



Marinette County 20-Year Comprehensive Plan

Volume II: Marinette County Resources
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Volume II

County Resources



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**CHAPTER 5:
NATURAL, AGRICULTURAL, AND CULTURAL
RESOURCES**

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INTRODUCTION

This section provides an inventory of the existing natural, agricultural and cultural resource features found in Marinette County. The inventory provides an understanding of the physical characteristics of the county. Because they are major determinants of future development options, it is important to understand where these resources are located and how they relate to one another. Inventorying and defining them will help limit unnecessary public expenditures and minimize the negative impacts to these valued resources as development occurs.

NATURAL RESOURCES

Natural resources are materials that occur in nature and are essential or useful to humans such as water, air, land, trees, animals, plants, soil and minerals. Some are replaceable; others are not. Trees and fish are renewable resources and can be replaced. Nonrenewable resources that include clean groundwater and natural gas are not replaceable once they have been consumed.

Natural resources are often a defining feature for local communities. People depend on natural resources to provide a clean and abundant supply of groundwater; assure good air quality; and provide natural landscapes that are fundamental to a healthy and diverse biological community. Despite their importance, Wisconsin's natural resources face significant threats due to increasing human demands by a growing population. Direct impacts of current and projected development patterns include habitat loss and fragmentation, threats to water quality, and changes in climate. Therefore, it is important that communities plan appropriately in order to preserve their important natural features.

The following text describes the types and locations of Marinette County's many resources and briefly discusses the importance of them when planning for future growth of the county.

Geology

The geology that lies beneath the county has important implications for land use. Bedrock type, overlying soil composition and depth to bedrock affects excavation; foundations; location and effectiveness of site wastewater treatment systems; residential and industrial development locations; and cost effectiveness of construction and maintenance of highways and streets. The soil composition and depth to bedrock can also have an impact on the natural infiltration of surface waters. In addition, the type of bedrock will determine whether an effective pathway will be available for groundwater recharge as well as its susceptibility to contaminants, including those that naturally occur in the bedrock.

Bedrock

Marinette County's geology contains seven distinct bedrock types from three geologic eras. The northwestern two-thirds of the county is underlain primarily by granite and undifferentiated igneous and metamorphic rocks of Precambrian origin. In the extreme northeast, the Precambrian bedrock is an area of gabbro and basalt, and in the extreme west is a small formation of quartzite, slate and iron. To the southeast of the Precambrian bedrock, is the Upper Cambrian group of the Cambrian Era, which consists of sandstones. Continuing to the southeast are the sedimentary formations of the Ordovician Era, which are the Prairie du Chien group consisting of dolomite and Saint Peter sandstone, and the Platteville-Galena group consisting of dolomite with some limestone.

Glacial

During the glacial period, Marinette County was completely covered by a sheet ice known as the Green Bay Lobe of the Labrador Ice Sheet. This sheet of ice was responsible for shaping the surface features that can be seen today throughout the County.

The glacial drift in Marinette County consists primarily of outwash sand and gravel and loamy till. Glaciofluvial sediments in the form of lake sand are also dominant in the southeast portion of the county. The soils may be less than 30 feet thick in some areas and up to 300 feet in depth above the bedrock.

Some glaciofluvial deposits contained ice blocks which eventually melted and formed pits, also known as kettles. Over time many of these kettles collected and retained water, forming a number of the inland lakes that are found throughout the county.

Map 5.1 illustrates the glacial “Pleistocene” geology of Marinette County, while Map 5.2 illustrates soil depth to bedrock within the county.

Topography

Glacial events occurring in Wisconsin, along with the type of underlying bedrock, have split Marinette County into three distinct regions. The northern and western sections, known as the Northern Highlands Region, are characterized by a rough and hilly landscape. The gentle, rolling hills found throughout the central portion of the county are part of Wisconsin’s Central Plains. The third region, the Eastern Ridges and Lowlands, runs through the southeast part of the county and features gentle, rolling uplands.

McCaslin Mountain, which rises to 1,670 feet above sea level, is the highest point in Marinette County. Overall, elevation in the county drops gradually from about 1,400 feet in the northwest to about 580 feet at the Lake Michigan shoreline.

In addition to the varying topography of these regions, there are also areas of steep slope that exist within Marinette County. Steep slopes are considered areas with a slope equal to or greater than 12 percent. These steep slope areas are more susceptible to soil erosion and therefore are better left free of development. If permission to develop these areas is granted it is recommended that special building and construction restraints such as retaining walls, major grading efforts and specialized erosion control measures are used to avoid large scale erosion.

Certain soil types are characteristic of steep slope areas based on their composition. Map 5.3 illustrates potential areas of steep slope within the county based on soils characteristics.

Glacial deposits can be divided into two types: **till** and **glaciofluvial**.

Till, or unstratified drift, is a mixture deposited directly by the glacier that consists of clay, sand, gravel and boulders intermingled in any proportion.

Glaciofluvial deposits are moved by glaciers, sorted, and deposited by streams flowing from the melting ice. The deposits are stratified and may occur in the form of outwash plains, deltas, kame eskers, and kame terraces. These deposits consist of coarse to medium-grained sand and gravel with numerous cobbles, boulders and portions of till.

Soils

The Natural Resources Conservation Service (NRCS) provides a detailed study of all soils in Marinette County in the *Soil Survey of Marinette County, Wisconsin* which was completed in 1985. The survey provides information on the suitability and limitations of soils for a variety of natural resource and engineering uses. Listed below are descriptions of the general soil types within Marinette County.

Soils Description

The soils of Marinette County are principally the result of weathering of glacial deposits. There is great variation in the soils within relatively short distances, due primarily to the various bedrock formations from which the glacial drift was formed. Other soils in the County were laid down by streams and lakes. Peat and muck soils are found scattered throughout the County.

Soils are grouped into general soil associations that have similar patterns of relief and drainage. These associations typically consist of one or more major soils and some minor soils. Marinette County contains 11 diverse soil associations that are divided into three general categories.

Table 5.1 provides a brief description of each soil association found in Marinette County.

Soil Limitations

Because certain limitations exist for various soil types, the composition and properties of soils should be evaluated prior to any development taking place. By utilizing the information provided by the *Soil Survey of Marinette County, Wisconsin* soil-related failures in various land uses can likely be avoided.

Table 5.1: Soil Descriptions, Marinette County

General Soil Category	General Description	Specific Association	Description
Areas dominated by soils that formed in glacial till	<ul style="list-style-type: none"> • Makes up about 23% of county • Used for croplands • Erosion and wetness are main limitations in managing 	Emmet-Charlevoix Association	<ul style="list-style-type: none"> • Deep, nearly level to steep • Well drained to somewhat poorly drained • Loamy soils
		Menominee-Emmet Association	<ul style="list-style-type: none"> • Deep, nearly level to steep • Well drained • Sandy and loamy soils
		Cunard-Emmet Association	<ul style="list-style-type: none"> • Moderately deep and deep • Nearly level to steep • Well drained • Loamy soils
		Sarona-Keweenaw Association	<ul style="list-style-type: none"> • Deep, nearly level to steep • Well drained • Loamy and sandy soils
Areas dominated by soils that formed in glacial outwash and till	<ul style="list-style-type: none"> • Makes up about 68% of the county • Primary used as woodland • Erosion, soil blowing, and droughtiness are main limitations in managing 	Wainola-Deford Association	<ul style="list-style-type: none"> • Deep, nearly level and gently sloping • Somewhat poorly drained to very poorly drained • Sandy and mucky soils
		Mancelona-Emmet-Menahga Association	<ul style="list-style-type: none"> • Deep, nearly level to steep • Well drained to excessively drained • Sandy and loamy soils
		Menahga Association	<ul style="list-style-type: none"> • Deep, nearly level to steep • Excessively drained • Sandy soils
		Pence-Padus Association	<ul style="list-style-type: none"> • Deep, nearly level to very steep • Well drained • Loamy soils
Areas dominated by organic soils	<ul style="list-style-type: none"> • Wetness and low soil strength are main limitations in managing 	Ishpeming-Michigamme-Rock Outcrop Association	<ul style="list-style-type: none"> • Moderately deep, gently sloping to moderately steep • Somewhat excessively drained and well drained • Sandy and loamy soils
		Seelyeville-Markey-Emmett Association	<ul style="list-style-type: none"> • Deep, nearly level to steep • Very poorly drained and well drained • Mucky and loamy soils
		Seelyeville-Markey Association	<ul style="list-style-type: none"> • Deep, nearly level • Very poorly drained • Mucky soils

Source: United States Department of Agriculture Soil Conservation Service, *Soil Survey of Marinette County, WI*, 1987.

Private Sewage Systems

Private on-site wastewater treatment systems (POWTS) are systems that discharge effluent to groundwater through a subsurface infiltration system. Success of these on-site systems (i.e., drain-fields or mounds) is based on the depth and permeability of the soils where they are installed.

The *Soil Survey of Marinette County, Wisconsin*, provides information on the limitations of each type of soil for these sanitary facilities. Soil ratings are based on soil properties, site features and observed performance of the soils. There are three classes of limitations:

- *Severe limitations* mean soil properties or site features are so unfavorable or so difficult to overcome that these systems may require a special design that results in a significant increase in construction costs or possibly costly ongoing maintenance.
- *Moderate limitations* mean soil properties or site features are not favorable for the indicated use and too may require special planning, design, or maintenance to overcome or minimize these limitations.
- *Slight limitations* mean soil properties and site features are generally favorable for the indicated use and limitations are minor and therefore easily overcome.

COMM 83 health and safety code allows new technologies for private sewage systems. The code allows the use of soil absorption systems on sites with at least six inches of suitable native soil. The revised code gives property owners the opportunity and flexibility to meet environmental performance standards with several treatment technologies.

As a way to mitigate these limitations, COMM 83 allows for infill development in areas not permitted previously by the former plumbing code. Housing and population density will increase in some areas due to the revised COMM 83 code. This in turn increases the need for land use planning and integrations of environmental corridors to address the adverse impacts related to development. Planning along with land use controls (e.g. zoning) will assist in achieving more efficient development patterns.

Basements

The *Soil Survey of Marinette County, Wisconsin* provides information on the limitations of soils for building site development including the construction of dwellings with basements. These limitations are based on soil properties, site features and observed performance of the soils.

Most of the severe limitation soils found in the county occur in wetland areas and locations adjacent to surface water features.

Nonmetallic Mineral Resources

Sand, gravel and crushed stone are the primary minerals mined in the county. They are needed for constructing the sub-base for roads and are the primary components in concrete that is used for the building of foundations, basement walls and sidewalks.

