Introduction

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

To fully understand the population issues of a community requires an analysis that includes surrounding areas because of the many ways in which communities are interrelated. Examining trends and changes among communities and drawing comparisons and contrasts help to paint a fuller demographic picture. It is common for residents to work, shop, recreate and find essential services such as schools in other communities.

Data from the decennial census, as well as the American Community Survey (ACS) 5-Year Estimates from 2006-2010 will be used throughout 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. For example, in the case of employment statistics, both surveys ask about employment status during the week prior to the survey. However, data from the decennial census are typically collected between March and August, whereas data from the ACS are collected each month and reflect employment throughout the year. Differences in these responses may in turn affect data on commuting, occupation, and industry.

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. Some of the data reported for Breitung Township has a very high margin of error, possibly due to the small sample size.



## CHAPTER 2.0-POPULATION

### 2.2 Population Trends

Population figures are presented in Table 2-1, Population for Dickinson County Jurisdictions, 1990-2010. Breitung Township's population increased from 5,483 in 1990 to 5,853 in 2010. This population increase of 6.7 percent compares to a 2.5 percent decrease for Dickinson County overall.

<b>Table 2-1 Population for Dickinson County Jurisdictions, 1990-2010</b>					
Unit of Government	Population			Population Change 1990-2010	
	2010	2000	1990	Number	Percent
<b>Breitung Township</b>	<b>5,853</b>	<b>5,930</b>	<b>5,483</b>	<b>370</b>	<b>6.7%</b>
Breen Township	499	479	464	35	7.5%
Felch Township	752	726	705	47	6.7%
City of Iron Mountain	7,624	8,154	8,525	-901	-10.6%
City of Kingsford	5,133	5,549	5,480	-347	-6.3%
City of Norway	2,845	2,959	2,910	-65	-2.2%
Norway Township	1,489	1,639	1,325	164	12.4%
Sagola Township	1,106	1,169	1,166	-60	-5.1%
Waucedah Township	804	800	693	111	16.0%
West Branch Township	63	67	80	-17	-21.3%
Dickinson County	26,168	27,472	26,831	-663	-2.5%

Source: U.S. Bureau of the Census, Census 2000 Redistricting Data (P.L. 94-171) Summary File; Census 2010, Profile of General Population and Housing Characteristics, Table DP-1.

Over the 70-year period of 1940 to 2010, Breitung Township experienced a population increase of 99.3 percent (Figure 2-1, Breitung Township Population Trends 1940-2010 and Table 2-2, Population, Selected Areas, 1940-2010). During this time period, actions of the Ford Motor Company severely affected the population base of the county as operations were scaled back before a complete shut down in 1951 and repercussions were felt throughout the County. For Breitung Township, this shutdown is reflected as a 6.7 percent drop in population from 1940-1950. In subsequent decades Breitung Township has seen steady population increases, particularly with double-digit increases during the 1960's, 1970's and 1980's. The largest percentage increase was recorded in the 1970-1980 time period with a 37.6 percent increase. The start-up of the Champion International (now Verso Paper Corp.) paper mill can account for some of the increases during the 1970's and the 1980's.

All Dickinson County units of government in the comparison recorded population losses between 1940 and 1950. Since then, growth in the townships has brought Dickinson County's overall population to within about 9.0 percent of the 1940 figure. The three cities in Dickinson County have experienced population declines over the 70-year period of 11.1 percent, 31.2 percent and 23.7 percent respectively. In the last decade (2000 to 2010) Iron Mountain experienced a population loss of 6.5 percent while Kingsford and Norway lost 7.5 percent and 3.9 percent of their total population, respectively.

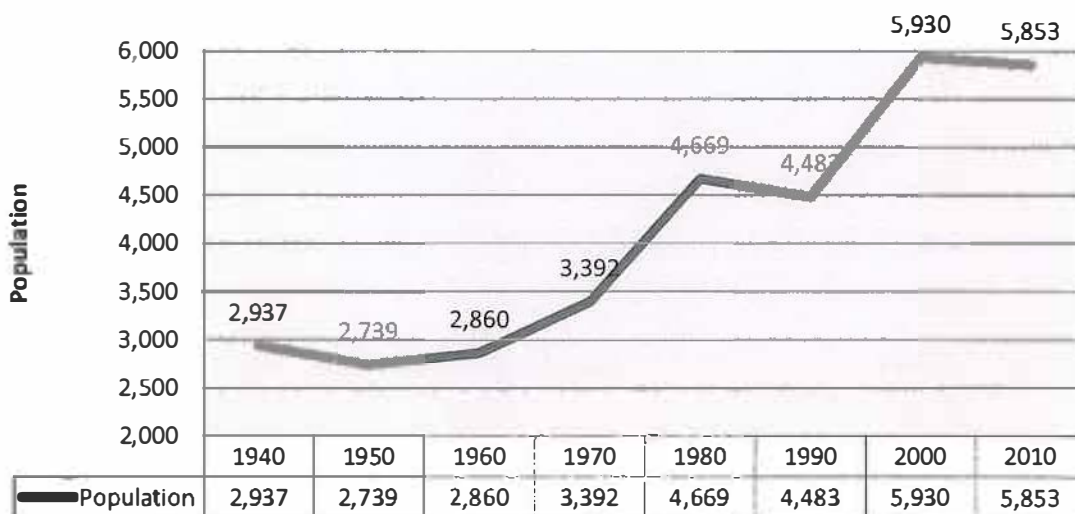
## CHAPTER 2.0-POPULATION

### 2.2 Population Trends continued

Combined, the six central Upper Peninsula counties experienced a decrease of 3 percent in the 1940's followed by a growth period up to the 1980's. The state's population increased in each decade starting in 1940, although the 1980's realized a very small growth rate of less than 1 percent. It was during this period that the upper Midwest experienced large job losses resulting in necessary relocations to areas with viable employment opportunities such as the nation's "Sunbelt."

Over the 70-year period presented in the comparison, Michigan's population has increased by 88.0 percent while the region has experienced growth of 11.6 percent. Michigan was the only state to experience a decrease in population since the 2000 Census. Driving the state's decline is the steady increase in movement of residents to other states, many who left for economic reasons.

**Figure 2-1**  
**Breitung Township Population Trends 1940-2010**



## CHAPTER 2.0-POPULATION

### 2.2 Population Trends continued

<b>Table 2-2 Population, Selected Areas, 1940-2010</b>												
Years/ Change	Breitung Township	City of Iron Mountain	City of Kingsford	City of Norway	Norway Township	Dickinson County	CUPPAD Region	State of Michigan	Iron County, MI	City of Niagara, W	Florence County, WI	Marinette County, WI
1940	2,937	11,080	5,771	3,728	1,272	28,731	154,496	5,256,106	20,243	-	-	-
1950	2,739	9,679	5,038	3,258	1,102	24,844	149,865	6,371,766	17,692	-	-	-
% Change 1940-1950	-6.7	-12.6	-12.7	-12.6	-13.4	-13.5	-3.0	21.2	-12.6	-	-	-
1960	2,860	9,299	5,084	3,171	1,022	23,917	157,257	7,824,965	17,184	-	-	-
% Change 1950-1960	4.4	-3.9	0.9	-2.7	-7.3	-3.7	4.9	22.8	-2.9	-	-	-
1970	3,392	8,702	5,276	3,033	966	23,753	165,744	8,875,083	13,813	-	-	-
% Change 1960-1970	18.6	-6.4	3.8	-4.4	-5.5	0.7	5.4	13.4	-19.6	-	-	-
1980	4,669	8,341	5,290	2,919	1,257	25,341	182,390	9,262,078	13,635	-	-	-
% Change 1970-1980	37.6	-4.1	0.3	-3.8	30.1	6.7	10.0	4.4	-1.3	-	-	-
1990	4,483	8,525	5,480	2,910	1,325	26,831	177,692	9,290,215	13,175	1,999	4,590	40,548
% Change 1980-1990	17.4	2.2	3.6	-0.3	5.4	5.9	-2.6	0.3	-3.4	-	-	-
2000	5,930	8,154	5,549	2,959	1,639	27,472	174,717	9,938,444	13,138	1,880	5,088	43,384
% Change 1990-2000	8.2	-4.4	1.3	1.7	23.7	2.4	-1.7	7.0	-0.3	-6.0	10.8	7.0
2010	5,853	7,624	5,133	2,845	1,489	26,168	172,429	9,883,640	11,817	1,624	4,423	41,749
% Change 2000-2010	-1.3%	-6.5%	-7.5%	-3.9%	-9.2%	-4.7%	-1.3%	-0.6%	10.1%	13.6%	13.1%	-3.8%
% Change 1940-2010	99.3%	31.2%	11.1%	23.7%	17.1%	-8.9%	11.6%	88.0%	41.6%	-	-	-

Source: U.S. Bureau of the Census 1940-2010.

## CHAPTER 2.0-POPULATION

### 2.3 Age and Gender

Median ages from the 2010 Census for select units of government are presented in Table 2-3, Median Age, 1970-2010, Selected Areas. Breitung Township's median age has increased by 59.1 percent over the past 40 years to 48.7 years. The median age for Dickinson County was 45.4 years, 6.5 years higher than that of the state and nation. The neighboring counties of Florence, Iron and Marinette recorded higher median ages.

<b>Table 2-3 Median Age, 1970-2010, Selected Areas</b>						
Unit of Government	1970	1980	1990	2000	2010	Percent Change 1970-2010
<b>Breitung Township</b>	<b>30.6</b>	<b>29.4</b>	<b>36.3</b>	<b>41.5</b>	<b>48.7</b>	<b>+59.1</b>
Sagola Township	35.6	31.5	36.4	40.0	49.4	+38.8
Norway Township	32.1	30.8	35.9	38.6	47.8	+48.9
City of Iron Mountain	38.5	38.0	36.9	39.4	42.4	+10.1
City of Kingsford	33.2	33.7	35.3	39.7	44.0	+32.5
City of Norway	36.9	38.7	37.5	38.6	41.9	+13.6
Dickinson County	35.1	33.9	36.3	40.0	45.4	+29.3
State of Michigan	26.3	28.8	32.6	35.5	38.9	+47.9
United States	27.9	30.0	32.9	35.3	37.2	+33.3
Iron County, Michigan	-	-	43.6	45.4	51.9	-
Florence County, Wisconsin	-	-	36.2	41.9	49.0	-
Marinette County, Wisconsin	-	-	35.6	40.5	45.7	-

Source: U.S. Bureau of the Census, 1990 Census of the Population, STF 1A, Table 1; 1970 Census of the Population, Table 33; 2000 Census of Population and Housing; 2010 Profile of General Population and Housing Characteristics, Table DP-1.

A careful analysis of a community's age structure is an essential step in sound decision making. Using the most recent census data, Table 2-4, Population by Age Groups, Selected Areas, 2000-2010 and Figure 2-2, Breitung Township, Age Distribution, 2010, group the population into four broad age categories: preschool, normal school age, normal working age, and normal retirement age for 2000 and 2010. In 2010, Breitung Township recorded a lower percentage of preschool agers (4.4) than the county (5.5) and 1.6 percent fewer than the state (6.0). The City of Kingsford, which is within the same school district, recorded 5.0 percent of their population in this age group.

Those in the 5 to 19 age group, or school agers, make up 17.5 percent of the Township's total population. In 2000, the school age group accounted for 22.5 percent of the Township's total population. The percentages were lower for the County and State. The City of Kingsford recorded 21.2 percent of their population within this age group. A larger percentage of the Township's population falls within the working age group than was recorded at the County, but less than the state level; Breitung Township 58.7, the County 57.3 and 59.4 for the state.

## CHAPTER 2.0-POPULATION

### 2.3 Age and Gender continued

The retirement age group, consisting of those 65 or older in Breitung Township, make up 22.7 percent of the population. This represents a substantial increase from 2000 when the retirement age group made up 16.4 percent of the Township's total population. In contrast, Michigan recorded 13.7 percent within this age group. Dickinson County also has a high percentage of retirees, with 19.0 percent of residents falling within this age group. 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. While many seniors are expected to remain in their current homes (retire-in-place), it is also expected that retirement and adult living communities/developments will grow a variety of housing options may need to be developed in order to accommodate the aging population.

Males (2,942) outnumber females (2,911) in Breitung Township by a slight margin. The percentage breakdown is 49.7 female and 50/3 male, a margin of less than 1 percent.

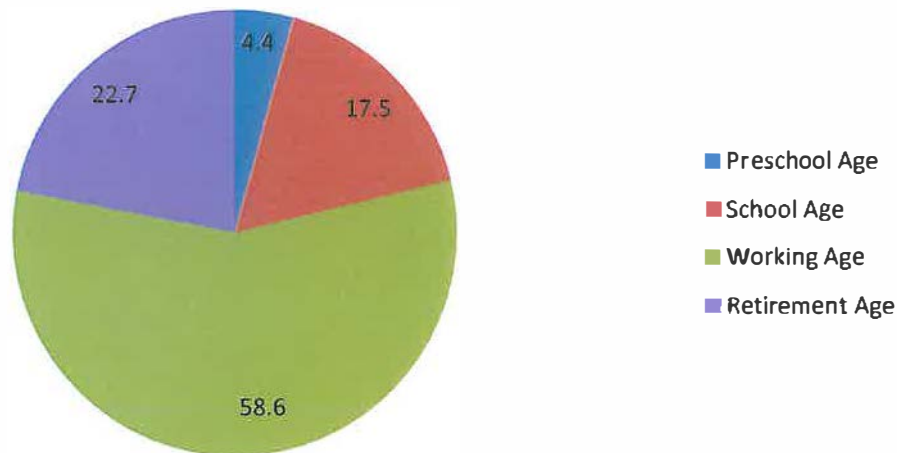
<b>Table 2-4 Population by Age Groups, Selected Areas, 2000-2010</b>											
Age	Breitung Township					Dickinson County				State of Michigan	
	2010		2000			2010		2000		2010	2000
	Total	Percent	Total	Percent		Total	Percent	Total	Percent	Percent	Percent
under 5	255	4.4	269	4.5	Preschool	1,314	5.0	1,519	5.5	6.0	6.8
<b>Subtotal</b>	<b>255</b>	<b>4.4</b>	<b>269</b>	<b>4.5</b>		<b>1,314</b>	<b>5.0</b>	<b>1,519</b>	<b>5.5</b>	<b>6.0</b>	<b>6.8</b>
5 - 9	301	5.1	426	7.2		1,469	5.6	1,972	7.2	6.5	7.5
10 - 14	348	5.9	465	7.8	Normal School	1,627	6.2	2,079	7.6	6.8	7.5
15 - 19	382	6.5	445	7.5		1,774	6.8	1,962	7.1	7.5	7.2
<b>Subtotal</b>	<b>1,031</b>	<b>17.5</b>	<b>1,336</b>	<b>22.5</b>		<b>6,184</b>	<b>18.6</b>	<b>6,013</b>	<b>21.9</b>	<b>20.8</b>	<b>22.2</b>
20 - 34	629	10.7	734	12.4	Working	3,663	14.0	4,059	14.8	18.6	20.2
35 - 44	656	11.3	1,026	17.3		3,079	11.8	4,516	16.4	12.9	16.1
45 - 54	1,120	19.1	1,008	17.0		4,497	17.1	3,931	14.3	15.2	13.7
55 - 64	1,026	17.5	591	10.0		3,778	14.4	2,462	9.0	12.7	8.7
<b>Subtotal</b>	<b>3,431</b>	<b>58.6</b>	<b>3,359</b>	<b>56.7</b>		<b>15,017</b>	<b>57.3</b>	<b>14,968</b>	<b>54.5</b>	<b>59.4</b>	<b>58.7</b>
65 - 74	565	13.0	555	9.4	Retirement	2,364	9.1	2,339	8.5	7.3	6.5
75 - 84	431	7.3	347	5.9		1,748	6.6	1,912	7.0	4.5	4.4
85 and older	140	2.4	64	1.1		855	3.3	721	2.6	1.9	1.4
<b>Subtotal</b>	<b>1,136</b>	<b>22.7</b>	<b>966</b>	<b>16.4</b>		<b>4,967</b>	<b>19.0</b>	<b>4,972</b>	<b>18.1</b>	<b>13.7</b>	<b>12.3</b>
<b>TOTAL</b>	<b>5,853</b>	<b>100.0</b>	<b>5,930</b>	<b>100.0</b>		<b>26,128</b>	<b>100.0</b>	<b>27,472</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Source: U.S. Bureau of the Census, 2010, Table DP-1; U.S. Bureau of the Census, 2000, Table DP-1.

## CHAPTER 2.0-POPULATION

### 2.3 Age and Gender continued

**Figure 2-2**  
**Breitung Township, Age Distribution, 2010**



Age and gender composition of the Township's population is presented in Table 2-5, Age Distribution of Population by Gender, Breitung Township, 1980-2010. This table provides population distribution information collected during the 1980, 1990, 2000 and 2010 Censuses.

In 2010 the 45-54 year age group made up the largest portion of Breitung Township's population with 1,120 persons, or 19.1 percent. This group represents the youngest of the "baby boom" generation (born between 1956 and 1964). The "older boomers," born between 1946 and 1955, represent 17.5 percent of the Township population or 1,026 residents. In all, "baby boomers", those persons who were 45-64 years of age at the time of the 2010 Census, comprises 2,146 residents, representing 36.6 percent of the Township's population. For the state of Michigan, "baby boomers" represented 27.9 percent of the population in 2010. An analysis of the information by age cohort provides another perspective on age distribution within the overall population. An age cohort is made up of people born within a given period, such as those born between 2000 and 2010 (10 years).

The age cohort of 5-14 years in the 1980 Census consists of persons born from 1966 to 1975. During the decade leading up to the 1990 Census, the oldest members of this cohort would have been finishing high school, entering the work force, going off to college, perhaps getting married or entering military service. The youngest members would have been completing elementary school and beginning high school. At the time of the 1990 Census, these individuals would have been 15 to 24 years of age.



## CHAPTER 2.0-POPULATION

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### 2.3 Age and Gender continued

During the 1990's, the older members of the cohort would have been of workforce and child-rearing age, while the younger members would have been at the point of entering the workforce or post secondary educational institutions. By 2000, this cohort would have been between the ages of 25 and 34. In 2010, this cohort would be between the ages of 35 and 44. By studying the population fluctuations within this and other groups, it is possible to reliably evaluate the important factors of in-migration and out-migration.

There were 775 persons in the age 5-14 age cohort in 1980. By 1990, this cohort, made up of persons 15-24 years of age, decreased significantly to 582. From 1990 to 2000, when the group was 25-34 years of age, the cohort decreased slightly to 549. From 2000 to 2010, the cohort, now 35-44 years of age, increased dramatically to 656 persons.

In the decades since 1950 when a 6.7 percent decrease was recorded, Breitung Township's population has experienced steady increases; the Township experienced a very slight population decrease from 2000 to 2010. In 1980 residents 65 years of age or older made up 10.3 percent of Breitung Township's population; it increased to 18.3 percent in 2010. The population less than 25 years of age decreased 16.4 percent during the same period indicating a drop in the birth rate. The female population decreased from 50.1 percent of Breitung Township's residents in 1970 to 49.7 percent in 2010.

## CHAPTER 2.0-POPULATION

### 2.3 Age and Gender continued

**Table 2-5**  
**Age Distribution of Population by Gender, Breitung Township, 1980-2010**

Age Group	1980				1990				2000				2010			
	Female		Male		Female		Male		Female		Male		Female		Male	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Under 5	193	4.1	227	4.9	158	2.9	174	3.2	125	2.1	144	2.4	116	2.0	139	2.4
5 - 14	372	8.0	403	8.6	448	8.1	465	8.5	417	7.0	474	8.0	327	5.6	322	5.5
15 - 24	392	8.4	371	7.9	274	5.0	308	5.6	287	4.8	343	5.8	254	4.4	327	5.6
25 - 34	374	8.0	403	8.7	409	7.5	371	6.8	277	4.7	272	4.6	223	3.9	207	3.6
35 - 44	268	5.7	258	5.5	442	8.0	484	8.8	518	8.7	508	8.6	322	5.5	334	5.7
45 - 54	265	5.7	238	5.1	305	5.6	310	5.7	473	8.0	535	9.0	580	9.8	540	9.3
55- 64	222	4.7	202	4.3	291	5.3	268	4.8	302	5.1	289	4.9	480	8.2	546	9.3
65 - 74	146	3.1	148	3.2	245	4.5	225	4.1	288	4.9	267	4.5	296	5.0	269	3.6
75 +	109	2.3	78	1.7	184	3.4	122	2.2	248	4.2	163	2.7	313	5.3	258	4.4
Subtotal	2,341	50.1	2,328	49.9	2,756	50.3	2,727	49.7	2,935	49.5	2,995	50.5	2,911	49.7	2,942	50.3
<b>Total</b>	<b>4,669</b>				<b>5,483</b>				<b>5,930</b>				<b>5,853</b>			

Source: U.S. Bureau of the Census;; 1980 Census of the Population, General Population Characteristics, STF 1, Table 010; 1990 Census of the Population, General Population Characteristics, STF 1, P012; Census 2000, Summary File 1, P12; Census 2010; Profile of General Population and Housing Characteristics, Table DP-1.



## CHAPTER 2.0-POPULATION

### 2.4 Racial Composition

The racial composition of Breitung Township is overwhelmingly white, a common characteristic of the region. Non-white residents are of African American, American Indian and Asian & Pacific Islander descent. The non-white population, as a percentage of the population, increased from 0.4 percent in 1980 to 2.4 percent in 2010. Part of this increase can be attributed to the presentation of the data; for Census 2000 race characteristics are presented by "one race" and by "two or more races." Data of "two or more races" is included in the "other race" category. Persons of Hispanic origin are not shown in Table 2-6, Population by Race, Breitung Township, 1980-2010, since they may be of any race. There are 40 individuals of Hispanic origin in Breitung Township.

**Table 2-6**  
**Population by Race, Breitung Township 1980-2010**

Race	1980		1990		2000*		2010*	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
One Race	N/A	N/A	N/A	N/A	5,985	99.4	5,800	99.1
White	4,649	99.6	5,432	99.1	5,832	98.4	5,710	97.6
Black or African American	0	0.0	1	-	2	-	23	0.4
American Indian, Eskimo, & Aleut	13	0.3	18	0.3	26	0.4	25	0.4
Asian & Pacific Islander	5	0.1	27	0.5	28	0.5	30	0.5
Other Races	2	-	5	0.1	42	0.7	12	0.2
Two or More Races	N/A	N/A	N/A	N/A	35	0.6	53	0.9
Total	4,669	100.0	5,483	100.0	5,930	100.0	5,853	100.0

Source: U.S. Bureau of the Census, 1990 Census of the Population, STF 1A, Table P006; 1980 Census of the Population, STF 1A, Table 007; Profile of General Demographic Characteristics: 2000, Table DP-1; Profile of General Demographic Characteristics: 2010, Table DP-1.

\*Additional subcategories for racial information were used in 2000 and 2010.

### 2.5 Educational Attainment

Among Breitung Township residents who were 25 years of age or older at the time of the 2006-2010 American Community Survey 5-Year Estimates, only 6.5 percent had not completed high school or the equivalent. As shown in Table 2-7, Educational Attainment of Persons 25 Years and Older, Selected Areas, 2006-2010, the percentages for the County (7.8) and the State (12.0) were higher.



## CHAPTER 2.0-POPULATION

### 2.5 Educational Attainment continued

Within the same age group, Breitung Township recorded a higher percentage of residents who had attained high school and higher educations than for Dickinson County overall. Graduate degree holders were represented in a higher percentage at the state level.

Education and training requirements have been increasing in most industries. Employers whose hiring requirements once did not place a lot of emphasis on formal education are, in most instances, looking for prospective employees who have attained an educational level sufficient to meet the demands of the modern workplace. A highly trained, educated workforce is an asset in attracting employers to a community.

<b>Table 2-7 Educational Attainment of Persons 25 Years and Older, Selected Areas, 2006-2010</b>			
	<b>Breitung Township</b>	Dickinson County	State of Michigan
Educational Level	<b>Percent</b>	Percent	Percent
Less than 9 <sup>th</sup> Grade	<b>1.3</b>	2.1	3.5
9 <sup>th</sup> - 12 <sup>th</sup> Grade, No Diploma	<b>5.2</b>	5.7	8.4
High School Graduate	<b>45.0</b>	42.3	31.5
Some College, No Degree	<b>22.9</b>	24.4	23.4
Associate's Degree	<b>7.1</b>	7.6	8.1
Bachelor's Degree	<b>11.3</b>	12.2	15.5
Graduate or Professional Degree	<b>7.2</b>	5.7	9.6
High School Graduate or Higher	<b>93.5</b>	92.2	88.0
Bachelor Degree or Higher	<b>18.4</b>	17.9	25.0

Source: U.S. Bureau of the Census, American Community Survey 5-Year Estimates, 2006-2010, Table S1501.

### 2.6 Household Characteristics

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

A *household* is defined as all persons who occupy a housing unit according to the Bureau of the Census. This can include one person living alone, a single family, two or more families living together, or any groups 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 is related by birth, marriage, or adoption. A *non-family household* can be one person living alone, or any combination of people not related by blood, marriage, or adoption.

## CHAPTER 2.0-POPULATION

### 2.6 Household Characteristics continued

Total households within Breitung Township increased by 457 from 1,587 in 1980 to 2,044 in 1990; the 2000 Census recorded an increase of another 310 households; the 2010 Census reported another slight increase of 35 households. The size of households has been steadily decreasing and currently averages 2.35 persons.

The number of family households decreased slightly over the last decade. Married-couple households decreased, while those with a female head of household grew to some extent. Percentage wise, the number of male householders increased as well. Meanwhile, the percentage of non-family households increased by 158 percent from 1980 to 2010, indicative of contemporary social and demographic changes. These statistics are contained in Table 2-8, Household Characteristics, Breitung Township, 1980-2010.

<b>Table 2-8 Household Characteristics, Breitung Township, 1980-2010</b>								
Household Type	1980		1990		2000		2010	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Family Households	1,309	82.5	1,574	77.0	1,728	73.4	1,763	71.1
Husband-Wife Family	1,191	75.0	1,394	68.2	1,534	65.2	1,528	61.6
Female Householder	97	6.1	122	6.0	125	5.3	136	5.5
Male Householder	21	1.3	58	2.8	69	2.9	99	4.0
Non-Family Households	278	17.5	470	23.0	626	26.6	717	28.9
Total Households	1,587	100.0	2,044	100.0	2,354	100.0	2,480	100.0
<b>Average Household Size</b>	<b>2.90</b>		<b>2.65</b>		<b>2.50</b>		<b>2.35</b>	

Source: U.S. Bureau of the Census, 1990 Census of the Population and Housing, STF 1A, P003, P016 and H017A; 1980 Census of the Population and Housing, STF 1, 003, 016, 035; Profile of General Demographic Characteristics: 2000 Census, Table DP-1; Profile of General Demographic Characteristics: 2010 Census, Table DP-1.

### 2.7 Population Density

Breitung Township's 5,583 (2010 population) residents live within the 64.9 square mile corporate limits producing a density of 90.2 persons per square mile, or about 10 persons per acre. As expected, the cities have the highest population density. Breitung Township, as part of the urban area has the highest population density of the Townships in the county, as depicted in Table 2-9, Population Density, Selected Areas, 2010. Dickinson County's population density is 34.1 persons per square mile, while the state's is 102.1.

## CHAPTER 2.0-POPULATION

### 2.7 Population Density continued

<b>Table 2-9 Population Densities, Selected Areas, 2010</b>			
Governmental Unit	Land Area in Square Miles	Population	Persons/Square Mile
<b>Breitung Township</b>	<b>64.9</b>	<b>5,853</b>	<b>90.2</b>
Breen Township	87.9	499	5.7
Felch Township	143.1	752	5.3
City of Iron Mountain	7.4	7,624	1,035
City of Kingsford	4.3	5,133	1,188
City of Norway	8.7	2,845	326
Norway Township	89.3	1,489	16.7
Sagola Township	160.3	1,106	6.9
Waucedah Township	88.9	804	9.04
West Branch Township	111.5	63	0.6
Dickinson County	766.4	26,168	34.1

Source: U.S. Bureau of the Census, 2010 Census Redistricting Data Summary File.

### 2.8 Issues and Opportunities

- A population decrease occurred between 1940 and 1950, reflected in the closing of the Ford Motor Company plant in nearby Kingsford. Since then, growth has been recorded in each decennial census until the 2010 Census. Population levels have nearly doubled since 1940. The 2010 Census recorded a population decrease of 1.3 percent from 2000 to 2010.
- Breitung Township's median age is higher than the County and the majority of neighboring communities. The percentage of persons 65 or older is higher than the County and the State which will influence the types and levels of services and accommodations that public and private entities will need to provide.
- In terms of the education attainment among its residents, Breitung Township compares very favorably with the county and state. Percentage-wise, more township residents have high school diplomas than the county and the state.
- While the number of households has been growing, their composition has changed and size decreased. A decrease in the number of married-couple families is reflected in census data. These factors affect issues such as transportation, child care, recreation, health care and social services.
- Breitung Township maintains a greater density of population than the surrounding Townships, but vastly lower than the three cities.

## CHAPTER 3.0-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. The factors that affect the economic base in a community extend beyond its boundaries; increasingly so as they realize the effects of the global economy. In this chapter, data for Breitung Township, the greater Dickinson County area and Michigan will be presented for analysis and comparison.

Much of the economic information presented is available only at the County level. The high degree of personal mobility may affect the accuracy of some information regarding the local economy.

### 3.2 Area Economy

Breitung Township is located within the Iron Mountain-Kingsford-Norway urban area, which contains the majority of the Dickinson County's commercial and industrial development. A significant amount of development is located in Breitung Township, particularly along the US-2/141 corridor. Developments are occurring both in the community of Quinnesec and adjacent to the city limits of Iron Mountain. Commercial development on the



Northern RV Center

Breitung Township US-2/141 Corridor includes an eight-screen movie theater, a car dealership, an RV sales center, a meat processor and a lumber and building supply store. Commercial enterprises are attracted to the Township because of the larger tracts of land which are available, the proximity to the three cities in the urban area and the direct access to US-2/141.



Verso Paper, Inc.

Breitung Township has experienced rapid population growth over the past 20 years, and has seen a dramatic increase in industrial development with the construction of the Verso Paper Company (formerly Champion International and International) pulp and paper mill in the 1980s.



## CHAPTER 3.0-ECONOMIC BASE

The historical development of Breitung Township goes back to the days of iron ore exploration. Breitung Township lies in the heart of the historic Menominee Iron Range, discovered in 1873. This range contained a total of 47 mines stretching from Waucedah to the east to Crystal Falls in neighboring Iron County. Among the mines which once operated in Breitung Township were the Quinnesec, Indiana, Keel Ridge, Cundy, Vivian, Illinois, Cuff, Forest and Traders Mines.

Extensive iron ore mining along the Menominee Iron Range was a major economic activity beginning in the late 1800s until about 1945. Area paper mills, sawmills and manufacturers of wood products located in the area to be nearby a ready source of raw material. Hydro projects were developed at several points along the Menominee River to meet the electrical power demands.

A lengthy transitional period for the County followed the succession of economic setbacks as mining activity in the area came to an end in the mid-1940s and the Ford Motor Company completed its shutdown in 1951.



Ford Motor Company had been the predominant economic force in Dickinson County for most of its 32-year presence.

Opportunities for additional industrial development exist at Breitung Township-designated 34-acre Breitung Township Industrial Park, located immediately north of International Paper's Gate 1 on US-2, as the Breitung Township Industrial Park. The area contains 34 acres and there is a 12 acre site that is currently developed with buildings

on site. Acuren Inspections purchased the 12 acre site in late 2011 and plans to utilize the existing buildings as a training facility for industrial inspections. Approximately 60-80 jobs are expected to be created.

There is potential for a second business to move into the park as well. The park is presently undeveloped; roads and infrastructure, particularly gas, water and sewer systems need to be installed. Internet service is available throughout the entire park. Breitung Township has is continuing to market the sale of parcels in the Industrial Park.

## CHAPTER 3.0-ECONOMIC BASE

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Tourism is a growth industry in the area that has become much less seasonal in nature. This is due, in large part, to the growing population of retirees who travel extensively and favorable economic conditions. Besides traditional summer vacationing, the autumn color of the northern hardwood forests and winter sports, especially snowmobiling (Michigan leads the nation in the number of snowmobiles licensed) attracts thousands of visitors to the area.

Tourism and recreation have changed over the years as transportation means 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. Due to the area's rich mining history, Breitung Township and the surrounding communities boast numerous historic sites for residents and visitors to experience. Eco-tourism has gained popularity among those wanting to experience nature through activities such as bird watching, hiking, and kayaking. 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. A benefit of the growth in the tourism industry is that preserving aesthetics and the quality of the environment is essential to maintaining the industry.

The civilian labor force consists of persons currently employed and those currently seeking employment, excluding persons in the armed forces and those under the age of 16 years. Shifts in the age and sex characteristics of residents, seasonal changes, and employment opportunities can all cause fluctuation in the number of persons in the labor force. Throughout the chapter, the term "labor force" will refer to the civilian labor force. The armed forces labor force is significantly small in Dickinson County with only 16 individuals, there are no persons identified in Breitung Township. These individuals are likely associated with the local recruiting office or the Veterans Affairs Hospital.

According to 2006-2010 American Community Survey Estimates, the percentage of persons within Breitung Township age 16 and older who were in the labor force (labor force participation rate) was 60.4 percent. Dickinson County's labor force participation rate was 60.2 percent. The labor force participation rate at the State level during the same period was 63.1 percent. Comparative employment information is provided in Table 3-1, Employment Status of Civilian Labor Force, Selected Areas, 2006-2010.

## CHAPTER 3.0-ECONOMIC BASE

**Table 3-1  
Employment Status of Civilian Labor Force, Selected Areas, 2006-2010**

Characteristics	Breitung Township	Dickinson County	State of Michigan
Population 16 years and older	4,744	21,489	7,836,314
In Labor Force	2,865	12,934	4,944,003
Civilian Labor Force	2,865	12,918	4,938,337
Employed in Labor Force	2,705	11,921	4,369,785
Unemployed in Labor Force	160	997	568,552
Armed Forces	0	16	5,666

Source: U.S. Bureau of the Census, American Community Survey Estimates 2006-2010, Table DP03.

The U.S. Bureau of the Census reports employment information by broad economic division, with the categories listed in Table 3-2, Employment by Broad Economic Division, Selected Areas, 2006-2010 below. The top four employment divisions for Breitung Township are: educational, health and social services; retail trade; manufacturing; and transportation, warehousing and utilities. Over 19 percent of Breitung Township residents are employed in the educational, health and social services division. This is slightly lower than Dickinson County as a whole (21.8 percent) and lower than Michigan (23.2 percent). About 15.4 percent of Breitung Township residents are employed in the retail trade division, compared to 13.8 percent for the County and 11.6 percent for the State.

**Table 3-2  
Employment by Broad Economic Division, Selected Areas, 2006-2010**

Broad Economic Division	Breitung Township		Dickinson County	State of Michigan
	Number	Percent	Percent	Percent
Agriculture, Forestry, Fishing , Hunting and Mining	13	0.5	1.2	1.3
Construction	180	6.7	6.1	5.3
Manufacturing	414	15.3	17.7	17.6
Wholesale Trade	89	3.3	3.5	2.8
Retail Trade	416	15.4	13.8	11.6
Transportation, Warehousing and Utilities	392	14.5	7.4	4.2
Information	28	1.0	1.8	1.9
Finance, Insurance, Real Estate, Rentals and Leasing	135	5.0	5.0	5.7
Professional, Scientific, Management, Administrative Services	188	7.0	7.3	8.9
Educational, Health and Social Services	517	19.1	21.8	23.2
Arts, Entertainment, Recreation and Food Services	102	3.8	7.4	9.1
Other Services (except public administration)	90	3.3	3.2	4.7
Public Administration	141	5.2	3.6	3.8
TOTAL (Number employed age 16 and older)	2,705	100.0	100.0	100.0

Source: U.S. Bureau of the Census, American Community Survey Estimates 2006-2010, Table DP03.



## CHAPTER 3.0-ECONOMIC BASE

According to 2006-2010 American Community Survey Estimates, 89.4 percent of Humboldt Township's working age population who commuted to work was employed in Marquette County. Approximately 8.3 percent of Breitung Township residents work outside of Michigan, most likely in Wisconsin due to the close proximity. Residents who worked outside of Dickinson County, but in Michigan, likely found employment in neighboring Menominee or Marquette Counties. Place of employment for Breitung Township residents is noted in Table 3-3, Residents Aged 16 Years or Older by Place of Work, Breitung Township, 2006-2010.

<b>Table 3-3 Residents Aged 16 Years or Older by Place of Work, Breitung Township, 2006-2010</b>		
Characteristics	Number	Percent
Workers 16 and Over Commuting to Work	2,631	100.0
<b>Worked in Michigan</b>	2,413	91.7
Worked in Dickinson County	2,369	98.2
Worked Outside of Dickinson County	44	1.8
<b>Worked Outside of Michigan</b>	218	8.3

Source: U.S. Bureau of the Census, American Community Survey 5-Year Estimates 2006-2010, Table B08007.

The personal vehicle is the main mode of transportation for Breitung Township workers, as well as Dickinson County workers. Over 84 percent of Breitung Township workers drive alone to work as depicted in Table 3-4, Means of Transportation to Work, Residents 16 or Older, Selected Areas, 2006-2010. According to the 2006-2010 American Community Survey Estimates, 7.6 percent of commuters are part of a carpool; carpool participation is slightly lower than the County-wide rate. With increasing gasoline prices, future estimates may demonstrate higher rates of carpooling.

<b>Table 3-4 Means of Transportation to Work, Residents 16 or Older, Selected Areas, 2006-2010</b>			
Means of Transportation	Breitung Township		Dickinson County
	Number	Percent	Percent
Car, Truck, Van-Drive Alone	2,246	85.4	84.6
Car, Truck, Van-Carpool	200	7.6	8.1
Public Transportation	0	0.0	0.1
Walk	23	0.9	2.3
Other Means	33	1.3	1.0
Worked at Home	129	4.9	4.0

Source: U.S. Bureau of the Census, American Community Survey 5-Year Estimates 2006-2010, Table DP03.

## CHAPTER 3.0-ECONOMIC BASE

Commuting times from census data indicates that 81.9 percent of Breitung Township's working population lives less than 20 minutes from their place of employment (Table 3-5, Residents 16 or Older, Travel Time to Work, Selected Areas, 2006-2010). About 5.5 percent travel an hour or more to work, a rate higher than that of Dickinson County as a whole. Approximately 4.9 percent of employed persons reported working at home, a percentage higher than that of Dickinson County (4.0 percent).

**Table 3-5**  
**Residents 16 or Older, Travel Time to Work, Selected Areas, 2006-2010**

Home to Work Travel Time	Breitung Township	Dickinson County
	Percent	Percent
Less Than 10 Minutes	41.9	38.9
10 to 14 Minutes	24.7	22.9
15 to 19 Minutes	15.3	15.0
20 to 24 Minutes	5.5	8.6
25 to 29 Minutes	1.8	2.9
30 to 34 Minutes	3.7	4.6
35 to 44 Minutes	0.8	2.6
45 to 59 Minutes	0.8	1.9
60 Minutes or More	5.5	2.7
Mean Travel Time to Work	16.6 minutes	15 minutes

Source: U.S. Bureau of the Census, American Community Survey Estimates 2006-2010, Table S0801.

Technological advances and economic globalization are having a tremendous influence on the workplace and it has been predicted that fully 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 locations of choice for these types of work arrangements. As the Internet continues to evolve, as the price of gasoline rises and as congestion worsens, people may choose to telecommute rather than change the locations of their homes and other life-style choices.

### 3.6 Unemployment

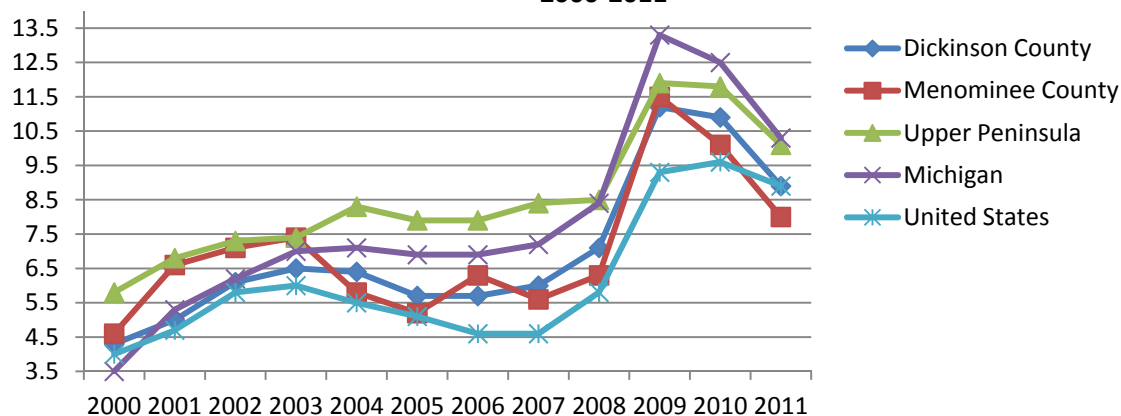
County unemployment and labor force data are collected and analyzed by the Michigan Department of Energy, Labor and Economic Growth. Actual unemployment information is reported by County. While estimated information is available at the sub-county level, their accuracy is dubious and not presented. Comparative data are presented in Table 3-6, Labor Force and Unemployment, 1970-2011.

## CHAPTER 3.0-ECONOMIC BASE

Dickinson County has generally recorded lower unemployment rates than the rest of the Upper Peninsula. Comparable unemployment rates have been experienced in Menominee County. While more favorable than other area counties, Dickinson County's unemployment rates are consistently higher than those recorded by the state overall. Labor force requirements are determined by economic conditions. During the last decade, employment growth has been slow and projected to remain slow. High-paying manufacturing jobs have left Michigan and have been replaced by service jobs.

The civilian labor force in Dickinson County has decreased over the past decade, decreasing by 11.9 percent since 2001, coinciding with the recently declining economic climate. However, unemployment figures for 2011 point to a reversal of that trend. The most recent (2011) Dickinson County annual average unemployment rate is at 5.9 percent, among the lowest of all Upper Peninsula counties, and compares favorably with the State of Michigan, but compares unfavorably with the United States. Menominee County exhibits the lowest annual unemployment rate for 2011, at 8.0 percent.

**Figure 3-1**  
**Unemployment Rate, Selected Areas**  
**2000-2011**



## CHAPTER 3.0-ECONOMIC BASE

### 3.6 Unemployment continued

<b>Table 3-6 Labor Force and Unemployment, 1970-2011</b>								
Year	Dickinson County Labor Force			Unemployment Percent Rate				
	Employed	Unemployed	Total Labor Force	Dickinson County	Menominee County	Upper Peninsula	State of Michigan	United States
1970	8,325	575	8,900	6.4	5.4	9.2	6.7	4.9
1975	9,975	1,000	10,975	9.2	8.9	11.6	12.5	8.5
1980	11,650	1,075	12,700	8.4	9.2	12.2	12.4	7.1
1985	10,825	1,375	12,200	11.3	13.4	15.1	9.9	7.2
1990	11,475	975	12,425	7.8	7.0	9.2	7.6	5.6
1991	11,600	1,250	12,875	9.8	8.9	10.6	9.3	6.8
1992	11,900	1,275	13,175	9.7	8.4	10.8	8.9	7.5
1993	12,375	1,000	13,350	7.4	7.2	8.9	7.1	6.9
1994	12,700	950	13,650	7.0	6.6	8.7	5.9	6.1
1995	12,775	950	13,725	6.9	6.6	8.9	5.3	5.6
1996	13,225	800	14,050	5.8	6.0	7.9	4.9	5.4
1997	13,300	850	14,125	5.9	5.7	7.2	4.2	4.9
1998	13,475	700	14,175	4.9	5.5	6.4	3.9	4.5
1999	13,600	775	14,350	5.3	4.9	6.3	3.8	4.2
2000	13,875	625	14,500	4.3	4.6	5.8	3.5	4.0
2001	13,850	725	14,600	5.0	6.6	6.8	5.3	4.7
2002	13,600	875	14,475	6.1	7.1	7.3	6.2	5.8
2003	14,025	975	15,000	6.5	7.4	7.4	7.0	6.0
2004	13,504	925	14,429	6.4	5.8	8.3	7.1	5.5
2005	13,718	831	14,549	5.7	5.2	7.9	6.9	5.1
2006	13,756	829	14,858	5.7	6.3	7.9	6.9	4.6
2007	13,695	869	14,564	6.0	5.6	8.4	7.2	4.6
2008	13,494	1,025	14,519	7.1	6.3	8.5	8.4	5.8
2009	12,496	1,581	14,077	11.2	11.5	11.9	13.3	9.3
2010	12,498	1,535	14,033	10.9	10.1	11.8	12.5	9.6
2011	12,204	1,186	13,390	8.9	8.0	10.1	10.3	8.9

Source: Michigan Department of Technology, Management and Budget for years cited.