There are several mining sites in Marinette County and the surrounding area that extract sand, gravel and/or crushed stone. The *Soil Survey of Marinette County, Wisconsin* identifies soils that would be the best sources for quality sand, gravel and crushed stone. These minerals are primarily found near river and stream channels, outwash plains, dunes and eskers.

As Marinette County and other surrounding areas experience continued growth and development, the demand for sand, gravel and crushed stone will increase. As a result, these nonmetallic mineral resources should be identified and conserved for future mining consideration. However, residential development can threaten access to these resources as competition for land increases. Therefore, it is important that land use controls are utilized to ensure the preservation of these resources so that future demands can be met.

In order to minimize land use conflicts, mining operations should show that they have little negative impact on the neighboring properties or the surrounding areas. This not only includes noise and odors, but also adverse affects on groundwater and significant wear on local roads.

Nonmetallic Mining Reclamation (NR 135)

Any new mines need to have a permit granted by the Wisconsin Department of Natural Resources (WDNR) and are subject to the requirements of NR 135.

- A. The reclamation plan is a detailed technical document with goals to successfully reclaim the area as well as limit any long-term negative impacts to the environment once the mine is abandoned.
- B. The WDNR defines successful reclamation as “the restoration of all areas disturbed by mining activities including aspects of the mine itself, waste disposal areas, buildings, roads and utility corridors.”
- C. Restoration is defined as “returning of the site to a condition that minimizes erosion and sedimentation, supports productive and diverse plants and animal communities, and allows for the desired post-mining land use.”

Depleted mining sites can be reclaimed as parkland, wildlife habitat, recreational land or other uses.

NR 135 allows landowners to register marketable nonmetallic mineral deposits as a way to prevent future development that would interfere with the extraction of those deposits. As a result, registered sites are protected from local zoning or other decisions that permanently interfere with mining on the site for at least 20 years.

Water Resources

Watersheds

Marinette County consists of twelve watersheds which are part of the larger Lake Michigan Basin. All of these watersheds drain indirectly into Lake Michigan through Green Bay or one of the county’s major rivers. Map 5.4 displays the location of each watershed.

Pollution can have negative impacts on all of the county’s watersheds. It is important to evaluate any new developments and land activities to determine their potential impacts on the applicable watershed. Many of these activities may not occur in the county; however, the activities undertaken upstream in adjacent communities can adversely impact the water quality in the downstream area and pose a threat to the environment, economy and health of the county and its communities.

Priority and Non-Priority Watersheds

Both point and non-point source pollution continues to have a tremendous impact on Wisconsin’s watersheds. While rules can easily be put into place to regulate point source pollution, it is much more difficult to control nonpoint source pollution.

As a way to protect the state’s watersheds from nonpoint source pollution, the Wisconsin Nonpoint Source Water Pollution Abatement Program (NPS Program) was created in 1978 by the State Legislature and is managed by the WDNR. This program selected priority watersheds based on numerous factors, including but not limited to, the potential for unique species to respond positively to nonpoint source controls and sensitivity to phosphorus loading. The program has provided financial and technical assistance to landowners and local governments to reduce nonpoint source pollution by addressing land management activities that contribute to urban and rural runoff. Table 5.2 lists the projects in Marinette County that have received assistance under this program.

Point source pollution can be defined as that which originates from a single point such as pipes, ditches, wells, and containers, while **nonpoint source pollution** can not be traced to one definitive source. Although exact sources of nonpoint source pollution can be difficult to identify, activities such as farming, construction and mining are known to produce pollution that can be carried away by runoff into local watersheds.

Table 5.2: Priority Watershed Projects

Watershed	County(ies)	Year Designated	Project Status
Large-scale Priority Watershed Project			
Little River	Marinette, Oconto	1983	Project complete
Middle Peshtigo/Thunder Rivers	Marinette, Oconto	1955	Unknown
Small-scale Priority Watershed Project			
Bass Lake	Marinette	1990	Project complete
Priority Lake Project			
Lake Noquebay	Marinette	1992	Project complete

Source: Wisconsin Department of Natural Resources, 2007; Bay-Lake Regional Planning Commission, 2009.

Menominee River Area of Concern

The Menominee River Area of Concern (AoC) includes the lower three miles of the river from the Upper Scott Paper Company Dam to the river's mouth and approximately 3.1 miles north and south of the mouth along the adjacent shoreline of Green Bay. The AoC also includes the cities of Marinette and Menominee, as well as the adjacent nearshore area of Green Bay, Wisconsin, extending three miles north to John Henes Park and south of the river mouth to the point of land known as Seagull Bar. The AoC also includes Green Island.

According to the *Lower Menominee River Remedial Action Plan (RAP) Update* completed by WDNR in February 1996, six uses of the basin were impaired due primarily to arsenic contamination and sediment loading. The RAP also identified paint sludge and coal tar as other pollutants of concern. Since its completion in 1996, the RAP has served as a guide to implement a number of remediation projects.

Surface Water

Lakes and streams provide an abundant supply of surface water and are important assets in Marinette County, which has 442 lakes covering 13,735 surface acres and 304 rivers and streams with a total length of 918 miles. Their sizes range from very small and shallow to very large, such as Lake Noquebay, which has an area of 2,162 acres. Map 5.5 illustrates all lakes and ponds greater than 100 surface acres in size while Map 5.6 shows the location of the major rivers and creeks (those greater than 10 miles in length) in the county. These waters are also listed in Table 5.3 and Table 5.4 below.

Surface waters in Marinette County flow almost exclusively to the southeast of the Canadian Shield and eventually into Green Bay. Major drainages in the county include the Peshtigo, Pemebonwon, Pike and Wausaukee river systems.

The popularity of lakes and rivers and economic expansion has led to a considerable increase in development and re-development of waterfront property on Marinette County lakes and rivers. This increase in development has created pressure on the natural resources. Many of the impacts are immediately evident such as wildlife habitat loss. However, many of the impacts develop gradually such as changes in water quality, shoreline aesthetics, aquatic and shoreline plants, and wildlife populations. The impacts tend to be long term and often result from the cumulative effects of increased development.

According to the WDNR, Marinette County's water quality is generally good. The most serious water quality problems in the county stem from industrial waste, primarily paper mills, and municipal waste. Other pollution problems, particularly in the more intensively farmed southern part of the county, can be attributed to poor agricultural practices that promote erosion, stream bank destruction and nutrient enrichment of surface waters. Problems may develop in lakes from excessive quantities of nutrients from septic systems, agriculture or other sources.



Source: Bay-Lake Regional Planning Commission, 2006

Table 5.3: Marinette County Lakes and Ponds Greater than 100 Surface Acres

Name	Location	Map 5.5 Number
Bagley Flowage	T31N, R22E, Section 27	1
Caldron Falls Flowage	T33N, R18E, Section 10	2
Chalk Hills Flowage	T35N, R22E, Section 7	3
Coleman Lake	T36N, R18E, Section 8	4
Gilas Lake	T31N, R19E, Section 18	5
Grand Rapids Flowage	T34N, R23E, Section 32	6
High Falls Flowage	T33N, R18E, Section 36	7
Hilbert Lake	T37N, R17E, Section 6	8
Mary Lake	T33N, R21E, Section 25	9
Montana Lake	T30N, R20E, Section 30	10
Lake Noquebay	T32N, R21E, Section 8	11
Peshtigo Flowage	T30N, R23E, Section 18	12
Sandstone Flowage	T32N, R19E, Section 24	13
Thunder Lake	T32N, R18E, Section 15	14
Town Corner Lake	T36N, R19E, Section 36	15
Upper Scott Flowage	T31N, R23E, Section 32	16
White Rapids Flowage	T35N, R22E, Section 19	17

Source: "Surface Waters Resources of Marinette County," Wisconsin Department of Natural Resources, 1975; Bay-Lake Regional Planning Commission, 2009.

Table 5.4: Marinette County Major Rivers and Creeks

Name	Location	Map 5.6 Number
Eagle Creek	T33N, R18E, Section 12	1
Little Peshtigo River	T31N, R21E, Section 28	2
Little South Branch Pike River	T35N, R20E, Section 17	3
Menominee River	T30N, R24E, Section 4	4
Middle Inlet Creek	T32N, R21E, Section 8	5
North Branch Pemebonwon River	T37N, R21E, Section 27	6
North Branch Pike River	T35N, R20E, Section 36	7
Peshtigo River	T29N, R23E, Section 23	8
Pike River	T34N, R21E, Section 3	9
South Branch Pemebonwon River	T37N, R21E, Section 27	10
South Branch Pike River	T35N, R20E, Section 16	11
Upper Middle Inlet Creek	T33N, R20E, Section 25	12
Wausaukee River	T33N, R21E, Section 4	13

Source: "Surface Water Resources of Marinette County," Wisconsin Department of Natural Resources, 1975; Bay-Lake Regional Planning Commission, 2009.

Activities in Navigable Waters

Placement of structures, dredging and similar activities in or adjacent to navigable waters are regulated under Chapter 30 of Wisconsin Statutes. These activities often require a permit from WDNR before they can begin. Chapter 30 provides permit exemptions for the following activities:

- Boat shelters, lifts, and hoists
- Biological shore erosion control
- Culvert replacement (previously permitted and up to 24” in diameter)
- Dry fire hydrant
- Fish habitat structures
- Intake or outfall structure
- Manual dredging
- Pier or wharf
- Pilings
- Riprap repair
- Riprap replacement
- Swim rafts
- Wildlife habitat structure

Although Chapter 30 provides some exemptions, none of these exemptions are allowed in “Areas of Special Resource Interest” (ASNRI) and many are limited in “Public Rights Features” and “Priority Navigable Waters,” all of which are defined in NR 1.05. Marinette County contains a large number of surface water features that fall under one of these designations. This should be considered when making decisions about development around these areas.

Wisconsin’s Impaired Waters

Section 303(d) of the Federal Clean Water Act requires each state to periodically submit to the U.S. Environmental Protection Agency (EPA) a list of impaired waters. Impaired waters are those that are not meeting the state’s water quality standards. The DNR last submitted an updated list to EPA in May 2006 and received approval in September 2006. Table 5.5 lists each of the impaired waters that are located in Marinette County.

Table 5.5: Impaired Waters of Marinette County

Water Body	Pollutant	Priority	Year Added
Bass Lake	Phosphorus	EAP	1998
Green Bay (south of City of Marinette)	Mercury	Medium	1998
Lower Menominee River (AoC)	Arsenic, Mercury, Coal tar	Low	1996
Menominee River	Mercury, PCB	Low	Before 2002
Menominee River (Pier's Gorge to Lower Scott Flowage)	Mercury, PCB	Low	Before 2002
Gilas Lake	Mercury	Low	1998
Lake Noquebay	Mercury	Low	1998
Peshtigo River at Caldron Falls Flowage	Mercury	Low	1998
Peshtigo River at High Falls Flowage	Mercury	Low	1998
Peshtigo River at Peshtigo Flowage	Mercury	Low	1998

Source: Wisconsin Department of Natural Resources, 2006; Bay-Lake Regional Planning Commission, 2009.

Waterfalls

Marinette County is located on the edge of the Precambrian Shield, creating a distinct fall line for all streams that cross the boundary. Such falls as High Falls, Caldron Falls, and Roaring Rapids are examples. The gradient and fall line make interesting whitewater rafting and provide outstanding scenery. In total, Marinette County has fourteen waterfalls, most of which can be found in the Crivitz, Amberg and Pembine recreational areas and within the County Park system.

Shorelands

Shorelands are viewed as valuable environmental resources both in rural and urbanized areas. As a result, the State of Wisconsin requires counties and incorporated communities to adopt shoreland/floodplain regulations to address the problems associated with development in shoreland and floodplain areas. Even though development within shoreland areas is generally permitted, specific design techniques must be taken into consideration. In more environmentally sensitive locations, any alteration of the shoreland is strictly regulated, and in some cases, not permitted under any circumstances.

Shorelands are land areas within the following distances from the ordinary high water mark of navigable waters:

- A. 1,000 feet from a lake, pond or flowage; and
- B. 300 feet from a river or stream or to the landward side of the floodplain, whichever distance is greater.

The authority to enact and enforce shoreland and other zoning provisions is set forth in Chapter 59.692 of the Wisconsin Statutes and Wisconsin Administrative Codes NR 115,116, and 117. Chapter 21 of the *Marinette County Zoning Ordinance* establishes zoning standards for the use of all shorelands in the county located along navigable waters.

Marinette County contains approximately 23 miles of Green Bay shoreline as illustrated by Map 5.7.

Coastal Resources

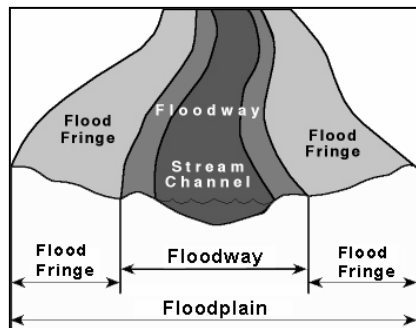
The Lake Michigan coastline offers a variety of natural, living and cultural resources. It is important to protect these valuable assets as development in coastal areas typically leads to greater land disturbance, runoff and pollutants.

Coastal development can affect the shape and use of the shoreline. Several issues to consider when planning include shoreline/bluff erosion, impacts to coastal wetlands, fluctuating lake levels, increased non-point pollution, economic impacts, wildlife habitats, and the unique historic and archeological resources of the area.

The preservation of coastal resources will go a long way in maintaining/improving community health and safety, aesthetics and economic viability (e.g., tourism, clean parks and beaches, recreational fishing) of the county.

Floodplains

Floodplains are normally defined as those areas, excluding the stream channel, subject to inundation by the 100-year recurrence interval flood event.



This event has a one percent chance of occurring in any given year. Floodplains, as identified by the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM), provide for storm water retention, groundwater recharge, habitat for various types of waterfowl and wildlife and are considered a valuable recreational resource. Furthermore, floodplains serve to provide flood and erosion control by storing floodwaters, reducing flood velocities, diminishing flood peaks and reducing sedimentation.

When buildings are constructed in the floodplain, the floodplain's storage capacity becomes reduced and other functions of the floodplain can be adversely affected. This could cause future flood events to be of higher intensity and allow the flood to overwhelm areas outside of the historic floodplain. As a way to protect floodplains, Section 87.30(1) of the Wisconsin Statutes and Wisconsin Administrative Code NR 116 require counties, cities and villages to adopt floodplain zoning ordinances to address the problems associated with development in floodplain areas.

The Marinette County Floodplain Zoning Ordinance was adopted to promote public health, safety, and general welfare, and to minimize flood losses in areas subject to flood hazards. The ordinance regulates residential development, storage of hazardous materials, and actions which may be detrimental to permitted uses in adjoining districts, sewage disposal, wells for drinking water, and wastewater ponds or facilities, except those permitted under NR 110.15 within the FEMA designated floodplain area. In addition to state and county regulations, a number of local governments have adopted floodplain ordinances to address specific concerns within their communities.

Floodplains in the county are generally located adjacent to the shorelines of Green Bay, major rivers and other surfaces waters located throughout the county. The floodplains within Marinette County are noted on Map 5.8.

Wetlands

Because of their importance, there are strict regulations regarding wetlands. WDNR mandates that shoreland wetlands be protected in both the rural and urban areas of the state. Wetlands not in the shoreland zone are protected from development by the federal government through Section 404 of the Clean Water Act and Wisconsin Administrative Code NR 103. It should be noted that all wetlands, no matter how small, are subject to WDNR and possible federal regulations, if they meet the state definition.

Marinette County contains 212,639 acres of wetlands. Map 5.9 illustrates the WDNR inventoried wetlands greater than two acres. Prominent wetlands in the county include the Lower Peshtigo River, Ansul Patterned Dunes, Seagull Bar and others adjoining the many lakes and streams of the county.

According to the WDNR, **wetlands** are areas where water is at, near, or above the land surface long enough to be capable of supporting aquatic or hydrophilic vegetation. Other common names for wetlands are swamps, bogs, and marshes. Wetlands act to provide scenic open spaces; act as natural pollution filters for lakes, streams and drinking water; act as groundwater discharge areas, and retain floodwaters; and provide valuable and irreplaceable habitat for many plants and animals.

Coastal Wetlands

Marinette County has a number of extensive wetland complexes located within 25 miles of the Green Bay shoreline. Wetlands located within close proximity to the coast provide rich habitat for plants and animals and greatly influence the larger ecosystem processes of the Great Lakes Ecosystem. As transition zones between land and water, coastal wetlands are often rich in species diversity and provide critical habitat for migratory and nesting birds, spawning fish, and rare plants.

Due to the role these lands play in improving and maintaining the health of Green Bay, Lake Michigan and the entire Great Lakes ecosystem, the WDNR has identified ecologically Significant Coastal Wetlands along Lake Michigan as a way to guide future planning efforts.

As a result of this project the Lower Peshtigo River, Ansul Patterned Dunes, West Shore Green Bay Wetlands, and Seagull Bar have all been designated Significant Coastal Wetlands. Further information pertaining to the Significant Coastal Wetland project can be found in the Significant Natural Features section of this chapter and the WDNR website.

Groundwater

Groundwater is stored in porous and permeable strata, more commonly known as aquifers. Marinette County’s groundwater source is part of a large aquifer system called the Cambrian-Ordovician aquifer system. According to the *Soil Survey of Marinette County, Wisconsin* the

Groundwater is the water that occupies spaces between soil particles and rocks located below the earth’s surface. Groundwater, lakes, and rivers are all connected as water commonly flows between them. Groundwater is also connected to the surface of the land by rain and melted snow which carry substances from the surface down to the groundwater and nearby wells.

southeastern third of the county is underlain by sandstone and limestone formations which serve as good aquifers. These areas have wells that range from 41 to 1,005 feet deep which yield 10 to 1,260 gallons of water per minute. The northwestern two-thirds of the county consist of igneous and metamorphic bedrock that yield little to no water. All areas of the county contain glacial deposits which also are aquifers that are highly permeable and yield large quantities of water. High capacity wells in this area are 30 to 308 feet deep.

Overall, the *Soil Survey of Marinette County, Wisconsin* concludes that the groundwater in Marinette County is generally of good quality. The majority of water is hard. Iron may be detected in some areas, but is not considered a health problem.

A large percentage of water used by municipalities and in homes in Marinette County comes from groundwater. Industrial water users in Marinette County use surface water and groundwater. Drinking water is supplied via municipal sources or private wells. As illustrated by Table 5.6, eight municipalities in the county have 15 municipal wells that provide drinking water to almost 50 percent of county residents.

Table 5.6: Municipal Drinking Water Systems in Marinette County

Name	Basin	Number of Wells	Aquifer Type	Population Served
Coleman Waterworks	Peshtigo River	2	Sandstone	771
Crivitz Waterworks	Peshtigo River	2	Sand and/or Gravel & Sandstone	1,041
Goodman Sanitary District 1	Menominee River	2	Sand and/or Gravel	803
Marinette Water Works	-	-	Surface Water Source	12,696
Niagara Waterworks	-	3	Sand and/or Gravel	2,079
Peshtigo Waterworks	Menominee River	3	Bedrock	3,525
Pound Waterworks	Peshtigo River	1	Sandstone	407
Wausaukee Waterworks	Menominee River	2	Sand and/or Gravel	648

Source: Wisconsin Department of Natural Resources, 2007; Bay-Lake Regional Planning Commission, 2009.

Fertilizers, manure, land application of sewage, pesticides, on-site sewage disposal systems, chemical spills, leaking underground storage tanks, landfills, existing land uses, and landowner practices are all potential pollutants for drinking water wells. The susceptibility of groundwater to contamination from these activities can be highly variable depending on location. Depth to bedrock, aquifer type, soil type, and depth to groundwater are all factors thought to influence susceptibility.

Groundwater Management

In order to provide protection for groundwater resources, the WDNR has adopted maximum contaminant level (MCL) standards that apply to all public water supplies in the state. The standards regulate concentrations of pollutants in public water supplies (NR 809) and nitrate removal from public drinking water (NR 122).

Under Wisconsin's Groundwater Standards Law (NR 160), state programs for landfills, hazardous wastes, spills, wastewater, septic tanks, salt storage, fertilizer storage, pesticides, and underground storage tanks must comply with the established standards. In addition, Wisconsin Administrative Code chapters NR 140, 141 and 142 regulate groundwater quality, groundwater monitoring, well requirements and water management and conservation.

Despite regulation, groundwater resources in Wisconsin are still subject to contamination. As development in the area continues to increase, so does the amount of impervious surfaces such as roofs and parking lots. It is important to understand that the amount of water that infiltrates to the groundwater depends on such factors as vegetation cover, slope, soil composition, and depth to the water table. Therefore, wise land use decisions, particularly in critical groundwater recharge areas and areas of shallow soils, could help to increase groundwater recharge rates and limit contamination by minimizing the amount of impervious surface.