## CHAPTER 3.0-ECONOMIC BASE

### 3.7 Major Employers

Most major employers, those employing over 100 persons, are located in either the city of Iron Mountain or Kingsford. However, one of the largest employers in the county is located in Breitung Township. Verso Paper, Inc., with an estimated workforce of 551 is located in the Township. A number of small commercial and industrial establishments are located within the Township, each contributing to the economic well-being of the Township.



Dickinson County's diverse economy also provides employment opportunities for many Breitung Township residents. Some major employers in Dickinson County include: Verso Paper Corporation (paper products), Dickinson County Healthcare System (hospital), Sagola Hardwoods (hardwood lumber), Oldenburg Group (mining and defense), MJ Electric (electrical contractor), CCI Networks (cable systems), Northern Star Industries (snowplow/control panel manufacturing), Multi-Color Corporation (commercial printing), Louisiana Pacific (building products), and Grede Foundries Inc. (ferrous metals).

### 3.8 Income

An examination of local income trends and comparison of local income information to state and national averages is 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.

Median incomes in the Upper Peninsula are significantly lower than statewide averages. While this can be offset somewhat by lower housing costs locally, the ability of local households to afford housing is impacted by these lower incomes.

*Per Capita Income* is determined by dividing the total reported income within a unit of government by its official population.

*Median Household Income* uses income from all households including families. The median income figure is the middle value of the incomes reported.

*Family Income* includes those of married-couple families and other households made up of persons related by blood, marriage or adoption. The median income figure is the middle value of the incomes reported. This category does not include persons living alone or unrelated persons sharing living quarters or other non-family households. Income Levels, Selected Areas, American Community Survey Estimates 2006-2010, are presented in Table 3-7.

## CHAPTER 3.0-ECONOMIC BASE

### 3.8 Income continued

<b>Table 3-7 Income Levels, Selected Areas, 2006-2010</b>			
	<b>Breitung Township</b>	Dickinson County	State of Michigan
Per Capita Income	<b>\$26,205</b>	\$23,854	\$25,135
Median Household Income	<b>\$48,306</b>	\$42,589	\$48,432
Median Family Income	<b>\$72,732</b>	\$54,053	\$60,341

Source: U.S. Bureau of the Census, American Community Survey 5-Year Estimates, Selected Economic Characteristics, 2006-2010, Table DP03.

Per capita Income reported for Breitung Township is higher than Dickinson County and the State. Median household and median family incomes reported for Breitung Township higher than incomes reported for Dickinson County and the median family income reported is significantly higher than that reported for the State.

### 3.9 Poverty Rates

The U.S. Bureau of the Census uses 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 less than 15 years old are considered neither as “poor” nor as “nonpoor.” For example, for a two person household, the weighted average threshold is \$13,167, for a three person household the threshold is \$16,079 and a four person household the threshold is \$20,614. The average Breitung Township household size in 2010 was 2.22 persons.

Table 3-8, Poverty Rates, Selected Areas, 2006-2010 reflects income information reported for the American Community Survey 5-Year Estimates. The poverty rate for all people in Breitung Township was 3.2 percent, significantly lower than poverty levels in the County and State. Incidence of poverty among female householder families and female householder families with children is non-existent in Breitung Township. Typically female-led households with no husband present experience higher rates of poverty; the data provided in the American Community Estimates may be skewed. Approximately three percent of elderly residents were reported as living below the poverty level; poverty levels among seniors have declined dramatically over the last 50 years. Social security, in combination with Medicare health insurance, is often mentioned as likely contributors to the decline in elderly poverty. Overall, poverty figures reported for Breitung Township are significantly lower than rates reported for Dickinson County and the State of Michigan.

## CHAPTER 3.0-ECONOMIC BASE

### 3.9 Poverty Rates continued

<b>Table 3-8 Poverty Rates, Selected Areas, 2006-2010</b>			
Poverty Rates by Group (Percentage)	<b>Breitung Township</b>	Dickinson County	State of Michigan
All People	3.2	14.0	14.8
Children under 18	2.6	13.8	20.5
Persons 65 and older	3.0	8.8	8.3
All Families	1.5	8.8	10.6
Female Householder Families	0.0	28.9	31.8
Female Households with Children under 18	0.0	39.4	41.1
Female Households with Children under 5	0.0	70.4	50.3

Source: U.S. Bureau of the Census, Census 2000, Summary File 3, Table DP-3.

### 3.10 Issues and Opportunities

- Breitung Township has ample space for commercial development; development will be limited by the lack of available water and sewer infrastructure. Future developers will be encouraged to pursue the installation of water and sewer systems.
- The top four employment divisions for Breitung Township are: educational, health and social services; retail trade; manufacturing; and transportation, warehousing and utilities. Over 15 percent of Breitung Township residents are employed in the educational, health and social services division.
- About ten percent of the Township's resident workforce is employed outside of Dickinson County. Being located on the Wisconsin-Michigan border, about eight percent of the employed persons find employment outside of Michigan.
- Over forty percent of Breitung Township's working residents commute less than ten minutes to work. The average commute time for Breitung Township residents is only 16.6 minutes.
- Compared with most other Upper Peninsula counties, Dickinson County has experienced lower rates of unemployment.
- According to several means of measurement, Township incomes are higher than Dickinson County incomes overall and comparable to the State. Breitung Township's overall poverty rate compares very favorably with the County and State.

## CHAPTER 4.0-NATURAL FEATURES

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### 4.1 Introduction

A direct relationship exists between a community's natural features and the development that occurs there. These natural features are often interrelated, and disturbance in one area can potentially affect other areas. An understanding of these relationships is important for effective community planning.

### 4.2 Geology

Among the primary factors which make geology important to a community's development is its ability to supply groundwater. Bedrock types, and the layers through which groundwater 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. This situation increases the potential for polluted runoff to enter the groundwater table. If the bedrock is highly permeable, contaminants can quickly enter groundwater used for domestic purposes.

The presence of commercially valuable minerals in bedrock is also a factor in land use and development of an area. The presence of iron ore was a major factor in the early development of communities such as Quinnesec, Norway, Vulcan and Iron Mountain.

### 4.3 Bedrock Geology

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

The majority of the bedrock which underlies Dickinson County was formed during the Precambrian era, generally believed to be more than 500 million years ago. Formations from the Cambrian period, about 400 to 500 million years ago, underlie the eastern edge of the County and also occur in east-west belts in central and southern Dickinson County. In Breitung Township, the Cambrian bedrock consists of Munising Formation located north of US-2, while the remainder of the Township is underlain by rocks from the Precambrian period. The Township also contains a number of fault lines, where shifting or uplifting of the earth's crust has resulted in an abrupt meeting of two different bedrock formations.

The following are individual types of bedrock formations that occur within Breitung Township, as shown on Map 4-1, Bedrock Geology.



## CHAPTER 4.0-NATURAL FEATURES

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### 4.3 Bedrock Geology continued

**Munising Formation:** Munising Sandstone is a white-to-gray, friable, fine-to-medium grained sandstone and conglomerate. It has good potential as a groundwater aquifer, and normally yields water of good chemical quality, although moderately hard.

**Granitic and Gneissic Rocks, Volcanic and Sedimentary:** These are the oldest rocks in Dickinson County, and occur in the northern and northeastern portions of the Township. In most areas in the Township this bedrock is at or close to the surface. Many areas of these hard, crystalline rocks are extremely poor aquifers, and dependence is placed on surface deposits overlaying bedrock when groundwater is needed.

**Other Precambrian Rocks:** This category includes several formations, including Quinnesec, Badwater Greenstone, Michigamme, and Menominee and Chocoy groups. These rocks have been subjected to folding, faulting, metamorphism and erosion over the millions of years that have passed since their formation. Most of the iron ore in Dickinson County has been found in these formations, including the mines in the Iron Mountain-Norway-Vulcan area and the Groveland Mine. The availability of groundwater varies throughout these formations, but they generally serve as a reliable source of groundwater for residential wells.

### 4.4 Surface Geology

Surface geology deposits in Breitung Township are primarily the result of glacial action. Map 4-2, Surface Geology depicts the surface geology of the Township. The various categories of surface geology are based on the material content and the formation process. Glacial deposits occurred in one of three ways: materials deposited directly by glaciers, with little or further movement as a result of surface water (till); 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.

The following types of surface geology are found in Breitung Township:

**Bedrock:** This type of surface geology occurs in areas where bedrock is at or near the surface, which was the result of glacial scouring that left no deposits on the top of the bedrock. In such cases, surface activities are directly affected by the presence of bedrock, which can severely limit the success of agricultural activities, complicate construction, and increase the costs of providing services, such as water and sewer. Surface areas of bedrock are located in the northern, northeastern and southeastern portions of the Township.

## CHAPTER 4.0-NATURAL FEATURES

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### 4.4 Surface Geology

**Glacial Lake Plain:** Glacial lake plain deposits are found scattered throughout the Township. These deposits consist mainly of sand, although silt or clay may be mixed with the sand. The amount of silt or clay determines permeability and water yield. Concentrations of more than 25 percent silt or clay impede drainage, and often result in swampy or marshy areas. If silt and clay are not present in high concentration, glacial lake plain deposits are usually moderately or highly permeable. Sandy lake plains serve as water supplies for domestic wells in various areas of the Township.

**Wetlands:** Wetland areas are located primarily within the northeastern part of the Township. Wetland areas are thin deposits of muck and peat underlain by sandy, silty, and clayey lake deposits. The permeability of these areas is highly variable.

**Glacial Till:** Glacial till is the predominant surface geology in the northern half of Breitung Township. These deposits are composed of poorly sorted clay and boulder till of low permeability; generally a thin veneer over bedrock. Dug wells, rather than drilled, have been successful in obtaining water from these deposits, but glacial till has generally proven to be a poor producer of groundwater in Dickinson County.

**Sandy Glacial Till:** Sandy glacial till can be found throughout Breitung Township. These glacial till areas contain large amounts of sand and gravel, which increase the availability of groundwater compared to other glacial till areas. Most residential wells yield enough water for domestic purposes, although the supply may be unreliable following prolonged use due to the small extent of groundwater deposits.

### 4.5 Soils

Soil is the surface layer of the land formed through the interaction of many factors. Glaciers moving over bedrock material exert massive pressure, and their slow movement turns the solid rock into extremely fine-ground material. More gradual deterioration of rock due to freeze-thaw cycles and the action of plant roots also contributes to soil formation. Organic matter from decaying plant and animal matter is a factor in many areas. Soil may also be moved from one area to another by wind or water. The distribution of various soil types throughout Dickinson County is related to geology, landform, slope, climate and natural vegetation patterns. The U.S. Department of Agriculture's Soil Conservation Service published the "Soil Survey of Dickinson County, Michigan" in August 1989 with field work completed in 1984. The study classified the soils of Dickinson County into 66 different mapping units, each possessing unique characteristics. These mapping units were grouped into eight soil associations, each with a distinctive pattern of soils, relief and drainage. The soils in these associations respond similarly to the various uses to which they may be subjected. Development planning should include a thorough assessment of soil suitability for the type of land use being considered.

## CHAPTER 4.0-NATURAL FEATURES

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### 4.5 Soils continued

Soil associations are useful for general land use planning on a broad scale. They give a preliminary indication of whether or not an area may be suitable for particular types of uses. Soil mapping units provide more specific information on the suitability of a particular soil for a variety of uses. For example, residential subdivisions should avoid areas of shallow and/or poorly drained soils or areas where the water table is close to the surface, since such soils are unsuitable for septic drain fields and problematic for roads. Finally, the best indicator of soil suitability for any given use is on-site inspection and analysis, in order to determine whether a proposed or existing use is compatible with the nature of the soils in that area.

In this plan, soil associations are illustrated on Map 4-3, Soils (Generalized) and discussed in the text, in order to give a broad indication of the suitability of soils Township-wide for a variety of uses. Engineering and construction techniques can be used to overcome soil limitations, often at considerable cost. The long-term implications of such techniques should be carefully considered, however, since development in areas of marginal suitability may lead to high costs to local governments, and hence to taxpayers, in order to provide services to these areas.

The following descriptions are to be used with Map 4-3, Soils (Generalized). For more detailed information, refer to Soil Survey of Dickinson County, Michigan, USDA Soil Conservation Service, August 1989.

**Soil Association 2: Pemene-Emmet-Cathro Association:** Nearly level to hilly, well-drained and very poorly drained, loamy and mucky soils that formed in ice-contact drift, glacial till and organic deposits. Also extensively used for woodland, where the major concerns are seedling mortality, erosion hazard, equipment limitations and windthrow hazard. Cultivated areas occur in areas of Pemene and Emmet soils, where the primary concerns are droughtiness, water erosion, soil blowing and tilth. In the urban areas of Iron Mountain and Norway, building limitations are related to slope, where unstable soils may cause problems in steeper areas. In areas where municipal sewer is not available and development is dependent on-site septic systems, slow percolation rates, slope, and in some areas ponding impose moderate to severe limitations on development. The Pemene-Emmet-Cathro Association is the predominant soil association in Breitung Township.

## CHAPTER 4.0-NATURAL FEATURES

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### 4.5 Soils continued

**Soil Association 3: Pemene-Emmet-Rock Outcrop Association:** Rock outcrop and gently rolling to hilly, well-drained loamy soils that formed in ice-contact and glacial till. This association is found on bedrock-controlled moraines and till plains, and is used mainly as woodland. The major management concerns for woodland use are seedling mortality, erosion hazard, and equipment limitations. The presence of rock outcrops and slopes hinder the use of equipment. This soil association occurs in the northern and northwestern portions of the Township.

**Soil Association 5: Pence-Vilas Association:** Nearly level to rolling, loamy and sandy soils that formed in glacial drift and outwash. The primary use is woodland, where seedling mortality is the major concern. In cultivated areas, droughtiness, water erosion, soil blowing, organic matter content and soil tilth are concerns. This association also occurs in urban areas of the County. The building limitations are primarily related to slope, where sandy soils on steeper slopes can prove unstable. In areas where septic systems are necessary because of lack of municipal services, severe limitations due to poor filtration can affect the suitability for development. This soil association is found in the southern and western portions of Breitung Township.

**Soil Association 6: Mancelona-Rubicon Association:** Nearly level to rolling, somewhat excessively drained and excessively drained, sandy soils that formed in glacial outwash. The major use is woodland, with seedling mortality being the primary management concern. In cultivated areas, which occur in areas dominated by Mancelona soils, droughtiness, water erosion, soil blowing, and organic matter content are primary concerns. The sandy soils tend to be unstable in steep areas, causing limitations to building site development in these areas. Limitations for septic tanks are generally severe, since the sandy soils act as a poor filter and allow effluent to percolate too rapidly through the soil. A small area of this soil association is found in the northwest corner of the Township.

The published soil survey presents the suitability of soil mapping units for various uses in a series of tables. From a planning standpoint, displaying the suitability of soils in the Township for certain uses is helpful in determining the most appropriate areas for certain land uses. As a general rule, areas with few or no constraints are shown as light gray, with areas containing the most limitations shown as solid black. Several soil mapping units are not rated for use; these mapping units include water, pits, mine pits and dumps, loamy udorthents, and ponded aquents and histosols. Many of these areas are unsuitable for use, while others may be suitable for use in certain sites. Pits are defined as open excavations from which the soil material has been removed. Mine pits and dumps have been mined for ore and rock, including pits, areas covered by waste products, and water-filled pits. Loamy udorthents occur in areas where the original soil has been removed and a loamy substratum exposed. Aquents and histosols are level, poorly drained soils in marshes, and may be sandy or loamy (aquents), or organic (histosols).

## CHAPTER 4.0-NATURAL FEATURES

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### 4.5 Soils continued

Map 4-4, Suitability of Dwellings, illustrates the suitability for dwellings, with or without basements. Such limitations include wetness, depth to rock, steep slopes, shrink-swell potential, etc. Some soils have fewer limitations for dwellings without basements, since such dwellings are less impacted by such factors as depth to rock or the presence of large stones. These soils are shown in the map legend as slight to moderate or moderate to severe.

Within the Iron Mountain-Kingsford-Norway urban corridor, a significant portion of the area contains only slight limitations for dwellings; however, areas to the north and east of the urban area have moderate or severe limitations. County-wide, moderate or severe limitations are present to a significant extent. In Breitung Township, as development extends farther to the north and east of Iron Mountain and Kingsford, the possibility exists that soils will impose constraints on development in some areas.

In areas not served by municipal sewer, residential, commercial and industrial development relies on on-site systems, generally septic tanks, to dispose of wastewater. Municipal sewer service in Breitung Township is available only in some areas adjacent to the cities of Iron Mountain and Kingsford. Map 4-5, Limitations for Septic Tank Absorption Fields, illustrates areas where the ability to support on-site septic systems may be limited. Since soils throughout the Township exhibit moderate or severe limitations for septic tank absorption fields, future development should take these limitations into account. Examples of limiting factors for septic tank absorption fields include slow percolation, rapid permeability leading to poor filtration of effluent before it reaches the groundwater, ponding, wetness and in some cases, slope. Table 14 in the Soil Survey contains more detailed information on these soil limitations.

Map 4-6, Limitations for Local Roads and Streets, illustrates areas where soils may impose limitations on the ability to construct local roads and streets. Such limitations include slope, shrink-swell potential, susceptibility to frost action, shallow bedrock, high water table, etc. While relatively few areas in the Township have severe limitations for roads and streets, the majority of the Township is characterized by moderate limitations, a factor which should be taken into account when planning for future development. For further information, refer to Table 13 of the Soil Survey.

### 4.6 Prime Forestlands

In the late 1970s, a study was undertaken to identify prime forestlands throughout the Upper Peninsula. Prime forestlands were identified as those areas which are capable of producing sustained high yields of wood products. Soils information, which incorporates information on slope, water availability, soil depth, fertility, etc., was used to define such prime forestlands.

## CHAPTER 4.0-NATURAL FEATURES

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### 4.6 Prime Forestlands continued

The Dickinson County Prime Forestlands Identification Project, published in July 1980, identified the majority of the County as potentially prime forestlands, based solely on soil associations. Subsequently, an area roughly encompassing the cities of Iron Mountain, Kingsford and Norway, together with the adjacent urban areas, was eliminated from the prime forestlands map. Although soil conditions in this area were conducive to forestry production, land use considerations precluded forest management in the urban area.

The intent of the prime forestlands project was to provide a framework for identifying lands critical to maintaining a continued natural resource base, and helping to prevent the conversion of prime forestlands to non-forestry uses. The report stated that as updated soils information became available, this information should be incorporated into the inventory. The report indicated that much of Breitung Township has moderate to moderately high forest productivity, with some soil limitations. The areas of highest potential productivity are generally located along the Menominee River; however, a portion of this high productivity area is already developed for urban uses which preclude forest management.

### 4.7 Topography

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

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

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

## CHAPTER 4.0-NATURAL FEATURES

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### 4.7 Topography continued

Steep topography or slopes of ten percent or greater can be aesthetically attractive for residential development as well as some commercial establishments. However, the steep grade increases likelihood of soil movement or slides, and the weight of structures is an added force which encourages this movement. Beside such dangers, there is an added expense if development occurs on the sloping surface itself. Excavation of the hillside and/or building of retaining walls can greatly increase construction costs. There is also the problem of erosion as the water rushes down the steep grades. Natural water courses provide the pathway for such water and should be maintained in this capacity.

In Breitung Township, the topography varies from level to very steep. The change is abrupt in many areas, particularly in the southern part of the Township, giving the area an interesting topographic structure. The elevation in the Township ranges from about 850 feet above mean sea level in the southeastern corner of the Township to 1,520 feet at the top of Fumee Hill, north of Fumee Lake. The most significant topographic features in the area include Millie Hill and Pine Mountain in Iron Mountain, and Fumee Hill. The vertical rise of Pine Mountain in relationship to the surrounding terrain is about 350 feet, while Millie Hill and Fumee Hill rise about 450 feet above the surrounding areas. The official elevation of Ford Airport is 1,182 feet above sea level.

### 4.8 Water Features

Water features, i.e., lakes, streams, and rivers have very important functions as natural resources. Seventy percent of the earth's surface is water. According to a 1999 Michigan Department of Environmental Quality publication, surface water serves as a drinking water source for approximately 50 percent of the state's population. Sufficient amounts of surface water are necessary for many industries, and also the generation of electricity.

Water features (lakes, streams, rivers) have two valuable functions in the realm of natural resources. First, they provide us with our domestic and commercial source of water. Secondly, many recreation activities, such as fishing, boating, and swimming depend on the water features. In both cases, quantity of water is very important. Sufficient drinking water greatly affects the population growth, and adequate quantities of water for use in industry have an economic impact. In terms of recreational opportunities, the larger number of lakes and streams, the more activity they can draw to an area as tourist trade. Equally as important in all the cases mentioned is the quality of the water. Removing impurities is expensive and sometimes economically impractical.



## CHAPTER 4.0-NATURAL FEATURES

### 4.8 Water Features continued

Breitung Township's water features include lakes, rivers and streams. Surface waters from the Township ultimately flow into Lake Michigan, via the Menominee River. Lake Antoine and Fumee Lake, among the largest and most important lakes in the County, are located in Breitung



Township. Other important lakes in the Township include Moon Lake, Bass Lake, Spring Lake, Deer Lake and Badwater Lake. Lake Antoine is surrounded by a combination of residential and recreational uses and undeveloped wooded and open areas. Fumee Lake, which once served as the municipal water supply for the City of Norway and the community of Vulcan, has been maintained in a relatively pristine condition, and is surrounded by public land. Fumee Lake is also closed to fishing to preserve the unique fishery which developed during the many years it was closed to all public access. The other lakes in Breitung Township are primarily surrounded by private land.



Lakes and rivers can serve as physical barriers to certain types of development, by limiting the growth of communities and/or the transportation facilities which serve them. For example, the Iron Mountain/Kingsford/Norway urban corridor is bounded by the State of Wisconsin to the west and south, across the Menominee River, but there are only four river crossings (US- 2, US-8, US-141 and M-95) along this approximately 20-mile stretch. The river also presents a natural barrier preventing the expansion of the City of Kingsford to the

south and west. Conversely, the presence of water features often encourages other types of development, such as waterfront residential, or industries which require large volumes of water.

## CHAPTER 4.0-NATURAL FEATURES

### 4.8 Water Features continued



WE Energies Hydro Plant near Twin Falls Road

The Menominee River begins at the confluence of the Brule and Michigamme Rivers about 20 miles upstream from the City of Kingsford and empties about 60 miles downstream into the Green Bay. The Menominee River Basin is about 125 miles long and includes portions of ten

counties in the two-state area. There are nine (9) hydro electric projects licensed by the Federal Energy Regulatory Commission (FERC) along the course of the river. Additional dams are found along other rivers of the basin. There is access to the Menominee River at Hydraulic Falls including a boat launch and fishing below the dam.

Cowboy Lake covers approximately 45 acres and is located near Ford Airport. Before completion of the Ford Dam in 1924, the lake was described as very small. Backwaters of the hydro electric project enlarged the lake and connected it to the Menominee River.

### 4.9 Floodplain and Wetland Areas

Floodplains and wetlands are important from a planning standpoint due to their potential limitations on future development, as well as possible impacts on existing development, in the case of floodplains. Floodplain areas are mapped by the Federal Emergency Management Agency in communities which participate in the National Flood Insurance Program. Breitung Township does not participate in the National Flood Insurance Program and no floodplains have been mapped in the Township.

### 4.9 Floodplain and Wetland Areas continued

Any development occurring in wetland areas is subject to the regulatory authority of the Michigan Department of Environmental Quality. There are relatively few wetland areas in Breitung Township; where wetlands do exist, they are generally in low areas adjacent to lakes and streams.

## CHAPTER 4.0-NATURAL FEATURES

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### 4.10 Mineral Resources

Mineral resources in Breitung Township include iron ore, sand and gravel. Breitung Township lies within the area known as the Menominee Iron Range. The Menominee Range has separate east and west areas. The eastern portion of the Range generally runs west from just north of Hermansville to just west of Iron Mountain and north from Vulcan to Felch, while the western portion generally runs south-southeast from Amasa to Stager.

Nearly 50 mines were located along this range. Within Breitung Township, the following mines were in operation during the Range's mining era: Quinnesec (1878-1888, 1895, 1899-1904, 1908-1910, and 1935), Indiana (1882-1920s), Keel Ridge (1880-1883 and 1892), Globe, Cundy, Vivian, Illinois, Cuff, Forest, and Trader mines. The last mine in the Menominee Range, the Chapin Mine in Iron Mountain, closed in 1932.

The last mine to close in Dickinson County was the Groveland Mine located on the Felch Range just north of Breitung Township; the mine ceased operations in 1981. Other mines were developed and operated for varying periods, but the Groveland was the largest and longest-operating.

Deposits of low-grade iron ores still exist within the Menominee Iron Range; however, market conditions and the cost of meeting today's more stringent environmental regulations make it economically infeasible to continue mining in these areas. Following a period of extensive mining in the Upper Peninsula, only two iron mines, the Empire and Tilden mines in Marquette County, presently operate.

Historically, sand, gravel and marble have also been extracted and marketed in Dickinson County. In Breitung Township, Gundlach-Champion, Inc. (Traders Mine Road) and Lindberg & Sons (located on M-95 approximately 1 1/2 miles north from the junction with US-2) are the largest producers of sand and gravel, including washed sand and stone, aggregates, landscape rock, etc. There are approximately 25 active pits scattered throughout Breitung Township.

## CHAPTER 4.0-NATURAL FEATURES

An abundance of scenic sites is found within the area's hills, forests, rivers and lakes. While determining scenic value is highly subjective, the natural environment and general rural nature of the area contribute significantly to the overall quality of life. Some of the most notable sites are listed in Table 4-1.

<b>Table 4-1 Scenic Sites, Breitung Township Area</b>	
<b>Site Name and Location</b>	<b>Description</b>
Merriman and Browns Lake Truck Trail, Breitung, Norway and Waucedah townships	Wilderness road
Rock-Carney Lake-Spring Lake Road System, Breitung Township	Wilderness, lakes, rock outcropping, scenic overlooks, timber
Twin Falls Dam and Backwater - Breitung Township	An area for viewing and water based recreation along the Menominee River
Hydraulic Falls Dam and Backwater - Breitung Township	An area for viewing, and water based recreation along the Menominee River
Pine Mountain Winter Sports Area - Breitung Township	Private facility
Lake Antoine - Breitung Township and City of Iron Mountain	County park for camping, picnics, and water based activities
Fumee Lake Natural Area - Breitung Township	Over 1,000 acres surrounding Fumee Lake with designated areas for hiking, canoeing, cross-country skiing and biking
Fumee Creek - Breitung Township	Rock outcrops, trails and a 25-foot waterfall are among the features at this Michigan Department of Transportation roadside park
Menominee River - Kingsford	Viewing areas, rapids, camping, boat launch, fishing
Cowboy Lake - Kingsford	Day recreation area
Piers Gorge - Norway Township	A walking path along the Menominee River affords an excellent view of the rapids; this stretch is one of the Midwest's most challenging for kayaking
Norway Mountain - Norway Township	Private winter sports facility
Hanbury Lake - Norway Township and City of Norway	Day recreation area
Strawberry Lake - City of Norway	Day recreation area

## 4.12 Climate

About 70 percent of the area's annual precipitation, or around 21 inches, is received during the period April through September. On average, August is the wettest month and February the driest. Afternoon showers and thunderstorms produce most summer precipitation. Annual snowfall averages around 64 inches. Average annual precipitation in the area from 1950 to 2010 was approximately 30 inches.

The area's interior location reduces the effect by the Great Lakes. Increased cloudiness in the fall and winter months, however, is attributable to the influence of the Great Lakes. The cloud cover tends to moderate temperatures. A growing season, or freeze-free period, averages 112 days. May 28 and September 17 are the average dates of the area's first and last freezing temperatures. January and July are the coldest and warmest months respectively. The mean annual temperature for the 1950 to 1980-period was 53 degrees Fahrenheit. July is the warmest month with an average daily maximum of 79.6 degrees Fahrenheit. January is the coolest month with an average daily high of 23 degrees and an average daily low of 3.2 degrees.

While rare tornadic activity has occurred in the area. Dickinson County is located on the northern fringe of the Midwest tornado belt. The most recent tornado event occurred just after 7:00 p.m. on September 30, 2002, resulting in upwards of \$1 million damage as it crossed the Menominee River from Wisconsin and ripped down trees and power lines from Kingsford to Quinnesec. The event was an "F1" with winds speeds between 73 and 112 miles per hour. Six other tornadic events have been recorded since 1950 in the county, with the strongest being an "F3" in July 1987. Storms with damaging winds and heavy precipitation can occur during any month but are more likely in the summer.

## 4.13 Issues and Opportunities

- Significant portions of Breitung Township contain potential limitations or constraints on development due to soil characteristics. While these limitations do not necessarily preclude all types of development, they can significantly increase the cost of development to the point where it becomes prohibitive. Development carried out in areas which are not suitable can potentially increase future costs to local units of government.
- Soils in the Township are generally not conducive to agricultural crop production, although on a site-specific basis there are some productive areas.
- Some of the areas with the highest potential forest productivity in the Township are occupied by urban uses which preclude future forest production.
- The natural features of the Township are important to the local quality of life. Lakes and rivers, thousands of acres of forest, and the abundance of fish and wildlife in the area are examples of the amenities enjoyed by area residents. Original settlement and land uses were related to the area's natural features and natural resources.

## CHAPTER 4.0-NATURAL FEATURES

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### 4.13 Issues and Opportunities continued

- Since the Menominee River creates a barrier to development south and west of the City of Kingsford, future development and expansion beyond the city limits, will be to the north and east, into Breitung Township.
- Breitung Township does not participate in the National Flood Insurance Program.
- While many active iron ore mining sites were located in the area from the late 1870's to about 1945, the area is no longer dependent on iron ore mining as a source of economic activity. There are still a number of gravel and sand pits operating in the Township.



## CHAPTER 5.0-LAND USE

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### 5.1 Historical 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 Dickinson County. Settlements were established at, or close by, active points of commercial activity, namely mining and timber production. Breitung Township's land use pattern has been shaped by the presence and exploitation of natural resources, including iron ore and timber; by water features and other natural features; and by changing housing patterns. The Menominee Iron Range, located partially within Breitung Township and the Felch Iron Range to the north and east produced millions of tons of iron ore from the 1870s until 1981, when the Groveland Mine closed.

Logs from Dickinson County's vast forests were floated down the Menominee River to be milled into lumber and shipped throughout the Midwest and an ample supply of wood was crucial to the location of the Ford plant in Kingsford from the 1920s until 1951. Several logging and lumber companies operated in Dickinson County from the 1880s until the forests were depleted.

As the mining boom was beginning to fade in the 1920s, a new venture began which was to influence local economic and land use patterns for years to come. The Ford Motor Company began construction of a large industrial complex in what is now the City of Kingsford in 1920, utilizing the abundant lumber of the area to make wooden automobile body parts. Ford's presence in the County affected land use in a number of ways.

The community of Kingsford, first a village and then a city sprang up around the complex. Kingsford was incorporated on lands formerly within Breitung Township, and was named for E. G. Kingsford, the first manager of the Ford plant. The Breitung and East Kingsford additions in Breitung Township were also established at this time. The Ford Motor Company built homes for plant employees, which were later sold to those employees. Following the closure of the plant in 1951, the City of Kingsford was left with a huge industrial complex. This complex now houses a number of industrial tenants.

Transportation patterns were influenced by natural features, and in turn influenced land use patterns. The existing railroads in Dickinson County are remnants of the early rail network developed in the Upper Peninsula to carry timber and iron ore to ports for shipment. Highways often followed railroads, as cars and trucks became the primary mode of transportation and abandoned rail lines parallel many of Dickinson County's roads today.



## CHAPTER 5.0-LAND USE

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### 5.1 Historical Land Use Patterns continued

As the forests were cut over, families moved into Dickinson County and other areas of the Upper Peninsula, attracted by the promise of inexpensive land for farming. Many of them found that the land was covered by huge stumps, with soils which proved to be unsuitable for agricultural operations. Agricultural operations were successful in some areas of the County, and farming was once a significant land use in Breitung Township. Today, there are no agricultural ventures operating in the Township, with the exception of several small scale hobby farms.

### 5.2 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, changing technology, and market conditions. Changes in lifestyles, family size and structure, 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 may be reflected in shopping habits, housing preferences, employment patterns, and leisure time activities. From a land use standpoint, some pertinent issues include the recent preference for large homes situated on large land parcels, the apparent willingness of individuals to endure the time and costs associated with lengthy commuting distances to work, and the growing market for housing specifically designed for elderly residents - particularly those residing for only part of the year. The preference for larger homes on bigger parcels has resulted in residential development outside of platted areas of Breitung Township in recent years.

## CHAPTER 5.0-LAND USE

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### 5.2 Factors Affecting Land Use continued

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

Federal legislative actions have created a number of loan 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, the Michigan Zoning Enabling Act, PA 110 of 2006, and consolidated planning enabling legislation, the Michigan Planning Enabling Act, 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.

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

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 scattered 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.

## CHAPTER 5.0-LAND USE

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### 5.2 Factors Affecting Land Use continued

Taxation and land values play a part in many land use decisions. Families may move from urban areas because they feel that they are willing to trade off lower taxes and user fees for fewer municipal services and increased distance from employment, shopping and schools. Land may be less expensive in rural areas, thus making such residency decisions even more attractive. Commercial and industrial enterprises are generally less willing to forego municipal services such as water and sewer, which in effect often limits large-scale commercial and industrial development in rural areas. They are also more likely to locate in areas of concentrations of population rather than in very rural areas. In any situation, however, tax rates and land values will be very important considerations.

Technological advances such as computer networking, cellular telephones, facsimile machines, voice mail, teleconferencing (including video), and electronic mail gives businesses location options that were previously not practical. Often the quality of life associated with these rural locations is an additional attraction.

Low density developments that start at the edges of cities and villages and spread outward are most commonly called “sprawl.” Post World War II development has seen traditional urban development give way to low density urban and suburban growth. Development of this type is more often than not poorly planned, automobile-dependent, and designed without regard to the impact on the surrounding area or the economic costs associated with building a new infrastructure. Beyond consuming a lot of land, sprawl impacts traffic congestion and air quality, the economic condition of traditional downtown areas, and the overall character of a community. Sometimes government policies and practices encourage sprawl because of requirements regarding lot size, setbacks, etc. The effects of land use patterns of this type should be carefully considered in future planning activities.

### 5.3 Land Use Inventory

Land cover is the natural landscape recorded as surface components: forest, water, wetlands, urban, etc. Land cover can be documented by analyzing spectral signatures of satellite and aerial imagery. In 1978, the Michigan Resource Information System (MIRIS) Land Cover 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. Updating the MIRIS land use information is necessary to identifying trends in land use and developing plans to encourage or discourage what is taking place. The broad categories are depicted on Map 5-1, Land Use and Figure 5-1.

## CHAPTER 5.0-LAND USE

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### 5.3 Land Use Inventory continued

Forest: Although the majority (65.8 percent) of Breitung Township's 43,416 acres is forested, according to the Current Use Inventory, this proportion is the lowest of any Township in Dickinson County. Only the three cities have a lower percentage of forestland, reflecting the development adjacent to the urban area in Breitung Township.

Agricultural: Lands used for the production of food and fiber is identified as the third-largest land use category in Breitung Township. A total of 2,924 acres, or 6.7 percent of Breitung Township, are in agricultural production. However, lands in active agriculture production are significantly lower than the MIRIS data indicates; there are no large-scale active agricultural operations in the Township at this time.

Wetlands: Wetlands represent a relatively minor portion of the Township's land cover, at 1,487 acres or 3.4 percent. Most of the wetlands are concentrated along streams, such as Pine Creek, and lakes, including Antoine, Fumee and Moon lakes. These areas can pose significant constraints on development in some areas, due to state and federal regulations and the general unsuitability of wetlands for many types of development.

Urban and Built Up Areas: Urban and built up land is a general land use category that encompasses "developed" land uses such as residential, commercial, extractive, institutional and industrial. County-wide, this category comprises a relatively small proportion, totaling 12,964 acres, or 2.6 percent due to the large number of forested lands in the County. However, this land use category is important because it contains the majority of the residential, commercial and industrial uses and because the density and type of uses within this category have the most potential to adversely impact the environment. County-wide, most of this cover type is located in the Iron Mountain-Kingsford-Norway urban corridor, although all of the townships in the County contain areas of residential development. In Breitung Township, urban and built up lands are the second-largest category of land use.

Urban and Built Up Lands continued: On a percentage basis, Breitung Township contains the greatest concentration of urban and built up land of any township, at 10.3 percent or 4,486 acres. The majority of the urban and built up land in Breitung Township is residential in nature.

Other uses included in urban and built up lands are commercial; industrial; transportation, communications and utilities, such as airports, railroads, highways, etc.; open pit mining areas, such as gravel pits, quarries, mines, etc.; and lands devoted to outdoor recreation, cemeteries and other forms of open space. The majority of the Township's industrial acreage is occupied by Verso Paper and the Township's Industrial Park.

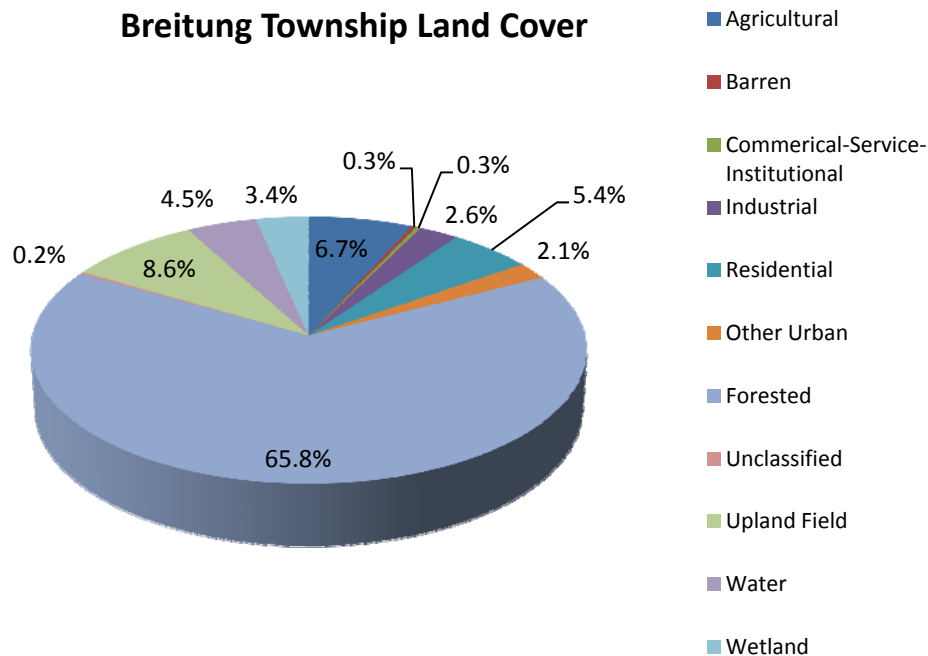
## CHAPTER 5.0-LAND USE

### 5.3 Land Use Inventory continued

**Nonforested:** Nonforested lands make up 8.6 percent, or 3,738 acres of the Township. This is the third-largest category of land use in the Township. These lands are open lands or rangelands, characterized by grasses and shrubs, but not including those lands showing obvious evidence of seeding, fertilizing or other agricultural practices. Nonforested lands are not generally a significant factor in the land use patterns in most local units. Some of the nonforested areas in Breitung Township have been converted to urban and built up since the Current Use Inventory was first completed.

**Water:** 4.5 percent of Breitung Township, or 1,965 acres, is classified as water, in the form of streams, waterways, lakes and reservoirs. These areas have an effect on adjacent land use, by supplying sites for water-dependent industry, water-based recreational sites, and residential or commercial development. Many inland lakes and rivers offer public recreational access. The high percentage of water in Breitung Township reflects the portion of the Menominee River lying within the Township, as well as numerous lakes.

**Barren:** The smallest category of inventoried land use or cover in the Township is barren lands, or beaches, riverbanks, sand dunes and exposed rock. Exposed rock accounts for all of the 131 acres of barren land in the Township, which is located in the east central portion of the Township.



<b>Table 5-1 Breitung Township Land Acreage</b>	
<b>Usage</b>	<b>Acres</b>
Agricultural	2924.059
Barren	131.448
Commercial-Service-Institutional	126
Forested	28577.275
Industrial	1112.504
Other Urban	898.255
Residential	2349.863
Unclassified	106.165
Upland Field	3738.465
Water	1964.794
Wetland	1487.366

Source: Michigan Resource Information System

Choosing where to live is a major decision that has a profound impact on a household's ongoing financial burdens, daily activities and opportunities, social connections, health and safety, in addition to costs imposed on others. For the last five decades most Americans associated low-density, automobile-oriented residential locations with positive aspirations including economic success, security, cleanliness, quiet and privacy. Services are generally provided on a consolidated, regional scale and require automobile access. Residential land use in Dickinson County occurs primarily in the Iron Mountain-Kingsford-Norway urban corridor, with other concentrations of residential development located in small, unincorporated communities throughout the County. Additional residential development is located along highways and in scattered subdivisions outside these communities. Seasonal residential dwellings are found on both waterfront and inland properties; these seasonal dwellings range from relatively primitive "camps" used primarily for fishing and hunting, to multi-bedroom units suitable for year-round habitation.

The community of Quinnesec contains the oldest residential areas in Breitung Township, dating back to the turn of the century, while East Kingsford and Skidmore were established in the 1920s. Newer residential development has also occurred in these communities as they have expanded over the years. Older homes in these areas have been updated and remodeled over the years. There are several buildable residential lots available in Quinnesec and Skidmore. New residential development has idled in recent years, coinciding with the nationwide economic downturn.



## CHAPTER 5.0-LAND USE

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### 5.4 Residential Land Use continued

Recent residential development is found along lakes, the Menominee River, and in areas north and west of the cities of Iron Mountain and Kingsford. The newer subdivisions and residential developments reflect the trend of residential development on the outskirts of urban areas. Most of these areas contain large homes on large lots; when situated along lakes or rivers, the homes have a view of the water. There are many subdivisions plats in the Township, including Dow's Riverside Subdivision, Timberlane Subdivision, Skidmore's Addition, Pine Ridge Estates, Deer Lake Subdivision, Fumee Estates, Moon Lake Subdivision, Bass Lake Estates, Menominee Shores Estates and Heritage Oaks Estates for example. Intermittent development is now occurring throughout the Township, much on lands that were formerly used for agriculture. Much of the new residential development is occurring as lot splits; there has not been a platted subdivision created in Breitung Township within the past five years. The development is generally occurring in areas not currently served by municipal water and sewer service, and relies on private wells and septic systems. In some cases, these new residential developments are served by gravel roads.