It is important to ensure protection of groundwater from construction and agricultural runoff events. These events can lead to contamination of private wells, fish kills and an influx of nutrients into surface waters causing harmful algal blooms. Methods to protect groundwater resources include utilizing local planning and zoning tools, advocating for best management practices, implementing wellhead protection programs, and strictly enforcing regulations on private sewage systems.

Wellhead Protection Planning

Wellhead protection plans can be an effective method of protecting groundwater quality and quantity. These plans are developed to achieve groundwater pollution prevention measures within public water supply wellhead areas. As of January 2008, the following communities in Marinette County had adopted a wellhead protection plan:

- City of Niagara
- City of Peshtigo
- Village of Crivitz
- Village of Wausaukee

Runoff/Stormwater Management

In October 2002, the State of Wisconsin established Run-off Management Administrative Rules to address uncontrolled run-off from urban and rural land use activities. These administrative rules establish a variety of best management practices, performance standards, and regulations and permit requirements that farms, cities and construction sites must follow as a way to reduce polluted runoff.

The following are the eight rules written by the WDNR and one by the Wisconsin Department of Agriculture, Trade, and Consumer Protection (DATCP) that are intended to reduce the affects of runoff:

- NR 120 Priority Watershed and Priority Lake Program
- NR 151 Runoff Management (Performance Standards and Prohibitions)
- NR 152 Model Ordinances for Construction Site Erosion Control and Post-Construction Storm Water Management
- NR 153 Targeted Runoff Management Grant Program
- NR 154 Best Management Practices and Cost-Share Conditions
- NR 155 Urban Nonpoint Source Water Pollution Abatement and Storm Water Management Grant Program
- NR 216 Storm Water Discharge Permits
- NR 243 Animal Feeding Operations
- ATCP 50 Soil and Water Resource Management Program

Runoff refers to water from precipitation (stormwater), irrigation, or other sources that moves over and through the ground. These waters generally flow over impervious surfaces such as rooftops, driveways, sidewalks, streets and parking lots. As the water flows over these impervious surfaces it picks up and carries away natural and man-made pollutants, eventually depositing them into lakes, rivers, wetlands, coastal waters and groundwater supplies. The polluted run-off can destroy lake and river ecosystems, contaminate drinking water, and clog drainage ways with sediment which increases the likelihood of flooding.

These rules have a direct impact on private actions and on local government activities. They require that certain local governments take specific action to control storm water. As more impervious surfaces are created, causing a decrease in the amount of land that is available for filtration, these rules may require local governments to construct costly stormwater diversion and storage facilities. Furthermore, construction and agricultural activities within the community can contribute heavily to pollution issues if these requirements are not followed properly. Therefore, it is important that these requirements are addressed through local planning activities by promoting and utilizing best management practices. These practices will help to preserve the quality of the groundwater supply, protect surface waters from pollution, and safeguard significant aquatic habitats. For more information regarding best management practices and nonpoint source pollution control, visit the WDNR’s runoff management website.

**Protecting Groundwater and Surface Water Resources:
The Marinette County Agricultural Performance Standards and Animal Waste Management Ordinance**

As a way to protect its groundwater and surface water resources, Marinette County has adopted an Agricultural Performance Standards and Animal Waste Management Ordinance. As part of this ordinance, animal waste storage facilities may not have: 1) overflow of manure storage structures; 2) an unconfined manure stack in a water quality management area; 3) direct runoff from a feedlot or stored manure to waters of the state; and may not allow unlimited access by livestock to waters of the state in a location where high concentrations of animals prevent the maintenance of adequate sod or self-sustaining vegetative cover. The ordinance also requires that stacking of animal waste must: 1) comply with all prohibitions set forth for animal waste storage facilities; 2) be set back a minimum of 50 feet from property lines; 3) not allow manure or contaminated leachate to enter adjoining properties; 4) not occur at a site susceptible to groundwater contamination as defined by the ordinance.

The ordinance also regulates croplands by requiring that those permitted to use and apply animal waste shall develop and implement a nutrient management plan to utilize stored animal waste in and environmentally safe manner. The ordinance also provides regulations to minimize soil erosion and to require the diversion of clean runoff within water quality management areas.

Woodlands

According to the land use inventory of Marinette County, there are a total of 681,102 acres of woodlands within Marinette County. Map 5.10 illustrates the woodlands within the county. Aspen, in combination with paper birch and red maple, is the most common forest type comprising 43 percent of the total forest acreage.

When planning future development, keep in mind that woodlands provide aesthetic, ecological, recreational, and economic needs of present and future generations. Woodlands also maintain watershed cover, provide shade, serve as a windbreak, help reduce soil erosion, act as a noise barrier, and screen unsightly developments.

State Forest

The pressure put on area forests in late 1800's by the forest industry and homesteaders brought about much debate as to what Wisconsin forests should look like. With one failed attempt to create a state forest, two amendments in the early 1900's to the state constitution reflected the citizens' desire for the state to adopt a long-term commitment to own and manage forest resources. In 1910, the first amendment permitted the state to engage in forestry practices and in 1924 a referendum gave the state the right to appropriate money for the purpose of acquiring, preserving, and developing the state's forest.

Although, the first state forest was established in 1925, Marinette County is home to the newest state forest, Peshtigo River State Forest. In 2001, the purchase of 9,239 acres from Wisconsin Public Service Corporation was approved which included 25 miles of river, 3,200 acres of water, and 9,200 acres of forest. The Peshtigo River State Forest Master Plan shows that it was approved to expand the state forest boundary. This allows for land acquisition in this area from willing sellers. The approved expansion area was selected for its ability to provide additional

ecological, economic, and social value for the property and the region. The acquisition goal for the Peshtigo River State Forest is 56,200 acres. If all the land were purchased in the approved acquisition area, the property would be about 56,200 acres in size, not including water. Currently, the forest has 12,492 acres of land and water.

County Forests

Due to the barren, tax delinquent land left by the homesteaders of failed farms in the early 1900's, several new state laws were passed that promoted the conversion of the land to productive forests. In 1927, the State Legislature passed the Forest Crop Law (FCL) that authorized counties to create county forests. It was later amended in 1929 allowing counties to take ownership without paying the required taxes. The new laws allowed for trees to be grown as a crop of sorts. They also "empowered counties to adopt zoning ordinances that would prohibit certain land uses in forested areas."

In 1963, the laws were amended to create the County Forest Law, establishing a permanent program of county forest that would be managed in accordance with a 10-year Comprehensive Land Use Plan developed by the County, with the assistance of the Wisconsin DNR. The County Forest system has created approximately 2.35 million acres of county forest in 29 counties in Wisconsin. Collectively, the County Forests are the largest public landholder in Wisconsin totaling over 40 percent of all public land.

According to the *Marinette County Forestry 15 Year Plan*, Marinette County was among the first counties to participate in the Wisconsin County FCL with the entry of 14,003 acres in 1930. The latest entry of 4,646 acres in September 1992 brings the present county acreages to 231,675 acres. The county forest is composed of 402 management compartments ranging in size from 140 acres to nearly 1,800 acres. Within the county forest boundaries, approximately 82 percent of the land is county-owned with most of the remaining 18 percent in small private holdings. The Marinette County Forest ranks as the second largest county forest in Wisconsin.

The Marinette County Forest provides a number of opportunities for the public including hunting, fishing, hiking, camping, nature viewing and other recreational activities. These lands also play a major role in the economy of Marinette County by providing employment in the production and manufacture of forest products.

Private Forest

Private forests comprise the largest percentage of forest land in the state at 57%. About 360,000 private, non-industrial landowners care for 10.4 million acres of woodland in Wisconsin.

The Forest Crop Law (FCL) passed in 1927, not only allowed the creation of county forest, but was also designed to help large forest owners. Early state tax policy was creating such a burden on landowners that they were overcutting their timber to pay their tax obligation. Therefore, the FCL was a way for the State to encourage proper forest management on private lands by providing tax incentives to landowners. Contracts require a 40 acre minimum, are for 25 or 50 year lengths, and require the land owner to permit public access for hunting and recreation. In lieu of taxes, land owners are required to make an annual acreage share payment along with a tax when timber is harvested and when the contract is terminated. In addition, the WDNR annually pays municipalities 20 cents per acre for FCL land within its jurisdiction.

In 1954, the Woodland Tax Law (WTL) was enacted for small woodland owners to acquire tax incentives. Contracts were for 10 acres or more, 15 year contracts, and didn't require public

access. There was no state contribution and land owners didn't have to pay taxes at harvest or contract termination.

Due to the creation of the Managed Forest Law (MFL) in 1985, both the FCL and WTL closed enrollment for new contracts in January 1986. Since FCL contracts can be 50 years in length, the last contracts will expire in 2035. Since WTL contracts were for 15 years, the last WTL contracts expired in 2000.

The MFL combined many aspects of both the FCL and WTL. Land owners have the option of choosing a 25 or 50 year contract period and is open to land owners owning 10 acres or more of woodlands. Land owners are required to follow a forest management plan and allow public access for hunting and recreation. However, in exchange for paying a higher share payment, up to 160 acres can be closed to public access with no more than 80 acres being enrolled before April 28, 2004. There is a state contribution and land owners are required to pay an acreage share, a tax at harvest, along with other taxes and fees.

There are about 5,123 acres still enrolled in the FCL. Currently about 1,461 landowners, with 100,204 acres, are enrolled in the MFL. Out of the 100,204 acres only 28,323 acres are open to the public for hunting and recreation. These lands enrolled in both FCL and MFL provide payments, in the form of taxes, withdrawal payments, and annual aids, to the different towns of Marinette County. In 2007, payments on a county wide level totaled \$295,913 and in 2008 they totaled \$131,460.

School Forest

School forests were introduced to Wisconsin in the mid to late 1920's by Dean Russell of the University of Wisconsin-Madison College of Agriculture. In 1927, Russell spearheaded legislation that permitted school districts to own land for forestry programs. Within the year, three tracts of land were donated or purchased for the first school forests in Wisconsin; Laona, Crandon, and Wabeno. They were dedicated in the spring of 1928. In 1935, legislation was passed mandating that conservation education be taught in all high schools, vocational schools, and universities or colleges. School Forests provided great outdoor classrooms for this type of education, and now seemed to have a firm place in a new and exciting educational movement. With the arrival of World War II, many school forests disappeared when many smaller country school districts were dissolved into larger ones. However, today many school and community forests are alive and strong providing a place for education. Marinette County is home to seven school forests and five community forests. These forests are listed below.

- Goodman School Forest, 74 acres
- Coleman School Forest, 213 acres
- Wausaukee School Forest, 241 acres
- Pembine School Forest, 265 acres
- UW Marinette, 40 acres
- Equity Club Forest, 15 acres
- Marinette School Forest, 289 acres
- Crivitz School Forest, 324 acres
- Niagara School Forest, 98 acres
- Marinette County Homemakers Forest, 77 acres
- Beaver 4-H, 9 acres
- Amberg Veteran's Memorial Forest, 40 acres

Wildlife Habitat

Wildlife habitat can be defined as areas that provide the arrangement of food, water, cover, and space required to meet the biological needs of an animal. Different wildlife species have different requirements and these requirements vary over the course of a year. Additionally, different plants provide fruit and food in different seasons. Maintaining a variety of habitats generally benefits a much-desired diverse wildlife. Woodlands, wetlands, floodplains and the water features within the county provide habitat for many species of wildlife. White-tailed deer, turkey, grouse, rabbits, gray squirrel, and chipmunks are some of the more well known species found in the county. The inland surface waters of the county also provide habitat for fish and migratory fowl that frequent the area.

Connectivity is essential for the survival of numerous wildlife species. Many wildlife populations are unable to flourish, and countless ecological processes will not function if natural connections are severed. A planned connection of natural landscape features and stream corridors – parks, State Natural Areas, riparian areas, wetlands, woodlands, and other green spaces – is critical to maintain fundamental ecological processes and services, and to maintain the health of wildlife populations and water quality.

Rare, Threatened, and Endangered Species

Many of the living organisms found in Marinette County are considered rare because their populations and habitat are declining throughout their range. These species are of aesthetic, ecological, cultural, educational, historical, medicinal, recreational, and/or scientific importance to the land and people.

State and Federally Listed Threatened and Endangered Species

Marinette County has 27 state endangered or threatened species and one species that is listed as a federally endangered species. As defined by WDNR, state listed endangered species are those whose continued existence as a viable component of this state's wild animals or wild plants is determined by WDNR to be in jeopardy based on scientific evidence. State listed threatened species are those that appear likely, within the near future, based on scientific evidence to become endangered.

Table 5.7 lists all state and federal endangered or threatened plants and animals in Marinette County.

Table 5.7: State and Federal Threatened or Endangered Species in Marinette County

Species Common Name	Species Type	Date of Last Observation	State Listing	Federal Listing
Piping Plover	Bird	2001	Endangered	Endangered
Common Tern	Bird	1977	Endangered	
Forster's Tern	Bird	1976	Endangered	
Red-shouldered Hawk	Bird	2006	Threatened	
Osprey	Bird	2005	Threatened	
Henslow's Sparrow	Bird	1985	Threatened	
Yellow Rail	Bird	1985	Threatened	
Northern Blue	Butterfly	2003	Endangered	
Swamp Metalmark	Butterfly	2005	Endangered	
Extra-striped Snaketail	Dragonfly	2002	Endangered	
Pygmy Snaketail	Dragonfly	1996	Threatened	
Greater Redhorse	Fish	1926	Threatened	
Dwarf Milkweed	Plant	2003	Endangered	
Little Goblin Moonwort	Plant	1995	Endangered	
Dwarf Huckleberry	Plant	2001	Endangered	
Lake-cress	Plant	1998	Endangered	
Wolf Spikerush	Plant	2003	Endangered	
Marsh Grass-of-parnassus	Plant	2000	Threatened	
Ram's-head Lady's-slipper	Plant	2002	Threatened	
Marsh Valerian	Plant	1993	Threatened	
Seaside Crowfoot	Plant	1991	Threatened	
Beaked Spikerush	Plant	2001	Threatened	
Arrow-leaved Sweet-coltsfoot	Plant	2001	Threatened	
Pale Green Orchid	Plant	2003	Threatened	
Northern Ribbon Snake	Snake	1949	Endangered	
Wood Turtle	Turtle	2006	Threatened	
Blanding's Turtle	Turtle	2006	Threatened	

Source: Wisconsin Department of Natural Resources, 2007; Bay-Lake Regional Planning Commission, 2009.

National Heritage Inventory

The Wisconsin Natural Heritage Inventory (NHI) program is part of an international network of NHI programs. NHI programs focus on locating and documenting occurrences of rare species and natural communities, including state and federal endangered and threatened species.

The Wisconsin NHI Program conducts inventory around the state and works with people in business, industry, government and private conservation organizations to apply the results. The collected data are used for a variety of purposes including land management, state land master planning, community planning, conservation planning and endangered resources review of public and private activities across the state.

NHI data further reflects that Marinette County is an ecologically rich county; made evident by the fact that approximately 159 rare mammals, birds, fish, turtles, herptiles, butterflies, invertebrates, plants and communities occur within the county, including one federally listed species.

Significant Natural Areas

A number of sites located within the county may be considered significant natural features. These areas may be designated as WDNR State Natural Areas, State Wildlife and Fishery Areas, Significant Coastal Wetlands, or Land Legacy Places.

The following text offers a brief description of the significant natural features designations.

WDNR State Natural Areas

The Wisconsin State Natural Areas program was established to designate sites that are in natural or near natural condition for scientific research, the teaching of conservation biology, and most of all, preservation of their natural values and genetic diversity for the future. These areas are not intended for intensive recreation use, but instead to serve the mission of the Natural Areas Program. The State Natural Areas program, established in 1951 under ss. 23.27, 23.28 and 23.29 *Wis. Stats*, is managed by the WDNR.



Source: WDNR website, 2009

State Wildlife and Fishery Areas

State wildlife and fishery areas are lands that have been acquired by the WDNR in order to preserve wild lands and game for people interested in the outdoors. By managing these lands it is the intent of the WDNR to protect important habitat for wildlife while also keeping them open for public use.

Significant Coastal Wetlands

The Lake Michigan shoreline contains many significant coastal wetlands that form a complex arrangement of ecosystems supporting a diversity of natural features. The Natural Heritage Inventory Program of the WDNR – Bureau of Endangered Resources (WDNR-BER) has inventoried Significant Coastal Wetlands for the Great Lakes in Wisconsin in a report titled, *A Data Compilation and Assessment of Coastal Wetlands of Wisconsin’s Great Lakes*.

Land Legacy Places

The WDNR has identified places that will play a critical role in meeting Wisconsin's conservation and outdoor recreation needs over the next 50 years in order to effectively plan for potential future conservation needs within the state. By designating an area as a “Legacy Place” the WDNR intends to guide future land use decisions about certain places. However, it does not supersede any existing state or local regulations.

Table 5.8 details the significant natural features in Marinette County along with their designation(s).

Table 5.8: Significant Natural Areas, Marinette County

Significant Natural Area	Designation			
	State Natural Area	State Wildlife and Fishery Area	Significant Coastal Wetland	Land Legacy Place
Amberg Wildlife Area		X		
Ansul Patterned Dunes			X	
Athelstane Barrens				X
Beaver Creek Fishery Area (North Branch)		X		
Bloch Oxbow and Pines	X			
Dunbar Barrens	X	X		
Johnson Falls	X			
Kirby Lake Hardwoods	X			
Lake Noquebay Wildlife Area and Conifer Swamp		X		X
Lower Peshtigo River			X	
Marinette County Beech Forest	X			
Menominee River				X
Miscauno Cedar Swamp and Wildlife Area	X	X		
Pemebonwon River				X
Peshtigo Harbor Marsh				X
Peshtigo River				X
Pike Wild River		X		X
Pine-Popple River				X
Seagull Bar	X	X	X	X
Town Corner Cedars and Wildlife Area	X	X		
West Shore Green Bay Wetlands			X	X

Source: Wisconsin Department of Natural Resources, 2007; Bay-Lake Regional Planning Commission, 2009.

Environmental Corridors

When considering future development, it is important to understand that environmental corridors serve many purposes such as protecting local water quality; serving as buffers between different land uses; use as a means of controlling, moderating, and storing floodwaters while providing nutrient and sediment filtration; and providing fish and wildlife habitat and recreational opportunities.

Map 5.11 illustrates the environmental corridors of Marinette County as defined by the Bay-Lake Regional Planning Commission (BLRPC). In order to produce this map, the BLRPC identified valuable coastal, natural and cultural resources throughout the county consistent with Wisconsin’s Comprehensive Planning legislation. These features were mapped using the Commission’s Geographic Information Systems (GIS) and include:

Environmental corridors are areas on the landscape that contain and connect natural areas, green space and scenic, historic, scientific, recreational, and cultural resources. They often lie along waterways and other natural features.

Environmental corridors are complex ecosystems that provide many ecological and human-valued services, such as a improved water quality, means for wildlife movement, protection of natural resources, groundwater recharge, recreation areas and stormwater management, to name a few.

- Navigable waters with a 75-foot setback
- Wetlands with a 50-foot buffer
- 100-year FEMA floodplains
- Steep slopes (12 percent or greater)

Other features that can be considered part of the environmental corridor definition on an area-by-area basis include unique and isolated woodland areas, scenic viewsheds, unique geologic features, wetland mitigation sites and exceptional wildlife habitats.

Environmental corridors are strictly an advisory tool that can be utilized in various community planning efforts as a way to promote preservation of areas with environmental significance.

Parks and Open Space

Various natural settings in the county are utilized as recreational sites by the public. Table 5.9 lists the county owned park and recreation areas.

Table 5.9: Marinette County Park and Recreation Areas

County Park Properties	Size in Acres	Location	Body of Water
Twin Bridge Park	94	Town of Stephenson	High Falls Reservoir
Morgan Park	160	Town of Niagara	Timms Lake
Goodman Park	240	Town of Silver Cliff	Peshtigo River
Veteran’s Memorial Park	320	Village of Crivitz	Thunder River
Twelve Foot Falls Park	160	Town of Dunbar	Pike River
McClintock Park	320	Town of Silver Cliff	Peshtigo River
Thunder Mountain Overlook Park	160	Town of Stephenson	(Not on a water body)
Dave’s Falls Park	66	Town of Amberg	Pike River
Menominee River Park	65	Town of Wagner	Menominee River
Dolan Lake Park	60	Town of Athelstane	Dolan Lake
Long Slide Falls Wayside Park	40	Town of Niagara	Pemebonwon River
Lake Noquebay Park	11	Town of Lake	Lake Noquebay
Twin Islands Wayside Park	2	Town of Wagner	Menominee River
Michaelis Park	2	Town of Peshtigo	Lake Michigan (Green Bay)
Crystal Springs Wayside Park	1	Town of Porterfield	Menominee River
Camp Bird Youth Center	240	Town of Stephenson	Sand Lake

Source: Marinette County, 2007; Bay-Lake Regional Planning Commission, 2007.