Breitung Township's rapid population growth over the past 40 years reflects changes in residential land use patterns. Until the 1970s, most people who lived outside of cities and villages lived on farms and woodlots, and derived at least a portion of their income from the land. Most parcels were relatively large, and the density of development was very low. By the 1970s, however, people began to move out of cities throughout the country, seeking to escape the traffic, congestion, crime and perceived high costs of urban life. In some cases these individuals were interested in maintaining a somewhat rural lifestyle, with so-called "hobby farms" where they could raise a garden and perhaps keep a few animals. In many other cases, however, families moving into the rural area continue to work and shop in the urban areas, and participate in the same activities they did when they lived "in town."

The potential concerns associated with this type of development are related to the expectations of people moving to these outlying areas. Often they expect to receive the same level of services they would enjoy in a more urban area, although the cost of providing those services may be much greater in rural areas. For example, most residents expect garbage pickup at their homes, expect roads to be plowed promptly, and take for granted that fire and other emergency services will be readily available. They also often want the rural character of the community to remain the same, not realizing that the cumulative effect of development in these outlying areas can create some of the same problems they hoped to escape when leaving the urban area. In areas where development exceeds the capacity of the site to support on-site wells and septic systems, groundwater contamination can occur, and septic systems can fail. In such cases, residents often look to local governments to help provide a solution in the form of public water or sewer systems. Such systems are very expensive, and may not be cost-effective to operate in areas of low density development. There have not been issues in Breitung Township concerning services in outlying areas at this time.



## CHAPTER 5.0-LAND USE

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### 5.4 Residential Land Use continued

Land use conflicts are also possible when this new residential development locates in agricultural areas. The conversion of farmland to other uses is one concern, as is creating “landlocked” areas as a result of splitting off a row of lots with road frontage along the edge of a large parcel. New residents in agricultural areas may not be prepared for the realities of rural life, such as the hours of operation, sounds and odors associated with farming. In Breitung Township’s case, it appears that significant conversion of agricultural land has taken place in past years.

The scattered nature of development in the Township means that the cost of providing services is relatively high compared with more densely developed areas such as East Kingsford and Skidmore. Subdivisions developed in the past 20 years include Timberlane, west of Fumee Lake; Fairwood and Menominee Shores near the Menominee River; Deer Lake; Star Lake; and new homes off County Road 607 on Birch View and Birch Ridge roads and Heritage Oaks was developed in 2001.

While Breitung Township experienced rapid residential growth over the past 40 years, that growth has tapered off recently. Most residential development has occurred via lot splits and the development of additional subdivisions has slowed. Breitung Township has adopted a Land Division Ordinance, to prevent the creation of parcels of property which do not comply with applicable ordinances and the Land Division Act, to minimize potential boundary disputes, to maintain orderly development of the community, and otherwise provide for the health, safety, and welfare of the residents and property owners of the Township by establishing reasonable standards for prior review and approval of land divisions within Breitung Township.

### 5.5 Commercial Land Use

As with residential development, the highest concentration of commercial land use is located within the Iron Mountain-Kingsford-Norway urban corridor. Iron Mountain and Kingsford are the primary providers of commercial services to Dickinson County and beyond. The Midtown Mall, anchored by Super One, the Birchwood Mall, anchored by J.C. Penney, and major retail stores (WalMart, K-Mart and Shopko) provide retail shopping. A variety of general and specialized retail establishments are located along the highway corridors. The majority of the urban area’s retail and service establishments are located along US-2/141 (Stephenson Avenue in Iron Mountain) and M-95 (Carpenter Avenue in Kingsford). The commercial development along US-2/141 extends outside the City of Iron Mountain into Breitung Township to both the north and east. In fact, the highway corridor from Iron Mountain through the City of Norway and the community of Vulcan contains a significant amount of commercial development. Most of this development outside the cities consists of businesses which need large lots and benefit from highway exposure, such as recreational vehicle dealers, car dealers, etc. A movie complex, large home improvement retail store, large auto dealership and the Dickinson County Hospital have been developed along this corridor.

## CHAPTER 5.0-LAND USE

### 5.5 Commercial Land Use



Meat Processing and a firewood processing business have opened within the last several years east of Quinnesec.

The Iron Mountain segment is the location of newer establishments. Developments have included Home Depot, Advanced Auto Parts, Country Inn and Suites and First National Bank of Iron Mountain. This segment is the “eastern entrance” to the City of Iron Mountain. Within the City limits of Iron Mountain at



this commercial area one also finds the Wal-Mart store, gas stations, restaurants and the K-Mart Plaza. The parking lots serving these three separate shopping areas (Home Depot, Wal-Mart and K-Mart) are connected to each other. Controlled access onto US-2/141 is at the K-Mart Plaza parking lot entrance. The US-2/M-95 corridor north of Iron Mountain also contains some commercial uses, such as a motel, propane gas distributor, car dealership, gravel contractors, construction companies, well driller, knife showroom, engineering firms and retail stores.



Commercial expansion along US-2 east of Quinnesec is limited to some extent by the large amount of property owned by Verso Paper Corp. However, there are still sites available for development including the Township’s Industrial Park. US-2 through this corridor to the City of Norway is a 5-lane highway with a center left turn lane and a 55 mile per hour speed limit. Development which results in a significant increase in turning incidents has the potential to increase the risk of accidents and result in a need for additional traffic controls, such as lower speed limits and/or traffic lights. Breitung Township participated in the development of the US-2/US-141/M-95 Access Management Action Plan and the Breitung Township Zoning Ordinance was amended to include access management regulations.

## CHAPTER 5.0-LAND USE

### 5.6 Industrial Land Use

Industrial uses in Dickinson County generally occur in close proximity to water and transportation corridors. As with commercial uses, industrial uses are generally concentrated in the urban corridor. The cities of Iron Mountain, Kingsford and Norway contain a diverse manufacturing base. The Norway-Vulcan Industrial Park east of Vulcan has several occupants, with available lots remaining. Some industrial land uses exist in other areas of the County. Other industrial uses are located in East Kingsford and along US-2 north of Iron Mountain. These industrial uses include a lumber mill, trucking company, contracting firm, well driller, log homes builder, etc. Other industrial operations in Breitung Township include a lumber mill, trucking operations, a large construction contractor, gravel pits, a well drilling operation and log home dealers.

The most noticeable industrial use in Breitung Township is the Verso Paper Corp. pulp and paper mill located just east of Quinnesec south of US-2. Construction of the pulp mill began in 1981, with the first pulp produced in December 1985. Construction of a paper machine began in 1988 and was completed in 1990. A \$45 million renewable energy project was



Verso Paper Corp., US-2

completed at the mill in early 2012. The project includes design upgrades to the mill's existing combination boiler (which burns biomass from waste wood sources), a new biomass handling system, and a new turbine generator. The project is delivering 28 megawatts of additional green energy for consumption within the mill, which is equivalent to the amount of electricity consumed by 18,000 homes in a year. Verso Paper Corp. also owns most of the property south of US-2 from Quinnesec east to the Township boundary, over 2,000 acres, and several thousand acres of forestland in Breitung Township.

Opportunities for additional industrial development exist at the newly designated 34-acre Breitung Township Industrial Park. The Industrial Park is located immediately north of Verso Paper's Gate 1 on US-2. The Township has begun actively marketing the sale of parcels in the industrial park. A 12 acre site is currently developed with buildings on site. Acuren Inspections purchased the 12 acre site in late 2011 and plans to utilize the existing buildings as a training facility for industrial inspections. Approximately 60-80 jobs are expected to be created. There is potential for a second business to move into the park as well. The park is presently undeveloped; roads and infrastructure, particularly gas, water and sewer systems need to be installed. Internet service is available throughout the entire park. The Township has just recently begun marketing the sale of parcels in the industrial park.

## CHAPTER 5.0-LAND USE

### 5.7 Forestry and Agricultural Land Uses

The predominance forest cover types in Dickinson County are northern hardwood, aspen/birch and lowland conifer. In Breitung Township, the majority of the forested acres are aspen/birch, followed by northern hardwood. These are found on both public lands managed by the State of Michigan and private lands. Timber from public lands is sold to private firms, who then log the areas in accordance with guidelines set by the managing agency. These areas are then generally replanted with trees to begin another cycle of forest production, although in some instances areas are left to create openings in the forest for wildlife habitat. Not all public lands are available for commercial timber production; harvest in some areas is restricted or prohibited in order to protect wildlife, recreational, wilderness or research values.

Private landowners, both large and small, own forested areas within Breitung Township and throughout Dickinson County. These areas range from thousands of acres owned by area pulp and paper companies to small woodlots owned by private individuals. These lands are generally managed to provide raw material to local woods products industries.



Farm in Breitung Township

The agricultural areas were located in the eastern portion of the Township, but are no longer actively farmed. Agricultural uses are generally located in the southern portions of Dickinson County, with about 1,000 acres actively farmed in Breitung Township. The 2007 U.S. Census of Agriculture indicated that there were 161 farms in Dickinson County, totaling 24,889 acres, while the 2002 U.S. Census of Agriculture indicated that there were 146 farms, totaling 28,658 acres. Agricultural products from farms in Dickinson County include field crops such as hay, barley, oats and potatoes; dairy products; and livestock, including beef cattle, hogs and pigs and poultry. One of Michigan's pioneer dairy herds was auctioned off from the Edelweiss Dairy Farm in 2010.



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As shown in Table 5-2, the number of farms in Dickinson County has increased since while the average farm size has decreased. The total acreage devoted to farming has decreased by about 5,121 acres between 1997 and 2007. The average age of the principal farm operator is shown to be increasing. The report shows that slightly more than two-thirds of the farmers list a principal occupation other than farming.



**Table 5-2**  
**Agricultural Trends in Dickinson County, 2007, 2002 and 1997**

	2007	2002	1997
Number of farms	161	146	134
Total acreage in farms	24,889	28,658	30,010
Average farm size in acres	155	196.3	223.9
Acreage of Cropland	12,404	13,855	13,912
Market value of products sold			
Total	\$4,565,000	\$3,767,000	\$3,795,000
Average per farm	\$28,353	\$25,798	\$28,324
Operator's principal occupation			
Farming	53	72	51
Other	108	74	83
Average age of farm operator	57.1	54.3	52.5

Source: U.S Census of Agriculture, 2007, 2002, 1997.

Public land uses in Breitung Township include parks, public buildings, the airport, schools and tracts of publicly-owned lands. Many of these uses are discussed in more detail in other chapters of this plan; however, the land use considerations associated with these uses will be discussed here. Parks in Breitung Township include Lake Antoine County Park and Twin Falls Park, operated by Wisconsin Electric Power Co., as well as ballfields and other recreational facilities at Quinnesec, East Kingsford and Deer Lake. There are also large tracts of state land available for hunting, fishing, hiking and other forms of outdoor recreation.



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Dickinson County owns 1,808 acres surrounding Fumee Lake, which is open for non-motorized recreation and 25 acres at Lake Antoine Park. In terms of land use, local parks and public lands provide recreational facilities for residents, as well as maintaining green space and public space in areas which may otherwise be relatively densely developed.



Larger regional parks, while continuing to provide recreational opportunities and green space, also attract visitors from a wider area. Such areas have the potential to create more conflicts with adjacent uses, in terms of traffic, parking, hours of operation, noise, etc. Public buildings in the Township include the Township Hall and fire stations and are discussed in detail in Chapter 6, Public and Community Facilities. As a general rule, these buildings are located in or near population centers, and do not occupy large tracts of land. Their primary impact on land use is related to traffic and parking.

The Ford Airport occupies a large tract of land in the City of Kingsford and Breitung Township (237 acres). The presence of the airport affects land use in adjoining areas in several ways. The need to maintain a clear zone around the runway restricts the siting of tall structures or industries which might produce emissions which interfere with visibility for aircraft; noise, vibration, lights and traffic associated with airport uses may affect the desirability of adjacent properties for residential development; and roads and streets must be routed around the airport proper, which may interfere with local transportation patterns. These effects all vary depending upon the number of takeoffs and landings, the size and type of aircraft which use the airport, and the overall airport size. In its present configuration, the Ford Airport appears to have little adverse impact on nearby residential development or on the siting of industrial operations. Transportation facilities are adequate to support traffic to and from the airport.



The City of Kingsford owns 40 acres situated adjacent to the Ford Airport. This undeveloped parcel is being held by the city for future consideration. Possible uses are as a water supply source, vehicular access, and residential development.

Examples of quasi-public land uses include churches, golf courses and similar facilities that are owned by private enterprise, but are open to the public. These uses generate increased traffic on a seasonal, occasional or intermittent basis, and by providing facilities and services which meet the needs of local residents, contribute to the quality of life of communities and neighborhoods. The presence of quasi-public facilities such as golf courses can also affect property values.

## CHAPTER 5.0-LAND USE

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As discussed earlier, land ownership in Dickinson County and Breitung Township has a significant effect on land use. Large tracts of land in public ownership mean that less land is available for private development. However, public lands often provide many of the amenities which attract residents to rural areas in the first place -- wildlife habitat, green space, scenic beauty, etc. While public lands are not available for private development, it should be pointed out that in many cases public lands are those which are less suited for intensive development. Some areas contain wetlands, unstable soils, or other environmental constraints. Finally, much of Breitung Township's public land is located at a distance from major transportation corridors, commercial areas, etc., which tend to attract development. Much of the Township's state-owned land is part of the Copper Country State Forest.

In addition to the approximately 5,500 acres of state land and 1,880 acres of county, city and township property in Breitung Township, about 7,700 acres of land in the Township are in corporate ownership. Of this corporate ownership, about 2,700 acres are designated as Commercial Forest Reserve under the Commercial Forest Act.



The commercial forest program provides a property tax reduction to private landowners as an incentive to retain and manage forestland for long-term timber production. Landowners participating in this program pay a reduced property tax. Additionally, the State of Michigan pays \$1.20 per acre annually to each county where land is listed in the program. Lands listed in this program are open to the public for hunting, trapping and fishing only. When the timber is harvested, or if the owner wishes to build a camp or residence on the property, the land must be removed from CFR status. Commercial forest lands are private lands under the control of private owners. Landowners include private individuals, clubs, forest industry, and other businesses and are required to have an approved forest management plan. Tracts of commercial forest land are dispersed throughout the township, held under multiple owners. Major corporate landowners in Breitung Township include Verso Paper, Niagara of Wisconsin Paper Company, International Paper Company and WE Energies.



## CHAPTER 5.0-LAND USE

These large tracts of land that are open for public use provide hunting, fishing and other outdoor recreational opportunities which attract visitors to the area, in turn providing potential customers for retail and service businesses and impacting transportation patterns. Therefore, even though the use of these lands does not include intensive development, development in other areas may be encouraged as a result of the presence of public lands. A less tangible effect is the impact on the overall quality of life in Dickinson County -- few would argue that the lakes and forests of the area make the County a more desirable place to live.

The Michigan Department of Environmental Quality maintains a listing of contaminated sites in accordance with Part 201 of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. These environmental contamination sites are locations at which contamination of soil, groundwater, surface water, air or other environmental resources is confirmed, or where there is the potential for contamination of those resources due to site conditions, site use, or management practices.

The most recent list of Michigan Sites of Environmental Contamination includes five sites within Breitung Township. This represents approximately 23 percent of the sites found in Dickinson County. These sites are shown in Table 5-3; the site name is assigned for identification purposes only and is not necessarily a party responsible for contamination.

<b>Table 5-3 Part 201 Sites of Environmental Contamination, Breitung Township</b>				
<b>SITE NAME</b>	<b>LOCATION</b>	<b>CONTAMINATION</b>	<b>SCORE</b>	<b>STATUS</b>
Central Landfill Authority	T39N, R30W, Section 6	Ferric chloride, acids, industrial waste	19 out of 48	Interim Response in progress/ Contact Lead division for current status
Champion International Forest Products Garage	T39N, R30W, Section 14	PCB's	31 out of 48	Delisted- no longer meets criteria specified in rules
East Kingsford Iron and Metal	T39N, R30W, Section 7	PCB's, Metals	40 out of 48	Contact Lead division for current status
Champion International, white liquor	T39N, R30W	Na; PH	26 out of 48	Inactive- no actions taken to address contamination
Easton Estates	City of Kingsford and Breitung Township	Methane	44 out of 48	Interim Response in progress

Source: Michigan Department of Environmental Quality, February 1, 2012

## CHAPTER 5.0-LAND USE

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### 5.10 Contaminated Sites continued

From a land use standpoint, the presence of environmental contamination represents a constraint on future development, as well as a threat to human health and safety. In addition to affecting a specific site, some contaminants can enter groundwater and cause more widespread problems, such as water well contamination. It is desirable to identify and remediate contaminated sites in a timely manner, in order that potential hazards and land use constraints be removed. In terms of future land use decisions, it is important that decision makers are aware of the potential for certain types of land use to cause environmental contamination. Most of the sites of environmental contamination identified in Dickinson County are the result of past land use practices, and this illustrates that even when legal and accepted land uses are undertaken, the possibility of future impacts exists. Sometimes the relationship to past land use practices is indirect, as in the case of the Eastland Estates site. Large quantities of wood and other wastes were dumped in pits and covered many years ago.

The wastes by themselves are not actually hazardous; however, as these materials decompose, they give off methane gas. The gas then enters the groundwater layers, and rises toward the ground surface wherever permeable soils or openings exist. Problems affecting land use arise when these areas are developed. Basements and foundations create impermeable areas which trap the methane below ground; as it seeks to rise to the surface, the gas can enter basements through floor drains or other openings and become concentrated. One house in this area actually exploded in the early 1990s due to a buildup of methane in the basement, and the occupant was severely injured. Although this site is located primarily in the City of Kingsford, methane has been discovered in some areas in Breitung Township.

The USGS, USEPA and MDEQ are working together to identify the extent of the problem and identify alternative solutions. Area residents have been provided with methane detectors, and have been educated regarding the dangers of methane and appropriate safety precautions. A judicial settlement between the Michigan Department of Environmental Quality and Ford Motor Company and Kingsford Products Company will resolve the a long-term environmental contamination problem. The settlement includes methane monitoring, vapor control systems and annual inspection for structures within the affected area. A treatment facility near the Menominee River will provide for the cleanup of contaminated groundwater by treating contaminated groundwater prior to being released into the river.

Leaking underground fuel storage tanks have become a concern throughout the country in recent years. Many fuel tanks which were in compliance with all installation guidelines at the time they were installed have deteriorated and allowed fuel to contaminate the surrounding soil. New guidelines for installing underground fuel tanks have been implemented, and efforts are underway to identify and clean up leaking tanks. Although numerous leaking underground storage tanks have been found in Dickinson County, none are currently identified in Breitung Township.

## CHAPTER 5.0-LAND USE

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### 5.11 Land Use Trends

Breitung Township appears to be absorbing the majority of the residential growth in the Iron Mountain-Kingsford-Norway urban corridor. Windshield surveys show that numerous new subdivisions have been developed over the past twenty years, along with new residential development outside of subdivisions. Recent residential development is mainly occurring outside of platted areas in the Township. The Township's proximity to the cities and the presence of the Menominee River and numerous lakes help to make the area more desirable.

While this development has added to Breitung Township's property tax base, studies in other parts of the state have indicated that much new residential development does not generate enough new tax revenue to cover the cost of providing services. In the case of development in areas where sewer and water are not available, the costs of providing services may not be that high at this time; however, if additional services are needed in the future, the scattered nature of this new development could make provision of municipal services very expensive.

There are some areas with mixed land uses which potentially may result in land use conflicts. An example includes areas of mixed industrial and residential use in Skidmore-East Kingsford. In recent years, all existing large scale agricultural activities have ceased operation in the Township. All significant farmland has been converted to residential uses in recent years.

Because of the presence of large tracts of public and corporately-owned lands in the northern part of the Township, new development will probably continue to be concentrated in the southern portion of the Township. The proximity to transportation corridors, shopping and other amenities also influences this trend. Due to the lack of public transit and the nature of local employment and commuting patterns, future development will continue to be oriented towards the private automobile.

### 5.12 425 Agreements

In 2007, Breitung Township and the City of Iron Mountain entered into two conditional property transfer agreements, better known as 425 agreements. Public Act 425 of 1984, the Intergovernmental Conditional Transfer of Property by Contract Act, as amended, permits the conditional transfer of property by contract between certain local units of government. The property may be conditionally transferred for a period of not more than fifty years for the purpose of an economic development project. The purpose of Act 425 is to provide for a means for two local units of government to share tax revenues resulting from new or expanding development in the areas of their jurisdiction. The agreement creates a temporary transfer of jurisdiction for the affected land rather than an outright annexation.

## CHAPTER 5.0-LAND USE

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### 5.12 425 Agreements continued

PA 425 came into being because annexation is legally difficult, tends to pit neighbor against neighbor and because important economic development projects for regions became victims of a lack of annexation cooperation. Land transfer is sometimes needed for properties that lack infrastructure necessary to support economic development projects. Additionally, leadership at the State level has proposed that local governments explore opportunities to share services as a key criterion for receiving a larger amount of available revenue sharing dollars. Typically, developers propose construction projects necessitating public services from the Township and then need to find a means to provide these services independently or by obtaining them through nearby City utility systems.

The agreement for Area I (see Map 5-2, Breitung Township/Iron Mountain 425 Agreement), in effect until November 1, 2020, requires that a property owner or interested party with consent from a property owner request water or sewer services to build a new economic development project or to improve an existing development and the City finds that it has the capacity to provide such service to that property; there is sufficient private funding or mutually agreed upon public financing to run the water or sewer main to the property or; the property owners are able to pay the cost of service laterals and all applicable fees and charges to connect the property to the water and/or sewer systems. The City will then provide water and/or sewer service to the property in return for the conditional transfer of that property from the Township to the City. For Area I, upon expiration of the agreement, the transferred property shall remain within the jurisdictional boundaries of the City.

The agreement for Area II (see Map 5-2, Breitung Township/Iron Mountain 425 Agreement), differs from the Area I agreement. The agreement requires that if a property owner or interested party with consent from a property owner request water or sewer services to build a new economic development project or to improve an existing non-residential development use; or sells a parcel containing any existing non-residential use; or changes any existing residential use to a non-residential use, the owner shall submit a written request to the City and Township to effectuate the conditional transfer of that parcel to the City. If the City has the capacity to provide water and sewer service to the parcel and there is sufficient private funding to construct the services, the City shall provide the services in return for the conditional transfer of the parcel from the Township to the City. The Area II agreement is in effect for fifty years and upon expiration of the agreement, the transferred property shall remain within the jurisdictional boundaries of the City for all purposes. All properties that are currently occupied and used as single family residential or mixed use residential/commercial that remain single family residential or mixed use residential/commercial shall then revert to the jurisdiction of the Township.

## CHAPTER 5.0-LAND USE

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### 5.12 425 Agreements continued

There are also specific provisions regarding the sharing of tax revenues for both agreements. To coincide with the 425 Agreements, Breitung Township and the City of Iron Mountain also entered into an agreement for the Township to purchase water and sewer capacity from the City to service land in the Utility Service District. At this time, Breitung Township and the City of Iron Mountain have not conditionally transferred any of the parcels in either 425 agreement and services have not been extended for economic development purposes. The two communities have met jointly and should continue to hold discussions on the two 425 agreements to determine the best possible outcome for each entity and property owners in the property transfer areas. Both agreements require that the Township and City meet every five years to review and discuss potential amendments. The agreement for the purchase of water and sewer disposal services requires the development of a Joint Planning Commission for Area II to develop and maintain a plan and zoning regulations for Area II for the duration of the Area II 425 Agreement; this has not been completed at this time.

### 5.13 Issues and Opportunities

- Changing lifestyles and family structure, together with the general aging of the population, will affect future land use patterns. Examples of potential impacts include increased demand for residential development which requires little or no maintenance on the part of the occupant, and which is located close to shopping and services; clustering residential and commercial development together to minimize commuting and the dependence on automobiles; or development of facilities which cater to the needs of elderly residents who cannot remain in their own homes but who are not ready for nursing homes, etc. This may result in increased development of multiple-family housing, condominiums and planned unit developments.
- Changing land use patterns, particularly the increased residential and commercial development in the Iron Mountain-Kingsford-Norway urban corridor, have resulted in increased demand for driveway permits along US-2 between Norway and Iron Mountain. This increased development could result in increased traffic congestion and potential safety hazards as turning incidents on the highway increase. Breitung Township has adopted zoning regulations to address access management.
- There will be demand for increased commercial development along the US-2 corridor adjacent to the City of Iron Mountain; the lack of water and wastewater infrastructure will somewhat limit commercial development in the Township.
- Sites of environmental contamination limit future use of those sites, and may affect existing and future development in nearby areas.

## CHAPTER 5.0-LAND USE

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- The Breitung Township Board recognized the need to provide area for industries to locate in. A 34-acre site on US-2 has been designated as an industrial park, with several businesses moving into the park recently. Additional space is currently available in the industrial park.
- Breitung Township should continue discussions with the City of Iron Mountain regarding the two 425 Agreements dealing with the conditional transfer of land for economic development projects and the water/sewage disposal services contract signed by both entities. The establishment of a Joint Planning Commission to develop a Master Plan specifically dealing with these areas would be beneficial.

## CHAPTER 6.0-COMMUNITY FACILITIES AND SERVICES

### 6.1 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, municipal water and wastewater systems and solid waste disposal. Community facilities include local government buildings, libraries and maintenance and storage facilities.

As a part of the master planning program, Breitung Township's community facilities and services are described and evaluated as to their present condition and adequacy to meet the present and future needs of the community. The major community facilities are identified on Map 6-1, Community Facilities.

### 6.2 Township Hall

The Breitung Township Hall, located at 3851 Menominee, Quinnesec was constructed in 1933. It contains a meeting room, room, restrooms, full kitchen facilities and a basement in addition to offices for Township Supervisor, Clerk, Treasurer, Superintendent, Assessor and water department. Township governmental meetings are held at the Township Hall, including Township Board, Planning Commission and Zoning Board of Appeals.

The Township Hall has undergone expansions and renovations in 1974 and 2003. The most recent renovation was the result of renovating the former Department of Public Works area. The DPW occupied an area in



the rear of the building. With the construction of a new DPW facility in 2003, the vacated area allowed the Township to convert the space into a large meeting room along with restrooms, mechanical room and storage room. The area that was previously used as a meeting room was converted into office quarters for the Clerk, Treasurer and Water Clerk. The Breitung Township Hall is ADA compliant. There is adequate space available at the hall at this time.

The meeting room has been used by local organizations, including area non-profit groups for meetings. The hall is no longer available for receptions or other social gatherings.



## CHAPTER 6.0-COMMUNITY FACILITIES AND SERVICES

### 6.3 Department of Public Works

Streets, water, sewer and park facilities are maintained by the Public Works Department. The department includes a superintendent, assistant superintendent and three full-time employees.



The Public Works Department building is situated on a one acre site on Menominee Street, directly across from the Breitung Township Hall. The facility was constructed in 2003 and contains a floor space of 16,000 square feet. New windows and insulation have been added to the facility since construction.

Features include:

1. General office area of 1,680 square feet with accessible men and women restrooms, lockers, showers, break room, testing and repair room, plans and blueprint room, tool crib, wood working shop, park equipment and supply area, janitor closet and laundry room
2. Maintenance area of 3,315 square feet with a 5-ton overhead crane, compressed air reels, lubrication dispensing equipment, parts washing and fume exhaust systems
3. Washing bay of 400 square feet equipped with a natural gas high pressure washer
4. Lubricant storage and distribution area of 240 square feet.
5. Vehicle storage area of 10,400 square feet.
6. Tool crib of 375 square feet.
7. Water department equipment and supply shop utilizing 200 square feet.
8. Mezzanine level of 2,130 square feet used for storage.

Current equipment needs for the DPW include a replacement backhoe.



## CHAPTER 6.0-COMMUNITY FACILITIES AND SERVICES

### 6.4 Cemetery



The Quinnesec Cemetery, established in 1879, is located on Menominee Street in Quinnesec. The cemetery consists of 29.2 acres being used for burials, with approximately five acres for future use. There are a few unsold lots in the 24.2 acre area. There is also a block of 240 burial sites that have not sold and will not be sold until the all of the main 24.2 acre area has been sold. The future area has been cleared and will need landscaping and work to the gravel roads before it is ready for use. The future area contains 1,728 burial sites.

The former caretaker's residence at the Quinnesec cemetery is used for storage of records and general storage. At this time the cemetery is not in need of an expansion or any additional equipment. Road improvements, including paving are ongoing and water service needs to be added to the future use area of the cemetery.

### 6.5 Township Industrial Park

Breitung Township has designated a parcel of land, located immediately north of International Paper's Gate 1 on US-2, as the Breitung Township Industrial Park. The area contains 34 acres and there is a 12 acre site that is currently developed with buildings on site. Acuren Inspections purchased the 12 acre site in late 2011 and plans to utilize the existing buildings as a training facility for industrial inspections. Approximately 60-80 jobs are expected to be created. There is potential for a second business to move into the park as well. The park is presently undeveloped; roads and infrastructure, particularly gas, water and sewer systems need to be installed. Internet service is available throughout the entire park. Breitung Township has just recently begun marketing the sale of parcels in the industrial park.



In 2011, the Township designated the industrial park as an industrial development district. This designation provides for tax abatements through the State of Michigan for eligible businesses. PA 198 of 1974 allows for the abatement of taxes on manufacturing and high-technology related investment. The incentive is available for improvements to buildings and structures (real property), as well as the purchase of machinery and equipment (personal property). The abatement is for a period up to 12 years.

## CHAPTER 6.0-COMMUNITY FACILITIES AND SERVICES

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### 6.6 Water and Wastewater Systems

Portions of Breitung Township are served by municipal water systems and a few homes also have municipal wastewater treatment. The remaining areas of Breitung Township utilize private wells and septic systems. The service areas for water and wastewater treatment services are shown on Map 6-1, Community Facilities. Future municipal water and wastewater expansions will rest with developers.

**Quinnesec:** Breitung Township provides municipal water service to about 500 residents in the platted area of the community of Quinnesec, with a supply system consisting of two wells and a 100,000 gallon in-ground storage tank. The storage tank is located at the end of Wales Street. The two operating wells provide adequate capacity. The distribution network in Quinnesec was upgraded in 1996 and pavement rehabilitation on affected streets was done in 1997.

The recent improvements to the Quinnesec water system have resulted in a savings of about 70,000 gallons per day, as a result of replacing old, leaky water lines. The water main north of US-2 serves the theater and Town and Country Ford.

**US-2 Corridor:** In 1993, the Township installed a test well near the Dickinson County Solid Waste Management baler facility. The test well provided strong indication of water available. Plans were to drill two wells with a system to serve the US-2 corridor to the western limits of the township (eastern limits of the City of Iron Mountain). The new facility would have a pump house and a ground storage tank. The test well would not be used for water production but serve to satisfy State requirement as an observation well. Gravity would provide sufficient pressure for the system. The system would be able to serve commercial developments occurring in the Township adjacent to the City of Iron Mountain. The system would also be able to provide additional fire protection, if necessary, to the Quinnesec system. The test wells were drilled, but the water project was never completed.

**East Kingsford/Skidmore:** The platted areas of East Kingsford and Skidmore are served by municipal water. Breitung Township owns the distribution system in this area, and purchases water from the City of Kingsford. Water was purchased from the City of Iron Mountain prior to 1996, but the connection was made to the Kingsford system as part of a water system improvement project in the Township. The connection was designed to allow the Township to reconnect to the City of Iron Mountain's system in the future if necessary. The East Kingsford system has no water storage and the distribution system generally consists of smaller than 2 inch to 8 inch mains, which are inadequate in size and restrict present water capabilities. The main distribution lines were updated to 12-inch mains in the summer of 1997.

## CHAPTER 6.0-COMMUNITY FACILITIES AND SERVICES

### 6.6 Water and Wastewater Systems continued

East Kingsford has a debt service replacement loan from the 1997 project on the system until 2016. Valves were repaired in 2010 and have improved system efficiency and lessened leaking. Undersized water mains are in need of replacement. The East Kingsford system is currently at a loss ratio of 18 percent due to aging pipes. Upon debt repayment in 2016, major water system replacements will be considered; until that time, necessary patching will take place. The Township does not contribute to the debt repayment; the water system debt is repaid through the utility bills.

**Wastewater:** The Iron Mountain-Kingsford Wastewater Treatment Plant serves the mobile home park, a few homes along Breen Avenue and Woodbine Street, the Skidmore area west of M-95, and one commercial development. This plant utilizes an aerobic secondary system, using bacteria to treat the wastewater. The plant is located in Breitung Township south of Kingsford.

Breitung Township residents rejected a bond proposal in 2009 to be used specifically on the installation of sanitary sewers, water mains and road paving. The Township was awarded a \$3.3 million grant and loan from USDA Rural Development for the installation of sanitary sewer (Phase I) from the Iron Mountain city limits on US-2 (near Home Depot), to Town and Country Ford in Quinnesec and along US-141 to the Breitung Cut Off Road and back to Iron Mountain. Approximately \$2.55 million of the \$3.3 million is a bond, and the dedicated millage would have been one source of repayment, in addition to special assessments, user fees and other financing tools. Phase II of the sewer project, which would have extended sanitary sewer infrastructure to Quinnesec was halted in 2010. A special assessment was also considered to repay the bond. The proposed service area contains a large amount of acreage but few property owners (approximately 28), resulting in high special assessments. Potential benefits of the installation of a sanitary sewer system include environmental quality improvements and encouraging additional development in the Township, increasing the tax base.

USDA requested that the Township make a decision on the funding. In November of 2011, the Township Board agreed to decertify the funds from USDA Rural Development. The wastewater extension project has been shelved at this time. Future wastewater system extension projects will likely be the responsibility of developers that will be using the service.

### 6.7 Fire Protection

Breitung Township maintains three fire stations (Quinnesec, East Kingsford and North Breitung) in the Township, located to minimize response time. The three fire halls also serve as the polling place for elections.



## CHAPTER 6.0-COMMUNITY FACILITIES AND SERVICES

<b>Table 6-1 Breitung Township Fire Stations</b>		
<b>Fire Station</b>	<b>Location</b>	<b>Service Area</b>
Quinnesec Fire Station	3800 Menominee, Quinnesec	Serves the community of Quinnesec and the Pine Creek and Lake Antoine areas
East Kingsford Fire Station	525 Breen Avenue, East Kingsford	Serves the area from East Kingsford to U.S. 141 and Hydraulic Falls Road
North Breitung Fire Station	Located adjacent to Eskil Park, about one mile north of the U.S. 2/M-95 intersection on M-95	Serves the area north of the City of Iron Mountain

Each of these fire stations houses a number of fire fighting vehicles. All of these units are in good operating condition; the Township Board has established the policy of setting funds aside for vehicle replacement.

Fire trucks housed at the different stations are:

### **Quinnesec Station:**

- 2001 International Pumper, 1,250 gpm pump, type A & B foams
- 1990 Mack Tanker, 3000 gallon capacity
- 1975 Ford Brush truck
- 1992 Rescue truck

### **East Kingsford Station:**

- 2001 International Pumper, 1,250 gpm, Type A & B foams
- 1985 Ford L8000 Tanker, 1,800 gallon capacity
- 1992 Ford F-350 Brush truck



### **North Breitung Station:**

- 2009 International Pierce 1,250 gpm pump and 1,000 gallon capacity
- 2003 Ford F-550 Rapid Attack 4-wheel drive Pumper, Type A & B foams
- 1989 International Pierce, 3,000 gallon capacity
- 1985 Ford F-350 Brush truck

The department would like to purchase a new tanker in the future.

## CHAPTER 6.0-COMMUNITY FACILITIES AND SERVICES

### 6.7 Fire Protection continued

In 2011, a 1,792 square foot addition was completed at the North Breitung Fire Hall. The addition provides a meeting place and a classroom setting for firefighters. The space will also be used as a voting place for north Breitung Township residents. Excavation, well expansion, concrete on both levels, bearing walls and a storage tank, along with a restroom



and mechanical room were part of the addition. There has been discussion about future plans for the East Kingsford Fire hall; there is a possibility of purchasing the abandoned store next door; as well as the potential to build a new fire hall in an alternate location. The finances for this project would come out of the future projects savings CD.

A total of thirty-nine volunteer firefighters staff the Breitung Township Fire Department. These volunteers are each assigned to a fire station; each fire station has a station chief, and the department is headed by a department fire chief. The township has mutual aid agreements with the communities of Florence County, Sagola Township, City of Iron Mountain and City of Norway. If requested, the Township Fire Department will respond to a fire in the City of Kingsford. In addition to the firefighting equipment maintained at each fire station, there is one dry hydrant in the Township, which can provide a source of water for firefighting purposes in outlying areas. The dry hydrant is located along Bass Lake Road (County Road 607) on Badwater Lake. Due to the expansion of residential development in outlying areas of the Township, the Township needs to consider additional locations for dry hydrants, or other viable water sources. The Township is currently working with WE Energies to install an electric pump hydrant on the Michigan side of the Twin Falls Dam in 2013.

Fire insurance ratings are determined by the Insurance Service Office (ISO) Commercial Risk, Inc. In rating a community, total deficiency points in the areas of evaluation are used to assign a numerical rating of 1 to 10. A rating of 1 indicates the best protection and a rating of 10 applies to properties located more than 5 miles from the responding fire department with no hydrants available. Many communities are assigned more than one rating because of water supply and response distance factors. The fire insurance rating for Breitung Township is 5/9 for Quinnesec and East Kingsford, and 9/9 for North Breitung. Where classified areas have a split classification, the determination of the first listed protection class is five road miles or less to the responding fire station and a hydrant within 1,000 feet, while the second listed class is five road miles or less to responding fire station, and no hydrant within 1,000 feet. If the parcel is over five miles from the fire department and there is no hydrant, the rating is "10".

## CHAPTER 6.0-COMMUNITY FACILITIES AND SERVICES

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### 6.7 Fire Protection continued

The Department of Natural Resources also maintains firefighting equipment, and has personnel trained to suppress wildfires. The MDNR's primary responsibility is for fire protection on state property; however, they will assist local fire departments with suppression of grass, brush and forest fires. Breitung Township also maintains a mutual aid agreement with the MDNR.

### 6.8 Law Enforcement

#### **Breitung Township**

Breitung Township does not have its own police force. In the past, the Township had contracted with the Dickinson County Sheriff's Department for two deputies for a combined 80 hours per week; the contract was later reduced to one patrol officer. The sheriff's deputies were responsible for traffic control and police protection. Breitung Township voted to end the deputy patrol position as of January 1, 2010. There is potential for the Township to fund a department of its own in the future.

The office of Township Constable was eliminated by the Township Board in 1999. Previously, there were two constables each elected for a four year term. The Constables were authorized to enforce local ordinances and perform inspections of liquor establishments.

Enforcement of the township ordinances has been delegated to the Township Superintendent. An "ordinance enforcement official," has the authority to issue municipal civil citations. The Township currently employs a part-time Code Enforcement Officer.

#### **Dickinson County Sheriff's Department**

The Dickinson County Sheriff's Department operates out of the Dickinson County Correctional Center in Iron Mountain, and is staffed by seven road patrol officers, a detective, an undersheriff, a sheriff, one road lieutenant, one jail lieutenant and an animal control officer. Four part-time road patrol officers also staff the department. The department also employs a full-time deputy who serves as a court officer, dispatchers, corrections officers and support staff. The full-time uniformed Animal Control Deputy provides animal control for three cities and seven townships. Complaints range from animal bite cases, cruelty/neglect cases and all other type complaints.

The Sheriff's Department staff includes 57 full and part-time employees. Its functions include road patrol, investigative, civil process, marine/snowmobile/ORV patrol, limited search and rescue, management of the Dickinson County Correctional Facility, assistance with court activities (bailiff/transport/security), animal control, DARE program, and central emergency dispatch (E-911). The enhanced 911 service identifies the address from which an emergency call is made on the dispatch screen. This feature makes it easier for emergency personnel to locate a site if a caller is unable to provide directions. Dispatch services are provided for other areas including some in Wisconsin.



## CHAPTER 6.0-COMMUNITY FACILITIES AND SERVICES

### 6.8 Law Enforcement continued

#### Dickinson County Sheriff's Department continued

The Sheriff's Office is also in charge of enforcing the laws of the water. The office has a Marine Patrol Division that patrols the inland waters during the summer months. They are in charge of body recovery and they also train all young boat operators. The training is done mostly during the school years in cooperation with the area schools. During the winter months the Marine Patrol converts into the Snowmobile Patrol, where the Office patrols the many groomed and non groomed trails in the area, making it safe for fellow snowmobilers. In addition the Office has an ORV Patrol using four wheelers for patrolling the rural country roads and trails. All three of these are utilized in search and recovery and rescue of any unfortunate persons.

The Sheriff's Department participates in several multi-agency special operations. Kingsford Public Safety and the Iron Mountain and Norway police departments joined together to form the Critical Incident Response Team (CIRT) to respond to unpredictable life threatening situations and a multi-jurisdictional drug enforcement team (KIND). The Sheriff's Department also works cooperatively with the Delta County Sheriff's Office and the Marquette County Sheriff's Department search and rescue and dive teams. The Sheriff's Department and jail are located adjacent to the county courthouse on East D Street in Iron Mountain. The Dickinson County Sheriff's Office is also the jail of the county. In the spring of 1997 the jail was remodeled and expanded to house additional prisoners. The jail has a total bed capacity of 71 beds/inmates, housing both male and female inmates.

#### Michigan State Police

Michigan State Police Post # 86 is located within the City of Iron Mountain on US-2. There are currently a total of 18 officers assigned to the post: 12 troopers, 1 administrative sergeant, 2 road sergeants, 1 first lieutenant, 1 detective sergeant and 1 motor carrier officer. A fire marshal is no longer stationed at the post; the post relies on Regional Dispatch for fire marshal services. All of the officers are authorized to enforce state and local laws and ordinances. Aside from responding to criminal complaints and investigating accidents and crimes, the officers support local police departments. The cities of Iron Mountain, Kingsford and Norway each maintain separate police departments. Officers will respond to calls outside the city limits if requested by the Sheriff's Department.

### 6.9 Emergency Services

#### Ambulance Service

Privately-owned Beacon Ambulance Service provides emergency medical services for Breitung Township, other portions of Dickinson County as well as northern Marinette and Florence Counties in Wisconsin. The corporate headquarters is in Hurley, WI. A fleet of advanced life support vehicles is stationed at the company's local office, 1645 Pyle Drive, Kingsford.

## CHAPTER 6.0-COMMUNITY FACILITIES AND SERVICES

### 6.9 Emergency Services continued

#### **Enhanced 911 System**

Emergency services in Dickinson County, including fire, police and ambulance services, are dispatched by the Dickinson County Sheriff's Department using an enhanced 911 system. The enhanced 911 service identifies the address from which an emergency call is made on the dispatch screen. This feature makes it easier for emergency personnel to locate a site if a caller is unable to provide directions.

#### **Dickinson County Emergency Services**

This office is responsible for multi-hazard mitigation planning, protection of public health and safety, preservation of essential services, prevention of property damage, preservation of the local economic base, and response to community disasters. A full-time director reports directly to the Dickinson County Board.

### 6.10 Health Care

#### **Dickinson County Memorial Hospital**

Construction of the new Dickinson County Memorial Hospital along US-2 near Iron Mountain's eastern corporate limit was completed in 1996. The 96-bed facility provides acute care to medical, surgical, pediatric, obstetric and emergency patients. In 1997, the Dickinson County Medical Building was completed adjacent to the hospital to provide specialty services and an after-hours clinic. Medical specialists from nearby regional centers offer services in the hospital's Gust Newberg Specialty Clinic.



Residents also utilize a Marquette General Hospital clinic located in Kingsford and a Bellin Health clinic in Iron Mountain.

#### **Oscar G. Johnson Veterans Affairs Medical Center**

The organization provides primary care at the Oscar G. Johnson VA Medical Center as well as at clinics in Hancock, Menominee, Marquette, Ironwood, Sault Saint Marie, Michigan; and Rhinelander, Wisconsin. Over 33,000 veterans in the Upper Peninsula of Michigan and northeastern Wisconsin rely upon the Oscar G. Johnson VA Medical Center and Clinics for their health care. Five hundred fifty staff, including 30 physicians and over 140 nurses, provides primary and selected secondary care. Volunteers provide a wide variety of services.

## CHAPTER 6.0-COMMUNITY FACILITIES AND SERVICES

### 6.10 Health Care continued

#### **Oscar G. Johnson Veterans Affairs Medical Center continued**

VA Medical Center



The VA Medical Center facility has 17 acute care beds, 6 ICU beds and 40 bed community living center. In addition to primary care and inpatient services, the VA Medical Center provides audiology and speech pathology, cardiology, ENT, general surgery, urology, geriatrics, intensive coronary care unit (ICCU), nephrology, oncology, optometry, ophthalmology, orthopedics, podiatry, pulmonary function testing, Post-Traumatic Stress Disorder Clinical Team (PCT),

Mental Health Service, and Substance Abuse Treatment Program (SATP). The outpatient clinic underwent a 14,000 square foot expansion in 2011.

### 6.11 Ford Airport

Originally built to serve the Ford Motor Company's needs, this facility is now owned and operated by Dickinson County. Much of the present airport property (370 acres) was donated by Ford in 1936. Since that time additional property has been acquired in Kingsford and Breitung Township. The airport area includes 713 acres found within portions of Kingsford and Breitung Township. Facilities at the airport include a passenger terminal building, hangar facilities (county and private), a maintenance building that also houses a crash/rescue vehicle, a sand storage building, a 6,500 foot primary runway, and a 3,800 foot secondary runway. Various carriers have served the airport and future service is dependent upon the level of support provided by the state and federal government. The state and federal government have provided subsidies for various carriers to service the airport.

An Airport Committee, consisting of three members of the Dickinson County Board of Commissioners, is responsible for overseeing airport operations and prioritizing improvement projects, subject to approval by the Dickinson County Board. Operations are under the direction of the County Board appointed airport manager; presently the County Controller serves as the Airport Manager. Over the past 20 years, essentially all asphalt runways, taxiways and apron areas have been resurfaced and all lighting, snow removal equipment, aircraft rescue and firefighting equipment have been replaced.

By the end of October 2011, Ford Airport had surpassed the 10,000 passenger mark for the first time since 1995. By passing the mark, funding from the Airport Improvement Program will increase from \$250,000 to over \$1 million for 2012, providing for blacktop work and new equipment. The milestone also designates Ford Airport as a primary airport in Michigan, thus allowing the airport to apply for grant monies to promote its services. Passenger boardings have increased steadily in recent years.

## CHAPTER 6.0-COMMUNITY FACILITIES AND SERVICES

### 6.12 Educational Services

#### **Breitung Township School District**

The Breitung Township School District includes the city of Kingsford and Breitung Township, an area of some 75 square miles. Student enrollment for the current 2011-2012 school year totaled 1,681 a 22.3 percent decrease since 1999-2000. The highest enrollment of 2,308 was recorded for the 1994-95 school year. School enrollment figures obtained from the school district are presented below.

<b>Table 6-3 Breitung Township School District Enrollment</b>	
<b>School year</b>	<b>Enrollment</b>
2011-2012	1,681
2010-2011	1,691
2009-2010	1,719
2008-2009	1,813
2007-2008	1,882
2006-2007	1,885
2005-2006	1,893
2004-2005	1,965
2003-2004	2,020
2002-2003	2,117
2001-2002	2,142
2000-2001	2,163
1999-2000	2,180

Source: Breitung Township School District, 2011.

All district instructional facilities are within the City of Kingsford and include Kingsford High School, Kingsford Middle School and Woodland Elementary School. The high school and the middle school are located within one structure. At one time, a number of schools were located in the Township.

The high school was constructed in 1964, renovated in 1992, and expanded by nine rooms in 1998 to its present size of 135,035 square feet. The facility includes a 584-seat auditorium. The Kingsford Middle School, sixth through eight grades, is a 57, 260 square foot facility built in 1992 and expanded by 10 rooms in 1998. Woodland Elementary School, pre-kindergarten through fifth grade, was built in 1989 with a total area of 110,980 square feet. The district's administrative offices are collocated with the Woodland facility.

Accessory buildings include a 1,920 square foot maintenance building and 1,800 square foot storage building. Both are located at the high school/middle school campus along Hamilton Avenue. The buildings were constructed in 1992 and 1998 respectively. An equipment storage garage is located at the elementary school site on Pyle Drive. This building of 1,120 square feet was built in 1998.

## CHAPTER 6.0-COMMUNITY FACILITIES AND SERVICES

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### 6.12 Educational Services continued

#### **Breitung Township School District continued**

Athletic facilities include a football field/track, a field house with four locker rooms and a weight room, a concession stand, restrooms, eight tennis courts and a large practice field that with shot put and discus areas.

Student transportation services are provided by a private contractor, thus the district does not own buses. Transportation services have been out-sourced since 1992. Approximately 70 percent of the district's students are eligible for transportation service.

In May of 2011, voters passed a bond proposal which entails borrowing \$5.58 million to remodel, furnish and equip school buildings and for technology upgrades and improvements. Although there is no increase in the existing millage rate with the proposal, the debt retirement is extended by two years from the current 8 eight years to 10 years. A second bond proposal which looked to borrow \$1.57 million to remodel and improve athletic fields, tennis courts and facilities was defeated. The district has sufficient capacity to accommodate additional students.

#### **Dickinson-Iron Intermediate School District**

Technical education, early childhood education, special education, and general services are provided by the Dickinson-Iron Intermediate School District. Administrative offices and instructional facilities are located in the city of Kingsford. The ISD is a consortium of the six public schools in the two-county area. Beyond direct and support services to students, the ISD offers support services to teachers and administrators in areas such as professional development and regulatory compliance.

#### **Post-Secondary Educational Institutions**

Bay de Noc Community College in Escanaba offers instructional programs in vocational and technical fields, plus many associate degree opportunities. Agreements with Lake Superior State University, Northern Michigan University, Franklin University (Ohio) and Phoenix University provide a limited number of baccalaureate programs that can be completed at the Escanaba campus.

A new 42,000 square foot technical training center was completed in early 2000. Bay de Noc Community College was one of eight community college sites across the state chosen to receive a Michigan Technical Education Center (M-TEC) grant to provide flexible, up-to-date training aimed at meeting the local demand for skilled workers.

## CHAPTER 6.0-COMMUNITY FACILITIES AND SERVICES

### 6.12 Educational Services continued

#### Post-Secondary Educational Institutions continued

Since the early 1970's, Bay College has had a presence in Dickinson County, where in those early years courses were offered to assist students enrolled in nursing degree programs. Facility limitations severely restricted course offerings through the early years. However, enrollment increases supported the notion that interest in higher education in Dickinson County remained strong. In 2003, the College leased a 20,000 sq. foot facility on Carpenter Avenue with eight traditional classrooms, a computer lab and office space for personnel.

At the same time, Dr. Theodore and Eleanor Fornetti donated a 25-acre parcel on the north side of Iron Mountain. The voters in Dickinson County approved a one mill tax increase to support the construction, maintenance and operation of a new 67,000 sq. ft. facility, matching the State of Michigan's construction funds of \$6 million. Groundbreaking was held in the spring of 2006 and the facility opened in the fall of 2007. Through a unique contractual relationship with the Dickinson County Board of Commissioners, the College has been able to move forward in offering a strong core of transfer degrees and occupational programs to support the local workforce.

Limited classes are offered directly by Northern Michigan University. Northeast Wisconsin Technical College based in Marinette provides some classes in Niagara. The courses are primarily technical and are offered based on local demand.

Post-secondary educational facilities within the region and approximate distances from Quinnesec are shown in Table 6-5.

<b>Table 6-5 Distance of Educational Institutions to Quinnesec</b>		
Name of Institution	Location	Distance (miles) from Quinnesec
Bay de Noc Community College	Escanaba	48
Bay de Noc Community College (Bay West)	Iron Mountain	4
Northern Michigan University	Marquette	84
Michigan Technological University	Houghton	117
Finlandia University (formerly Suomi)	Hancock	118
Gogebic Community College	Ironwood	132
University of Wisconsin-Green Bay	Green Bay	97
University of Wisconsin-Marinette	Marinette	68
Northland Baptist Bible College	Dunbar, WI	26



## CHAPTER 6.0-COMMUNITY FACILITIES AND SERVICES

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### 6.13 Dickinson County Library

Library materials and services are available at the Dickinson County Library's main facility at 401 S. Iron Street in Iron Mountain and the Solomonson Branch in Norway. The bookmobile service was discontinued a number of years ago. Support of the county library system is through the levy of a millage. A major renovation project was completed in 1997 at the main branch. The main Dickinson County Library branch is located at 401 Iron Mountain Street, in Iron Mountain. The library is headquarters for the Mid-Peninsula Library System which offers library services among the eight member-libraries throughout the Upper Peninsula. The Solomonson Library, or Norway Branch Library, is located at 620 Section Street and was constructed in 1978. The North Dickinson Branch, located in the North Dickinson County School has regular hours of operation Monday-Thursday. Library operations are governed by the Dickinson County Library Board of Trustees.

### 6.14 Solid Waste Management

#### **Breitung Township Refuse Collection**

Weekly curbside refuse pickup is provided to Breitung Township residents. The Township currently has a contract with Great American Disposal. Township residents are billed twice annually for garbage pickup; the first \$150,000 of the cost is paid out of the General Fund and the remainder is billed to customers equally. The contract does not provide for pickup of waste from commercial establishments; these establishments must obtain services from private haulers, or take their wastes directly to the solid waste transfer facility. The Township DPW picks up brush curbside one time per month in Quinnesec and East Kingsford. Brush can also be dropped off at the cemetery.

#### **Landfill and Recycling**

The Central Landfill Authority, composed of formerly operated a landfill in Breitung Township east of Hydraulic Falls Road; this landfill has been closed in accordance with state and federal requirements.

Refuse collected in Breitung Township is taken to the Dickinson County Solid Waste Processing Facility located at W-7702 US-2 in Breitung Township. The refuse is dumped into semi trailers at the transfer station and hauled to the Wood Island Landfill near Munising. The Dickinson County Solid Waste Management Authority was established in 1993 and contracts with Great American Disposal Company for operation of the processing facility and transportation to the Wood Island Waste landfill.

## CHAPTER 6.0-COMMUNITY FACILITIES AND SERVICES

### 6.14 Solid Waste Management continued

#### Landfill and Recycling continued

When the Central Landfill was nearing closure, efforts were made to find a new landfill site in Dickinson County. Initial efforts focused on Breitung Township, and the Dickinson County Solid Waste Management Authority purchased 280 acres north of Quinnesec in 1992. Although initial plans called for construction of a county landfill at the site, the Authority decided to search for alternative sites, with financial support from Breitung Township. Eventually a site was identified in Waucedah Township; however, it was determined to be more economically advantageous to contract with Great American Disposal Co. for solid waste disposal. Waste from Breitung Township and other parts of the County is hauled to the Wood Island Waste landfill near Munising in Alger County.

Recyclable materials (#1 and #2 plastics, newspaper, corrugated paper, office paper, tin and aluminum cans, car batteries, motor oil) can be dropped off at no charge at the Dickinson County Solid Waste Processing Facility; vehicle tires are accepted for a fee. The facility also holds a hazardous waste day to accept oil based paints, stains, lacquers, gas and anti-freeze. Yard waste can also be dropped off at the composting site adjacent to the processing facility.

Verso Paper (formerly International Paper) operates a landfill on their property in Breitung Township, providing disposal of waste generated by the paper mill operations only.

### 6.15 National Guard Armory

The 107<sup>th</sup> Engineer Battalion is assigned to this facility located at 401 South Carpenter Avenue in Kingsford. The Iron Mountain-Kingsford Community Schools is the primary user of the facility's gymnasium under a lease arrangement. In addition, the facility is rented for group gatherings.

### 6.16 Animal Shelter

The Almost Home Animal Shelter, a nonprofit organization, broke ground at the intersection of US-141, Breitung Cutoff Road and Lincoln Street in August of 2009 for a new facility in Breitung Township. Operating revenues are derived from charitable sources and annual appropriations from Dickinson County. Two full-time employees, augmented by volunteers, constitute shelter staff. The new 10,000 square foot facility replaces the Spring Lake Animal Shelter and has an air-exchange unit, closed circuit cameras, storage, a conference room where the board will meet, a veterinary office, an animal preparation area, surgery and recovery room, training rooms, an employee lounge with lockers, offices and restrooms. The new shelter is divided to place cats on one side and dogs on the other. The facility is barrier free and opened in spring 2012.

## **CHAPTER 6.0-COMMUNITY FACILITIES AND SERVICES**

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### **6.17 Building Permits, Code Enforcement and Zoning Administration**

Building permits are issued by the Dickinson County Construction Code Commission in Kingsford. A Township-issued zoning compliance permit must be secured before a building permit is granted. Building, mechanical, plumbing and electrical inspections are done by personnel of the Dickinson County Construction Code Commission.

The Breitung Township Zoning Ordinance is administered by the Township Superintendent. Among its duties, the Planning Commission is responsible for issuance of Conditional Use Permits, review of Planned Unit Developments, and review/recommendation concerning amendments to the zoning ordinance.

### **6.18 Elderly Services**

Nutrition, social and information programs are provided through centers operated by the Dickinson-Iron Community Services Agency. Services are available locally through the Breen Avenue Senior Citizens Center.

### **6.19 Cable Television Service**

Cable television service is currently available locally from Charter Communications. In addition, high-speed Internet service is available through the cable system. Cable service is provided throughout the majority of Breitung Township. Many residents rely on satellite television; service is available from several providers.

### **6.20 Electrical Service**

Electrical service in Dickinson County is supplied by WE Energies (Wisconsin Electric Power Co.) The company supplies power to residential, industrial and commercial customers throughout Dickinson County, except in the City of Norway. The distribution system (poles, lines, etc.) is owned and maintained by the WE Energies, which also generates power at several dams in the area, and owns several hundred acres of land bordering the Menominee River.

### **6.21 Employment and Training**

TRICO Opportunities, Inc. has provided work training and support services for disabled persons since 1968. The non-profit organization works with clients and agencies from Dickinson and Iron counties and neighboring Wisconsin communities. As of January 2001, TRICO began accepting and recycling paper products. The organization has been active in document destruction services for many years. TRICO's facility is located on Hooper Street in the City of Kingsford. Michigan Works! provides employment services locally through its Iron Mountain office. Michigan Vocational Rehabilitation, the Michigan Unemployment Agency and Veterans employment and support service are provided at this office on a scheduled basis. Itinerant staff of the Michigan Unemployment Agency provides service to unemployment claimants at this facility on designated days.

## **CHAPTER 6.0-COMMUNITY FACILITIES AND SERVICES**

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### **6.22 Natural Gas Service**

DTE Energy (formerly known as Michigan Consolidated Gas Company) provides natural gas service to Dickinson County. A natural gas distribution network makes gas available throughout the Iron Mountain/Kingsford/Norway urban corridor. Most of the rural portions of the Township, however, do not have access to natural gas service. Expansion of natural gas services would be beneficial to the area.

### **6.23 Postal Service**

Three post offices serve Breitung Township residents and businesses: Quinnesec (49876), Iron Mountain (49801) and Kingsford (49802), depending on the location. The Quinnesec post office is located at 1214 Quinnesec Avenue, Quinnesec. Mail is handled through the United States Postal Service Regional Distribution Center in Kingsford.

### **6.24 Telephone and Cellular Service**

Local telephone service in Breitung Township is provided by AT & T and Charter Communications. Long distance service can be obtained from several carriers which serve the area. Cellular service is offered by AT & T, Verizon and Sprint. Cellular service is sporadic throughout the Township. Currently there are two towers in Quinnesec and providers are co-locating a cellular tower on Pine Mountain. The location of additional cellular towers in the Township may improve service.

### **6.25 Internet Service**

Internet service is provided by Charter Communications, AT & T, UP Logon and Borderland (Niagara Telephone Company). Broadband service is available through Charter.

### **6.26 Issues and Opportunities**

- The Township Hall has undergone renovations to provide for a meeting room. The former meeting area has been converted into offices, allowing for better utilization of the facility. The Township Hall is ADA complaint. The hall has adequate space at this time.
- The Public Works facility should have the capacity to meet the Township's needs into the future.
- Breitung Township's fire protection is adequate for the Township. The Township Board's policy of setting aside funds for vehicle replacement will assure the township will replace the equipment on a regular basis. The recent expansion at the North Breitung Fire Hall provides classroom space and additional space for voting purposes.

## CHAPTER 6.0-COMMUNITY FACILITIES AND SERVICES

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### 6.26 Issues and Opportunities continued

- The Breitung Township Industrial Park is in need of infrastructure improvements, including gas, water and sewer to attract tenants.
- The Breitung Township Industrial Park has been designated as an industrial development district, providing tax incentives to qualified businesses.
- Breitung Township made the decision to decertify funds from USDA Rural Development for a municipal wastewater system expansion. Any future wastewater system extensions will likely need to be paid for by developers.
- Breitung Township no longer contracts with the Dickinson County Sheriff's Department for additional patrol services. There is potential for the Township to establish its own law enforcement department in the future.
- Construction of the Dickinson County Bay de Noc west campus provides enhanced opportunities for college level classes to township residents.
- Passenger boardings have been steadily increasing at Ford Airport in recent years.
- Enrollment has been steadily decreasing at Breitung Township Schools over the past decade.
- There are no public transportation services in Dickinson County. Elderly and disabled residents and residents without access to an automobile would benefit greatly from the creation of a public transportation system.

## CHAPTER 7.0-HOUSING

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### 7.1 Introduction

Housing is one of the key factors to consider when planning for a community's future. The location and type of housing available establishes where public infrastructure should 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 established 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. 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 an impact on housing in a community. Public safety, or a lack thereof, can influence where people choose to buy a home and raise a family. Quality education is one of the location factors for families with school-age children; recent schools of choice policies have decreased the importance of selecting a residential location based on schools. Area access to employment, shopping and other entertainment needs also factor into the purchase of a home.

Since 2007, nationwide trends have indicated a rapid decline in housing prices. Consequently, 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 2005 to 2012, 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 Breitung Township 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 within Breitung Township.

### 7.2 Housing Characteristics

#### Trends

The Census Bureau recorded a total of 2,779 housing units within Breitung Township at the time of the 2010 Census. Over a forty-year period beginning in 1970, the number of housing units more than doubled, increasing by 1,604 units. This 136.5 percent increase is greater than all of the adjacent communities, Dickinson County and the State. About 23 percent of the homes during this time period (1970–2010) were constructed in the 1970s. During the same 1970-1980 period, Dickinson County's housing unit total grew from 9,417 to 11,250, an increase of 13 percent. Despite Breitung Township's slight population decrease from 2000 to 2010, the number of housing units increased by 6.8 percent.



## CHAPTER 7.0-HOUSING

### 7.2 Housing Characteristics continued

#### Trends continued

Other communities in Dickinson County have experienced varied growth rates; the cities have reported minimal growth, while many of the townships have experienced vast growth in the number of housing units. Over the past 40 year time period, both Kingsford and Dickinson County experience similar housing unit growth rates (40 and 45 percent respectively). Iron Mountain and Norway experienced modest increases, although Iron Mountain experienced a decrease in the total number of housing units from 2000 to 2010. Housing unit totals as recorded in official census data for the years 1970-2010 are presented in Table 7-1, Total Housing Units, Selected Areas, 1970-2010.

<b>Table 7-1 Total Housing Units, Selected Areas, 1970 - 2010</b>						
Unit of Government	1970	1980	1990	2000	2010	% Change 1970-2010
<b>Breitung Township</b>	<b>1,175</b>	<b>1,818</b>	<b>2,300</b>	<b>2,601</b>	<b>2,779</b>	<b>136.5</b>
City of Kingsford	1,769	2,099	2,248	2,477	2,414	36.4
City of Iron Mountain	3,203	3,643	3,789	3,819	3,784	18.1
City of Norway	1,156	1,255	1,311	1,392	1,402	21.3
Norway Township	429	478	656	766	796	85.5
Sagola Township	567	727	894	930	962	69.7
Dickinson County	9,417	11,250	12,902	13,702	13,990	48.6
State of Michigan	2,653,059	3,448,907	3,847,926	4,234,279	4,532,233	7.1

Source: U.S. Bureau of the Census, General Housing Characteristics, for the years cited

#### Occupancy and Tenure

In 2010, over 89 percent of Breitung Township's housing units were occupied. As shown in Table 4-2, Total Housing Units, Occupancy and Tenure, Selected Areas, 2010, this represents 2,480 of the 2,779 total housing units. The occupancy rate, expressed as a percentage, was higher for Breitung Township when compared to Dickinson County and the State. Lower occupancy rates in Dickinson County are largely a result of numerous recreational and seasonal units. Only 6.0 percent of Breitung Township's housing units are designated for seasonal, recreational or occasional use, but 55.5 percent of vacant housing units are used for seasonal, recreational or occasional use. When compared to surrounding communities, Breitung Township has fewer recreational homes; existing seasonal residences are generally concentrated around the Township's water features. The vast majority (93.2 percent) of Breitung Township's housing units were occupied by their owners. This compares with 80.3 percent for Dickinson County and 72.1 percent for the State.

## CHAPTER 7.0-HOUSING

### Trends continued

**Table 7-2**  
**Total Housing Units, Occupancy and Tenure, 2010**

Housing Units	Breitung Township		Dickinson County		State of Michigan	
	Number	Percent	Number	Percent	Number	Percent
Total Units	2,779	100.0	13,990	100.0	4,532,233	100.0
Occupied	2,480	89.2	11,359	81.2	3,872,508	85.4
Owner	2,312	93.2	9,118	80.3	2,793,342	72.1
Renter	168	6.8	2,241	19.7	1,079,166	27.9
Vacant	299	10.8	2,631	18.8	659,725	14.6
Seasonal, Recreational or Occasional Use	166	55.5	1,626	11.6	263,071	5.8

Source: U. S. Census Bureau, 2010, Profile of General Population and Housing Characteristics, Table DP-1.

### Units in Structure

Data outlined in Table 7-3, Units in Structure by Percentage, Selected Areas, 2006-2010, demonstrates that Breitung Township's housing stock consisted of 87.2 percent single family homes. Attached structures include row houses, town houses or houses attached to a non-residential structure; Breitung Township reported no attached structures. The high percentage rate of single family homes in Breitung Township is higher than Dickinson County overall. The majority of the remaining housing stock is of the mobile home category. Breitung Township reports approximately 11.0 percent of its housing stock as mobile homes. Breitung Township has very few multi-unit structures. Multiple unit structures tend to be prevalent within more densely populated areas where people are closer to shopping, schools, etc. Housing types found in Breitung Township, Dickinson County and the State are presented in Table 4-3, Units in Structure by Percentage, Selected Areas, 2006-2010.

**Table 7-3**  
**Units in Structure Percentages, Selected Areas, 2006-2010**

Unit Type	Breitung Township	Dickinson County	State of Michigan
1 detached	87.2	83.8	71.7
1 attached	0.0	0.4	4.6
2	0.0	2.0	2.8
3 or 4	0.0	1.4	2.6
5 to 9	0.4	2.8	4.2
10 to 19	1.4	1.5	3.6
20 more	0.0	2.2	4.8
Mobile Home	11.0	5.8	5.6
Boat, RV, Van, etc.	0.0	0.1	0.0

Source: U.S. Bureau of the Census, American Community Survey 5-Year Estimates, 2006-2010, Table DP04.

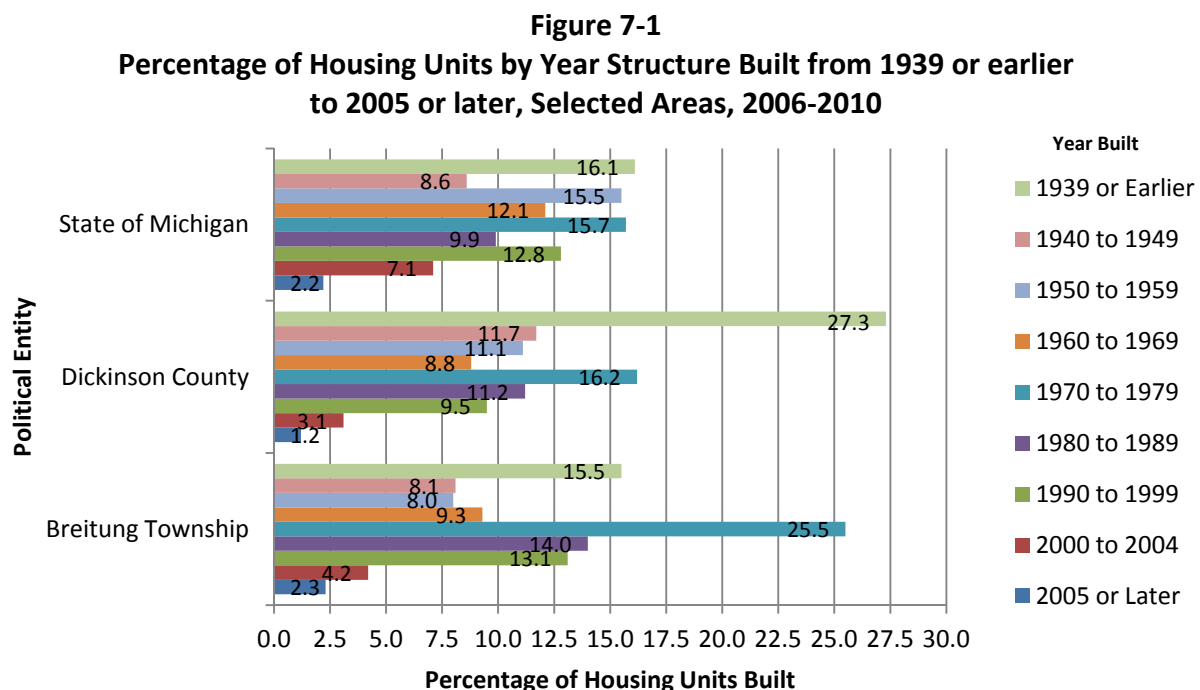
## CHAPTER 7.0-HOUSING

### 7.2 Housing Characteristics continued

#### Age of Housing

Nearly 60 percent of the housing units in Breitung Township were constructed after 1970. In contrast most of the housing units in the cities were constructed prior to 1970. Figure 7-1, Percentage of Housing Units by Year Structure Built from 1939 or earlier to 2005 or later, Selected Areas, 2006-2010 illustrates the number of housing units constructed during selected time periods.

In recent years, many new homeowners have been looking for larger homes on larger lots and frequently, surrounding townships have the space. In response to the recent economic downturn, the demand for larger residences has dwindled. Home size typically dips during a recession and many experts believe that this downward trend will continue beyond the economic recovery. 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 and are living alone, maintenance may become increasingly difficult and some of Breitung 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, 2006-2010, Table DP04.

## CHAPTER 7.0-HOUSING

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### 7.2 Housing Characteristics continued

#### **Household Type and Relationship**

The U.S. Bureau of the Census categorizes households into two types: *family household* or *non-family household*. A household includes all of the people who occupy a housing unit. A *family household* consists of a householder and one or more persons living in the same Household related by birth, marriage or adoption. A *non-family household* consists of a householder living alone or with non-relatives. People not living in households are classified as living in *group quarters*.

The “group quarters” classification applies to persons in institutionalized and non-institutionalized settings. Institutionalized persons are those under authorized confinement, custody or supervised care such as in a correctional facility, juvenile detention facility, or nursing home. Non-institutionalized group quarters include college dormitories, military facilities and group homes. There were 35 persons in Breitung Township reported as living in non-institutionalized group quarters.

Table 2-8, Household Characteristics, Breitung Township, 1980-2010 outlined in Chapter 2, illustrates household trends that may affect housing. From 2000 to 2010, the total number of households in Breitung Township increased. However, while the number of total households increased, the percentage of family households and husband-wife households declined, leading to a corresponding increase in the number of non-family households. Non-family households may need different types of housing options, including multi-family units.

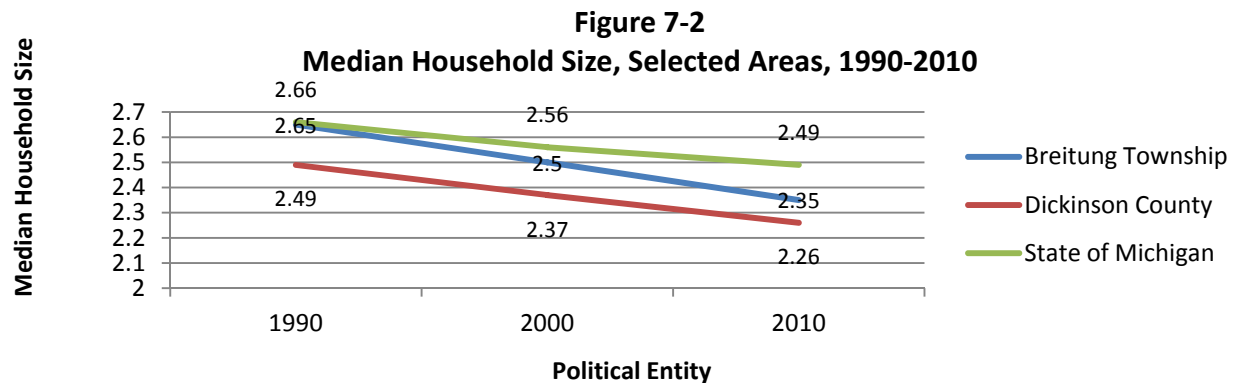
In 2010, 71.1 percent of Breitung Township residents lived in family households. There has been a nationwide increase in the number of people living in non-family households. Among the more probable reasons for the greater increase in nonfamily households are: a growing proportion of the older population is continuing to live alone or with one or more unrelated persons following loss of a spouse; and, a growing proportion of younger adults are postponing marriage and choosing to live alone or with unrelated persons.

#### **Household Size**

Breitung Township’s median household size has been decreasing steadily as indicated in Figure 7-2, Median Household Size, Selected Areas, 1990-2010. The average size of a Breitung Township household in 2010 (2.35 persons) decreased by approximately 11.3 percent since 1990. This trend is consistent with data compiled locally, regionally and statewide. A clear trend towards smaller households is apparent nationally as well, the result of smaller family sizes and an increase in the number of single parent families.

## CHAPTER 7.0-HOUSING

### 7.2 Housing Characteristics continued



Source: U.S. Bureau of the Census, Summary File Demographics and Housing, 2010, Table SF-1; Profile of Geographic Characteristics, DP-1, 2000.

#### **Housing Values and Rent**

The U.S. Bureau of the Census, American Community Survey 5-Year Estimates 2006-2010 reported that the median housing value in Breitung Township was \$115,200, which is considerably higher than the median housing value of \$87,800 in Dickinson County and is lower than the median housing value of \$144,200 for the State of Michigan, as illustrated in Table 7-4, Median Housing Values, Selected Areas, 2006-2010.

<b>Table 7-4</b>	
<b>Median Housing Values, Selected Areas, 2006-2010</b>	
Area	2006-2010
<b>Breitung Township</b>	<b>\$115,200</b>
Dickinson County	\$87,800
State of Michigan	\$144,200

Source: U.S. Bureau of the Census, American Community Survey 5-Year Estimates, Selected Housing Characteristics, 2006-2010, Table DP04.

Median gross rents for 2006-2010 are compared in Table 7-5. Gross rent is the contract rent plus an estimated average monthly cost of utilities (electricity, gas, water and sewer) and fuels (oil, coal, kerosene, wood, etc.), if these are paid by the renter or paid for the renter by someone else. Gross rent is intended to eliminate differential that result from varying practices with respect to the inclusion of utilities and fuels as part of the rental payment. The median gross rent for Breitung Township was determined to be \$705 per month and significantly higher than the median gross rent reported for Dickinson County of \$508; rates were comparable to the State overall.

## CHAPTER 7.0-HOUSING

### 7.2 Housing Characteristics continued

#### Housing Values and Rent continued

<b>Table 7-5 Median Gross Rent, Selected Areas, 2006-2010</b>	
Area	2006-2010
<b>Breitung Township</b>	<b>\$705</b>
Dickinson County	\$508
State of Michigan	<b>\$723</b>

Source: U.S. Bureau of the Census, American Community Survey 5-Year Estimates, Selected Housing Characteristics, 2006-2010, Table DP04.

### 7.3 Financial Characteristics

As discussed in Chapter 3, median incomes in the Upper Peninsula are significantly lower than statewide averages. While this can be offset somewhat by lower housing costs locally, the ability of local households to afford housing is impacted by these lower incomes. *Per capita income* is the mean money income received computed for every man, woman, and child in a geographic area. It is derived by dividing the total income of all individuals 15 years old and over in a geographic area, by the total population in that area. *Household income* is the sum of money income received in a calendar year by all household members 15 years old and over, including household members not related to the householder, people living alone, and other nonfamily household members. *Median family income* reflects the income level at which half of all families earn more, and half earn less. Table 7-6, Income Levels, Selected Areas, 2006-2010 illustrates Per Capita, Median Household and Median Family Income. Per capita Income reported for Breitung Township is higher than Dickinson County and the State. Median household and median family incomes reported for Breitung Township higher than incomes reported for Dickinson County and the median family income reported is significantly higher than that reported for the State.

<b>Table 7-6 Income Levels, Selected Areas, 2006-2010</b>			
	<b>Breitung Township</b>	Dickinson County	State of Michigan
Per Capita Income	<b>\$26,205</b>	\$23,854	\$25,135
Median Household Income	<b>\$48,306</b>	\$42,589	\$48,432
Median Family Income	<b>\$72,732</b>	\$54,053	\$60,341

Source: U.S. Bureau of the Census, American Community Survey 5-Year Estimates, Selected Housing Characteristics, 2006-2010, Table DP04.



## CHAPTER 7.0-HOUSING

### 7.3 Financial Characteristics continued

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. Tables 7-7, Monthly Owner Costs as a Percentage of Household Income, Selected Areas, 2006-2010 and Table 7-8, Gross Rent as a Percentage of Household Income, Selected Areas, 2006-2010, illustrate 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. About 35 percent of Breitung Township homeowners spend less than 20 percent of their income on housing costs. Approximately 27.3 percent of homeowners spend more than 30 percent of their monthly income on housing.

<b>Table 7-7 Monthly Owner Costs as a Percentage of Household Income, Selected Areas, 2006-2010</b>			
Monthly Owner Costs as a % of Household Income	<b>Breitung Township</b>	Dickinson County	State of Michigan
Less than 20.0%	<b>35.1</b>	38.4	34.2
20.0 to 24.9%	<b>25.1</b>	20.2	16.9
25.0 to 29.9%	<b>12.6</b>	11.8	13.0
30.0 to 34.9%	<b>9.9</b>	7.9	8.9
35.0% or more	<b>17.4</b>	21.7	27.0

Source: U.S. Bureau of the Census, American Community Survey 5-Year Estimates, Selected Housing Characteristics, 2006-2010, Table DP04.

Statistics derived from respondents renting their place of residence reveal that 61.5 percent of renters in Breitung Township spend more than 35.0 percent of their income on housing expenses. There are few rental units in Breitung Township and the estimated results may be skewed. About 45.0 percent of Dickinson County residents spend more than 35.0 percent of their income on housing.

<b>Table 7-8 Gross Rent as a Percentage of Household Income, Selected Areas, 2006-2010</b>			
Monthly Owner Costs as a % of Household Income	<b>Breitung Township</b>	Dickinson County	State of Michigan
Less than 15.0%	<b>12.5</b>	14.7	11.6
15.0 to 19.9%	<b>13.5</b>	7.4	11.8
20.0 to 24.9%	<b>0.0</b>	11.4	11.5
25.0 to 29.9%	<b>0.0</b>	13.2	11.1
30.0 to 34.9%	<b>12.5</b>	12.7	9.0
35.0% or more	<b>61.5</b>	40.6	45.0

Source: U.S. Bureau of the Census, American Community Survey 5-Year Estimates, Selected Housing Characteristics, 2006-2010, Table DP04.

## CHAPTER 7.0-HOUSING

### 7.4 Selected Housing Characteristics

Substandard housing information is presented in Table 7-9, Substandard Occupied Housing, Selected Areas, 2006-2010. Housing units lacking complete plumbing (hot and cold piped water, flush toilet and bathtub or shower) or complete kitchen facilities (an installed sink, range or other cooking appliance and refrigerator) are considered substandard. Statistics on telephone service were also collected. There are no households in Breitung Township that lack complete kitchen or plumbing facilities and only nineteen lacking telephone service.

**Table 7-9**  
**Substandard Occupied Housing, Selected Areas, 2006-2010**

Characteristics	Breitung Township		Dickinson County		State of Michigan	
	Number	Percent	Number	Percent	Number	Percent
Lacking Complete Plumbing Facilities	0	0.0	28	0.2	15,949	0.4
Lacking Complete Kitchen Facilities	0	0.0	111	1.0	23,730	0.6
No Telephone Service	19	0.8	222	1.9	172,644	4.5

Source: U.S. Bureau of the Census, American Community Survey 5-Year Estimates, Selected Housing Characteristics, 2006-2010, Table DP04.

The U.S. Bureau of the Census also collects data on the source of heating fuel occupied housing units employ. According to Census data detailed in Table 7-10, Occupied Housing Unit Heating Fuel, Selected Areas, 2006-2010, approximately 68 percent of Breitung Township's occupied housing units use utility gas for heating, a lower rate than the rates reported for Dickinson County and the State. Approximately 21 percent of Township homes utilize bottled, tank or LP gas for heating, while 5.4 percent use wood. Rural communities tend to rely on fuel oil and bottled gas at higher rates than more densely developed communities.

**Table 7-10**  
**Occupied Housing Unit Heating Fuel, Selected Areas, 2006-2010**

Source	Breitung Township		Dickinson County		State of Michigan	
	Number	Percent	Number	Percent	Number	Percent
Utility Gas	1,612	68.0	8,208	71.9	2,997,239	78.0
Bottled, Tank or LP Gas	493	20.8	1,563	13.7	352,528	9.2
Electricity	20	0.8	556	4.9	270,560	7.0
Fuel Oil, Kerosene, etc.	106	4.5	403	3.5	78,658	2.0
Coal or Coke	0	0.0	0	0.0	1,024	0.0
Wood	128	5.4	644	5.6	105,886	2.8
Solar Energy	0	0.0	0	0.0	675	0.0
Other Fuel	10	0.4	27	0.2	26,326	0.7
No Fuel	0	0.0	13	0.1	11,101	0.3
Total Occupied Units	2,369	100.0	11,414	100.0	3,843,997	100.0

Source: U.S. Bureau of the Census, American Community Survey 5-Year Estimates, Selected Housing Characteristics, 2006-2010, Table DP04.

## CHAPTER 7.0-HOUSING

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### 7.5 Private Housing Development

Many recent developments have occurred on lands that were used for agricultural purposes in the past and are located outside of platted areas in Breitung Township. In some areas of the Township, residents desire large lots to construct a home; however, large lots may make the property unaffordable to new home buyers. In contrast, developing homes too close together on small lots may create a problem with having an adequate distance from adjoining septic systems and individual wells. During the recent review and update of the Zoning Ordinance, in an effort to address these issues, the Breitung Township Planning Commission created a new Rural Residential District with a minimum 2.5 acre lot size to accommodate residents who may not be able to afford a 5 acre or larger lot, but wanted to maintain a rural living atmosphere. The 2.5 acre minimum lot size will also be beneficial when looking to develop individual septic systems and wells, without being in overly close proximity.

According to the MDOT Land Use Technical Report, it is anticipated that as the senior population in Michigan grows, additional senior or adult communities or assisted living centers will be developed. This type of development will most likely be more compact and could be designed to be transit-friendly, where transit options are available or self-contained and include grocery, banking and similar service facilities. These developments could be designed to provide residents mobility through walking trails or accommodate small electric vehicles such as golf carts within them.

### 7.6 Housing Assistance Programs

Housing rehabilitation, weatherization (insulating, caulking, etc.) and home purchasing assistance programs are provided through the auspices of the Dickinson-Iron Community Services Agency. Dickinson County receives Community Block Grant Funds through the Michigan State Housing Development Administration for housing rehabilitation and home purchasing assistance; the community action agency has been designated by the County to administer these funds on behalf of the County. The agency receives directly funds for its weatherization program; these federal funds come from the federal Department of Energy through the state Family Independence Agency. Occasionally the agency will receive other funds for energy assistance through the FIA. Applicants must meet established eligibility guidelines to qualify.

Habitat for Humanity-Menominee River Chapter was founded in 1993 and includes Dickinson County, Iron County and Florence County, Wisconsin. The first house was constructed in 1994, with a total of 26 homes constructed as of 2011. Of these, five are in Quinnesec six are in Iron Mountain, eight are in Kingsford, four are in Norway, two are in Vulcan and one in Iron River. Applicants are considered based on family income, current home conditions, willingness to participate in a home building project through “sweat equity,” and other factors. Habitat home building projects are constructed by community volunteers and homeowners-to-be on donated land parcels. The Menominee River Chapter is currently working on six additional homes.

## CHAPTER 7.0-HOUSING

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### 7.7 Specialized Housing

There are eight licensed adult foster care homes within Dickinson County. Those facilities requiring state licensing are regulated as to the number and type of residents, the services provided, and staffing requirements. Birchwood, an adult foster family care home facility is located in the Township. A family foster care facility is licensed to receive no more than six adults and the licensee must reside on the premise. There are three nursing home facilities in the County, two in Kingsford and one in Iron Mountain. There are also two assisted living facilities in Dickinson County, one in Norway and one in Iron Mountain.

### 7.8 Issues and Opportunities

- The number of housing units in Breitung Township more than doubled between 1970 and 2010. Recorded growth was significantly greater than neighboring cities. The availability of land suitable for housing development, its value, property tax rates, economic conditions and lifestyle preferences influence building location decisions.
- Slightly less than seven percent of Breitung Township's housing units are renter-occupied.
- The housing stock in Breitung Township includes a high percentage of single family detached units and the Township also reported a large percentage of mobile homes.
- Nearly 60 percent of Breitung Township's housing stock was constructed before 1970. Older structures are more likely to present condition and efficiency concerns. Structural integrity and aesthetics are essential to neighborhood preservation.
- Consistent with national trends, non-family households have been increasing and the average number of persons per household has been declining in Breitung Township. The average household size in 2010 was 2.35 persons.
- Median rent and housing values for 2006-2010 were shown to be higher than Dickinson County and comparable to the State.
- Per capita income reported for Breitung Township is higher than Dickinson County and the State. Median household and median family incomes reported for Breitung Township higher than incomes reported for Dickinson County and the median family income reported is significantly higher than that reported for the State.
- The percentage of substandard housing units in Breitung Township was very low according to the most recent American Community Survey estimates.

## CHAPTER 7.0-HOUSING

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### 7.8 Issues and Opportunities continued

- Private housing development is constrained by land availability and environmental conditions caused by methane gas. Street grid systems and sidewalks are largely absent in newer developments; for the most part, curbs and gutters are present.
- Many new residential developments are occurring on lands that were used for agricultural purposes.
- The Breitung Township Zoning Ordinance requires large lots in certain areas of the Township, which often makes the property not affordable to new home buyers. As part of recent revisions to the Ordinance, there are now three Rural Residential Districts with minimum lot size requirements including 1, 2.5 and 5 acres.
- Homes on small lots may create problems in having the water supply well an adequate distance from adjoining septic systems.
- Federal and state programs are available to help low income homeowners with needed repairs. The local community action agency offers a housing rehabilitation program to area residents based on income and type of housing need that exists. A down payment assistance program for first time home buyers is available on a limited basis.

## CHAPTER 8.0-RECREATION

### 8.1 Introduction

This chapter provides current information about the location, features, and use of parks, open space sites and other recreational facilities in the Township and nearby areas. Requirements set forth under the Americans with Disabilities Act (ADA) of 1990 and a listing of historical places in the area will also be presented. Information contained in this chapter is intended to provide information to guide Township decision makers regarding future park development and/or acquisition.