In addition to the county owned facilities, there are a number of other recreational facilities located throughout the county that are owned by the state or individual county municipalities. For a full inventory of all the park and recreation areas located in Marinette County see the *Marinette County Comprehensive Outdoor Recreation Plan* which is available on the Marinette County website.

AGRICULTURAL RESOURCES

Prime farmland is considered land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and that is available for these uses. It has the combination of soil properties, growing season and moisture supply needed to produce sustained high yields of crops in an economic manner if it is treated and managed according to acceptable farming methods.

Farmland of statewide importance is land not identified as prime farmland on a nationwide basis but is important in Wisconsin for the production of various food, feed, fiber and forage crops.

Prime farmland only where drained are areas where soils have wetness limitations, but can be or are used effectively for agricultural production with installation of a tile drainage system.

According to the 2007 US Census of Agriculture, Marinette County farmers own and manage the resources on 144,303 acres of land, or 16 percent of all land in the county. This includes pastures, cropland and tree farms.

Prime Agricultural Soils

The USDA, Natural Resources Conservation Service defines prime agricultural soils as lands that have the best combination of physical and chemical characteristics for producing food, feed, fiber, forage, oilseed and other agricultural crops, with minimum inputs of fuel, fertilizer, pesticides and labor, and without intolerable soil erosion.

According to the NRCS prime agricultural soils cover approximately 11 percent of Marinette County. Map 5.12 illustrates areas in Marinette County that can be classified as prime agricultural soils based on the soil types found there.

Since agriculture plays an important role in the economic, cultural and social structure of Marinette County, it will be important to preserve these areas from future development. Once agricultural land is disturbed or replaced by another land use, it cannot be effectively returned to agricultural production.

Farm Numbers and Types

The US Census of Agriculture is conducted by the US Department of Agriculture (USDA) National Agricultural Statistics Service every five years with the latest census occurring in 2007. According to the 2007 census Marinette County had 746 farms that were on average 1934 acres in size. These farms support a variety of agricultural activities. Table 5.10 lists the types of farms that exist in Marinette County according to the 2007 Census of Agriculture. This table illustrates the number of farms that were operating in 1997, 2002, and 2007 by type, as well as the number of animals, or acres of land, that could be attributed to each particular farm type.

Table 5.10: Farm Numbers and Types in Marinette County

Livestock and Poultry						
Type	Number of Farms			Total Animals		
	1997	2002	2007	1997	2002	2007
Cattle and Calves	388	344	300	33,213	28,404	29,746
Hogs and Pigs	37	31	51	1,485	794	778
Poultry*	26	50	119	1,268	1,369	5,745
Horses and Ponies	-	138	245	-	698	1,313
Sheep and Lambs	13	27	30	497	537	403

Harvested Crops						
Type	Number of Farms			Total Acres		
	1997	2002	2007	1997	2002	2007
Corn for grain	250	191	170	17,066	17,948	25,890
Corn for silage or greenchop	191	167	122	9,406	9,643	7,181
Wheat	-	31	30	-	1,421	1,507
Oats	111	75	60	2,310	1,643	1,290
Barley	-	20	5	-	464	160
Soybeans for beans	21	58	50	907	6,885	6,127
Forage**	402	420	380	37,188	34,302	31,151
Vegetables harvested for sale	35	20	31	2,535	1,643	2,602
Land in orchards	-	7	20	-	33	57

“-” indicates lack of data availability

*Layers 20 weeks and older

**Land used for all hay and all haylage, grass silage, and greenchop.

Source: USDA National Agricultural Statistics Service, Census of Agriculture, 1997, 2002, and 2007; Bay-Lake Regional Planning Commission, 2010.

Concentrated Animal Feeding Operations (CAFO)

Over the past ten years, Wisconsin has become home to an increasing number of Concentrated Animal Feeding Operations (CAFOs). In order to ensure proper management of animal waste from these facilities, WDNR requires that CAFOs have a Wisconsin Pollutant Discharge Elimination System (WPDES) CAFO permit. These permits are designed to ensure that operations use proper planning, construction, and manure management to protect water quality from adverse impacts. All livestock and poultry operations that expand to 1,000 or more animal units must apply for a WPDES permit at least 180 days (six months) before reaching that size. As of January 2008, there were two CAFO permittees located in Marinette County.

According to WDNR a CAFO is any livestock or poultry operation with 1,000 or more animal units.

Forest Management

Modern forest management usually involves the practice of sustainable forestry. Sustainable forestry is a proactive form of management that provides for multiple uses of the forest by balancing a diversity of both present and future needs. It is a process of informed decision-making that takes into account resource needs, landowner objectives, site capabilities, existing regulations, economics, and the best information available at any given time. In order to ensure that all of Wisconsin’s forest resources supply a range of ecological, economic and social benefits for years to come, the Wisconsin Department of Natural Resources, Division of Forestry

has dedicated itself to helping forest landowners and has many programs available to help them sustainability manage their lands. For a complete list see <http://dnr.wi.gov/forestry/LP-sustaining.htm>.

Forest Certification



Source: WDNR website, 2009

Forest Certification means that Wisconsin landowners are managing their forests to meet strict standards for ecological, social and economic sustainability and are subject to an independent third party inspection. Forest certification is not only a responsible management choice, but helps Wisconsin remain competitive in global markets. In recent years manufactures have expanded the use of certified wood in their products, due to customer concerns of forest products being grown and produced in a sustainable fashion.

There are three certification programs available to state, county, and private forest lands: Forest Stewardship Council (FSC) standards, Sustainable Forest Initiative (SFI) standards and the American Tree Farm System (ATFS) Group Certification. Details on each of the certifications can be found on the Wisconsin Department of Natural Resources, Division of Forestry website.

State Land

State forests are managed on the principles of sustainable forestry and in accordance with a master plan. In addition, state forests are dual certified in both FSC and SFI. As part of forest management, trees are periodically harvested. Timber harvesting on state forestlands plays an important role in the economies of local communities and the state. Annual revenues from logging activities on the forest are expected to average about \$134,000 per year at a harvest rate of about 200 acres per year. The revenue from timber sales is placed in a general forestry account for the State which funds programs such as fire control and forest health protection.

In addition, to managing for forest products that support local and regional economies, the Peshtigo River State Forest provides high quality wildlife habitat and water quality; and provides abundant recreation opportunities that aim to strike a balance between the many types of public ownership in the region and the services in the immediate vicinity.

County Land

County forests are governed by the County Forest Law, which states in s. 28.11(1) Wis. Stats. that the purpose of the county forestry plans are:

“...To provide the basis for a permanent program of county forests and to enable and encourage the planned development and management of the county forests for optimum production of forests products together with recreational opportunities, wildlife, watershed protection and stabilization of stream flow, giving full recognition to the concept of multiple-use to assure maximum public benefits; to protect the public rights, interests and investments in such lands; and to compensate the counties for the public uses, benefits and privileges these lands provide; all in a manner which will provide a reasonable revenue to the towns in which such lands lie.”

The county forests are also required to update their forest plans every 15 years, a process that includes approval both by each forest's county board and the DNR. In order to ensure Wisconsin remains competitive in the global forest products industry, the County Forest Program are also managed in a cooperative framework with DNR to attain group certification under the two most widely accepted forest certification standards in North America: the Sustainable Forestry Initiative (SFI) and the Forest Stewardship Council (FSC). County forests became third-party certified in March 2005 and confirms the excellent management of our county forests and their importance to the social, ecological and economic health of Wisconsin.

DNR currently holds the certificate for 27 of Wisconsin's 29 county forest. Individual counties are free to choose either or both Sustainable Forestry Initiative (SFI) and Forest Stewardship Council (FSC) standards.

According to the *Marinette County Forestry 15 Year Plan, 2006 to 2015*, the county has a commitment to manage the forest using practices that promote sustainability and multiple use of the forest. Management will include the sustainable harvest of forest products, the protection of special sites, wildlife, plants, water quality and aesthetics. Their commitment has led to Marinette County having 230,866 acres of forest land certified by SFI.

According to the county website, revenues from county forest timber sales average \$1,500,000 per year which goes directly into the county operating budget. The county forest also supplies about 60,000 cords of wood a year for forest industries, providing more jobs than any other industry in the county. Table 5.11 illustrates the number of sales made, volume and acres cut, and the value of timber sales from Marinette County Forests between 1996 and 2005. As shown by Table 5.11, on average the County conducts 65 sales on an annual basis resulting in the cutting of about 3,500 acres with 48,000 cords of wood for a sales value of approximately \$1.8 million.

Table 5.11: Timber Sales from Marinette County Forest

Year	# of Sales	Volume (cords)	Acres cut	Sales value
1996	53	45,221	3,209	\$1,216,749
1997	54	50,530	3,598	\$1,405,346
1998	49	37,867	3,071	\$1,329,689
1999	66	47,590	3,760	\$1,682,892
2000	48	33,828	2,407	\$1,274,824
2001	76	55,076	3,605	\$2,084,661
2002	76	63,323	4,260	\$2,427,089
2003	76	50,084	3,782	\$2,187,910
2004	68	43,095	3,405	\$1,767,302
2005	86	53,802	3,927	\$2,933,775
Total	652	480,416	35,024	\$18,310,205
Average	65	48,042	3,502	\$1,831,021

Source: Marinette County, *Marinette County Forestry 15 Year Plan, 2005*.

Private Forest Lands

While private landowners are primarily responsible for the management of their land, help is available from the DNR and other public and private sources. DNR foresters work with about 9,000 landowners every year, providing personalized, on-site service. They administer a number of planning, management, property tax incentive and cost-sharing programs. Guidance for private landowners is available from private Cooperating Foresters. Other partners, which can be found at <http://dnr.wi.gov/forestry/private/assist/otrassis.htm>, also offer informational bulletins, conferences about forestry and help organizing local forestry associations.

Many private landowners opt to certify their forestland. Certification gives them the ability to sell their timber in the certified marketplace, to participate in carbon markets, and an opportunity to educate neighbors and the public about the importance of well-managed private forests. To help landowners the Department of Natural Resources manages a Group Certification program for non-industrial forestland enrolled in the Managed Forest Law (MFL). As part of the program third-party auditors determine if the MFL Group conforms to American Tree Farm System® (ATFS) and Forest Stewardship Council (FSC) principles and performance measures. ATFS and FSC recognition of MFL creates the largest group certification program for private landowners in North America. Membership in the state includes over 42,000 MFL orders of designation on 2 million acres. The MFL Certified Group Program is free and entirely voluntary for landowners with 10 to 2,470 total acres under MFL. Individual MFL participants may elect to deactivate affiliation with the Certified Group without dropping out of MFL. Currently only two percent of the eligible landowners decided against participating. Out of the 100,204 acres enrolled in MFL in Marinette County, 79,248 acres of forest land is in the MFL Certified Group.