The large amount of leisure time available to most persons is a relatively new phenomenon. Healthy, socially acceptable outlets that channel free time in life-enriching directions are roles for recreation. Thus, the provision of recreation opportunities is important to the overall quality of life in a community.

Breitung Township prepared a recreation plan in 2005 which was subsequently accepted and approved by the Michigan Department of Natural Resources (MDNR); the eligibility period for the Township to apply for MDNR recreation grants expired on December 31, 2010. As a part of the Master Plan process, an updated recreation plan will be developed. A current recreation plan (one prepared within the past five years) allows a community to be eligible to apply for recreation grants including Trust Fund, Land and Water Conservation and Recreation Passport grants, offered through the Michigan Department of Natural Resources. A new recreation plan must meet the planning requirements of the MDNR. This chapter will provide a framework for such a plan. However, a recreation plan for the MDNR must be a “stand alone” document.

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

### 8.2 Recreational Space Definitions

Terms that will be used throughout this chapter are defined in the following to insure a common understanding of various types of recreational facilities.

- **Active Recreation Site:** A park designed primarily for active recreation of one or more age groups. Such a design may have as its primary feature play fields, playground apparatuses, ball fields, or a combination thereof.
- **Baseball/Sandlot:** A small grassed area with a primitive backstop designed to serve the needs of children less than 12 years of age. Such a park is usually inadequate for organized softball or baseball leagues because of the size of the field.



## CHAPTER 8.0-RECREATION

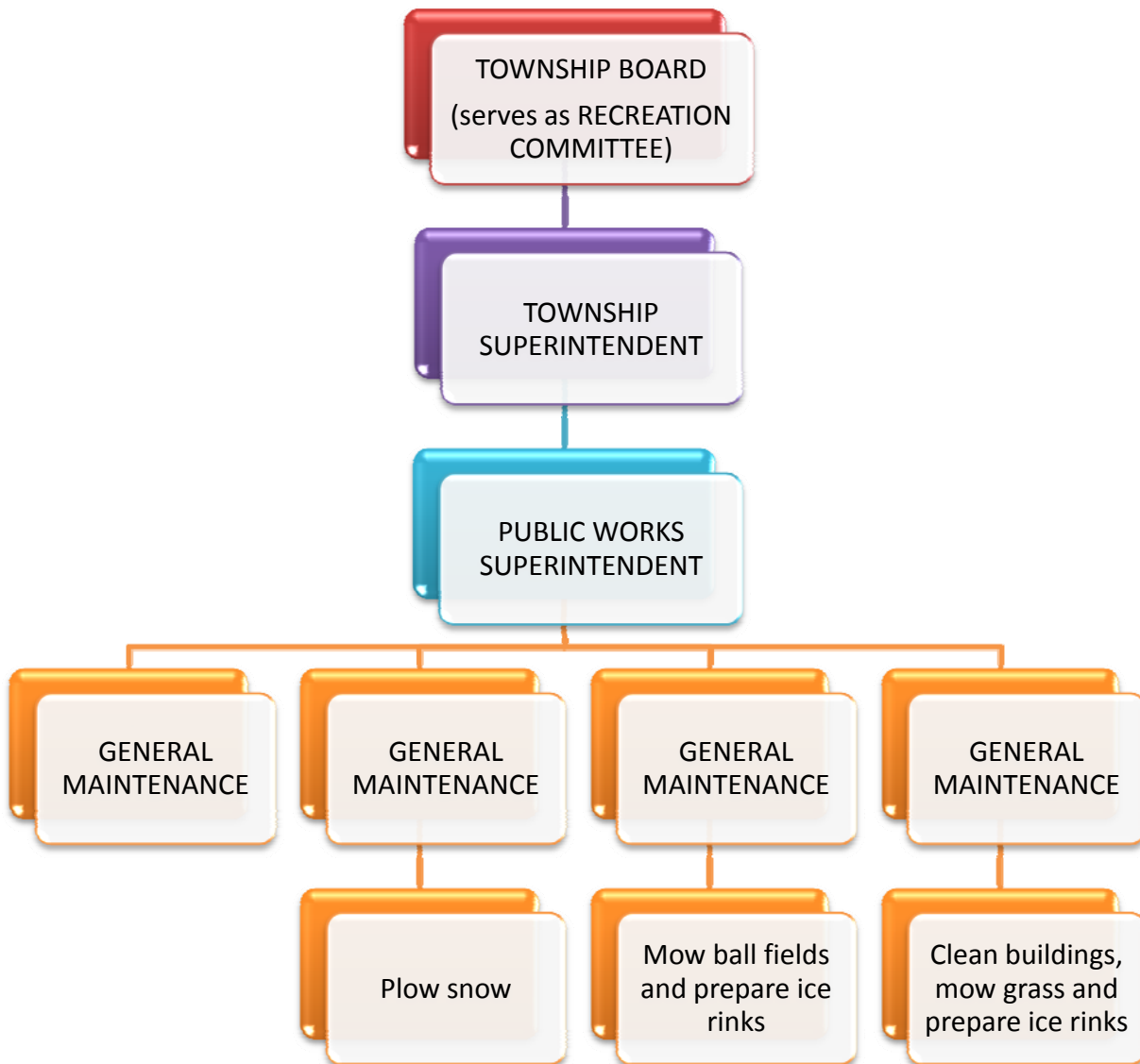
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### 8.2 Recreational Space Definitions continued

- **Combination Park:** A park containing two or more types of recreation areas. For example, a passive recreation site and a play field within the boundaries of one facility.
- **Community Park:** An area of diverse environmental quality that may include areas suited for intense recreational facilities such as athletic complexes and large swimming pools. Such facilities may offer natural qualities suited for outdoor recreational activities such as walking, viewing, sitting, and picnicking.
- **Land-Based Recreation:** Those activities which can be pursued without requiring a recreational water supply. Examples include camping, hiking, picnicking and field sports.
- **Mini-Park:** A park of specialized facilities that serves a concentrated or limited population or specific group such as tots or elderly persons.
- **Neighborhood Park/Playground:** An active recreation site incorporating one or more open space areas designed for field sport and providing play apparatuses. The open space areas should be able to serve the needs of both youth and adults.
- **Passive Recreation Site:** A park primarily designed for picnicking, walking, and other non organized recreation interests. Such a facility often places more emphasis on the natural setting as opposed to active types of recreational activity.
- **Service Areas:** A service area reflects the average distance users are willing to travel to a facility, a zone of influence. Although usually expressed in terms of a service radius, the influence is affected by features such as traffic arteries and rivers. A unique facility, or feature of a facility, may extend the normal zone of influence.
- **Water-based Recreation:** Recreation based on the availability of a water supply. Boating, swimming, fishing, and ice skating are obvious examples of water-based recreation activity.
- **Greenspace:** A passive area varying in size and provides space for special purpose or use. Facilities designated as greenspace include roadside parks and public access sites. A public access site is owned and maintained by a governmental unit allowing persons access to a water body for recreational fishing or boating. A roadside park is owned and maintained by a governmental unit providing picnic tables, water and rest facilities for travelers along the highway.
- **Regional:** A facility that serves the people of a region, usually within an hour's travel time. This type of park has two functions: preserve a portion of the natural landscape and provide extensive recreational facilities.

### 8.3 Recreation Administration and Budget

Breitung Township's current organizational structure for recreation is detailed below:



Under Public Act 156 of 1917, the elected Township Board serves as the Recreation Committee in Breitung Township. The Township Board solicits public input from residents regarding the development and management of various recreation facilities at public meetings throughout the year. Implementation of recreation activities and the operation and maintenance of facilities is the responsibility of the Public Works Superintendent and employees. Over the past five years, the Township Board has spent anywhere from \$80,000 to \$120,000 on recreation from the general fund; the average over the past five years has been \$90,000.

## CHAPTER 8.0-RECREATION

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### 8.3 Recreation Administration and Budget continued

Operations and maintenance portions of the Township recreation budget, as well as capital improvements are funded entirely from the general fund. The consistent amount allocated each year on recreation reflects the Township's recognition of a continued need for recreation activities and programs as well as maintaining and upgrading existing facilities. The Township plans on allocating approximately \$80,000-\$90,000 per year from 2012-2016 for recreation.

### 8.4 Relationship With Other Organizations

Breitung Township provides and maintains recreational facilities for users but does not provide programming. Those recreational uses that require organizing and scheduling are guided by community volunteers. Township officials maintain an oversight role to insure equitable usage among various groups and that timely and necessary maintenance is completed. Facilities are open without fee to the general public within established hours of operation. The Township has not established any formal or informal relationships with private or public organizations for the maintenance or operation of parks and recreation in the Township. The Township holds a "Come Meet Your Neighbor" community picnic and garage sale.

Recreational programming is carried out by many public and private groups in Breitung Township. The Township has had a long and successful relationship with both community and school organizations. The dominant source of recreational programming in the Township has been through the school system. Each school system provides some level of programming, with the majority organized by the Dickinson County Community Schools Program. The Community Schools Program offers a diverse array of organized recreational activity. Some private groups also provide for programming such as the softball association and hockey association. The numerous bowling alleys in Iron Mountain, Kingsford and Norway program their respective leagues throughout the year. A new soccer complex with two fields was completed in 2010, located on Pine Mountain Road; programming is provided by the Soccer Association for Youth (SAY) and Northern Stars Soccer Club. The Township operates a baseball field, in conjunction with the Little League, Babe Ruth League and Softball League, who assist with ballfield maintenance. UP Veterans Memorial Park is maintained by area veterans.

The Dickinson-Iron Community Services Action Agency provides five senior citizen centers in the County. Rural centers with limited recreational activities are located in Felch and Sagola. The Norway Center, Brown Street Center in Iron Mountain and the Breen Street Center in Kingsford are the other Senior Centers. The centers provide a wide range of recreational programming and activities of a partially recreational nature for seniors. The community school has cooperated in the past in providing educational and recreational programs in crafts in the past. The schools have also organized parties for seniors in the past. The senior meal programs offered by the centers are also considered social-recreational events for those that use the centers.

## CHAPTER 8.0-RECREATION

### 8.5 Township Park and Recreation Facilities

Park and recreational facilities found within Breitung Township (see Map 8-1, Recreation Sites) are shown in Table 8-1.

Township owned facilities were evaluated for accessibility using the following guidelines:

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 8-1**  
**Existing Recreation Facilities within Breitung Township, Public**

Name	Description	Ownership	Type
Chuck Nelson Baseball Field 	Little League regulation baseball field (2.8 acres) <b>Accessibility Assessment = 1</b>	Township	Community park
Deer Lake Park	Playground (0.5 acres) <b>Accessibility Assessment = 1</b>	Township	Mini park
East Kingsford Recreation Area	3.2 acres, playground equipment, baseball field, 1 outdoor basketball court, multi-purpose open field, illuminated ice rink, warming shelter, and multi-purpose room (36' x 40' recreation building) (3.2 acres) <b>Accessibility Assessment = 2</b>	Township	Community park

**Table 8-1**  
**Existing Recreation Facilities within Breitung Township, Public**




Name	Description	Ownership	Type
<p>Forgette Field</p> 	<p>Babe Ruth regulation baseball field (1.5 acres) <b>Accessibility Assessment = 1</b></p>	Township	Community park
<p>Quinnebec School Park/Playground</p>   	<p>Playground equipment, tennis court, 1 outdoor basketball court, multi-purpose open field, soccer field, skateboard park, and an ice rink and warming shelter/rest rooms/storage facility, pavilion (6.8 acres) *The Township received a MDNR grant in 1985 in the amount of \$13,253. The project was closed out successfully. <b>Accessibility Assessment = 2</b></p>	Township	Community park
<p>Eskil Memorial Park</p> 	<p>8 acres, hiking (8.0 acres) <b>Accessibility Assessment = 1</b></p>	Township	Community park

## CHAPTER 8.0-RECREATION

Table 8-1 Existing Recreation Facilities within Breitung Township, Public			
Name	Description	Ownership	Type
Bodelin Access Site	Public access site to Menominee River with hard surface ramp, 10 parking spaces and toilet facilities. (3.7 acres)	MDNR	Regional park
Bass Lake Access	Public access site to Bass Lake, hard-surface boat ramp, toilets, 10 parking spaces (1.3 acres)	MDNR	Regional park
Lake Antoine Park 	25 acre picnic area with 227 tables and 2 shelters, 114 camping sites, 600+ parking spaces, playground equipment, tot lot, softball field, multi-purpose open field, band shell, dumping station, showers, bathhouse, 3,000 ft. swimming beach, 5,000 ft. water frontage, fishing, and boat launch (50.9 acres)	Dickinson County	Regional park
Fumee Creek Roadside Park 	Rest area with picnic tables, toilets, water pump, and historical marker (2 acres)	MDOT	Mini park
Fumee Lake Nature Area 	Non-motorized area surrounding Fumee Lake with hiking, biking, cross-country trails, parking lot with toilets and drinking water (1,087 acres)	Dickinson County	Regional park



**Table 8-1**  
**Existing Recreation Facilities within Breitung Township, Public**



<p>Pine Mountain Ski Jump</p> 	<p>World's highest artificial ski jump (63 acres)</p>	<p>Dickinson County</p>	<p>Regional park</p>
<p>Upper Peninsula Vietnam Veterans Memorial Park</p>  	<p>Vietnam Veterans Park with 6 monuments, flag, pavilion with water and power, indoor restrooms, picnic tables, horseshoes. Available for rent to the public (1/2 acre)</p>	<p>Dickinson County</p>	<p>Community Park</p>

**Table 8-2**  
**Existing Recreation Facilities within Breitung Township, Private**

<b>Name</b>	<b>Facilities</b>
Summer Breeze Campground	30 wooded acres with a private pond, 100 campsites, hot showers, laundry, dumping station, swimming pool, fireplaces, and picnic tables
Duvall Lakeside Resort	Individual rental cabins
Edgewater Resorts and Country Log Cabins	Individual rental cabins private swimming beach boat and motor rental
Timberstone Golf Course	18-hole golf course, and driving range

## CHAPTER 8.0-RECREATION

### 8.5 Township Park and Recreation Facilities continued

Table 8-2 Existing Recreation Facilities within Breitung Township, Private continued	
Name	Facilities
Rivers Bend Campground	150 sites, electricity, sewer hookups, showers, and sanitary station
Twin Falls Park (WEPC Wilderness Shores Site 7)	Adjacent to Badwater Lake, 2 boat ramps
Big Quinnesec Falls Park (WEPC Wilderness Shores Site 6)	Boat launch
Pine Mountain Lodge 	14 slopes and trails, with chair lifts and rope tows, overnight lodging and dining, Eagle Mountain golf course and cross-country ski trail
Soccer Complex 	Two soccer fields on Pine Mountain Road with turf, underground irrigation system, lighted scoreboard, restrooms, concession area and pavilion

## CHAPTER 8.0-RECREATION

### 8.6 Nearby Community Parks and Recreational Facilities

Public recreation facilities found at the Woodland Elementary and Middle School/High School Complex and are described in Table 8-3.

Table 8-3 Breitung Township School District Recreational Facilities	
Middle School/High School Complex	Woodland Elementary School
<ul style="list-style-type: none"> <li>• 8 tennis courts</li> <li>• 2 outdoor basketball courts</li> <li>• 2 gymnasiums</li> <li>• 2 softball fields</li> <li>• open field for general physical education</li> <li>• 2 indoor basketball courts</li> <li>• 3,000-seat stadium</li> <li>• 605-seat auditorium</li> <li>• parking</li> </ul>	<ul style="list-style-type: none"> <li>• 2 softball fields</li> <li>• 2 soccer fields</li> <li>• 2 outdoor basketball courts</li> <li>• indoor basketball court</li> <li>• gymnasium</li> <li>• playground</li> <li>• parking</li> </ul>

Public and private recreational facilities located in adjacent communities are included in Table 8-4.

Table 8-4 Area Recreational Sites	
Site Name	Features
<b><i>City of Iron Mountain</i></b>	
City Park	Bocce courts, benches, picnic tables, pavilion, volleyball courts, playground equipment, water, restroom buildings, log shelter, stone fire stove, log park ranger building, soccer-football field, tennis courts, walking trail, enclosed deer yard, illuminated ice rink, sledding area, cross-country ski trail, snowmobile trail access site, and off-street parking (69.2 acres)
Westside Field	Bleachers, off-street parking area, batting cage, dugouts, benches and playing field (9.3 acres)
Crystal Lake Park	Soccer field, playground equipment, picnic table and volleyball court (5.5 acres)
Stockbridge Avenue Park	Illuminated ice rink (1.0 acres)
Forest Street Playlot	Bench and playground equipment (0.5 acres)
Jess Tidmore Memorial Courts	Bench and tennis courts (0.3 acres)
Pewabic Playfield	Bench, picnic table, and playground equipment (5.0 acres)
Eastside Recreation Complex	Ball field, dugouts, bench, tennis courts, storage shed, water, ice rink and off-street parking (5.0 acres)

<b>Table 8-4 Area Recreational Sites</b>	
Site Name	Features
Mountain View Ice Arena	Indoor artificial ice complex and off-street parking area (5.0 acres)
Ranger Field	Ball field, dugouts, spectator seating, batting cage and off-street parking (1.5 acres)
Northside Ball Field	Ball field, dugouts, seating, water, play equipment (7.5 acres)
West Lake Antoine Launch/Park	Launching piers and off-street parking (4.5 acres)
Hercheids Campo Sportivo	Benches, tennis courts, and play equipment (1.5 acres)
East Elementary School	Bike racks, benches, gymnasium, outdoor basketball court, and play equipment (7.5 acres)
Stanton Street Center	Play equipment (0.2 acres)
North Elementary School	Picnic tables and benches, basketball hoops, hard surface play area, play equipment and off-street parking (14.0 acres)
Iron Mountain High School	Physical education building, indoor basketball court, auditorium, and indoor stadium (3.8 acres)
Central Elementary and Junior High schools	Gymnasium, outdoor basketball court and hard surface play area (3.0 acres)
Dickinson Area Catholic School	Hard surface play area, play equipment and outdoor basketball court (0.2 acres)
Iron Mountain Stadium	Track, football field, restroom building, concession stand, ticket booth, practice field, grandstand w/press box, and storage building (5.0 acres)
Michigan Welcome Center	Tourist information and other services
<b><i>City of Kingsford</i></b>	
LoDal Park	Ball ballfield, tennis courts, restrooms, picnic tables, parking and facilities for football, horseshoes, basketball, skateboarding, and fitness (21 acres)
Cowboy Lake Park	Bathhouse, pavilion, swimming, boating, fishing, picnicking (3.5 acres)
Menominee River Recreation Area	Parking, portable restrooms, picnicking, boat launch, picnic shelter, restrooms (6.5 acres)
Balzola Field	Baseball and soccer facilities with perimeter fencing and dugouts (4.0 acres)
Ford Park	Play equipment, tennis court, open space (5.6 acres)
Breen Street Playground	Playground equipment, open space with a hill used for winter time sledding (1.1 acres)
Triangle Park	Play equipment and open play field (1.1 acres)
Fulton Street Park	Open space used for winter ice skating and summer open play field (0.5 acres)

<b>Table 8-4 Area Recreational Sites</b>	
Site Name	Features
Lyman Street Park	Open play field (0.5 acres)
Beech Street Park	Lighted ice rink, ball field and open space (1.5 acres)
Olympic Street Park	Benches and play equipment (0.35 acres)
Waverley Street Park	Open play area and wintertime skating
<b><i>Norway Township</i></b>	
East Vulcan Playground	Picnic area, basketball court, baseball field, playground equipment, volleyball court, multi-purpose area and parking
Marion Park and Norway Recreation Complex	Picnic area, playground equipment, baseball fields, picnic pavilions, golf course, soccer fields, archery range, tennis courts, restrooms, horseshoe courts (180 acres)
Lake Mary Park	Picnic area with tables, swimming beach with 400 feet of water frontage, a bathhouse, playground equipment (6.2 acres)
Hanbury Lake Park	Restrooms, parking, playground equipment, picnic area, boat landing, swimming beach, recreational field (28 acres)
Dickinson County Fairgrounds	Sites of the annual county fair held Labor Day weekend (77 acres)
Carney Lake Campground	State-owned campground along the western shore of Carney Lake with camping sites, swimming beach, fishing, bathhouse, restroom, parking, boat launch, well, pathway (8.5 acres)
Rock Lake Public Access Site	Gravel surface boat launch, parking, scenic trail, toilet, camping spaces, (80 acres)
Norway Reservoir Public Access Site	Hard surface boat launch, parking, toilets, courtesy pier
Merriman East Pathway	Ski/hiking trails within the Cooper Country State Forest trails are 3.3 and 5.6 miles
Lake Antoine Trail	10-mile snowmobile trail
Piers Gorge	Scenic river rapids and cascade and hiking trail
<b><i>Felch Township</i></b>	
Solberg Lake (MDNR Access Site)	Gravel-surfaced ramp, toilets, and parking area
Six Mile Lake (MDNR Access Site)	Hard-surfaced ramp, toilets, and parking area
Gene's Pond State Forest Campground and MDNR Access Site	14 sites, no swimming, scenic area around the flooding, hard-surfaced ramp, toilets, and parking area
<b><i>Sagola Township</i></b>	
Silver Lake (MDNR Access Site)	Hard-surfaced ramp, toilets, and parking area

<b>Table 8-4 Area Recreational Sites</b>	
Site Name	Features
Edey Lake (MDNR Access Site)	Gravel-surfaced ramp, toilets, and parking area
<b><i>Waucedah Township</i></b>	
Waucedah Township Recreation Site	Baseball field, basketball court, and football/soccer field
Mary Lake (MDNR Access Site)	Hard-surfaced ramp, toilets, and parking area
Hamilton Lake (MDNR Access Site)	Hard-surfaced ramp, courtesy pier, toilets, and parking area
Bergen Backwater (MDNR Access Site)	Hard-surfaced ramp, toilets, and parking area
West Branch Sturgeon River (MDNR Access Site)	Hard-surfaced ramp, toilets, and parking area
WEPC Wilderness Shores Site 11 (Sturgeon River near Power Dam)	Boat launch, toilets, and parking area
<b><i>City of Norway</i></b>	
North Nelson Street Playlot	Playground equipment, and basketball court
Ice Rink	Multi-purpose open field, illuminated ice rink, and warming shelter
Lake Mary	300 feet water frontage
City Hall	Bandshell
Strawberry Lake Area	100x400 ft. treated wood multi play apparatus, walking trail, two fishing piers, picnic tables, and benches
Norway High and Elementary School	Parking, playground equipment, tennis courts, indoor basketball court, multi-purpose open field, gym, meeting rooms, and football field
Oak Crest Golf Club	18-hole golf course and driving range

## 8.7 Recreational Needs

Improvements listed in the Breitung Township 5-Year Recreation Plan for Township-owned recreational facilities are described in Table 8-5 below.

<b>Table 8-5 Breitung Township Recreation Development Schedule</b>	
Year	Cost (Funding Source)
Quinnesec Ballfield-Install Fence, Lighting, Rest Rooms, Concession Stand and Storage	\$150,000 General Fund/DNR Grant/Private Donations
Install Sprinkler System at the Quinnesec Soccer Field	\$15,000 General Fund/Donations



<b>Table 8-5 Breitung Township Recreation Development Schedule</b>	
<b>Year</b>	<b>Cost (Funding Source)</b>
Paint and Repair Playground Equipment	\$1,000 General Fund And Public Works
Replace Playground Chips	\$5,000 General Fund And Public Works
Eurasian Milfoil Eradication	\$5,000 PER YEAR LAKE ASSOCIATION, CITY OF IRON MOUNTAIN, DICKINSON COUNTY And GRANTS
Update Skateboard Park	\$10,000 General Fund
Quinnesec Park Walking Trail, Trees, Benches, Etc.	\$50,000 GENERAL FUND, DNR GRANT And PRIVATE DONATIONS
Badwater Boat Landing, Parking, Restrooms and Dock	\$150,000 Mdnr, Local And County
Historic Walking Trail/Quinnesec Mine (Devil's Ice Box) Observation & Recreation Area, Fencing, Trails and Parking Area	\$75,000 Mdnr And Local
Update Playground Equipment Quinnesec/E. Kingsford/Deer Lake Parks	\$50,000 GENERAL FUND and DONATIONS

## 8.8 Park Accessibility Requirements

The Americans with Disabilities Act (ADA) identified specific standards to insure that persons with disabilities have an equal opportunity to participate fully, live independently, and be economically self-sufficient with society. The ADA consists of five sections that include employment, public accommodations, transportation, state and local government operations, and telecommunications. Public Accommodations, Title II of the ADA, deals with the level of accessibility and equal provisions of service at publicly owned outdoor recreation sites. This title states that discrimination against persons with disabilities is prohibited in all services, programs, or activities provided by public entities.

The general requirements set forth under this section became effective January 26, 1992. Remodeling or new construction of facilities and buildings had the same deadline date to become accessible to disabled persons. In existing buildings and facilities, nonstructural changes to improve accessibility were required by January 26, 1992, while all structural improvements of facilities and buildings were required by January 26, 1995. The ADA of 1990 requires that "reasonable accommodation" be made to the needs of the estimated one in five people nationally who are disabled. That is, all public and private providers of goods and services, along with all employers, must remove all structural and communication barriers from facilities or provide alternative access where feasible.

## CHAPTER 8.0-RECREATION

### 8.9 Historical Resources

#### Within Breitung Township:

Below is a list of fourteen properties located within Breitung Township which are considered historical places. Some of the sites are related to the industries in the area which were responsible for the area's development. Others are in remembrance of people in the past. Two of the properties are listed on the State Register of Historic Places.

- 1. Big Quinnesec Falls Hydroelectric Plant:** At Big Quinnesec Falls - The plant was built in 1914 by the Peninsula Power Company. A concrete dam was constructed at the site, but another dam, built in 1949, was constructed slightly downstream and as a result submerged the first dam. The intake canal and head works leading into the powerhouse are the remaining portions of the dam. The powerhouse and original equipment are still in use by the Wisconsin-Electric Power Company.
- 2. Hydraulic Company Quinnesec Falls Compressor Building:** At Big Quinnesec Falls - Two major Iron Mountain mining companies, the Oliver Iron Mining company, and the Ludington Company, formed the Hydraulic Company to utilize the water power at Big Quinnesec Falls to produce compressed air for their underground mine operations. All that remains of the plant and system, built 1883, is the compressor building, a one-story rectangular stone building. The building is used as a warehouse by Wisconsin Electric Power Company.
- 3. Twin Falls Hydroelectric Plant:** At Twin Falls - This plant is one of the oldest remaining on the Menominee River. It was built by the Peninsular Power Company in 1912. The powerhouse and original equipment are still in use by the Wisconsin Electric Power Company. The plant was revamped in 1976.
- 4. Chicago, Milwaukee, St. Paul, and Pacific Railroad Menominee River Bridge:** East Kingsford - This is the second bridge built at the site in 1902. The bridge consists of two sets of two steel deck girder approach spans plus a single steel arch span resting on concrete piers and abutments. It is currently used by the Escanaba & Lake Superior Railroad.
- 5. Chicago and Northwestern Railroad Fumee Creek Bridge:** Quinnesec - This stone arch bridge was built in 1888, a decade after the Chicago and Northwestern Railroad was built into Quinnesec. It probably replaces an earlier wooden structure. This structure is currently being used by Canadian National Railroad.
- 6. Chicago and Northwestern Railroad Menominee River Bridge:** Quinnesec - The trussed bridge is located on a Canadian National Railroad rail spur built to serve the Kimberly-Clark paper mill in Niagara, Wisconsin. The bridge is 320 feet long, 18 feet wide.

## CHAPTER 8.0-RECREATION

### 8.9 Historical Resources continued

7. **Chicago and Northwestern Railroad Menominee River Bridge:** Breitung Township - This steel trussed bridge was erected by the American Bridge Company in 1911. The bridge is currently being used as a snowmobile crossing over the Menominee River.
8. **United Methodist Church:** Quinnesec - The Quinnesec United Methodist Church was officially organized in February 1880. John Buell, founder of Quinnesec, deeded land to the church located, at that time, along US-2. The church was constructed in 1880 and 1881. The Quinnesec United Methodist Church is a simple rectangular, front-gabled, clapboard-sheathed building with round-arch, stained glass windows and a small circular stained glass window in the center of the front gable. Recent additions to the building include a wood and brick modern narthex. The church is still used for Sunday worship services. Between the years 1897 and 1910, the Methodist Church had its largest congregation due to the three active mines in the area. A 1906 fire leveled the original central business district and the United Methodist Church was one of the few buildings spared. The expansion of U.S. 2 necessitated the moving of this simple rectangular clapboard church from its original site. On July 30, 1976, the church was moved to its present location on a parcel of land at River and Division Streets. A series of additions over the years has destroyed the building's architectural integrity, but it retains historic significance both as the oldest church in Dickinson County and as one of the few remaining landmarks of Quinnesec, the oldest town on the Menominee Range. On November 7, 1977, the structure was placed on the Michigan Register of Historic Sites.
9. **Menominee Iron Range:** The historical marker, erected September 19, 1958, identifying the Menominee Iron Range as a significant part of the historical development of Dickinson County and surrounding areas, is located along U.S. 2 at the Fumee Creek Roadside Park, just west of the community of Quinnesec. The Range, whose name is derived from the Menominee River, is one of three great iron ore districts in the U.P. The Menominee Range has separate east and west areas. The eastern portion of the Range generally runs west from just north of Hermansville to just west of Iron Mountain and north from Vulcan to Felch, while the western portion generally runs south-southeast Amasa to Stager.

Signs of iron ore within the Range area were first noted by William A. Burt in 1846, who discovered the Marquette Iron Range. In 1849, federal geologist J.W. Foster found iron ore near Lake Antoine. The first mining operation within the Range area was started in 1872 by the Breen brothers, timber cruisers from Menominee. The rapid development of mining operations in the Range was delayed until 1877 when the railroad was built as far as Quinnesec, providing an important link to the ore docks in Escanaba.

## CHAPTER 8.0-RECREATION

### 8.9 Historical Resources continued

By 1882, the railroad tracks reached all the way to Crystal Falls and Iron River. After the railroad was in place, many additional mines were developed within the Range, which produced for decades vast amounts of ore for the iron and steel industries in America. Within Breitung Township, the following mines were in operation during the Range's mining era: Quinnesec (1878-1888, 1895. 1899-1904. 1908-1910, and 1935), Indiana (1882-1920s), Keel Ridge (1880-1883 and 1892), Globe, Cundy, Vivian, Illinois, Cuff, Forest, and Trader mines. The Menominee Iron Range was officially recognized as a State historical site on August 23, 1956. The marker's text reads:

MENOMINEE IRON RANGE | This range, named for the Menominee River which runs through part of it, is one of three great iron ore districts in the Upper Peninsula. In 1846, William A. Burt the discoverer of the Marquette Iron Range, noted signs of iron ore in the Crystal Falls area. In 1849 federal geologist J. W. Foster found ore near Lake Antoine, and two years later he and J. D. Whitney confirmed Burt's report on the Crystal Falls district. The first mining activity began in 1872 at the Breen Mine, where ore had been discovered in the 1860s by the Breen brothers, timber cruisers from Menominee. Development of the range was delayed until a railroad could be built from Escanaba. The Breen and Vulcan mines shipped 10,405 tons of ore in 1877 when the railroad was built as far as Quinnesec. By 1880 it reached Iron Mountain and Florence, and in 1882 tracks were laid to Crystal Falls and Iron River. Twenty-two mines had made shipments of ore that year. A few crumbling ruins are all that remain of most of them, but in subsequent decades many more mines were developed which have produced vast amounts of ore for America's iron and steel mills.

10. **Carpenter's Monument:** County Road 607 by Menominee River - A monument erected by the Dickinson County Road Commission in honor of its second road engineer who was killed when the ship Carolina was torpedoed by the Germans in 1918. Carpenter was on his way back to the states from Puerto Rico where he was constructing roads. The stone monument was put in during the 1920s.
11. **Granite Bluff:** This location never developed into a village of any size and was mainly a siding and flag station along the Chicago, Milwaukee, and St. Paul Railroad. In 1893, the location had a population of 50.
12. **Keel Ridge Mine:** Keel Ridge - Site of one of the worst mining disasters in Dickinson County, eight miners were buried in a cave-in on April 10, 1883. All that remains are the remnants of the mining activity - old railroad grade, stone foundations, piles of ore, and the cave opening.
13. **Badwater Lake Indian Settlement:** Twin Falls - A former site of a thriving Indian village that was mentioned in diaries and notes of early explorers and surveyors.

## CHAPTER 8.0-RECREATION

### 8.9 Historical Resources continued

- 14. Merriman:** community of Merriman - This is the site of a railroad station that was used by the Superior Division of the Chicago, Milwaukee, St. Paul, and Pacific Railroad.

Sources: The Upper Peninsula of Michigan, An Inventory of Historic Engineering and Industrial Sites, 1978, and Michigan Ghost Towns - Volume II Upper Peninsula, 1973.

#### Within Dickinson County:

**1. Ford Motor Company reminders**

Prominent remnants of the once-dominant Ford Motor Company are Ford House on Woodward and the Ford Store on Carpenter. Other reminders of the Ford Motor Company are found throughout the Kingsford-Iron Mountain area.

**2. Dickinson County Courthouse and Jail**

This unique structure has been listed on the State Register since 1977 and on the National Register since 1980. A marker was erected at the front of the building facing US-2 in Iron Mountain.

**3. Chapin Mine Steam Pump Engine**

Perhaps better known as the Cornish Pump, this piece of machinery is recognized as an engineering achievement. The steam pump engine extracted water from as deep as 1,500 feet at a rated capacity of 3,400 gallons per minute. It was similar to mine pumps used in Cornwall, England, and was eventually replaced by electric pumps. Listing on the State Register came in 1958; listing on the National Register followed in 1981. A historic marker was erected at the site in 1983.

**4. Carnegie Public Library**

This building has been the home of the Menominee Range Museum since 1971 and is found in Iron Mountain. It was listed on the State Register in 1977 with a marker erected at the location in 1979.

**5. Ardis Furnace**

Located in Iron Mountain, this site marks the efforts of inventor John T. Jones to process low-grade iron ore reserves. A marker was erected at the site in 1972. The site was listed on the State Register in 1971 and on the National Register in 1972.

**6. Joseph Addison Crowell House**

This three-story Iron Mountain stone dwelling has been listed on the State Register since 1979. Dr. Joseph Crowell was employed by the Oliver Mining Company to service employees of the Chapin Mine. He was the first general surgeon in the Iron Mountain area.

## CHAPTER 8.0-RECREATION

### 8.9 Historical Resources continued

#### 7. Immaculate Conception Church

This Roman Catholic Church is closely associated with Italian immigrants who came to Iron Mountain seeking employment in the iron mines. It is listed on both the state and national registers. The site was listed in the National Register of Historic Places in 1990. A historical marker was erected in 1990.

#### 8. Norway Spring

Found along US-2 in Norway, this artesian well was created because of drilling associated with iron ore mining in 1903. Pressure caused by the elevation difference is released through the drilled hole, replicating the principle of an artesian well. A marker was erected at the site in 1966, the year it was listed on the State Register.

#### 9. Breitung-Vulcan Mine (Iron Mountain Iron Mine)

Also known as the Vulcan Mine and the Breitung-Vulcan Mine, this site was listed on the State Register of Historic Sites in 1990. It is found in the heart of the Menominee Iron Range and was one of its most significant mining operations. The Breitung-Vulcan Mine is part of the Penn Iron Mines that eventually were excavated over an area two-and-one-half miles long. The mine itself extended more than 400 feet from the mine entrance and through twelve levels to drifts, or horizontal tunnels, to a depth of more than 1280 feet below the surface. The Breitung-Vulcan Mine was the center of a complex of structures associated with the mining operation and was the catalyst for the construction of many buildings in the town of Vulcan. The mine excavation was one of the earliest and most significant contributors to the iron mining industry in the Menominee Iron Range. These mines helped create the United States' infrastructure from the late nineteenth century until the end of World War II.

#### 10. Others

Also noted for historic significance but no longer in existence are the Dickinson Hotel in Iron Mountain, the twin Ford Motor Company smokestacks in Kingsford and the Asselin Dairy Milk Bottle in Norway.

### 8.10 Issues and Opportunities

- Breitung Township contains a large number of parks and recreational facilities, both public and private. Several of these parks take advantage of waterfront locations while others provide areas for individual or team sport activities. Recreational facility development should consider demographic conditions and trends.
- In addition to the facilities found in Breitung Township, neighboring communities provide recreational opportunities as well. Large tracts of land, both in state ownership and those as Commercial Forest Reserve offer hunting, fishing, and other outdoor opportunities.



## CHAPTER 8.0-RECREATION

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### 8.10 Issues and Opportunities continued

- With the growing population, Breitung Township needs to provide adequate recreational facilities appropriate for the different age groups and location of its residents. There may be future opportunities to preserve unique sites and offer recreation facilities beyond the minimum recreation acreage standards.
- Several historic sites are located within Breitung Township. These sites offer a link to the community's past. There are two sites in the Township listed on the State Register of Historic Sites. There may be the opportunity to have additional sites be listed on either the state or national lists.
- Breitung Township recognizes that it has limited resources to serve the residents of the area. With that fact in mind, the Township will attempt to provide recreation activities in the most cost effective manner. Corporate lands which are currently used for recreation activities can be enhanced with the cooperation of the public and private sector.
- Breitung Township possesses some areas which are excellent hunting and fishing areas. These areas should be maintained and promoted for residents and tourists. These activities also diversify the recreation opportunities of the Township and provide an economic boost to the area. As a result, the Township believes these should be supported.
- Breitung Township should encourage companies with large land ownership to allow the public access for recreational purposes and may develop those lands for wider use.
- Facility costs associated with maintenance, liability, and anticipated obsolescence should be fundamental considerations in considering future recreation project developments.

## CHAPTER 9.0-TRANSPORTATION

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### 9.1 Introduction

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

Land development locations and patterns reflect the past availability of and technological advances in transportation. Historically, people traveled first by foot, then water and animal-power, then rail, trolley, bicycle, automobiles and, finally, by air. The extent of use and popularity of each of these options is related to many factors, including infrastructure availability, safety and ease of travel; accessibility; time needed to travel to reach the desired destination; and the cost to travel on the mode. In turn, factors such as the availability and cost for each of these modes and the freedom of choice provided by the mode, has had a synergistic relationship to land development patterns in Michigan.

Roads and other transportation systems have also been influenced by physical barriers present such as rivers, lakes, swamps and rugged terrain. Therefore, transportation routes generally were established where physical features offered the least resistance. A summary of the existing transportation facilities in Breitung Township, along with a discussion of future transportation facilities and services are also discussed.

### 9.2 Road System

Michigan Act 51 of 1951 requires that all counties and incorporated cities and villages establish and maintain road systems under their jurisdiction, as distinct from state jurisdiction. Counties, cities and villages receive approximately 61 percent of the funding allocated through Act 51 for local roads. State highways under the jurisdiction of the Michigan Department of Transportation receive the remaining 39 percent.

The roadways in Dickinson County fall into one of three general classifications: state trunklines, county roads, or city streets. MDOT maintains two categories of trunklines that run through Dickinson County: US highways and regular "M" state trunklines. The Dickinson County Road Commission (DCRC) is responsible for county roads and the cities within Dickinson County are responsible for the city streets. Roads within Breitung Township as classified under Act 51 are identified on Map 9-1, Act 51 Roads.

## CHAPTER 9.0-TRANSPORTATION

### 9.2 Road System continued

#### 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. The state trunkline system accounts for only 8.1 percent of centerline miles but it carries 53 percent of all traffic and some 70 percent of commercial truck traffic. State and federal highways are designed by the prefixes “I,” “M” and “US” respectively.

These roadways provide the highest level of traffic mobility for the traveling public. In Breitung Township, the highways classified as state trunklines are US-2, US-141, and M-95. In 2011, these three highways accounted for 14.97 miles, or 10.0 percent of the public road system within the township.

US-2 is the route that links Breitung Township with the eastern and western portions of the Upper Peninsula. The highway runs from Interstate 75 near the City of St. Ignace, through the City of Ironwood, with the western terminus at Everett, Washington on the west coast. A multi-lane stretch of US-2/141 runs from the City of Norway, through the community of Quinnesec, and then to the City of Iron Mountain.

US-141 is an important north/south highway corridor in the west-central portion of the Upper Peninsula. It runs from the US-41/M-28 intersection in Baraga County, through the cities of Crystal Falls and Iron Mountain, then to the City of Niagara, WI and beyond. Within the Iron Mountain/Kingsford urban area, it runs north from Niagara, WI, through a small portion of south-central Breitung Township, connects with US-2 just west of the community of Quinnesec, and then runs with US-2 through the City of Iron Mountain. In Iron Mountain, US-141 and US-2 merge with M-95 in the central portion of the City, and separate from M-95 about one mile north of Iron Mountain and runs westerly into Spread Eagle, WI.



M-95 is an important north/south state trunk line that links the township with the Marquette County cities of Ishpeming, Negaunee, and Marquette. From the southern terminus at the Wisconsin-Michigan border to the northern terminus at the US-2/41 intersection in Marquette County near Champion, the highway extends through the cities of Kingsford, Iron Mountain and the community of Merriman in Breitung Township. The highway is very important for the hauling of pulpwood and logs to industries in both the Iron Mountain/Kingsford urban area and the Sagola/Channing area. 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.

## CHAPTER 9.0-TRANSPORTATION

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### 9.2 Road System continued

#### **County Road System** (Primary and Local)

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 not served by state trunklines. The primary system serves as an important supportive road network for the trunkline system. Currently in Breitung Township, primary roads constitute 35.95 miles, or 24.0 percent of the public road system within the Township. Examples of primary roads within Breitung Township include Pine Mountain Road and Lake Antoine Road. There are 182.63 miles of primary roads and 354.90 miles of local roads in Dickinson County.

Roads not classified as primary are considered local. Local roads comprise the most miles in the county system, but have the lowest level of traffic. The roads in this system are often referred to as “township roads,” though the DCRC maintains jurisdiction of those roads. A total of 76.44 miles of roads within Breitung Township are classified as local, which is 51.0 percent of the public road system within the Township.

### 9.3 Private Roads

Within Breitung Township, several residential areas are served by private roads. The maintenance of these roads (snow plowing, grading, dust control, drainage ditch maintenance, etc.) becomes the responsibility of the residents living along these roads, who usually either accomplish these tasks on their own or through a contract agreement with a private entity. The Road Commission will not provide any maintenance service to privately owned roads.

The condition and location of private roads may affect some of the services provided to the residents such as fire protection, garbage collection, and emergency services. Access for fire and emergency vehicles on private roads can be difficult, especially if the roads are badly maintained, narrow, and/or lack enough space for turning around. As further development occurs along private roads, the possibility of conflicts between residents living along these roads with ongoing maintenance may occur. Often residents will request the Township Board or the Road Commission to pay for maintenance of private roads.

To avert potential issues with private roads, Breitung Township adopted zoning regulations regarding private roads. All lots in all zoning districts shall be located and have frontage on a public road or on a township-approved private road. Any lot of record created before the effective date of the Zoning Ordinance without any frontage on a public street or an approved private road shall not be occupied on a year-round basis without access to a street provided by an easement or other right-of-way not less than sixty-six (66) feet wide.

## CHAPTER 9.0-TRANSPORTATION

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### 9.3 Private Roads continued

All private roads shall meet the standards of a public road as required by the DCRC. Property owners with lots on existing approved private roads shall be encouraged to improve their roads to meet the DCRC standards, in order that the road may be accepted as a public road and become part of the Dickinson County public road system. Plans for private roads must be submitted to the Planning Commission as part of the site plan review process.

### 9.4 National Functional Classification

The National Functional Classification is a planning tool developed by the Federal Highway Administration and is used by federal, state and local transportation agencies. Under this system, streets and roads are classified according to their function along a continuum that indicates the greatest mobility/greatest access to property. Roads that provide the greatest mobility are classified as principal arterials. Minor arterials, major collectors, and minor collectors follow in this continuum. Roads classified as local provide the greatest access to property. The placement of roads into these categories is determined by the relationship to traffic patterns, land use, land access needs, and traffic volumes. Roads within the township, according to their classification under this system, are shown on Map 9-2, MDOT National Functional Classification (NFC) code.

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

#### **Principal Arterial**

The main function of a principal arterial road is to move traffic over medium to long distances quickly, safely, and efficiently. Often the movement is between regions or major economic centers. In Breitung Township, the roadways that are classified as principal arterial roads are US-2, US-141, and M-95 which total 14.19 miles. US-2, US-141, and M-95 are three vital highways that run through portions of Breitung Township, Dickinson County, and the Upper Peninsula. US-2, an east/west link across the U.P., serves as an important route for visitors coming to the U.P. for vacation as well as the transportation of commerce. US-141 and M-95 are important north/south highway corridors in the west-central UP, used heavily by businesses and industries for hauling raw materials and finished products by truck.

## CHAPTER 9.0-TRANSPORTATION

### 9.4 National Functional Classification continued

#### **Minor Arterial**

Roads within this classification move traffic over medium distances within a community or region in a moderate to quick manner. They distribute traffic between collector roads and principal arterials. Within Breitung Township, the portion of M-95 south of the City of Kingsford, Jackson Street from US-2 to Breitung Avenue, Breitung Avenue from Jackson Street to Kingsford's eastern limit, and about two miles of Pine Mountain Road north from the Kingsford's northern city limit are minor arterials. The last three segments of minor arterial roads mentioned above serve as part of an alternative route through the Iron Mountain/Kingsford area for vehicle traffic. There are 5.31 miles of roadway classified as minor arterial.

#### **Collector Roads**

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

Within Breitung Township, the northern portion of Pine Mountain Road, CR 607, CR 396, Lake Antoine Road, Kimberly Road, and Breitung Avenue from US-141 to East Kingsford are classified as major collector roads. Minor collectors found in the township are Breitung Avenue from the community of Quinnesec to US-141 and Merriman Road from the Norway Township line to M-95. There are 26.5 miles of collector roads within the township.

#### **Local Road**

The predominant function of roads in this classification is to provide direct access to adjacent land uses. A local road serves as the end for most trips within a community. Local roads include all streets not classified as arterials or collectors. There are 79.9 miles of local roads in the township.

### 9.5 Road and Bridge 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.

## CHAPTER 9.0-TRANSPORTATION







### 9.5 Road and Bridge Condition Evaluation continued

Future state trunkline system conditions are forecast using Pavement Management System data in conjunction with the Road Quality Forecasting System. It is anticipated that the percentage of pavements in poor condition will decrease over the next ten years. The goal is to achieve good ratings for 85 percent of the state's non freeway pavements by 2007. In 1996, only 63 percent of the total trunkline (non-freeway) system was determined to be in "good" condition. An evaluation of the state's road bridges in 1996 revealed that 79 percent were in good condition, a percentage that MDOT expects to increase to 92 percent by 2007. Bridge rehabilitation and replacement is scheduled on a "worst first" basis.

Roads within Breitung Township have been evaluated using the PASER (**PA**vement **S**urface and **E**valuation and **R**ating) system. A survey team drove all of the roads to evaluate the surface condition of the concrete, asphalt, gravel and unimproved earth roads. The survey utilizes such characteristics as surface distress, pavement strength and deflection. Roadways are rated on a scale from one to ten, with ten being the best or new construction, and one representing a condition needing total replacement. A roadway given the rating of "1" represents the poorest roadway condition with visible signs of distress and extensive loss of surface integrity; the roadway surface is failing and needs total reconstruction. 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". 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 9-1**

**Asset Management Strategies**

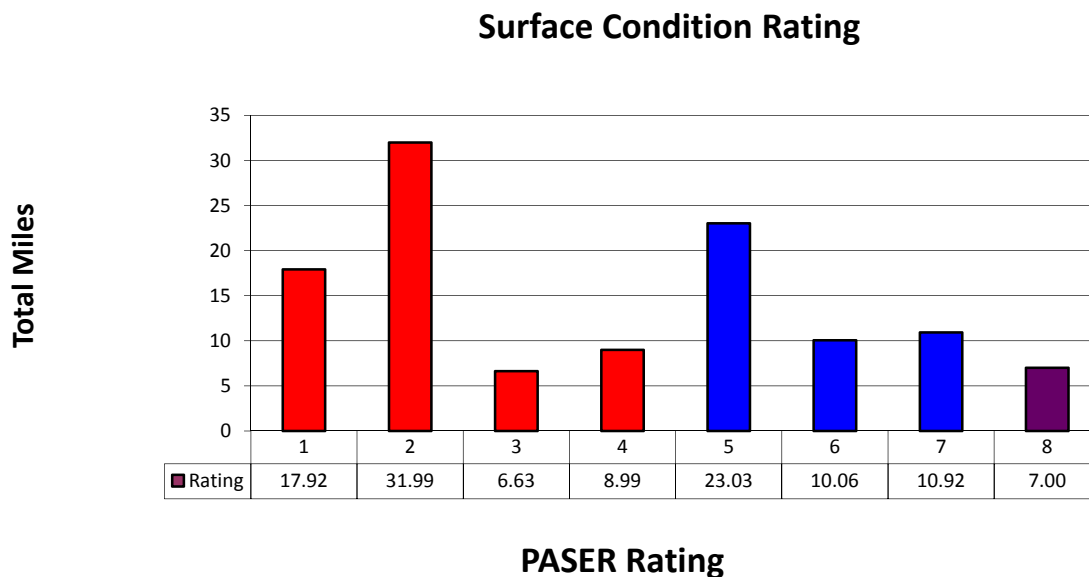
PASER Ratings	Asset Management Strategy	Description/ maintenance technique	
1-4 	Structural Improvement	Total reconstruction, resurfacing, gravel resurfacing, patching with major overlay	
5-7 	Capital Preventive Maintenance	Crack sealing, asphalt overlay, chip seal	
8-10 	Routine Maintenance	Street sweeping,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



## CHAPTER 9.0-TRANSPORTATION

### 9.5 Road and Bridge Condition Evaluation continued

The most recent surface condition ratings (asphalt surface type) have been combined and analyzed; see Map 9-3, PASER Analysis. Unless improvements have been made to roads in Breitung Township, the overall condition of the road system has likely deteriorated since the evaluation took place. The following chart shows the total length per rating.



Based on the survey results, forty-four percent (44 percent) of asphalt roads in Breitung Township are in poor condition and in need of structural improvement. Nearly eleven percent (11 percent) of the asphalt road system was rated as failed. A little over twenty-nine percent (29 percent) of the road miles fall into the capital preventive maintenance category. Breitung Township should look into prolonging the good condition of these road segments before they become in need of structural improvements. Lastly, less than five percent (5 percent) of the road segments were rated 8, which is at the bottom of the “excellent” condition spectrum. Roads with this rating should be considered for routine and preventative maintenance in order to maintain the current condition. This information can be used as a tool that will enable the township to set priorities according to the greatest need.

## CHAPTER 9.0-TRANSPORTATION

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### 9.6 Road Improvements

Annually, Breitung Township submits a list of local road improvement projects to the Dickinson County Road Commission. Breitung Township typically submits three to four projects per year. Roads scheduled for reconstruction and bituminous surfacing in 2011-2012 are:

Motts Landing Road  
Skidmore Drive-culverts and paving  
Fiorucci Road-culverts and paving

The Michigan Department of Transportation (MDOT) and the Wisconsin Department of Transportation (WisDOT) replaced the US-141 Bridge over the Menominee River at the Michigan/Wisconsin border. Additionally, MDOT reconstructed US-141 from the bridge north to the railroad bridge south of the US-2 intersection, including intersection safety improvements at East Breitung Avenue (Breitung Cutoff Road). The project began in 2010 with construction of contractor haul roads, detour route signing and pavement marking placement and was completed in 2011. This project replaced a bridge that was near the end of its service life with a new structure, including 12-foot-wide traffic lanes, 10-foot-wide shoulders and a protected 6-footwide sidewalk for pedestrians. Associated road work should improve ride quality, mobility and safety at the intersection of US-141 and Breitung Cutoff Road.

The Dickinson County Road Commission also plans to lobby for state and federal funds to rebuild Quinnesec-Lake Antoine Road in hopes of avoiding restrictions that would send more trucks and logging rigs through downtown Iron Mountain. The cost to rebuild the county's four-mile section of road running north from US-2 in Quinnesec to Lake Antoine is estimated at \$1.25 million; the City of Iron Mountain has another 1.5 miles of road running east from north US-2 to the lake, with a cost to rebuild of roughly \$500,000. Quinnesec-Lake Antoine Road has long served as an alternate route for pulp haulers heading to the Verso Paper Corp. mill in Quinnesec and road rutting has occurred. The DCRC voted to place permanent restrictions on heavy loads that will take effect in the spring of 2012 unless the road is reconstructed. The DCRC placed restrictions on through truck traffic beginning May 30, 2012 that applies to all commercial truck traffic and means that through truck traffic shall not occur, whether it is empty or loaded. Trucks having business on the Quinnesec-Lake Antoine Road such as deliveries, pickups or jobsites are permitted access and individuals with trucks that reside on the road will have access to and from their homes, but not for through hauling purposes.

## CHAPTER 9.0-TRANSPORTATION

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### 9.7 Financing

#### **Local Funding**

The Dickinson County Road Commission each year allocates a certain amount of funds towards improvements to the local road system in each of the townships, primarily using monies from the Michigan Transportation Fund (MTF). The percentage of local road improvement funding allocated to the townships varies year to year depending on the financial conditions of the Road Commission. For each local road project, the Road Commission will pay for the costs of labor and equipment, as long as this cost stays within the dollar amount figure that was allocated to the Township in the year of the project. The townships are responsible for paying the cost of materials (gravel, culverts, and asphalt paving) for each of the local projects and any cost over and above the amount allocated by the Road Commission for labor and equipment. Each year, Breitung Township submits to the DCRC a list of roads that are gravel or have deteriorated asphalt that are in need of paving. The DCRC provides a preliminary cost estimate to the Township Board from which the Township Board decides which roads should be paved.

Breitung Township does not levy a millage for road improvement projects, but rather uses general funds for its contribution to the DCRC for work. The Township cost shares with the DCRC the cost of repaving/improving the roadways. Breitung Township pays for material costs, such as gravel, culverts and asphalt paving with the Road Commission paying for the equipment and labor costs.

#### **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. Road classification, road mileage, and population are factored into a formula to distribute funds to all the county road commissions. A percentage of the funding received by each road commission is also set aside for engineering, snow removal, and urban roads. In 2004, the Dickinson County Road Commission was allocated a total of \$2,998,554 from the Michigan Transportation Fund, compared to \$2,776,057 received in 2003. In 2010, the Road Commission received a total of \$2,718,589 from the Michigan Transportation Fund, a decrease of approximately 10 percent from 2004 funding levels.

#### **Michigan Transportation Economic Development Fund**

The establishment of this fund in 1987 set forth a mission “to enhance the ability of the state to compete in an international economy, to serve as a catalyst for economic growth of the state, and to improve the quality of life in the state.” Investing in highway, road and street projects necessary to support economic expansion is the purpose of the TEDF.

## CHAPTER 9.0-TRANSPORTATION

### 9.7 Financing continued

#### Michigan Transportation Economic Development Fund continued

The six funding categories of the TEDF are as follows:

Category A	-	target industry development
Category B	-	state trunkline service
Category C	-	urban county congestion relief
Category D	-	rural county all-season roads
Category E	-	forest road
Category F	-	cities in rural counties all-season roads

Four of the funding categories are applicable to Dickinson County. Two programs are of a competitive nature and two are a formula allocation to the road commission. Category B funds were eliminated in 1993.

**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 DCRC.

**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 DCRC.

**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.

## CHAPTER 9.0-TRANSPORTATION

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### 9.7 Financing continued

#### Other

Federal assistance for state highways is supported mainly through motor fuel taxes. Construction and repair costs associated with state trunkline systems are generated from these taxes. The Intermodal Surface Transportation Efficiency Act of 1991, and its reauthorization as the Transportation Equity Act for the 21<sup>st</sup> Century (TEA-21), has resulted in allocation changes that have benefitted 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. Ten (10) percent of each state’s Surface Transportation Program (STP) funding is set aside for transportation enhancement projects. Enhancement activities are meant to be such things as landscaping, bicycle paths, historic preservation, storm water runoff mitigation and other quality-of-life projects. A formal process of application has been established by the Michigan Department of Transportation to afford local and state jurisdictions an opportunity to pursue this funding.

## CHAPTER 9.0-TRANSPORTATION

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### 9.8 Traffic Volume

It is anticipated that travel demand will grow by 50 percent in the next decade. Each year sees more cars, more drivers and fewer carpoolers. Nationally, two car households increased from 10 million in 1960 to 58 million in 2009. Another 44 million households have at least three vehicles. The largest population growth is occurring in suburbs where dependence on private automobiles is greatest. New road construction is not keeping pace with this growth and roads are becoming increasingly crowded.

According to the Michigan Department of Transportation, highway travel in Michigan is increasing at a far greater rate than the state population. Michigan roads have experienced an increase in traffic volume, from 1990 to 2000 the annual vehicle miles traveled on all Michigan roads increased by 17 percent and truck traffic rose by 95 percent. In 1940, travel logged on Michigan roads totaled 14.6 billion miles. The total in 2009 was 95.9 billion miles, an increase of more than six and one-half times over 1940. Volumes are usually presented as an average daily traffic (ADT) figure, and are calculated for a particular intersection or section of roadway.

Traffic counting devices are used by the Michigan Department of Transportation to record volumes at set points along state trunklines. Table 9-2 offers a comparison of MDOT traffic volume data from 2010 to 1995 taken along local thoroughfares.

## CHAPTER 9.0-TRANSPORTATION

### 9.8 Traffic Volume continued

Traffic counts for roads within Breitung Township have shown an increase traffic level from 1995 to 2010 along US-2 and US-141. The largest growth recorded was at the Michigan-Wisconsin border on US-141. The counter placed west of the US-141 intersection on US-2 showed a 29.0 percent increase in traffic levels. Other counters revealed a moderate increase in traffic during the same time period. Several counters indicated a slight decrease in traffic from 1995 to 2010. The inevitable growth of vehicle traffic in certain areas will make some roadside locations noisier, and those places should be kept free of homes and institutional uses that are sensitive to increased noise.

**Table 9-2**  
**Breitung Township Average Daily Traffic, 2010, 2005, 2000, 1995**

Route	Counter Location	Average Daily Traffic				% Change 1995-2010
		2010	2005	2000	1995	
US- 2	East of the Community of Quinnesec	10,530	10,467	10,400	9,400	+12.0
US-2	West of the US-141 Intersection	13,720	13,873	14,800	12,000	+14.3
US-141	Just North of the Wisconsin Border	6,836	8,350	8,000	5,300	+29.0
US-2/141 & M-95	North of the City of Iron Mountain	11,224	11,188	11,500	12,000	-6.5
US-2/141	West of the M-95 Intersection	6,455	6,747	7,100	7,200	-10.3
M-95	North of the Breitung Township North Limit	3,258	3,319	2,100	3,400	-4.2

Source: Michigan Department of Transportation, Annual Average 24-Hour Traffic Volumes, 2010, 2005, 2000, 1995.

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

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

## CHAPTER 9.0-TRANSPORTATION

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### 9.9 Access Management

Access management consolidates driveways, provides better vehicle and pedestrian circulation and otherwise reduces the impact of roadside land use on the efficiency of the road system. It requires a good relationship among road agencies, local, government and property owners to develop an access plan and possibly adopt an overlay zoning district. This approach has yielded successes for some communities.

Breitung Township participated with five other jurisdictions, as well as the Dickinson County Area Partnership, the Dickinson County Planning Commission, the Michigan Department of Transportation (MDOT), the Dickinson County Road Commission, CUPPAD and other interested parties on a project in 2004 and 2005 to jointly prepare the US-2/US-141/M-95 Access Management Action Plan.

That plan sets forth an analysis of beneficial safety improvements along the US-2/US-141/M-95 corridor and identifies proposed driveway closures, consolidations, and alternative access options. Those elements of the US-2/US-141/M-95 Access Management Action Plan that apply within this jurisdiction are hereby adopted by reference as the guide for future corridor and access management improvements within this jurisdiction.

In order to implement the US-2/US-141/M-95 Access Management Action Plan and the Memorandum of Understanding, all the participating jurisdictions signed up to be a part of the project, leading to the creation of the US-2/US-141/M-95 Access Management Action Plan. The Breitung Township Zoning Ordinance was amended to reflect the uniform approach to access management advocated by the Plan and regulations were adopted in each of the six jurisdictions that helped to create the Plan. The zoning amendments are based on the model access management ordinance sanctioned and promoted by the Michigan Department of Transportation in the Access Management Guidebook published by MDOT in 2001.

In addition, implementation of the recommendations in the US-2/US-141/M-95 Access Management Action Plan will be further facilitated by active participation by this jurisdiction in joint site plan review meetings as they relate to a particular site plan pending in the township or an adjoining one. These meetings involve review of access management issues and corridor improvement issues related to a particular site plan. Such joint meetings include representatives of Breitung Township, MDOT, Dickinson County, CUPPAD and other corridor communities, as pertinent.



## CHAPTER 9.0-TRANSPORTATION

### 9.10 Public Transportation

Transportation for elderly and handicapped persons is provided by the Dickinson-Iron Community Services Agency on a demand-response basis. No public transportation system exists in the county. However, general transportation services are available from private taxi companies. Additionally, specialized medical transport service is available in the county.

### 9.11 Intercity Transportation

Indian Trails provides daily intercity service from an agency location in Iron Mountain. Agency locations are operated by independent agents whose services and hours of operation vary, although ticketing is usually provided.

### 9.12 Rail Service

Rail service in Breitung Township is provided by the following rail lines: Canadian National Railway, Wisconsin Central Division and the Escanaba and Lake Superior Railroad (E&LS).

The Wisconsin Central track runs east from the City of Iron Mountain to the Village of Powers, with a spur going from Quinnesec to Niagara, WI. From Powers, it runs south to the cities of Menominee and Marinette and then south-southwesterly through the cities of Peshtigo, and Oconto, WI. The track eventually terminates at its regional hub in the City of Green Bay. Canadian National Railway purchased the Wisconsin Central trackage in October 2001 which enabled the railroad to increased efficiencies and service through Chicago and beyond to Mexico. In the Iron Mountain/Kingsford area Verso Paper is a WC customer. The Verso Paper mill located east of the community of Quinnesec uses the rail service for hauling both inbound commodities (pulpwood, paper making chemicals, and clay) and outbound commodities (finished paper products). It is the primary user of WC within Dickinson County.

The other a railroad line in Breitung Township is the Escanaba and Lake Superior Railroad (E&LS). This line runs from Ontonagon to Channing and from just north of Republic to Channing. From Channing the line runs south to Sagola and Iron Mountain, and then into Wisconsin to Green Bay. E&LS's major user in Dickinson County is Louisiana Pacific (LP) in the community of Sagola. Oriented strand board is the primary outbound commodity hauled by rail from LP, while logs and resin are the primary inbound commodities.



## CHAPTER 9.0-TRANSPORTATION

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### 9.13 Air Transportation

The Ford Airport, located in the northwestern portion of the City of Kingsford and in Breitung Township, along Woodward Avenue, is one of six airports in the Upper Peninsula that provide commercial passenger air service. The operations at the airport began after a 512 acre parcel of land was acquired in 1932 by the County for \$1 from the Ford Motor Company for the purpose of constructing an airport facility. It was a general aviation airport until commercial passenger air service was established in the mid 1940s.

Currently, the Ford Airport is classified as a "transport airport" facility. Such airports have a primary runway of 4,500 feet or longer, and are capable of handling jet aircraft. The current facility maintains two paved runways: the north/south runway is 6,500 feet in length, and the northwest/southeast runway is 3,800 feet in length. In the late 1970s, the airport provided passenger jet service; however, because of deregulation of the airline industry during this period, the service was discontinued. Deregulation made it unprofitable for many airport facilities in the country the size of Ford Airport to provide jet passenger service. Jet passenger service was reestablished at Ford Airport within the past several years.

Commercial and charter passenger service is available at Ford Airport. Currently, service is provided by Mesaba Airlines, operating as Delta Connection. Delta Connection recently issued a 90-day termination notice for essential air service at Ford Airport. Essential Air Service is a federal program that subsidizes routes that may not otherwise be affordable and has been the subject of a prolonged debate in Congress. The U.S. Department of Transportation will hold Delta in place until a suitable carrier can be found. Currently, Ford Airport is talking with two different airlines possibly offering air services in Kingsford. Delta has been a carrier at Ford Airport for the past 3 ½ years. Prior to that time, Northwest was the carrier, which was purchased by Delta Airlines. Round trip flights are available to Detroit and Minneapolis.

A total of 14,916 passenger enplanements (departures/boardings) were recorded in 2010. Airport infrastructure funding administered by the Federal Aviation Administration is based on annual boardings. Facilities with at least 10,000 boardings qualify for more infrastructure funding. Ford Airport recorded over 10,000 boardings in 2010. Airports in Marquette and Delta counties recorded boardings of 114,295 and 17,810 respectively in 2003. Among U.P. airports with regularly scheduled passenger service, only Gogebic County Airport recorded fewer enplanements than Ford Airport.

<b>Table 9-3 Total Scheduled Passengers, U.P. Airports, Selected Years</b>			
Airport	Total Enplanements, Scheduled Passengers		
	2010	2005	2000
<b>Ford</b>	14,916	16,860	8,729
Delta County	17,810	19,029	19,300
Houghton County Memorial	42,652	55,850	32,482
Gogebic County	1,445	6,405	2,075
Sawyer International	114,295	115,699	45,076
Chippewa County International	28,189	30,387	15,504

Source: Michigan Department of Transportation, Bureau of Transportation Planning, Intermodal Section.

While passenger levels may be relatively small, in the past, Ford Airport had led all Upper Peninsula airports in total cargo and packaged freight by a significant margin. In 2000, Ford Airport handled 3,332,889 pounds of cargo and packaged freight. In 2010, that number declined to 904,988 pounds of cargo. Delta County and Sawyer International Airports have overtaken Ford Airport in cargo carrying.

<b>Table 9-4 Total Air Carrier Cargo, Express, and Packaged Freight, U.P. Airports, Selected Years</b>			
Airport	Total Air Carrier Cargo, Express, and Packaged Freight (lbs.)		
	2010	2005	2000
<b>Ford</b>	904,988	2,546,872	3,332,889
Delta County	1,193,747	1,193,097	1,555,473
Houghton County Memorial	732,702	989,081	1,106,414
Gogebic County	314,665	402,297	509,492
Sawyer International	1,460,389	32,222	155,444
Chippewa County International	927	1,850	6,838

Source: Michigan Department of Transportation, Bureau of Transportation Planning, Intermodal Section.

In recent years, the construction of non-motorized facilities has increased in response to public interest. Walking and bicycling are among the top five individual exercise activities according to a national survey<sup>1</sup> (walking is number one). Alternate modes of transportation are encouraged and made safer by facilities such as bike lanes and walking paths.

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

<sup>1</sup> National Sporting Goods Association, Sports Participation in 1998

## CHAPTER 9.0-TRANSPORTATION

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### 9.14 Non-motorized Transportation Facilities continued

Sidewalks are found in some areas within the communities of Quinnesec and East Kingsford. Some streets have sidewalks while other streets do not. Most of the sidewalks are in poor condition. Breitung Township does not have a policy of replacing sidewalks and there are no plans in the future to replace the aging sidewalks. At the property owners' discretion and cost, the property owner may replace the sidewalk or remove the sidewalk.

Density is a key factor in determining if travel by pedestrians and bicycles are feasible. According to the MDOT Land Use Technical Report, if land uses lack sufficient density and a mix of origins and destinations for pedestrian trips, distance and connectivity can become insurmountable performance barriers for such travel. It should also be noted that if land uses do not support connections between bicycle and pedestrian facilities and other modes, a system performance barrier could arise. An example of this would be a walkable neighborhood completely surrounded by uses through which the pedestrian cannot walk to get to a transit stop.

The Dickinson County Bike Path Committee, a local non-profit group, has developed a non-motorized plan and a map has been created identifying a proposed county-wide non-motorized system, which will likely be revised and updated as projects evolve. A 2.3 mile bike/walking trail in the City of Iron Mountain, beginning at the west Lake Antoine boat launch continuing to the east boat landing to the Indiana Mine Road was completed in 2011. The path includes six-foot paved shoulders with one foot aggregate shoulders. Signage was installed in 2011 along several routes in Breitung Township to define routes and raise awareness of the bike path.

### 9.15 Safe Routes to School

Safe Routes to School is a federal program to make it safe, convenient and fun for children to bicycle and walk to school. From 2003-05, MDOT partnered with the Michigan Fitness Foundation to administer a Safe Routes to School pilot program at eleven elementary schools around the state. The purpose of the pilot was to develop a set of materials and procedures that any Michigan elementary school could use for its own initiative. When the pilot ended in 2005 the program was expanded statewide and made available to all schools.

Safe Routes to School makes walking and bicycling an appealing transportation alternative, which encourages a healthy and active lifestyle from an early age. The program also facilitates the planning, development and implementation of projects and activities that will improve safety and reduce traffic, fuel consumption and air pollution in the vicinity of elementary schools. Local stakeholders work together to identify barriers to safe walking and bicycling to school and develop a plan to address those barriers using a combination of infrastructure and non-infrastructure treatments.

## CHAPTER 9.0-TRANSPORTATION

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### 9.15 Safe Routes to School continued

Breitung Township Schools have not yet registered with the Safe Routes to School program, the first step in the planning process. Registration provides permission for an evaluation to be conducted. The school would need to designate a Safe Routes to School coordinator, establish a team, survey parents and students, assess the safety of walking or biking to school and finally develop a Safe Routes to School Action Plan. The Action Plan will address education, encouragement, enforcement and/or engineering needs. An Action Plan is necessary to be eligible for funding opportunities. The Township could partner with the school district to develop a Safe Routes to School program.

### 9.16 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 help alleviate costs. 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 has the opportunity to work closely with MDOT and the DCRC to plan for and implement improvements related to non-motorized facilities, transit, carpooling and commercial vehicle infrastructure.

## CHAPTER 9.0-TRANSPORTATION

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### 9.16 Complete Streets continued

These policies may also be tied in with the Safe Routes to School program by prioritizing projects along designated routes. Implementation of these policies will require the development of partnerships with other municipalities and stakeholder groups. Acceptance and implementation of complete streets will also require a cultural change in moving away from the automobile as the primary mode of transportation.

### 9.17 Issues and Opportunities

- The ability of the Dickinson County Road Commission to keep up with maintenance and construction needs on the county road system has decreased in recent years. If additional funding cannot be secured, the Road Commission will continue to defer maintenance, and the condition of many county roads will continue to deteriorate.
- The Township should continue to work with the Road Commission and MDOT to ensure that transportation deficiencies are not impediments to investment in the township.
- Breitung Township should continue to prioritize local road improvement projects and work with the Dickinson County Road Commission to schedule these projects as local and road commission funds become available.
- Breitung Township has adopted zoning regulations dealing with private roads to avoid any future conflicts with residents living along private roads, especially when it comes to maintaining these roads and providing certain community services to these residents.

Traffic volumes may continue to increase along the state trunklines in Breitung Township and the Iron Mountain/Kingsford urban corridor, adding to the congestion problem that already exists.

- Breitung Township may wish to consider the development of an ordinance or an amendment to the zoning ordinance to protect future property owners from highway noise impacts.
- The presence of heavy tourist and commercial traffic on US-2 through the eastern portion of Breitung Township and the City of Iron Mountain indicates the need to alleviate bottlenecks.
- Breitung Township helped develop a US-2/US-141/M-95 Access Management Action Plan to improve safety along the corridor. The township also adopted zoning ordinance amendments to incorporate accepted access management standards into future development projects.

## CHAPTER 9.0-TRANSPORTATION

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### 9.17 Issues and Opportunities continued

- The aging of the local population could result in future needs for additional transportation services for the elderly and/or disabled.
- Limited public transportation is available locally on a demand-response basis. Daily intercity surface transportation is available locally.
- Passenger service at Ford Airport is currently provided by Delta Connection; however the airline has issued a 90-day termination notice. Future service is unknown at this time.
- Many of the sidewalks in Quinnesec and East Kingsford are in poor condition. There are no plans to replace the aging sidewalks.
- Breitung Township should incorporate Complete Streets policies where appropriate and support developing a Safe Routes to School plan for Breitung Township Schools.



## CHAPTER 10.0-GOALS AND RECOMMENDATIONS

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### 10.1 Introduction

Throughout the preceding chapters of this plan, detailed information has been presented defining the historical trends and current situation in Breitung Township. This background information has helped the Planning Commission to gain an understanding of the forces which have shaped the growth and development within Breitung 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. Such 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, which define actions which can be taken to implement the goals. The final stage of the planning process, which is implementation of the plan, begins once the goals, policies and objectives have been defined. The first step in plan 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. The Planning Commission and Township Board, together with other groups, organizations and individuals, can use this plan as a dynamic decision making tool, and should assure that the plan is referred to frequently and updated periodically.

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

- Goal:** A broad statement of a desired future condition, the generalized end toward which all efforts are directed. Goals are often stated in terms of fulfilling broad public needs, or alleviating major problems. Goals are generally difficult to measure and are idealistic.
- Recommendation:** A course of action that is advisable. Recommendations are opinions about what could or should be done about a situation or a problem to achieve desired goals. Many recommendations stated in the plan are long-term and may need to be reevaluated periodically to meet new goals developed by the Township.

## CHAPTER 10.0-GOALS AND RECOMMENDATIONS

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### 10.2 Economic Development

**Discussion:** Breitung Township's economy is closely related to the larger economy of the Iron Mountain-Kingsford-Norway urban area, including areas within Wisconsin. One of Dickinson County's largest employers, the Verso Paper Corp. pulp and paper mill, is located in the Township, along with several smaller industrial operations and several commercial enterprises. Industrial and commercial development is concentrated in the Quinnesec and East Kingsford areas. Many Township residents work outside Breitung Township, while some residents of neighboring communities travel to the Township for employment. In general, the local economy is fairly diverse and unemployment rates are relatively low in Dickinson County.

**Goal: Increase employment and investment that will result in economic diversification compatible with the character and long-term interests of Breitung Township.**

**Recommendations:**

- Insure the availability of appropriate commercial/industrial sites to meet growth and/or expansion needs of Breitung Township.
- Encourage the establishment of home-based and natural resource based industry through promotion of area's rural setting and overall quality-of-life.
- Insure that commercial and industrial development is located where adequate infrastructure is in place or is available.
- Encourage existing businesses and industries to remain, except in cases where such uses are nonconforming, or where state and federal standards are not being complied with. Where nonconforming uses and/or violations of state or federal standards exist, encourage firms to come into compliance to reduce land use conflicts and the potential for negative impacts on the environment.
- Consider granting tax abatement to firms to encourage new investment and creation of new jobs.
- Review zoning regulations so small and home-based businesses are encouraged.
- Review current zoning district designations to ensure suitable areas are identified for commercial and industrial development.
- Identify areas that are suitable for commercial or industrial development but will not adversely impact adjacent land uses.

## CHAPTER 10.0-GOALS AND RECOMMENDATIONS

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### 10.2 Economic Development

- Efforts should be made to attract new industry that will have a relatively low impact on the community and environment.
- Support the efforts of the Dickinson County Road Commission and other entities when seeking funding for improvements to the road network.
- Continue to support the efforts of the Dickinson Area Partnership and work with other units of government to promote economic development in Dickinson County.
- Encourage the coordination of local economic development groups and coordinate the pursuit of federal and state grant opportunities.
- Aggressively market available land in the Breitung Township Industrial Park.
- Continue to support the efficient utilization, management and development of existing mineral and forest resources.

### 10.3 Housing

**Discussion:** Breitung Township has experienced significant growth from 1970-2000; much of the growth in Dickinson County during that time period was concentrated in the Township. Population data for 2010 indicated that population growth in the Township has tapered off and that population levels declined very slightly between 2000 and 2010. There has been a general aging of the population, consistent with state and national trends.

Breitung Township has experienced a sharp increase in the number of housing units over the past 40 years, and additional residential development is expected in the future. Housing in the Township is generally newer than that found in the adjacent cities, although there is a significant proportion of older housing. The trend has been toward larger homes on larger lots. Information from the Census indicates that while Township residents are generally able to afford housing, there is a significant portion of the population that pays more than 30 percent of their household income for housing costs.

**Goal: Encourage the availability of safe and affordable housing units of varying style and size sufficient to meet the needs of the local population.**

## CHAPTER 10.0-GOALS AND RECOMMENDATIONS

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### 10.3 Housing continued

#### Recommendations:

- Encourage the availability of appropriate housing development sites throughout Breitung Township in areas of available transportation, community facilities and other services.
- Encourage development of a variety of housing types to meet the needs of the present and future population of Breitung Township.
- Encourage the rehabilitation and maintenance of existing housing stock to provide safe living conditions, prevent deterioration and blight and safeguard the public from unsafe living conditions and blighted neighborhoods.
- Utilize the Zoning Ordinance and other land use regulation tools, to ensure that sufficient sites are available for residential housing.
- Periodically review Breitung Township infrastructure and services to insure there is sufficient capacity to meet existing and future residential and commercial requirements.
- Neighborhoods should be vigilant regarding physical appearances, sanitation and general ownership responsibilities.
- Emphasize the overall quality-of-life enjoyed by residents in written and verbal communications from Breitung Township.
- Maintain awareness of State and County sponsored housing rehabilitation programs designed to upgrade existing housing units.
- Residential zoning districts should provide for a variety of densities and dwelling sizes and types, including multi-family where suitable sites exist, and should guide denser development to areas where utilities and natural features are suitable for such development.
- Work with developers to encourage development that is consistent with the Land Division Act.
- Encourage the development of well-planned mobile home parks in areas where the physical characteristics of the site and the infrastructure are consistent with this use.
- Enforce local ordinances regarding blight and deterioration, to eliminate hazards to public health and safety.

## CHAPTER 10.0-GOALS AND RECOMMENDATIONS

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### 10.3 Housing continued

- Encourage the development of energy-efficient housing, including winterization and rehabilitation of the existing housing stock to improve energy efficiency.
- Encourage housing subdivision design to include cluster developments, open space and trails in or near centers of population.

### 10.4 Land Use

**Discussion:** The land use pattern in Breitung Township consists of concentrations of residential and commercial development close to the urban corridor and forested areas in the outlying portions of the Township. Agricultural activity has declined sharply over the last twenty years. The Township has absorbed the majority of Dickinson County's population growth over the past 30 years and new residential areas are found in waterfront and former agricultural areas as well as locations close to the two cities. The preference for larger homes on bigger parcels has resulted in residential development outside of platted areas of the Township in recent years. While land is available for commercial development along the US-2 corridor between Quinnebec and Iron Mountain, growth has tapered off in recent years. Land is also available for development in the Township's Industrial Park located along the US-2 corridor.

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

#### **Recommendations:**

- Insure that land uses are adequately supported by existing infrastructure.
- Where development is not connected to municipal water and/or wastewater system, adequate land area should exist for private wells and septic fields.
- Driveways and private roadways are designed and constructed to provide safe ingress and egress.
- Commercial development should utilize shared driveways and parking, frontage roads and deceleration and turning lanes to reduce turning incidents and improve traffic flow.
- Discourage residential uses along state trunklines in the more intensively-developed areas of Breitung Township.

## CHAPTER 10.0-GOALS AND RECOMMENDATIONS

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### 10.4 Land Use continued

- Private driveway access to state trunklines and other heavily-traveled roadways by commercial uses should be limited, in order to avoid increasing traffic congestion and safety hazards.
- Development in the outlying portions of Breitung Township should preserve open space and the rural character of the Township.
- Cleanup of environmentally contaminated sites within Breitung Township should be encouraged.
- Encourage infill development in areas with existing paved surfaces and/or utilities.
- The location of mobile homes in well-planned parks, developed in accordance with state and local guidelines, should be encouraged.
- New commercial/industrial development should be encouraged to occur at “brownfield” sites rather than “greenfield” sites.
- Review recurring incidents of similar variance requests to determine whether zoning provisions should be modified.
- Enact a township ordinance requiring that private and public roads built to serve large residential developments have at least two ingress/egress means.
- Continue to require that all new private roads are built to DCRC specifications.
- Review the zoning ordinance to insure that it reflects the location of suitable sites, design guidelines and the desired future character of the area.
- Review the zoning ordinance to ensure the development pattern which could result from compliance with the ordinance is consistent with the Master Plan.
- Continue to solicit comments from agencies, organizations and residents regarding land use matters.
- Aggressively enforce blight and deteriorated building ordinances of the township to remove and prevent deteriorated buildings, accumulations of junk, etc.

## CHAPTER 10.0-GOALS AND RECOMMENDATIONS

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### 10.4 Land Use continued

- Continue to enforce site plan review standards, setback and parking requirements, and other requirements of the zoning ordinance, to promote access management on state trunklines and other heavily-traveled roadways.
- Attempt to minimize unsustainable development, such as sprawl, that consumes tax dollars in provision of infrastructure (utilities, water and sewer), providing fire protection, snow plowing, busing, etc.
- Encourage the redevelopment of brownfields and pursue brownfield funds if feasible.
- Encourage development in areas capable of supporting appropriate land uses and discourage development in environmentally fragile and sensitive areas such as wetlands, swamps and marshes.
- Encourage the preservation of scenic sites.
- Recognize the important value of recreational lands.
- Update and maintain GIS (Geographic Information Systems) data for assessing purposes.
- Continue to work with the City of Iron Mountain and hold regular meetings regarding the existing 425 Agreements.

### 10.5 Public and Community Facilities

**Discussion:** Breitung Township provides a variety of municipal services, such as municipal water in the Quinnesec and East Kingsford areas, and fire protection and garbage pickup throughout the Township. Some other services, such as law enforcement, library, etc., are provided by other entities at the local, state or federal level. Such facilities and services are a critical part of a community's quality of life, and are also an important factor in economic development.

**Goal: Provide all necessary community facilities and services efficiently and in conformance with all applicable regulatory standards for all Breitung Township residents and visitors.**



## CHAPTER 10.0-GOALS AND RECOMMENDATIONS

### 10.5 Public and Community Facilities

#### **Recommendations:**

- Insure that Township structures, infrastructures and equipment are maintained in good repair.
- Continue to provide adequate fire protection coverage and emergency medical technician service to all areas of Breitung Township.
- Continue to provide existing services in a safe and efficient manner, in compliance with state and federal standards and expand services as needed.
- Examine if the level of services provided to Breitung Township residents should be expanded. Expansion of facilities and/or services should be predicated on the Township's ability to sustain operational and maintenance expenses.
- The Planning Commission should develop a multi-year Capital Improvement Plan to be used as a long-range planning and budgeting tool by the Township Board.
- Continue to correct identified problem areas in the existing water systems by replacing undersized and deteriorated mains, looping, extending mains, etc.; continue to upgrade system on a regular basis.
- Encourage increased intergovernmental cooperation and coordination with each other to provide efficient services.
- Encourage neighboring local units of government to maintain relationships promoting intergovernmental use of equipment and manpower.

### 10.6 Recreation

**Discussion:** Breitung Township contains a wide variety of recreational areas, some of which are provided by the Township and some by other entities. Township residents also use recreational facilities in adjacent communities.

Many of Breitung Township's old buildings and other historical landmarks have disappeared. A few remain, however, such as the old church in Quinnebec. None are currently listed on the State or Federal registers of historic places.

**Goal: Maintain and improve recreational opportunities for residents and visitors and encourage preservation of historic sites where possible.**

## CHAPTER 10.0-GOALS AND RECOMMENDATIONS

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### 10.6 Recreation continued

#### Recommendations:

- Insure that recreational facilities are safe, clean and accessible to users of all ages and encourage the efficient use of existing facilities before building new facilities.
- Insure that recreational facilities are, to the maximum extent possible, developed for multipurpose and/or year-round uses to optimize cost and benefits accrued to the public.
- Encourage public participation in the provision of Township recreational facilities.
- Encourage the preservation of historical features within Breitung Township. Work with the Menominee Range Historical Foundation and other interested persons or groups interested in preserving historical areas of the Township.
- Work with state and federal agencies in developing and maintaining recreational facilities.
- Encourage provision of adequate public access sites.
- Support the development of multi-use trail systems, linking existing trails with communities and linking communities with one another.
- Maintain a current Breitung Township Recreation Plan in accordance with Michigan DNR guidelines and apply for available state and federal recreation grants.
- Promote cooperation among governmental units, other public and private organizations and businesses in developing recreational programs and facilities and in the preservation of historical sites.
- Support other local governments' efforts to obtain grant funds for recreational facilities in the area.
- Identify opportunities to make sites and facilities more accessible to people with disabilities.
- Facilitate community involvement in the recreation planning process and in site development in order to insure that facilities are developed in accordance with local needs, and that local residents feel "ownership" of these facilities.
- Undertake efforts to preserve the rural character of scenic drives, such as Upper Pine Creek, Lake Antoine, Hydraulic Falls, etc.

## CHAPTER 10.0-GOALS AND RECOMMENDATIONS

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### 10.7 Transportation

**Discussion:** Breitung Township contains portions of three state trunklines: US-2, US-141, and M-95. The traffic pattern in the southern portion of the Township, adjacent to the cities of Iron Mountain and Kingsford, is more typical of an urban area than a rural township. The northern part of the Township is accessed primarily by county roads, along with M-95. The condition of roads in the Township and throughout the County is of concern to many residents; the Township has contributed a substantial amount of local funds for road improvement projects, but the County Road Commission lacks the funding to carry out all the needed projects.

**Goal: Promote a safe, efficient and well maintained transportation system to serve the needs of residents, businesses and visitors.**

#### **Recommendations:**

- Encourage repair and reconstruction by the DCRC of roads identified in the Township's Road Improvement Listing.
- Support the efforts of the DCRC to obtain state and federal funds to reconstruct the Quinnesec-Lake Antoine Road.
- Private roads constructed in Breitung Township are to be built to DCRC standards.
- Promote traffic access points that provide the greatest measure of safety and insure that driveways are adequately designed and constructed.
- Promote visual enhancements along highways; discourage signage that is redundant, gaudy or in poor condition. Discourage or at least minimize the placement of billboards along US-2.
- Continue to identify roads for road improvement. Expand the Township's Road Improvement program to identify roads for a five-year period rather than one year time frame and continue to work with the DCRC in setting road improvement priorities on primary roads.
- Support the improvement and development of trails for motorized and non-motorized uses and participate in trail planning activities with local, state and federal agencies.
- Coordinate road planning and development projects with adjoining local units of government.

## CHAPTER 10.0-GOALS AND RECOMMENDATIONS

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### 10.7 Transportation continued

- Work with the City of Iron Mountain, City of Kingsford, Norway Township, City of Norway, Dickinson County Road Commission and MDOT in identifying transportation improvements needed to improve traffic flow and safety on US-2/141 and M-95 and maintain participation in the US-2/141/M-95 Access Management Advisory Group.
- Encourage the preservation of existing rail, water and air transportation facilities.

## CHAPTER 11.0 FUTURE LAND USE AND ZONING PLAN

### 11.1 Introduction

The previous chapters of the Master Plan provide an overview of the existing conditions in Breitung Township and surrounding areas. A future land use plan is representative of the “preferred future” of how the Township desires to grow and the plan includes recommendations on how development should be implemented. A future land use plan is based on analyses of environmental opportunities and constraints, existing trends and conditions and projected future land use needs. While developing a Future Land Use/Zoning Plan, the Planning Commission was assigned the difficult task of projecting development within Breitung Township over the next five to ten years. The goals and recommendations presented in the Chapter 10 and principals of sound land use planning are the foundation upon which the Future Land Use Chapter is based. The Future Land Use Plan consists of the text within this chapter as well as the Future Land Use Map for Breitung Township.