Large industrial-owned tracts in MFL are not included in the MFL Certified Group, but many are certified on their own. In addition, there are a number of timber sales that are made from forests held by these private owners. Table 5.12 and 5.13 shows the volume of timber products harvested from land enrolled in both the MFL and FCL program between 2001 and 2007. As shown by the table most of the volume cut is in logs. Additional information shows that approximately 45% of that harvested for logs on MFL land is sugar maple and 47 percent on FCL land is red oak.

Table 5.12: Products Harvested from Land Enrolled under MFL, Marinette County

Timber Product (unit)	2001	2002	2003	2004	2005	2006	2007	Grand Total
Cordwood (cords)*	25,287	19,186	12,936	26,758	19,405	33,854	29,853	167,279
Fuelwood (cords)	163	594	563	407	2,277	818	1,236	6,058
Logs (board feet)**	3,152,814	1,482,853	1,386,430	1,547,261	356,432	2,136,094	1,457,917	11,519,801
Poles 7- 8 FT. (each)***			113		7,770			7,883
Sheared Xmas TR (each)		318		340	540	612		1,810

* Cord is equal to a volume of 128 cubic feet, 4' x 4' x 8'.

** A board feet is equal to the volume of 144 cubic inches, 12" x 12" x 1".

*** Each indicates the count, products not sold by volume.

Source: Wisconsin DNR, 2009

Table 5.13: Products Harvested from Land Enrolled under FCL, Marinette County

Timber Product (unit)	2001	2002	2003	2004	2005	2006	Grand Total
Cordwood (cords)*	949	1,460	1,396	806	1,517	1,170	7,298
Fuelwood (cords)	27	20			24		71
Logs (board feet)**	8,283	27,125	9,000	2,045	17,690	28,390	92,533

* Cord is equal to a volume of 128 cubic feet, 4' x 4' x 8'.

** A board feet is equal to the volume of 144 cubic inches, 12" x 12" x 1".

Source: Wisconsin DNR, 2009

Trends in Agriculture and Forestry

As noted by Marinette County UW-Extension in their report, *Marinette County Agriculture: Value and Economic Impact*, agriculture is an important economic force in the County, which includes hundreds of family-owned farms, related businesses industries, services, markets, and consumers. Over the past ten years, the County has experienced significant changes in its agricultural community. One of the most significant changes is the increase in farming activity throughout the county. According to the US Census of Agriculture, the total number of farms in the County has increased from 551 in 1997, 729 in 2002 to 749 in 2007. Furthermore, the US Census of Agriculture indicates that harvested cropland in Marinette County increased from 69,049 acres in 1997, 73,645 in 2002, to 76,525 in 2007.

Livestock Operations

In terms of livestock, dairy farms have traditionally been the primary operations in Marinette County. According to the *2007 Census of Agricultural*, in that year Marinette County had 93 dairy herds that consisted of 11,757 milk cows. This is a significant decrease from the number of herds that were reported in 1997 when the County contained 159. Despite the decrease in the number of dairy herds, the number of actual dairy cows increased from 10,795 in 1997 to 11,800 in 2007. This reflects a nation-wide trend in agricultural production of consolidation of smaller farms into larger farming operations which is not restricted to just dairy cows.

Harvested Cropland

The amount of harvested grain production in the county has been on the rise over the past five years. The US Census of Agriculture indicates that the number of harvested cropland farms has rose from 484 in 1997 to 523 in 2002, but then declined slightly to 489 in 2007. However, the number of acres being utilized for crop production has increased by about 7,500 acres over that same time. Corn production, for either grain or silage and greenchop, dominates crop production in the County. Here the same trend is seen where the number of farms harvesting corn in 2007 decreased by 66 farms from 2002, but the total acres increased approximately 5,000 acres.

Horticulture

According to Marinette County UW- Extension, the production of landscape trees and plants are fast growing segments of Marinette County's agricultural community. One indicator of this is the fact that the county ranks in the top ten counties in the state for production of cut Christmas trees for both 2002 and 2007.

Farm Ownership

According to the USDA, of the 749 farms in Marinette County in 2007 approximately 90 percent are owned by individuals or families while an additional six percent are owned by family partnerships. Family-owned and non-family owned corporations account for about three and half

percent of the farms in the county. These ownership trends have stayed steady from 2002 to 2007. In addition, of the 749 farms, operators are full owners of approximately 74 percent of the farms. And only 304 (approximately 41 percent) of the farms are the primary occupation of the operator. This is down from 58 percent in 2002.

Agricultural Land Use Trends

The amount of agricultural land sold over time is a good indicator of how much development has taken place. As illustrated by Table 5.14, 4,605 acres of agricultural land was sold between 2002 and 2007 in Marinette County. Between 2002 and 2007, 1,121 acres, or about 24 percent of the total agricultural land sold in the county during that time, was converted to non-agricultural uses. According to the USDA, the value of each acre diverted from agriculture to non-agriculture use has risen from \$1,628 per acre in 2002 to \$5,902 per acre in 2007.

In each of the years covered by Table 5.14 the amount of agricultural land sold and preserved as such has remained higher than the amount of land that was converted to non-agricultural uses. Further, in 2002 approximately 23 percent of the total agricultural land sold was converted to non-agricultural related land. This number dropped significantly to six percent in 2006, but rose slightly in 2007 to 17 percent. Overall, the numbers illustrate a decreasing trend in loss of agricultural land for non-agricultural uses.

Despite this, Marinette County and its communities are encouraged to plan for continued growth of urbanized areas along with concentrated development of rural lands. This will help keep the cost of services down and assist with the preservation of Marinette County’s valuable farmlands and rural landscape. For instance, farmlands provide revenues to local governments and require very few services. Conversely, residential land uses may cost communities more to provide services than gained through local property tax increases. This becomes evident in areas of widespread development as infrastructure additions and maintenance, school transportation, police service and fire protection will likely increase the overall cost of services throughout the entire community.

Table 5.14: Marinette County Agricultural Land Sales

Year	Acres Continuing as Agricultural Land	Average Cost per Acre	Acres Diverted from Agricultural Land	Average Cost per Acre	Agricultural Acres Sold
2002	710	\$2,099	215	\$1,628	925
2003	539	\$2,348	238	\$2,555	777
2004	901	\$1,775	528	\$2,067	1,429
2005	514	\$1,928	51	\$815	565
2006	560	\$3,206	36	\$5,289	596
2007	260	\$2,727	53	\$5,902	313
Total	3,484	\$14,083	1,121	\$18,256	4,605
Average	581	\$2,347	187	\$3,043	768

Source: Wisconsin Agricultural Statistical Service, 2003 – 2007; Bay-Lake Regional Planning Commission, 2010.

Forestry Land Use Trends

From 2005 to 2007, approximately 6,000 acres of forest land was sold in Marinette County. Of that only 572 acres, or about 10 percent, was diverted from forest related land use. This is a good indicator that the county is retaining its forest resources and preventing those lands from being sold and developed as residential, commercial, or industrial uses.

Table 5.15: Marinette County Forest Land Sales

Year	Acres Continuing as Forest Land	Average Cost per Acre	Acres Diverted from Forest Land	Average Cost per Acre	Total Forest Acres Sold
2005	3,044	\$2,200	49	\$790	3,093
2006	2,343	\$2,126	523	\$2,673	2,866
2007	1,220	\$2,199	361	\$2,357	1,581
Total	5,387	\$4,326	572	\$3,463	5,959
Average	2,694	\$2,163	286	\$1,732	2,980

Source: Wisconsin Agricultural Statistical Service, 2006 – 2007; Bay-Lake Regional Planning Commission, 2010.

Although, at this time there is not a high percentage of forest land being converted, does not mean there is no need for concern. According to WDNR, one of the biggest challenges facing Wisconsin woodlands is the inevitable shift in forest ownership that will be taking place in the very near future. Presently, almost 60 percent of all family forest landowners in Wisconsin are 55 years or older, about half of Wisconsin's forestland owners (49 percent) are already retired, and more than 10 percent of Wisconsin's privately owned forest lands will be sold, subdivided, or converted to non-forest uses in the next 5 years. Meaning that over the next 20 years, most of Wisconsin's privately owned woodlands will be passed on to another generation whose views are only beginning to be understood and whose opinions may come into conflict with the realities of their lives.

In addition, as land is sold and converted to other uses care has to be taken so that future development does not fragment the forest landscapes. Fragmentation leads to a numbers of factors that can significantly affect forest health and modify the goods and services provided by forest ecosystems. Some of these factors include: loss wildlife and plant habitat, more susceptibility to invasive species, decreased forest health, and increased difficulty in managing lands for forest products, wildlife and recreation.

Environmental Impacts of Agriculture

Most of the agricultural lands within the county are interspersed with water features, wetlands, steep slopes and other natural features that makeup much of Marinette County’s landscape. The integration of agriculture and natural resources can raise concerns.

Soil erosion from farm fields and surface runoff of crop nutrients and agricultural chemicals can impact the quality of streams, rivers, lakes and underground aquifers, ultimately impacting drinking water supplies. Specific crop rotations, livestock and tillage practices all affect the amount of soil erosion and nutrient losses.

As a result, farm operators are encouraged to work with their local land conservation and UW-Extension staff to identify and implement specific resource conservation practices to better protect the environmental features in and around farms.

If properly managed, agricultural lands and those areas not cropped such as woodlots and stream corridors have a positive impact on a community. These lands provide balanced habitat for wildlife and waterfowl, in addition to providing open space lands.

CULTURAL RESOURCES

Cultural resources are typically sites, structures, features and/or objects of some importance to a culture or community for scientific, aesthetic, traditional, educational, religious, archaeological, architectural or historic reasons.

Historic and Archeological Sites

The National Register of Historic Places is the Nation's official list of cultural resources worthy of preservation. Authorized under the National Historic Preservation Act of 1966, the National Register is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect our historic and archeological resources. Properties listed in the Register include districts, sites, buildings, structures and objects that are significant in American history, architecture, archeology, engineering and culture. Table 5.16 is a listing of sites in the county that appear on the National Register of Historic Places.

Preservation of historical and archeological sites located within the county can be important in retaining the character of the area. These sites help to educate the public about the history of the county while also providing tourism and recreation opportunities.