Future land use planning establishes the desired amounts and locations of residential, commercial, and industrial development; public facilities; open space; environmental conservation and recreational areas; and changes or improvements to the local traffic circulation systems. This chapter also presents the Zoning Plan, which along with the relevant parts of this Future Land Use Plan, is intended to guide the implementation and future changes to the Township’s Zoning Ordinance.

The Michigan Zoning Enabling Act (MZEA) requires in Sec. 203 (1) that zoning be based on a plan. Similarly, Sec. 7 (2) of the Michigan Planning Enabling Act (MPEA) sets forth the purposes for which a Master Plan must be created. In order for a Master Plan to serve as the basis for zoning, it should promote the purposes in the MZEA and MPEA. A “zoning plan” is another term for a “zone plan” which is used in the Michigan Zoning Enabling Act (PA 110 of 2006) and the Michigan Planning Enabling Act (PA 33 of 2008). Section 33(2) (d) of the Michigan Planning Enabling Act requires that a Master Plan include: “...a zoning plan for various zoning districts controlling the height, area, bulk, location, and use of buildings and premises. The zoning plan shall include an explanation of how the land use categories on the future land use map relate to the districts on the zoning map.”

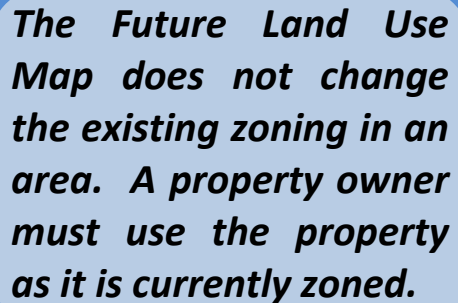
A zoning plan describes:

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

## CHAPTER 11.0 FUTURE LAND USE AND ZONING PLAN

### 11.1 Introduction continued

The relationship between the Master Plan and Zoning Ordinance is often misunderstood. The Master Plan is a guide for land use for the future; the Zoning Ordinance regulates the use of land in the present. The Master Plan is not a binding, legal document; the Zoning Ordinance by law is an adopted Township Ordinance and must be followed by Breitung Township's residents



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

and anyone intending to develop or do business in the Township. The future land use recommended for an area may be the same as the existing zoning for that area, while in some cases the future land use recommended is different from the existing zoning. The Future Land Use Map does not change the existing zoning in an area. A property owner must utilize the property as it is currently zoned and according to all of the standards and requirements of the Zoning Ordinance.

The Future Land Use Map reflects the conclusion that land use patterns in Breitung Township will continue to be heavily influenced by natural features, the transportation system including US-41 and M-95,

historical land use activities such as logging and the continued interest in waterfront residential development. Other major considerations which helped shape the future land use map are a desire to establish appropriate land uses and densities throughout the Township and to provide suitable areas for residential, commercial and industrial development. Potential updates to the Breitung Township Zoning Ordinance are discussed throughout the following sections and necessary changes can be pursued as the need or opportunity presents itself. The Planning Commission's intent is to identify major goals and recommendations it desires to implement and begin to work on the corresponding zoning changes at the same time.

### 11.2 Zoning Districts and Zoning Plan

Breitung Township is currently divided into nine zoning districts. The intent and general purpose for each Zoning District listed within the Master Plan have been obtained directly from the Zoning Ordinance. The permitted and conditional uses within each zoning district are listed in the specific district provisions of the Breitung Township Zoning Ordinance (Article III). A schedule of regulations is included for the existing zoning districts.

## CHAPTER 11.0 FUTURE LAND USE AND ZONING PLAN

### 11.2 Zoning Districts and Zoning Plan continued

#### Existing Zoning Classifications

##### **District R-1: Residential One District**

The R-1, Residential One District is intended for the establishment and preservation of quiet single-family home neighborhoods free from other uses, except those which are both compatible with and convenient to the residents of this District. The R-1 District is designed to accommodate residential opportunities where spacious lots are reasonable to insure a safe, potable water supply and treatment of wastewater on the same lot.

##### **District RR-1: Rural Residential One (1 Acre)**

The RR-1, Rural Residential One District is established to protect and generally preserve the existing character and use of those areas of Breitung Township, developing into a residential environment in accessible rural areas at moderate densities.

##### **District RR-2: Rural Residential Two (2.5 Acres)**

The RR-2, Rural Residential Two District is established to protect and generally preserve the existing character and use of those areas of Breitung Township, developing into a residential environment in accessible rural areas at moderate densities, but lower densities than RR-1.

##### **District RR-3: Rural Residential Three (5 Acres)**

The RR-3, Rural Residential Three District is established to protect and generally preserve the existing character and use of areas of Breitung Township, which are presently rural or agriculture. Soil and natural conditions vary throughout this District, including woodlots and farms. These areas are considered to be suitable for scattered, rural residential development, and the perpetuation of existing farms and other low intensity land uses on parcels of at least five acres.

##### **District SP: Scenic Preservation**

The SP, Scenic Preservation District is established to preserve and maintain the natural characteristics within the Fumee Lake watershed boundaries. Because this undeveloped and unique area contains a number of threatened or endangered plant and animal species, the area needs to be preserved to the greatest extent possible and only developed for extremely low density and passive type uses. Special consideration needs to be given to maintain a natural buffer or strip of land along the edges of both Fumee Lake and Little Fumee Lake to protect this valuable and fragile resource.

##### **District RP: Resource Production**

The RP, Resource Production District is established to maintain low density rural areas which because of their rural character and location, accessibility, natural characteristics and the potentially high cost of providing public services for intensive uses are suitable for a wide range of forestry, agricultural, natural resources and recreational uses.



## CHAPTER 11.0 FUTURE LAND USE AND ZONING PLAN

### 11.2 Zoning Districts and Zoning Plan continued

#### Existing Zoning Classifications continued

##### **District C-1: General Retail**

The C-1, General Retail District, is established to preserve a district for general retail and service establishments with a range of retail, business and professional offices. The intent is to encourage the concentration of such businesses to areas, thereby promoting the best use of the land at certain strategic locations.

##### **District C-2: Commercial/Light Industrial**

The C-2, Commercial/Light Industrial District is established to preserve a district for light industrial uses, along with compatible commercial uses.

##### **District I: Industrial**

The I, Industrial District is designed and intended for manufacturing, assembling, fabricating, processing, storage and similar operations which may require larger sites and isolation from other types of land uses, and to make provisions for commercial uses necessary to service the immediate needs of an industrial area.

Schedule of Regulations							
Zoning Districts	Min. Lot Size (sq. ft.)	Min. Lot Width (feet)	Minimum Set Backs			Max. Height (feet)	Min. Building Width (feet)
			Front	Side	Rear		
<b>R-1</b>	20,000 <sup>A</sup>	100	30	10 <sup>B</sup>	10 <sup>C</sup>	30 <sup>D</sup>	20
<b>RR-1</b>	1 Acre <sup>F</sup>	150	40	30 <sup>B</sup>	30 <sup>E</sup>	30	20
<b>RR-2</b>	2.5 Acres <sup>F</sup>	200	40	30 <sup>B</sup>	30 <sup>E</sup>	30 <sup>D1</sup>	20
<b>RR-3</b>	5 Acres <sup>F</sup>	300	40	30 <sup>B</sup>	30 <sup>E</sup>	30 <sup>M</sup>	14 <sup>L</sup>
<b>SP</b>	10 Acres <sup>F</sup>	300	40	40	35 <sup>G-I</sup>	30	20
<b>RP</b>	10 Acres <sup>F</sup>	300	40	30	30	30 <sup>M</sup>	14 <sup>L</sup>
<b>C-1</b>	20,000	100	30	<sup>J</sup>	30	30	14 <sup>L</sup>
<b>C-2</b>	20,000	100	30	<sup>J</sup>	30	30	14 <sup>L</sup>
<b>I</b>	1 Acre	150	40	<sup>J</sup>	20	<sup>K</sup>	14

- A. Minimum lot size is 10,800 square feet where either municipal water or sewer service is provided to the lot. No more than 30% of the lot area may be covered by buildings. On lots less than 20,000 square feet the setbacks shall be reduced to 25' minimum front, 6' minimum side and 6' minimum rear. The minimum lot width shall remain 100 feet.
- B. An accessory building or structure may be located 6 feet from a side lot line.
- C. An accessory building or structure may be located 6 feet from a rear lot line.
- D. An accessory building or structure shall not exceed 18 feet in height.
- D<sub>1</sub>. An accessory building or structure shall not exceed 18 feet in height where the property abuts a watercourse or a body of water.
- E. An accessory building or structure may be located 20 feet from a rear lot line.

## CHAPTER 11.0 FUTURE LAND USE AND ZONING PLAN

### 11.2 Zoning Districts and Zoning Plan continued

- F. For unplatted lots of large lot size (5 and 10 acres), the determination of a lot size when it adjoins a road shall be made as if the road was part of the lot in question. For example, if a 10 acre parcel fronting on a road loses one-half acre in the road right-of-way, the parcel size is 9.5 acres. However, the lot will still conform to the 10 acre minimum lot size requirement.
- G. Customary accessory buildings or structures may be located 30 feet from a rear (waterside) lot line.
- H. Where the property abuts a watercourse or a body of water, the waterside is the rear lot line.
- I. Where the property abuts a watercourse or body of water, the rear setback shall be 250 feet.
- J. No minimum, however, all structures shall be provided with or otherwise guaranteed, access to their rear yard, with a minimum of 12 feet clear and unobstructed access way or easement which may be provided by an alley. Setbacks from the existing residential parcels shall be: 50 feet for all buildings; 25 feet for driveways, entrances or exits; and 10 feet for all parking areas.
- K. Height at any point on a structure shall not exceed the horizontal distance to any lot line.
- L. All mobile homes shall meet or exceed the 1993 HUD standards for mobile homes.
- M. Agricultural use buildings such as silos, etc., are exempt from the 30' maximum providing that airport zones are not violated.

### 11.3 The Relationship between Zoning and the Future Land Use Plan

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

The Future Land Use Map, along with its associated descriptions for future land use classifications make up the Future Land Use Plan. The Future Land Use Map serves as a guide for making decisions on the rezoning of land. However, the Planning Commission and Township Board should consider the map to be one of many tools available to help them in making land use decisions, recommendations and addressing rezoning requests. The information presented on the map should be complemented by site-specific information as considered necessary by Township officials prior to any final decisions. Breitung Township is not currently undergoing rapid changes; therefore, current zoning and future land use districts are very similar.

#### **Future Land Use Classifications**

##### **Urban Residential District**

The Urban Residential District is established and maintained for high-density residential and related uses, in established residential neighborhoods with small lots. These areas are not served by municipal wastewater services. This district generally includes portions of Quinnesec and areas of the Township adjacent to the City of Kingsford and adjacent to the City of Iron Mountain.

## CHAPTER 11.0 FUTURE LAND USE AND ZONING PLAN

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### 11.3 The Relationship between Zoning and the Future Land Use Plan continued

#### **Future Land Use Classifications continued**

##### **Low Density Residential District**

The Low Density Residential District is established and maintained to provide for a moderate-density residential environment in accessible rural areas; minimum lot size ranges from 1 to 5 acres. Uses in this district will not generally be served by municipal water and wastewater services. This district generally includes existing low density residential areas and additional areas with the potential for residential development and make up the vast majority of land in the Township.

##### **Natural Area District**

The Natural Area District is established and maintained to protect the natural characteristics and threatened/endangered plant and animal species within the Fumee Lake Watershed. Development is limited to extremely low density single family dwellings and passive recreation activities. This district generally includes approximately 1,800 acres of land surrounding Fumee Lake and Little Fumee Lake, referred to as the Fumee Lake Natural Area.

##### **Natural Resources District**

The Natural Resources District is established to maintain lands that are suitable for low density residential development and also valuable for commercial timber production, agricultural uses, recreation and other natural resources. These lands should be protected from development levels that would render them unsuitable for these activities.

##### **Retail and Service District**

The Retail and Service District is established to provide for concentrated areas of a wide range of retail, professional and business offices.

##### **General Business/Manufacturing District**

The General Business/ Manufacturing District is established to provide for areas of light manufacturing and compatible commercial development as well as appropriate areas for manufacturing operations that require large sites and also to provide for commercial uses necessary for industrial operations.

## CHAPTER 11.0 FUTURE LAND USE AND ZONING PLAN

### 11.3 The Relationship between Zoning and the Future Land Use Plan continued

Future Land Use Classifications and Associated Zoning Districts	
<u>Future Land Use Classification</u>	<u>Zoning District(s)</u>
Urban Residential District	Residential One District
Medium Density Residential District	Rural Residential One (1 Acre) District
Low Density Residential District	Rural Residential Two (2.5 Acres) District
	Rural Residential Three (5 Acres) District
Natural Area District	Scenic Preservation District
Natural Resources District	Resource Production District
Retail and Service District	General Retail District
General Business/Manufacturing District	Commercial/Light Industrial District
	Industrial District

The Future Land Use districts are illustrated on Map 11-1.

### 11.4 Commercial and Industrial Development

Breitung Township is located within the Iron Mountain-Kingsford-Norway urban area, which contains the majority of the Dickinson County's commercial and industrial development. A significant amount of development is located in Breitung Township, particularly along the US-2/141 corridor. Developments are occurring both in the community of Quinnesec and adjacent to the city limits of Iron Mountain. Breitung Township will continue to encourage additional compatible commercial development in the Retail and Service District along the US-2/141 corridor, portions of US-2 northeast of the US-2/141 intersection and in areas adjacent to the City of Kingsford along South Carpenter Avenue. The Retail and Service District includes areas of existing commercial development and areas where infill development may occur. Future development along the US-2/141 corridor will require the proper administration of Access Management standards.

## CHAPTER 11.0 FUTURE LAND USE AND ZONING PLAN

### 11.4 Commercial and Industrial Development continued

Breitung Township has created the Retail and Service District and General Business/Manufacturing District, to encourage creative development that promotes exceptional design along its major corridors. Highway commercial development changes traffic patterns in communities, sometimes with negative impacts, such as increased turns in and out of traffic on thoroughfares and disruption to pedestrian traffic. Consideration also needs to be given to the aesthetic impacts of design decisions. These areas are intended for the development of commercial enterprises that incorporate well-planned access and parking areas. This category provides for a mix of land uses within the same development, including a mix of commercial uses, providing employment opportunities and supporting residential uses. Expansion of commercial development in Breitung Township is restricted by limited infrastructure and generally a lack of development opportunities in the current economic climate. The location of proposed Retail and Service District and General Business/Manufacturing District accomplishes an efficient delivery of goods and services to residents with the least amount of impact on adjacent land uses.

The General Business/Manufacturing District established to provide for areas of light manufacturing and compatible commercial development as well as appropriate areas for manufacturing operations that require large sites and also to provide for commercial uses necessary for industrial operations. The District encompasses the Verso Paper Corp. (formerly Champion International and International) pulp and paper mill, located just east of Quinnesec south of US-2. Verso Paper Corp. also owns most of the property south of US-2 from Quinnesec east to the Township boundary, over 2,000 acres, with the exception of land recently sold to the MDNR. Opportunities for additional industrial development exist at the designated 34-acre Breitung Township Industrial Park. The Industrial Park is located immediately north of Verso Paper's Gate 1 on US-2. Currently Acuren Inspections occupies a 12 acre site, with the potential for an additional business to locate in the park soon. The park is presently undeveloped for the most part; roads and infrastructure, particularly gas, water and sewer systems need to be installed. Internet service is available throughout the entire park. This land is also designated as part of the General Business/Manufacturing District.

Township leaders and businesses have worked to increase private sector employment in recent years. Economic planning has placed emphasis on industries with long-established roots including, manufacturing and forest products. As in many rural areas, a growing sector of the economy is based on retail and services. As resource extraction and other industries have declined in the post-mining era, an influx of jobs in retail and services have come in to fill the gaps. Breitung Township has been able to maintain a balance between retail and services and manufacturing. Commercial and industrial development in Breitung Township may be limited by the lack of available water and sewer services; future water and sewer infrastructure development in Breitung Township will be developer-driven.

## CHAPTER 11.0 FUTURE LAND USE AND ZONING PLAN

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### 11.5 Residential Development

Residential land use includes single family homes, multi-family homes and mobile homes, in a low to high density pattern. Breitung Township encompasses concentrated areas of housing development in Quinnesec and areas adjacent to the bordering cities, including Bass and Moon Lakes; Urban Residential development currently exists in these areas and infill development will be encouraged where feasible. There is limited infrastructure in Breitung Township at this time, which will limit future high density residential development. The Urban Residential District designation is intended to accommodate single-family residential development. A single-family residential district implies dwellings located on individual lots of land and housing only one family. Typical accessory structures associated with residential uses, such as private garages, tool sheds, playhouses and automobile parking are permitted. All non-residential uses will continue to require a conditional use permit.

Breitung Township provides municipal water service to about 500 residents in the platted area of the community of Quinnesec, with a supply system consisting of two wells and a 100,000 gallon in-ground storage tank. The platted areas of East Kingsford and Skidmore are served by municipal water. The Iron Mountain-Kingsford Wastewater Treatment Plant serves the mobile home park, a few homes along Breen Avenue and Woodbine Street, the Skidmore area west of M-95, and one commercial development. The remainder of homes and businesses in the township utilize on-site private potable water wells and septic systems. New housing development is also limited by the amount of land available and a current lack of demand. Future residential development will be encouraged in areas easily accessible to major transportation routes and the limited utilities that are currently available.

Recent housing development has been limited and waterfront lots have been popular in recent years. Residential development will continue to be encouraged in areas where public services, such as mail, garbage pickup, emergency services, snowplowing, school bus pickup as well as adequate roads, are available. The remainder of existing housing in the township is low to medium density and scattered. The development of additional low and medium density residential outlying areas will serve to preserve the rural character and the environmental integrity of Breitung Township. Low and Medium Density Residential areas designated on Map 11-1, Future Land Use Map and include the majority of the land area located north of US-2. Single family residential development is also permitted in the Natural Resources District, which encompasses the northernmost portion of the township, as well as land west of Badwater Lake and adjacent to the Menominee River. The Natural Resources District also includes land that is suitable for a wide range of forestry, agricultural, natural resources and recreational uses.

## CHAPTER 11.0 FUTURE LAND USE AND ZONING PLAN

### 11.5 Residential Development continued

In Breitung Township, rural residential growth typically occurred on lot splits and land divisions along existing road systems. Very few new roads were constructed for this development, and most lots are not platted. New residents, whether locating in the adjacent cities of Iron Mountain, Kingsford and Norway, or in Breitung Township, will bring important consequences for public services, community infrastructure and the tax base which supports it. Significant population growth is not anticipated in the near future, but the implications of unexpected growth should be considered by the township. While this development has added to the township's property tax base, studies in other parts of the state have indicated that much new residential development does not generate enough new tax revenue to cover the cost of providing services. In the case of development in areas where sewer and water are not available, the costs of providing services may not be that high at this time; however, if additional services are needed in the future, the scattered nature of this new development could make provision of municipal services very expensive.

### 11.6 Recreational Development

Breitung Township has developed a list of several potential recreational projects for completion and the ability to accomplish the planned projects will depend on the availability of funding. The Township does not intend to purchase additional lands for recreational purposes at this time; available funding will be focused on maintaining existing facilities. Projects include: upgrades to the Quinnesec ball field, a sprinkler system for the Quinnesec soccer field, paint and repair various playground equipment, replacement of playground chips, Eurasian Milfoil eradication, update the skateboard park, develop a Quinnesec Park walking trail with tree plantings and benches, develop a boat landing, parking, dock and restrooms at Badwater, develop an historic walking trail at the Quinnesec Mine (Devil's Ice Box) observation and recreation area with fencing, trails and a parking area and update all of the playground equipment at the three Township-owned parks.

The Natural Area District encompasses the 1,808 acre Fumee Lake Natural Area owned by Dickinson County, which is open for non-motorized recreation. The area was established in 1992 after a bond proposal to acquire the land was approved by Dickinson County voters. The area will be preserved as a non-motorized wilderness area in perpetuity. Land located in the far south east corner of Breitung Township, previously owned by Verso Paper, was recently purchased by the MDNR for recreational purposes and has also been designated as part of the Natural Area district.



## CHAPTER 11.0 FUTURE LAND USE AND ZONING PLAN

### 11.7 Transportation

As discussed in Chapter 9, Transportation, communities depend on the safe and effective movement of people and goods to sustain a functioning economy. The Dickinson County Road Commission has experienced sharp budget cuts in recent years and therefore has had limited funding to address maintenance and repair problems with the local county road system. Roads in Breitung Township that have been rated using the PASER system are generally in fair or poor shape and the cost to fix roads in the Township that are currently in poor or fair condition is significant. Annually, Breitung Township submits a list of approximately three to four local road improvement projects to the Dickinson County Road Commission. The township does not levy millage for road improvement projects, but rather uses general funds for its contribution to the Road Commission for work. The Township cost shares with the County Road Commission the cost of repaving/improving the roadways.

Breitung Township continues to participate in a coordinated planning effort for the US-2/US-141/M-95 corridor and joined the US-2/US-141/M-95 Corridor Advisory Group. The Breitung Township Zoning Ordinance has been amended to reflect a uniform approach to access management advocated by the US-2/US-141/M-95 Access Management Action Plan. For future commercial development, the township will pursue the completion of frontage/access roads by the developers to enhance public safety and for traffic calming purposes. Breitung Township has also adopted Zoning Ordinance regulations for private roads and those requirements should be utilized to address all proposed private roads within the Township.

Breitung Township also supports the Dickinson County Road Commission's efforts to secure state and federal funds to rebuild the county's four-mile section of Quinnesec-Lake Antoine Road running north from US-2 in Quinnesec to Lake Antoine. Quinnesec-Lake Antoine Road has long served as an alternate route for pulp haulers heading to the Verso Paper Corp. mill in Quinnesec and road rutting has occurred. Reconstruction of the road will alleviate the need for permanent restrictions on heavy loads and enhance public safety.

### 11.8 425 Agreements

As discussed in detail in Chapter 5, Section 5.12, Breitung Township and the City of Iron Mountain have entered into two 425 Agreements as well as an agreement for the Township to purchase water and sewer capacity from the City to service land in the Utility Service District, which coincides with the 425 Agreements. As of July 2012, a "freeze" has been placed on further rezonings for in the 425 Agreement areas until a Joint Planning Commission has been established. The duration of the proposed rezoning freeze has yet to be determined. The long term aspirations for the 425 areas include the eventual transfer of the land to the City of Iron Mountain and for the City to establish water and wastewater infrastructure in the two areas to enable economic development. Expansion of water and wastewater services into Breitung Township is also a possibility for the future.

## CHAPTER 11.0 FUTURE LAND USE AND ZONING PLAN

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### 11.9 Alternative Energy Resources

Breitung Township recognizes the importance of alternative energy resources. To the greatest extent possible, zoning performance standards for developing alternative energy resources will be based on the protection of single family dwellings from noise and vibration issues. Regulations regarding alternative energy sources will continue to be reviewed by Township officials and incorporated into the Zoning Ordinance as appropriate.

Wind energy is an emerging technology that will require Breitung Township to consider updates to the Zoning Ordinance. Regulations should be added for small and large scale wind turbines. Small wind generators that serve private homes, farms or small businesses and turbines up to a maximum height may be permitted for single family dwellings; however, minimum lot sizes will be required. Zoning definitions will need to be added and updated, as the types of turbines will differ by use, height or capacity. Regulations for anemometers (meteorological or MET towers) will also be included; a site plan will be required. Appropriate development standards will be created and adopted for each type of wind energy facility.

### 11.10 Potential Zoning Ordinance Updates

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

Potential Zoning Ordinance amendments include:

- Review and update definitions.
- Include regulations to accommodate new trends in land use and zoning, including but not limited to:
  - Wind Energy
  - Solar Energy
- Update the Zoning Map.
- Review and strengthen the language listed for the intent for each zoning district.

## CHAPTER 11.0 FUTURE LAND USE AND ZONING PLAN

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### 11.11 Conclusion

Planning is intended to guide the forces of change in ways that encourage desirable outcomes while striking an appropriate balance with development and preservation. Consideration for review of the Master Plan will occur on an annual basis and amending the Plan every five (5) years as necessary, will maintain its use as a reliable planning tool. Michigan law states that the Master Plan shall be reviewed at least every five years to determine if updating is necessary.

As the creators and most frequent users of this document, the Planning Commission is the authority responsible for reviewing the recommendations and progress of this Master Plan. An outdated Plan that is not consistently reviewed will diminish the decision making process. Therefore, the Planning Commission should conduct an annual review of the Master Plan and suggest additions and amendments as deemed appropriate.

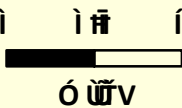
Suggested amendments and considerations for annual review:

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

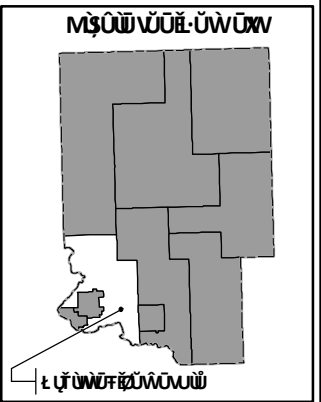
This Master Plan represents over a year of effort by the Planning Commission, township staff and residents. Development of the Master Plan involved collection and analysis of data on population, housing, land use, transportation, infrastructure and socioeconomic conditions. The Master Plan sets forth recommendations and this Plan will only be as successful if the implementation measures are taken to achieve the vision set forth in the previous chapters.

## APPENDIX A: MAPS

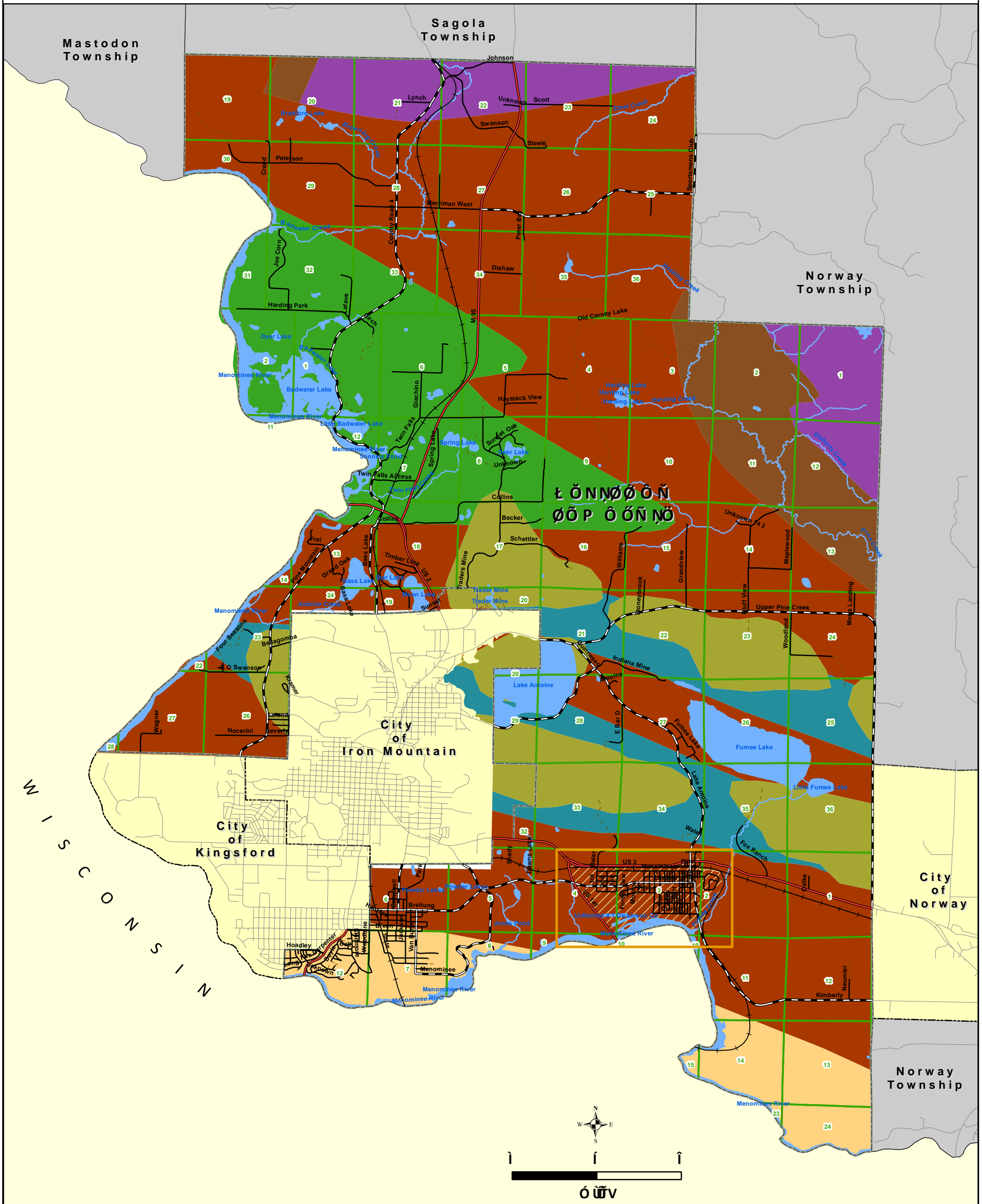
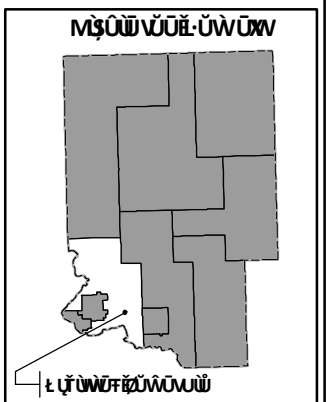
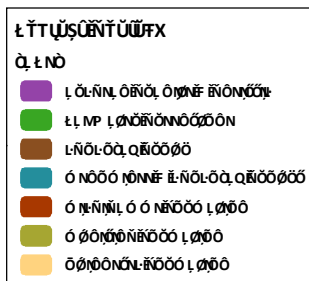
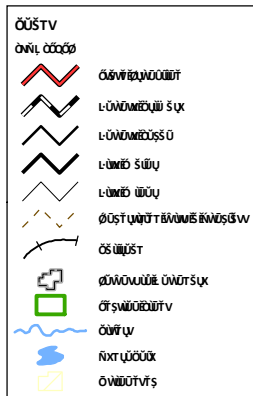
Map 1-1	Base Map
Map 4-1	Bedrock Geology
Map 4-2	Surface Geology
Map 4-3	Soils
Map 4-4	Suitability of Dwellings
Map 4-5	Limitations for Septic Tank Absorption Fields
Map 4-6	Limitations for Local Roads & Streets
Map 5-1	Land use
Map 5-2	Iron Mountain 425 Agreement Area 1 & Area 2
Map 6-1	Community Facilities
Map 8-1	Recreation Sites
Map 9-1	ACT 51 Roads
Map 9-2	MDOT National Functional Classification (NFC) Code
Map 9-3	PASER Analysis
Map 11-1	Future Land Use



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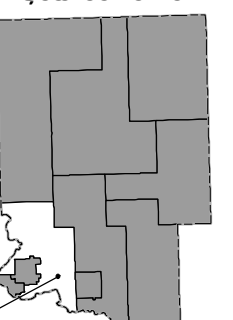


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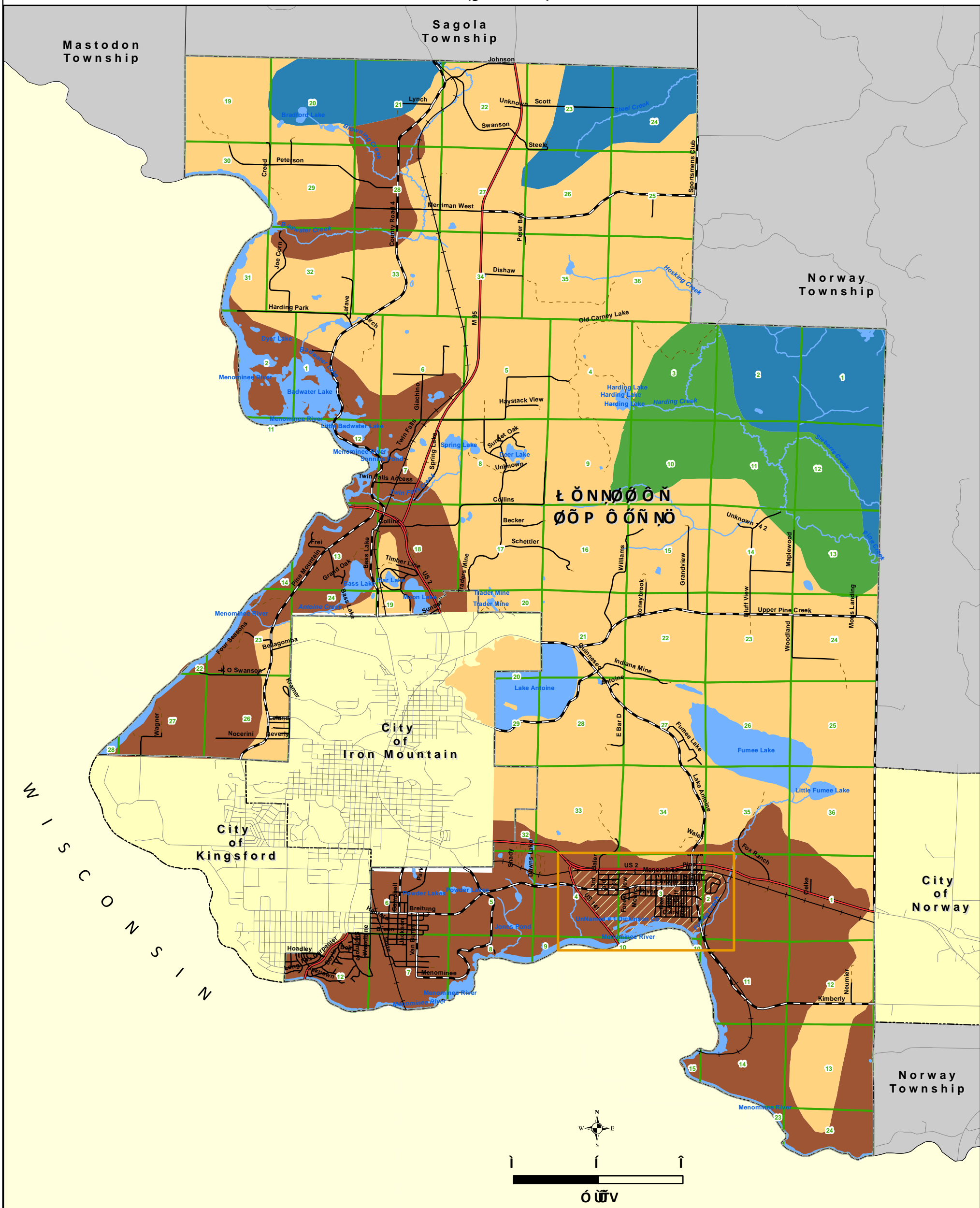
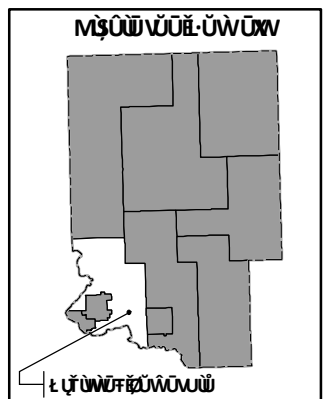
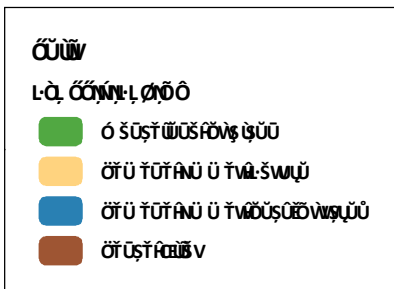
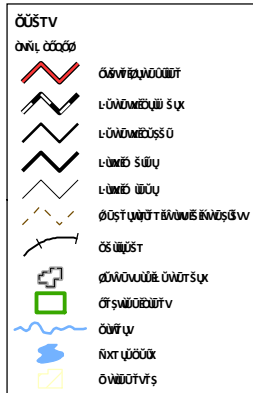


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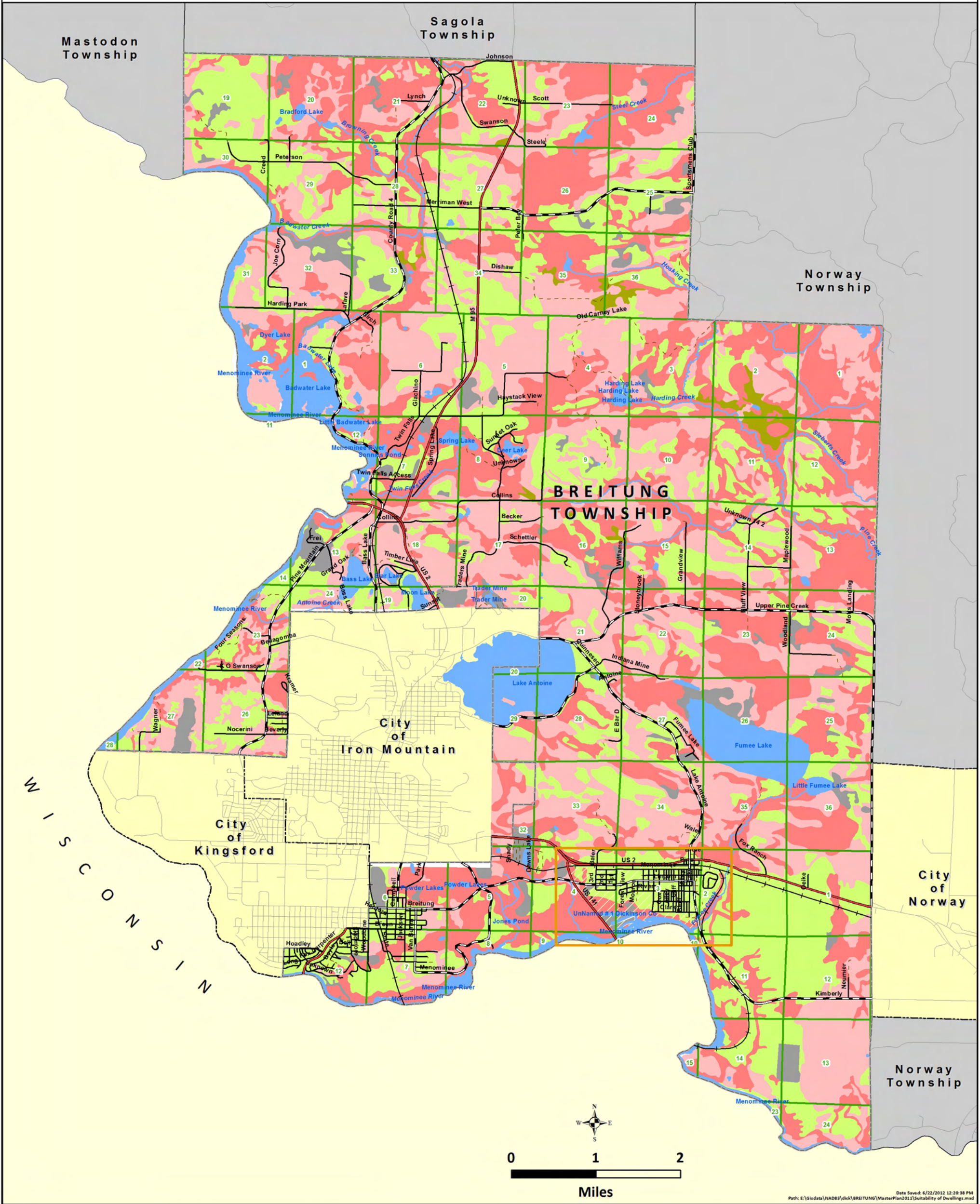
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# Breitung Township

Suitability of Dwellings

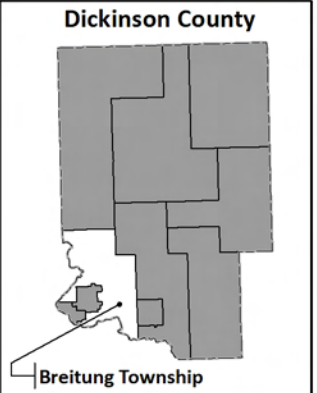
Map 4-4



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- Roads**
- LEGALSYST**
- State Trunkline
  - County Primary
  - County Local
  - City Major
  - City Minor
  - Uncertified with a Funclass
  - Railroad
  - Township Boundary
  - Section Lines
  - Rivers
  - HydroPoly
  - Quinnesc

- DWELLING SUTABILITY:**
- SEVERE
  - MODERATE
  - SLIGHTLY MODERATE
  - SLIGHT
  - WATER
  - NOT RATED



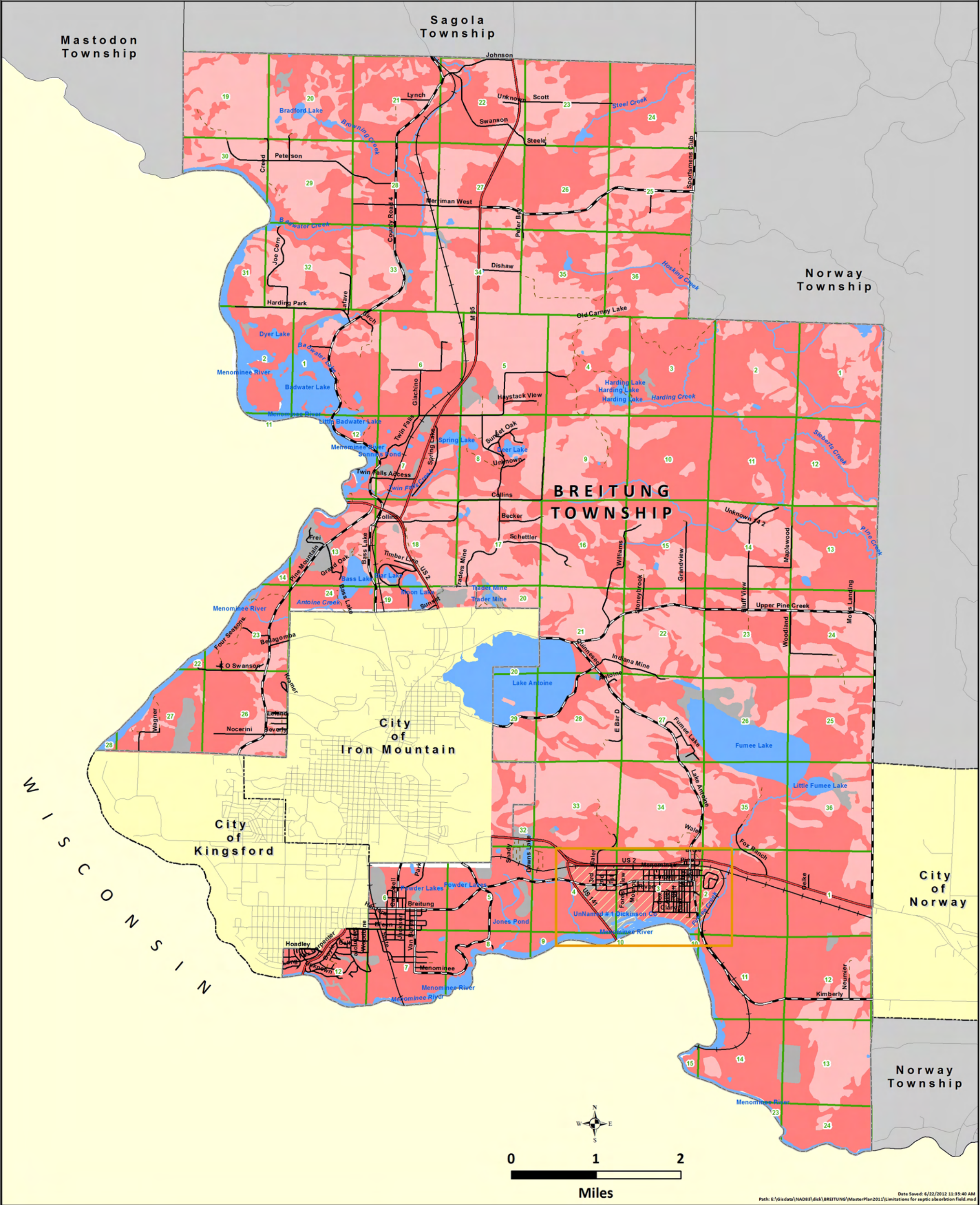
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Path: E:\Gisdata\NAD83\dic\BREITUNG\MasterPlan2011\Suitability of Dwellings.mxd



# Breitung Township

Map 4-5

Limitations for Septic Tank Absorbtion Fields

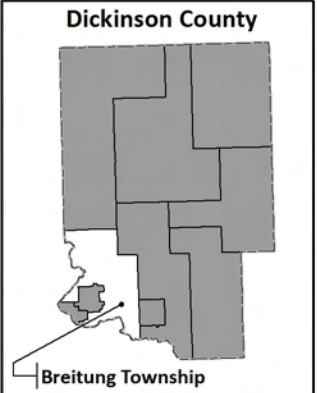


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Roads	
LEGALSYST	
	State Trunkline
	County Primary
	County Local
	City Major
	City Minor
	Uncertified with a Funclass
	Railroad
	Township Boundary
	Section Lines
	Rivers
	HydroPoly
	Quinnesec

CLASSIFICATION:	
	SEVERE
	MODERATE
	WATER
	NOT RATED

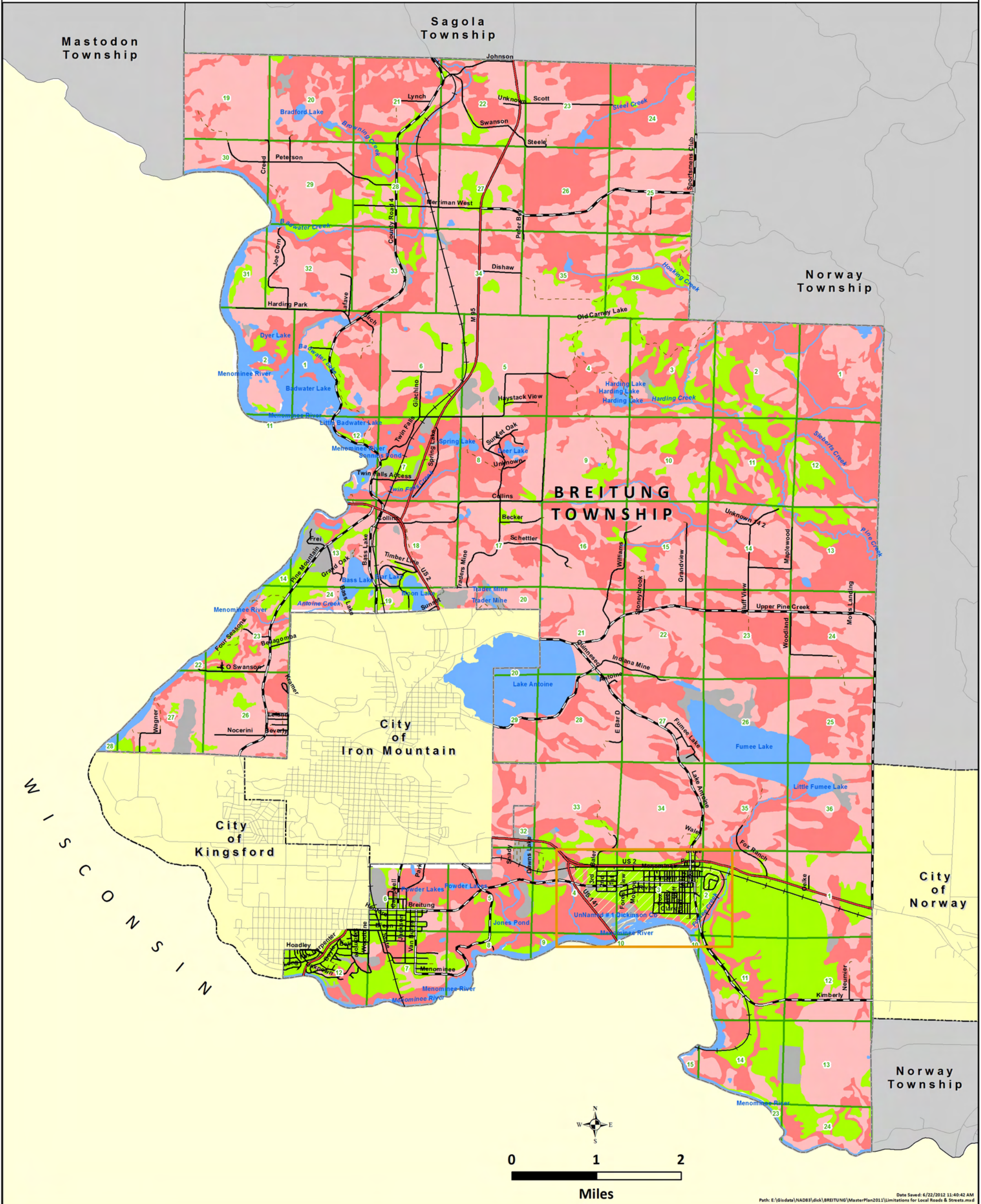




# Breitung Township

## Limitations for Local Roads & Streets

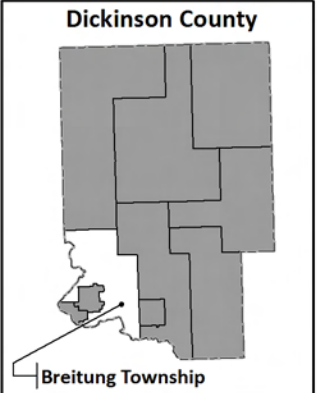
Map 4-6



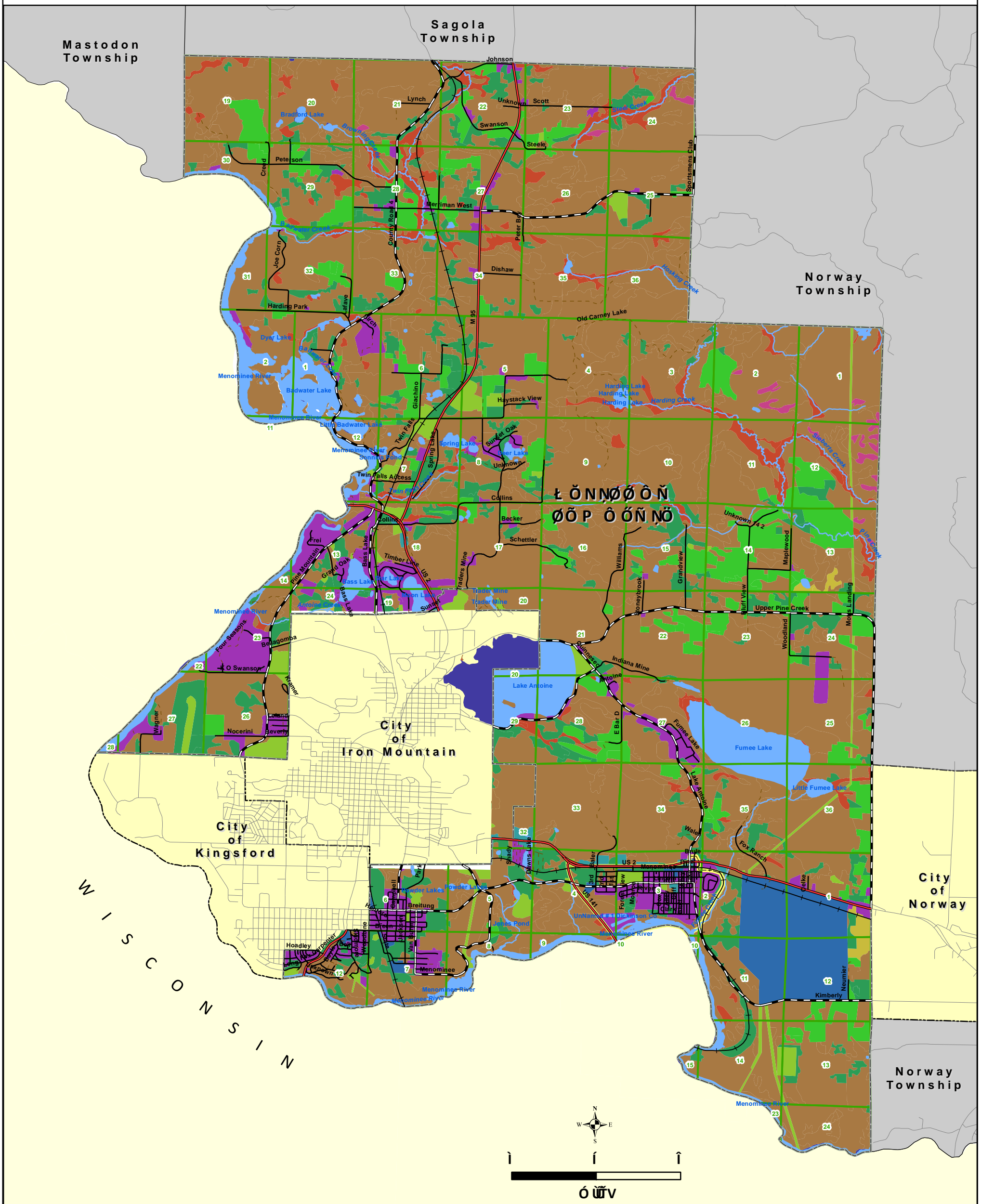
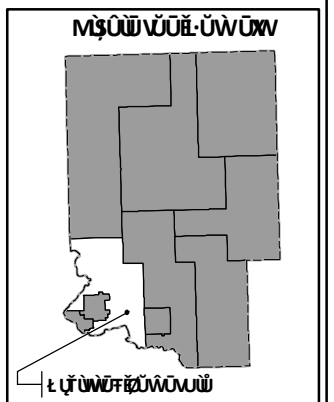
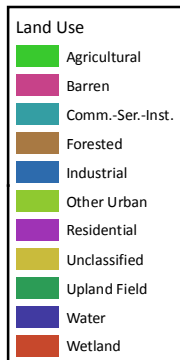
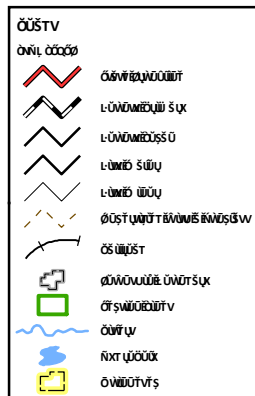
"The information and data provided herewith has been compiled from various sources, and is used by the CUPPAD Regional Commission for its own general purposes. CUPPAD does not warrant or guarantee that this information and data is accurate or current, nor does CUPPAD warrant or guarantee that this information and data is fit for any particular use or purpose. More specifically, CUPPAD warns that this information and data is not intended to be, and should not be, used to determine individual ownership, lot lines, or lines of occupation with respect to real estate. Any recipient of this information and data should independently verify its accuracy before relying on it for any purpose. CUPPAD and its officers, agents, employees, boards, and commissions shall not be liable for any inaccuracy or omission in this information and data"

Roads	
LEGALSYST	
	State Trunkline
	County Primary
	County Local
	City Major
	City Minor
	Uncertified with a Funclass
	Railroad
	Township Boundary
	Section Lines
	Rivers
	HydroPoly
	Quinnesc

CLASSIFICATION:	
	SEVERE
	MODERATE
	SLIGHT
	WATER
	NOT RATED





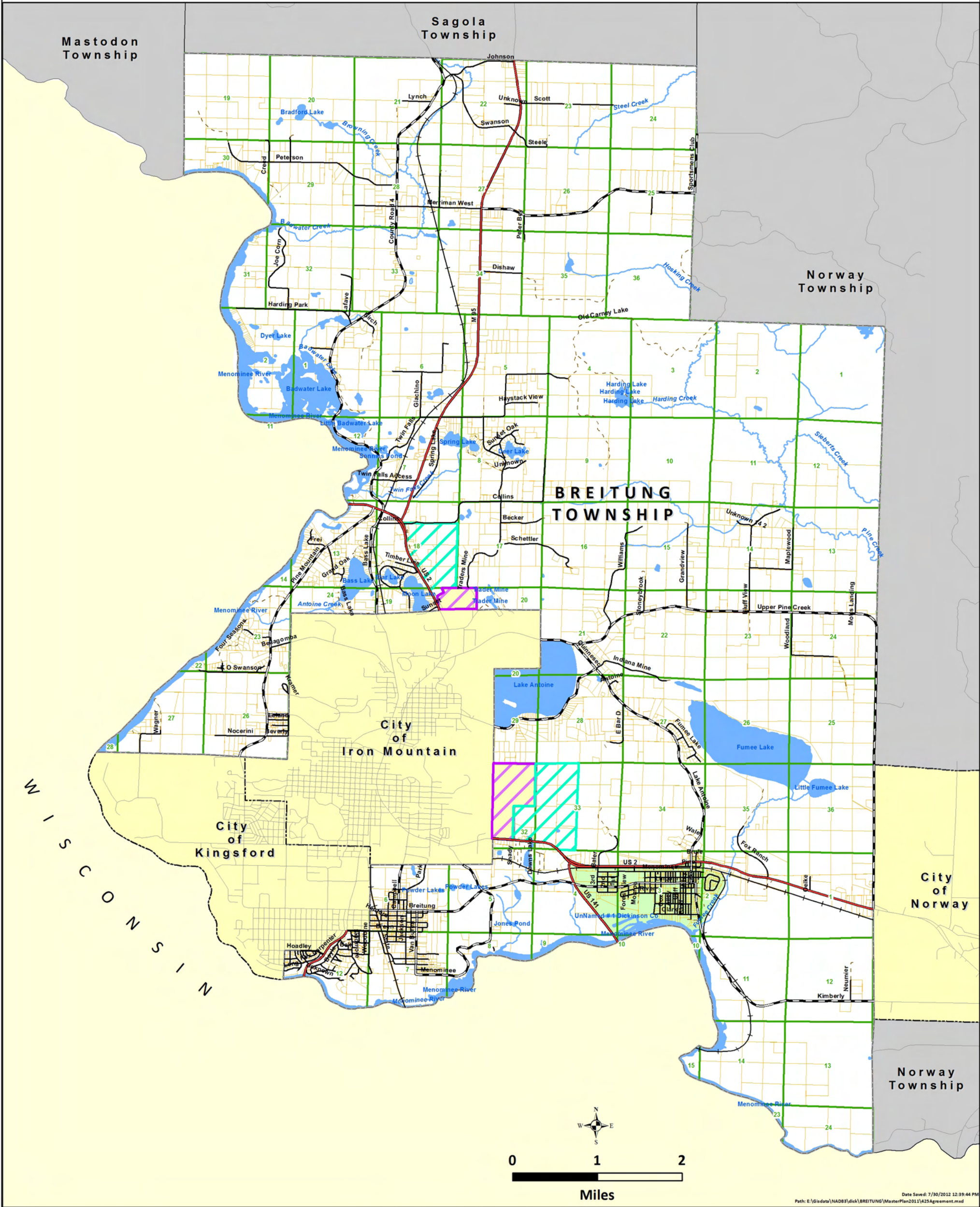
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Breitung Township

425 Agreements

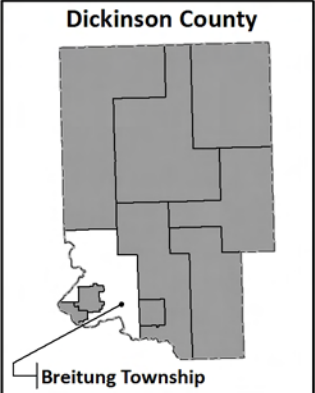
Map 5-2



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- Roads
- LEGALYST
  - State Trunkline
  - County Primary
  - County Local
  - City Major
  - City Minor
  - Uncertified with a Function
  - Railroad
  - Township Boundary
  - Section Lines
  - Rivers
  - HydroPoly
  - Quinnesc

- 425 Agreements
- 1
  - 2
  - Breitung Parcels

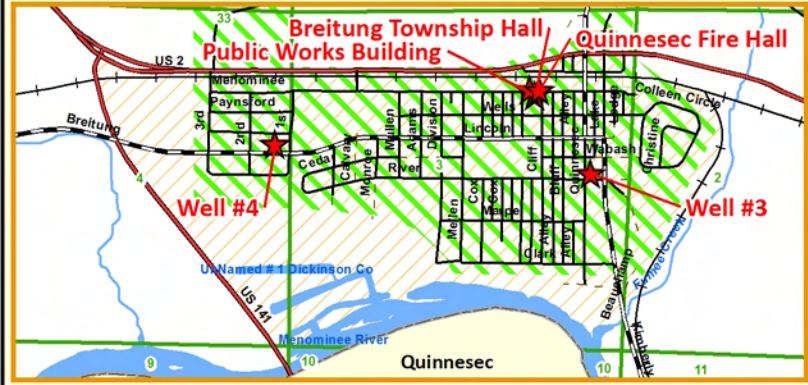
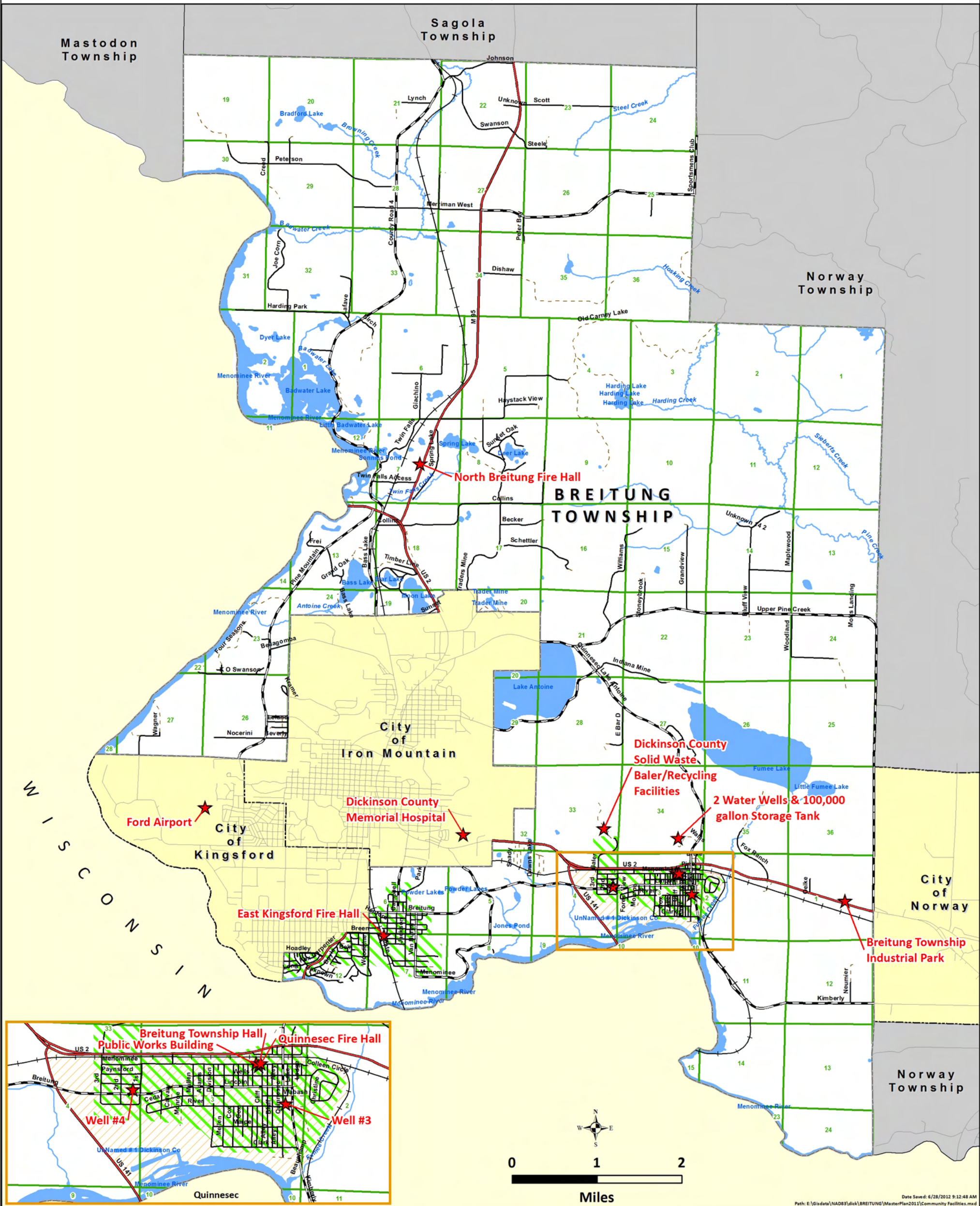




Breitung Township

Community Facilities

Map 6-1



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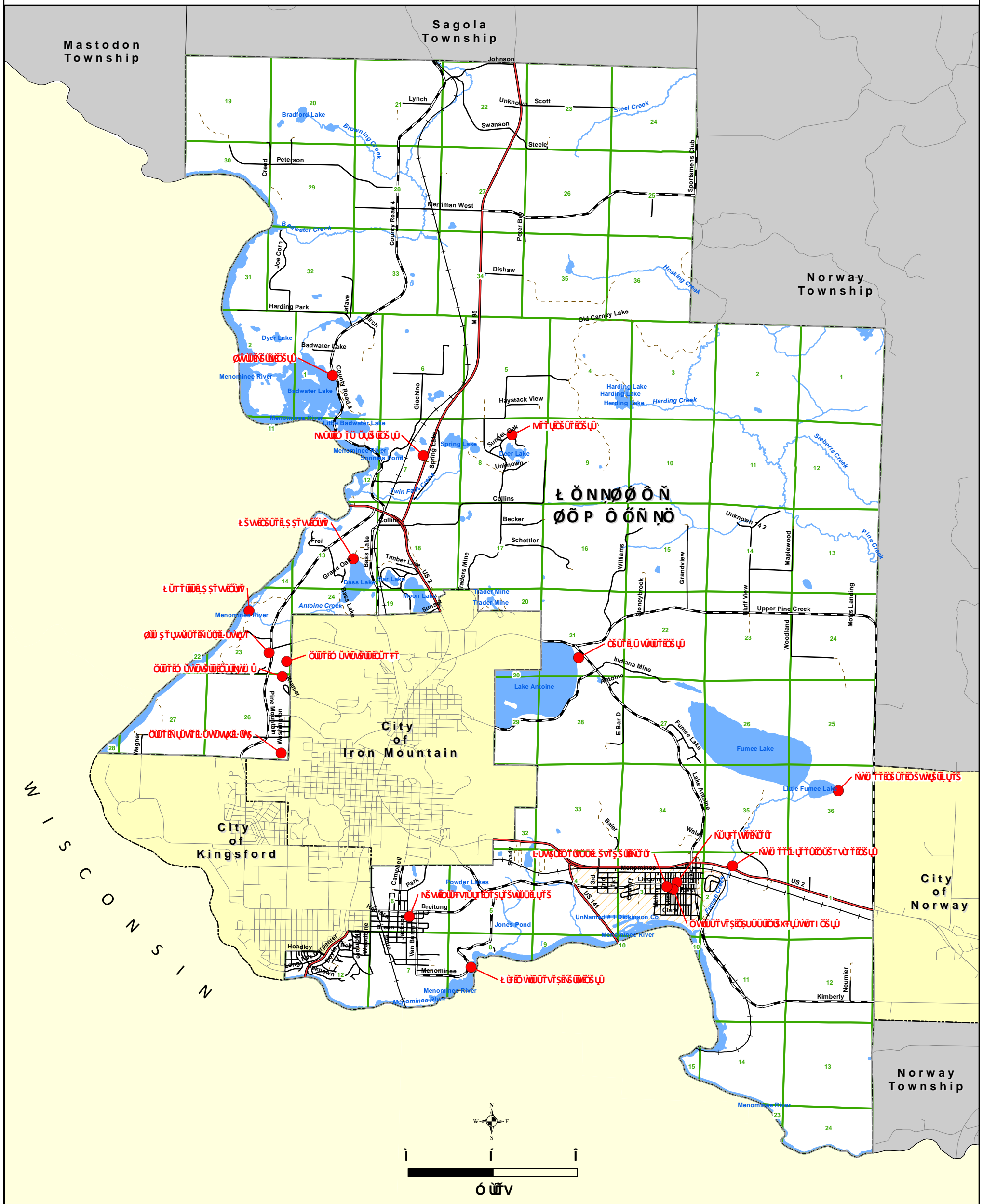
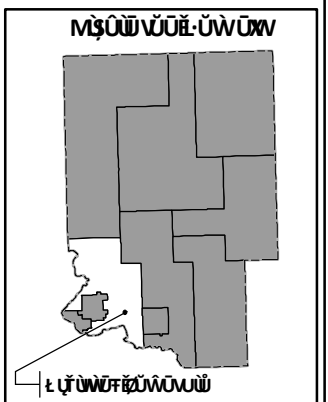
**Roads**

- State Trunkline
- County Primary
- County Local
- City Major
- City Minor
- Uncertified with a Function
- Railroad
- Township Boundary
- Section Lines
- Rivers
- HydroPoly
- Quinnesec
- Municipal Water Service Areas

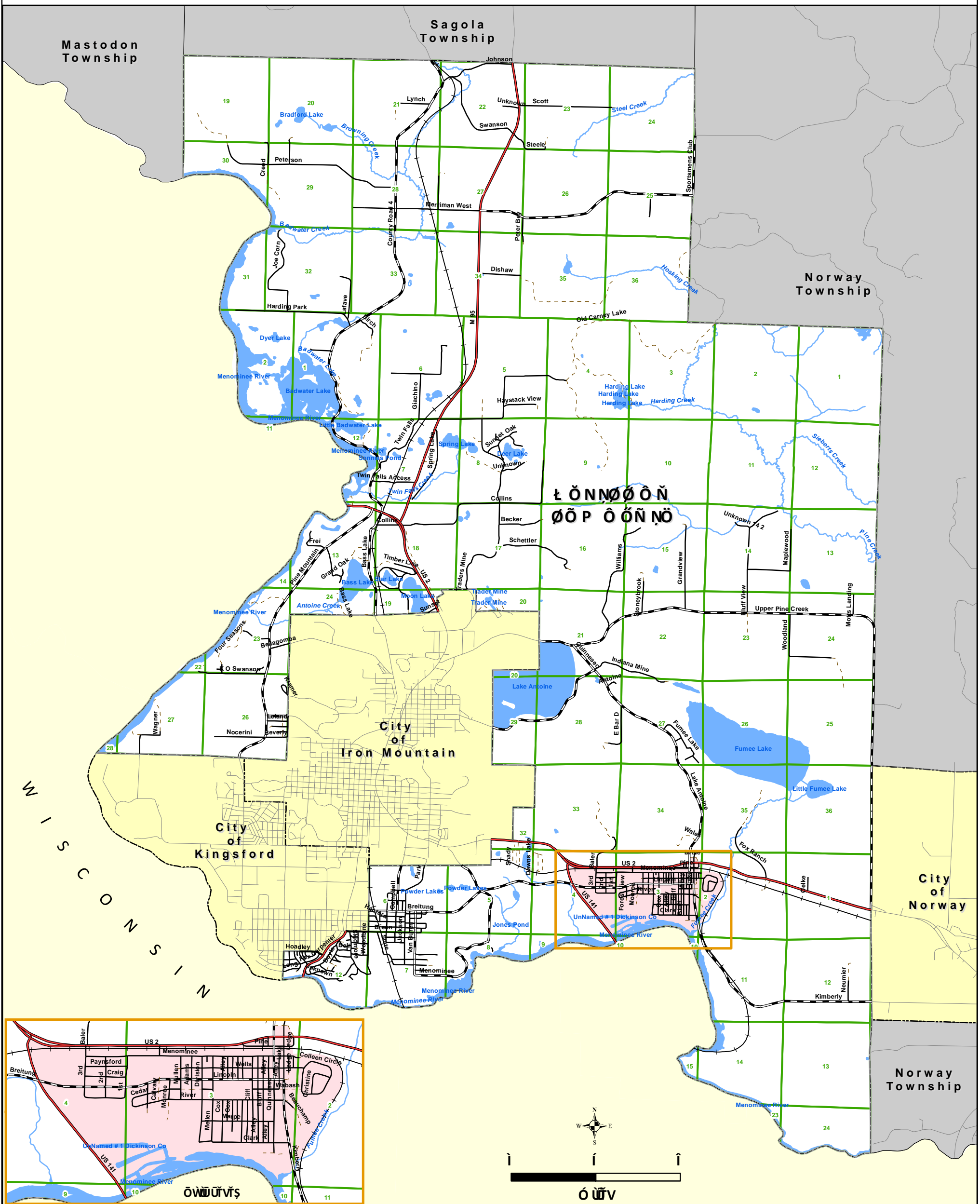
**Dickinson County**













Breitung Township

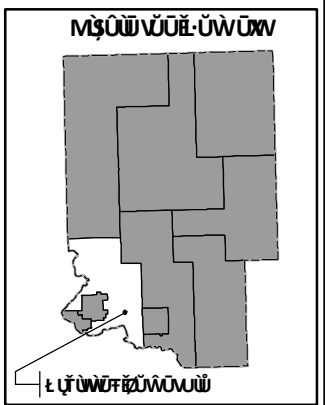


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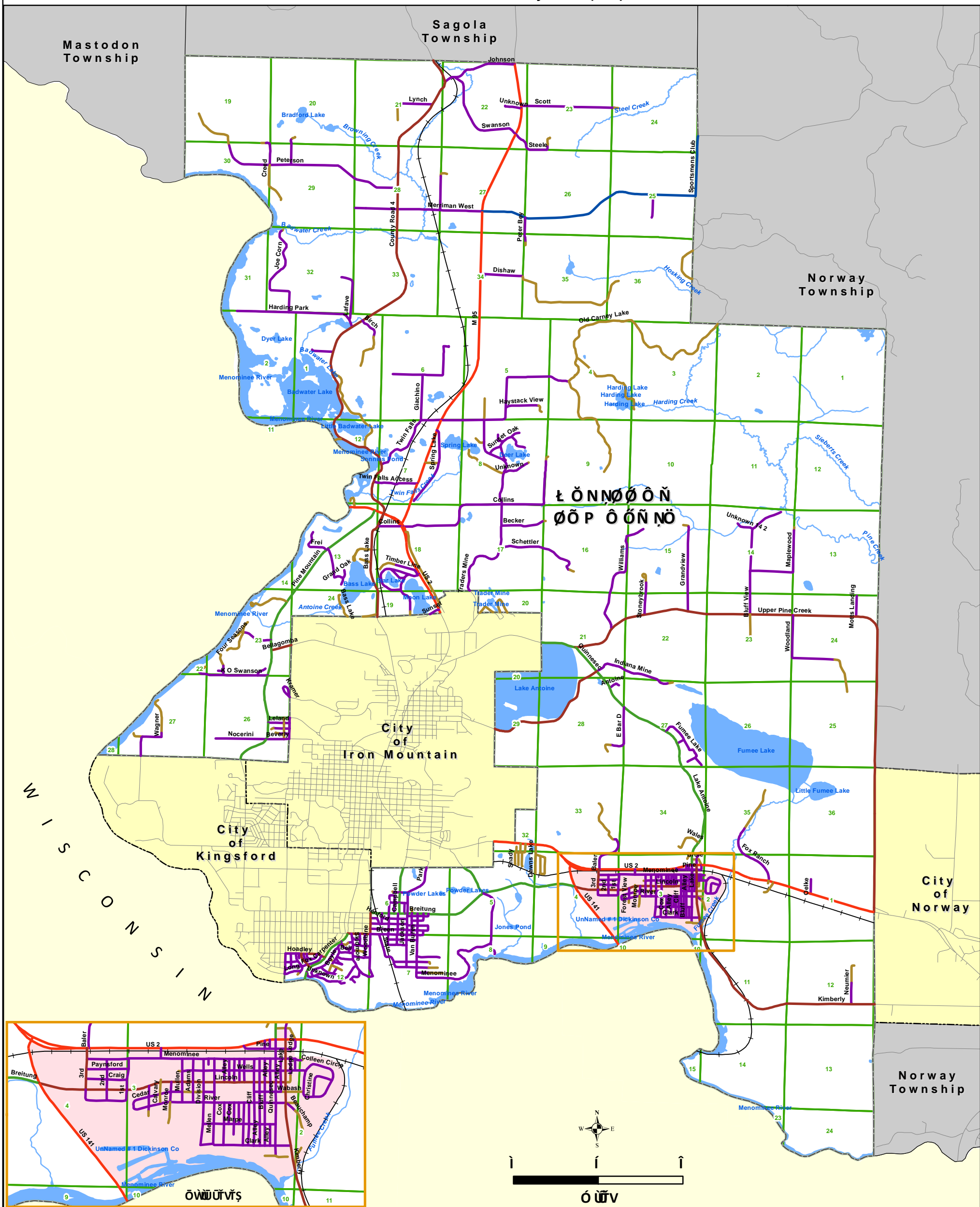
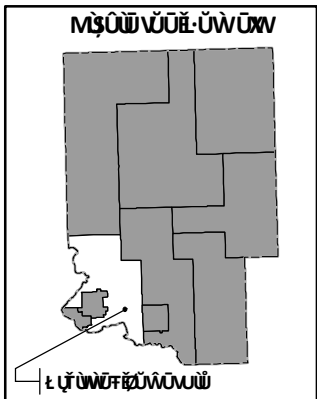
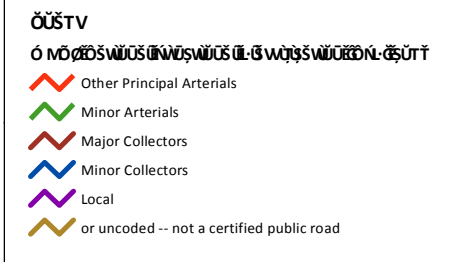
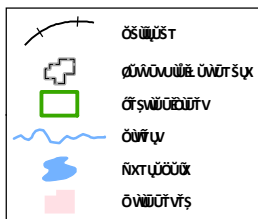
## ACT 51 Roads

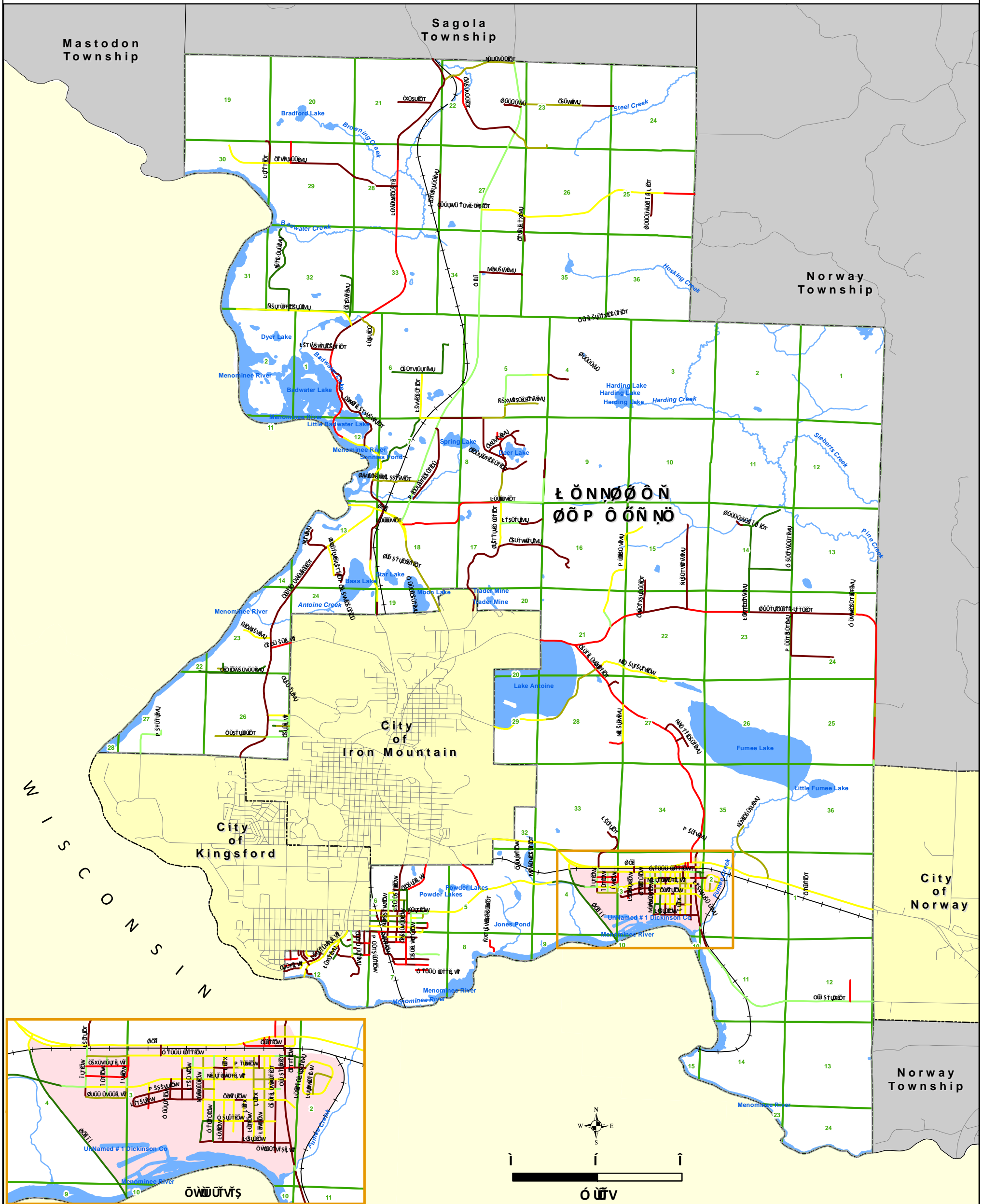
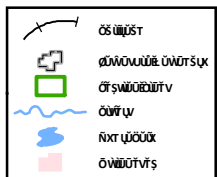
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ÖÜSTV	
ÖNÜLÜ ÖZÜÖÖÖ	
	ÖNÜLÜÖZÜÖÖÖÖ
	L-ÖNÜLÜÖZÜÖÖ SÜK
	L-ÖNÜLÜÖZÜÖÖ SÖ
	L-ÖNÜLÜ SÜÖÜ
	L-ÖNÜLÜ ÖÜÖÜ
	ÖÜSTVÖÖÖÖ L-ÖNÜLÜÖZÜÖÖ SÖ
	ÖS ÖÜÖST
	ÖNÜLÜÖZÜÖ ÖNÜLÜSÜK
	ÖS SÜÖÖÖÖÖV
	ÖNÜLÜ
	NÖT YÖÖÖÖK
	ÖNÜLÜÖTV S

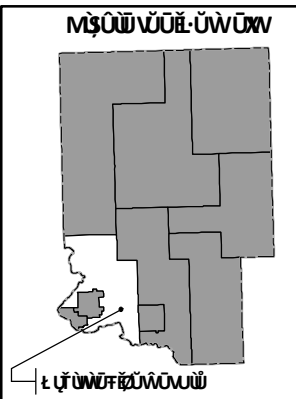




[illegible]

[illegible][illegible]

-  10 -- No Maintenance Required
-  9 -- No Maintenance Required
-  8 -- Little or No Maintenance
-  7 -- Routine Maintenance, Cracksealing and Minor Patching
-  6 -- Preservative Treatments (sealcoating)
-  5 -- Preservative Treatments (sealcoating)
-  4 -- Structural Improvement and Leveling (overlay or recycling)
-  3 -- Structural Improvement and Leveling (overlay or recycling)
-  2 -- Reconstruction
-  1 -- Reconstruction

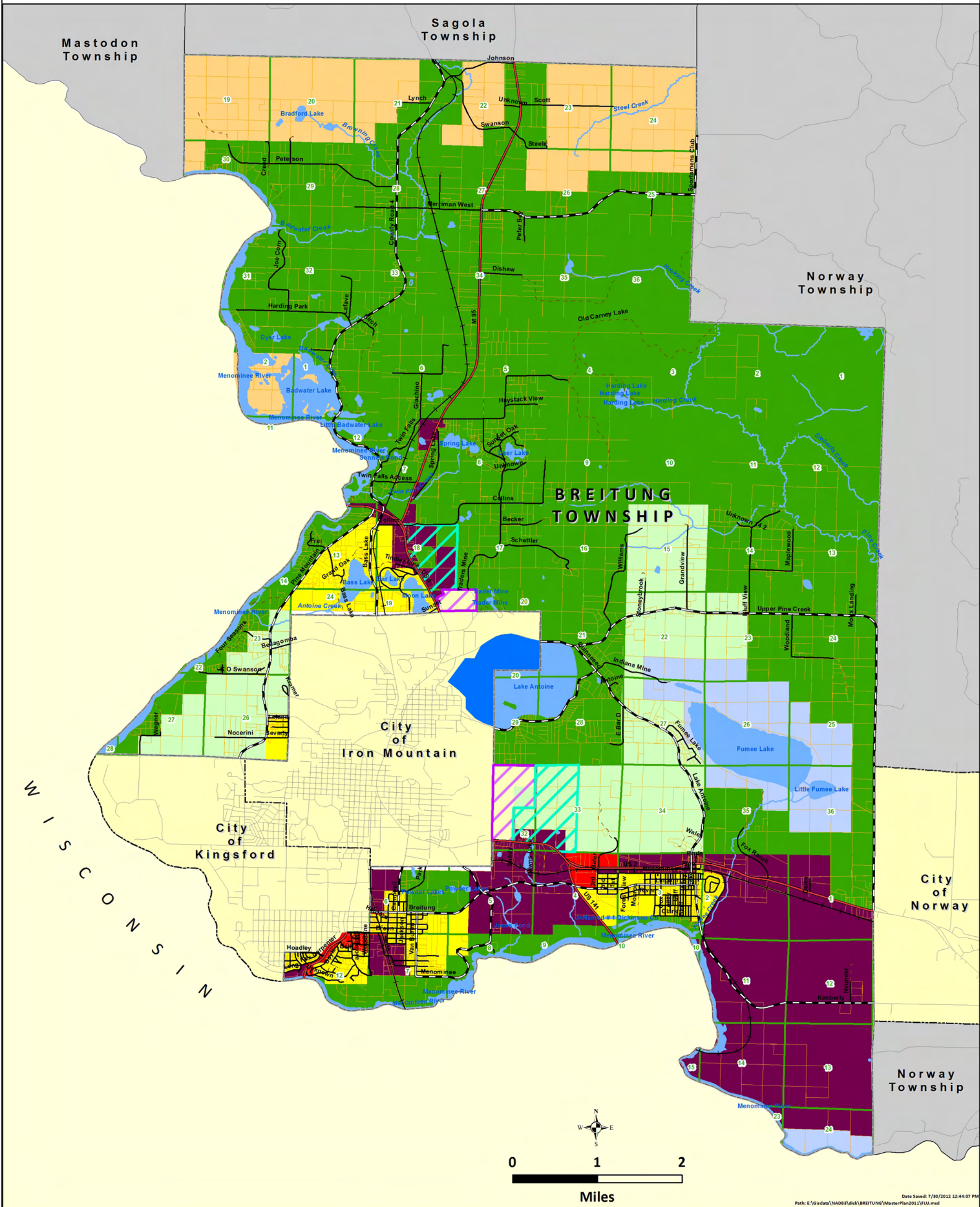




Breitung Township

Future Land Use

Map 11-1



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  - Uncertified with a Fuclass
  - Railroad
  - Township Boundary
  - Section Lines
  - Rivers
  - HydroPoly
  - Breitung Parcels

- Future Land Use District**
- Urban Residential
  - Medium Density Residential
  - Low Density Residential
  - Natural Area
  - Natural Resources
  - Retail and Service
  - General Business / Manufacturing
  - Water
- 425 Agreements**
- 1
  - 2