Table 5.16: National Register of Historic Places, Marinette County

Resource Name	Location	Date Listed
Amberg Town Hall	Amberg	3/20/1981
Bijou Theatre Building	Marinette	3/11/1993
Chautauqua Grounds Site	Marinette	4/29/1997
Dunlap Square Building	Marinette	2/24/1992
Independent Order of Odd Fellows--Lodge #189 Building	Marinette	1/7/1999
Kena Road School	Pound	4/26/2002
Lauerma Brothers Department Store	Marinette	2/24/1992
Lauerman, F.J., House	Marinette	8/14/1979
Milwaukee Road Depot	Marinette	1/12/2005
Peshtigo Fire Cemetery	Peshtigo	10/15/1970

Source: National Park Service, National Register Information System, 2007; Bay-Lake Regional Planning Commission, 2009.

Community Design

Community design (character) deals with the large-scale organization and design of the county. An evaluation of community design is often subjective and requires personal judgment. In an effort to remove this subjectivity, the community design resources of the county have been inventoried that represent the building blocks and language of community design:

Landmarks

Landmarks are important reference points that represent a prominent feature of the landscape and have the ability to distinguish a locality, mark the boundary of a piece of land, or symbolize an important event or turning point in the history of the county.

Pathways

Pathways are linear features that represent both vehicular and pedestrian movement. Pathways provide connections between places, as well as along them. Whether a major arterial, local street, or undefined woodland trail, pathways are hierarchical and represent a degree of usage. The following pathways should be considered important aspects of the county's character.

Edges

Like pathways, edges are linear. Edges are important organizing elements that represent boundaries that can be soft or hard, real or perceived. They become increasingly important as a community grows so as to visually distinguish the edges of the county. These edges do not necessarily coincide with jurisdictional boundaries.

Districts

Districts encompass areas of commonality. These areas represent buildings and spaces where clearly defined and separate types of activities take place.

Nodes

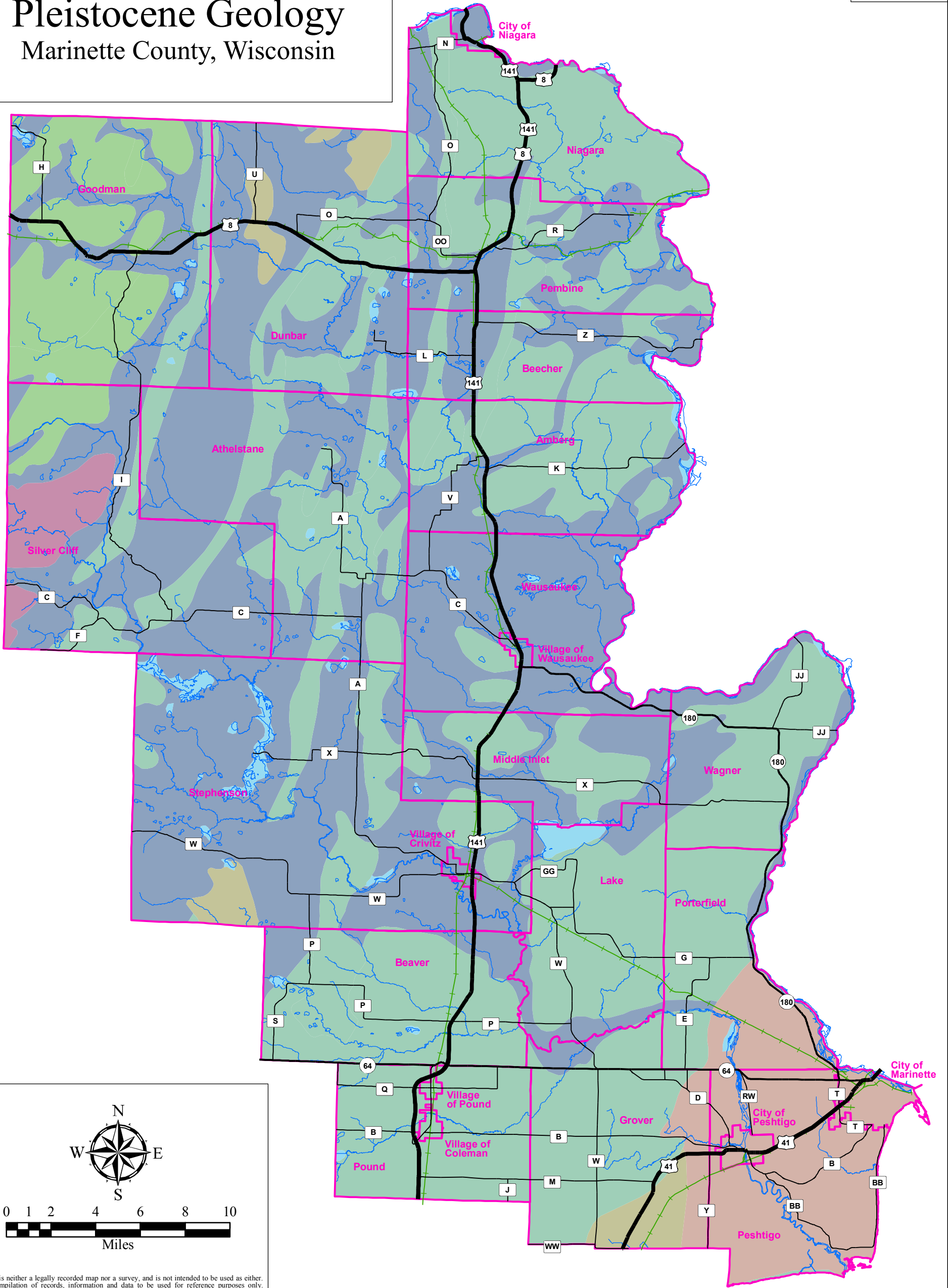
Nodes are specific points of recognition. They are destinations and very often represent the core or center of a district. In addition, nodes are closely associated with pathways as they provide access to and from districts.

Pleistocene Geology

Marinette County, Wisconsin

Marinette County
20-Year Comprehensive Plan

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This map is neither a legally recorded map nor a survey, and is not intended to be used as either. It is a compilation of records, information and data to be used for reference purposes only. Marinette County and the Bay-Lake RPC are not responsible for any inaccuracies herein contained.

Base Map Features

- MCD Boundary
- U.S. Highway
- State Highway
- County Highway
- Railroad
- Surface Water

- | | |
|--------------------|--------------------------------|
| Lake Sand | Outwash Sand and Gravel |
| Lake Silt and Clay | Calcareous Sandy Loamy Till |
| Loamy Till | Noncalcareous Sandy Loamy Till |

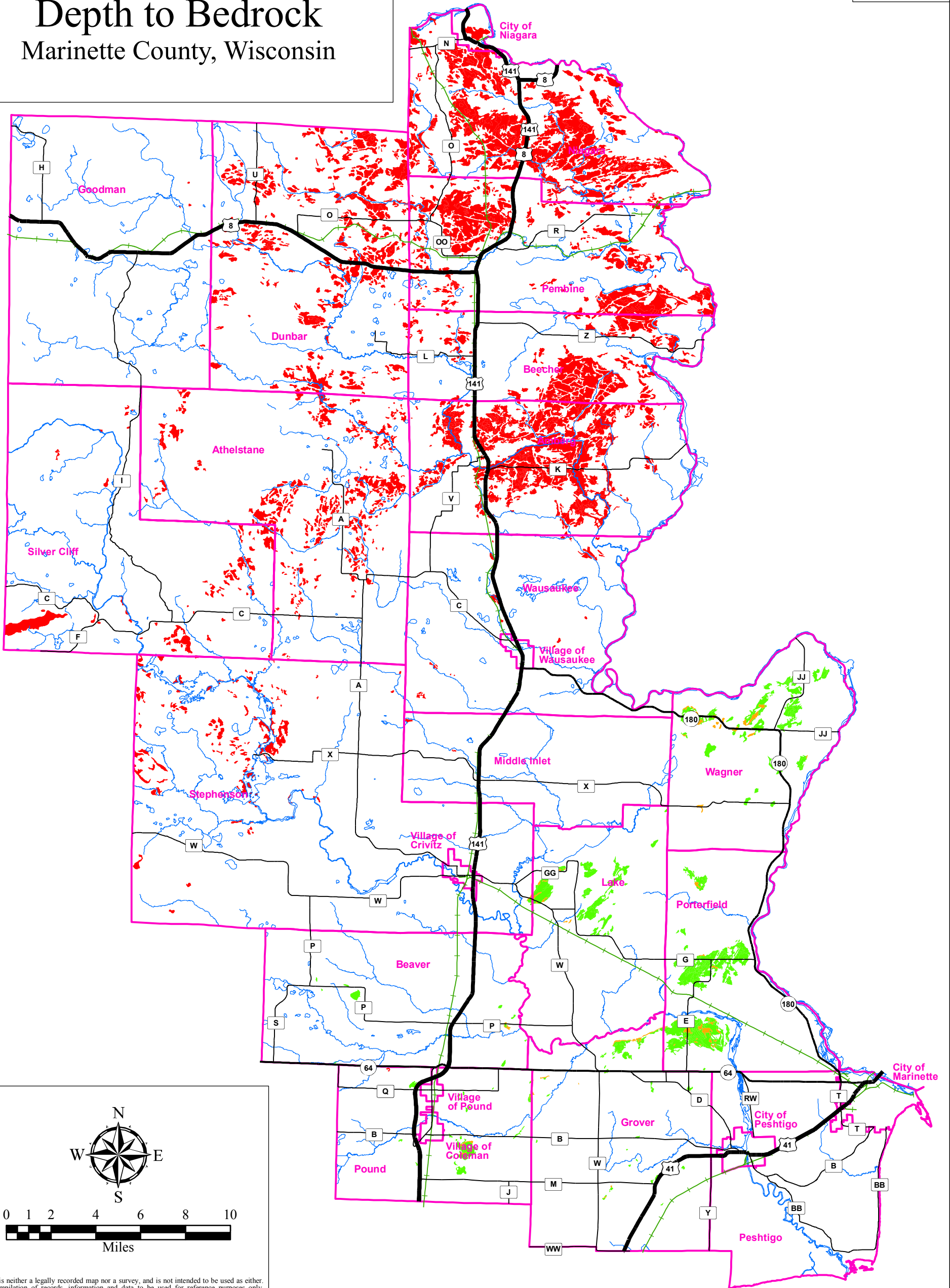
Source: USGS, 2001; Marinette County; Bay-Lake Regional Planning Commission, 2009.

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Depth to Bedrock Marinette County, Wisconsin

Marinette County
20-Year Comprehensive Plan

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Base Map Features

- MCD Boundary
- U.S. Highway
- State Highway
- County Highway
- Railroad
- Surface Water

- 5 Inches
- 38 Inches
- 77 Inches

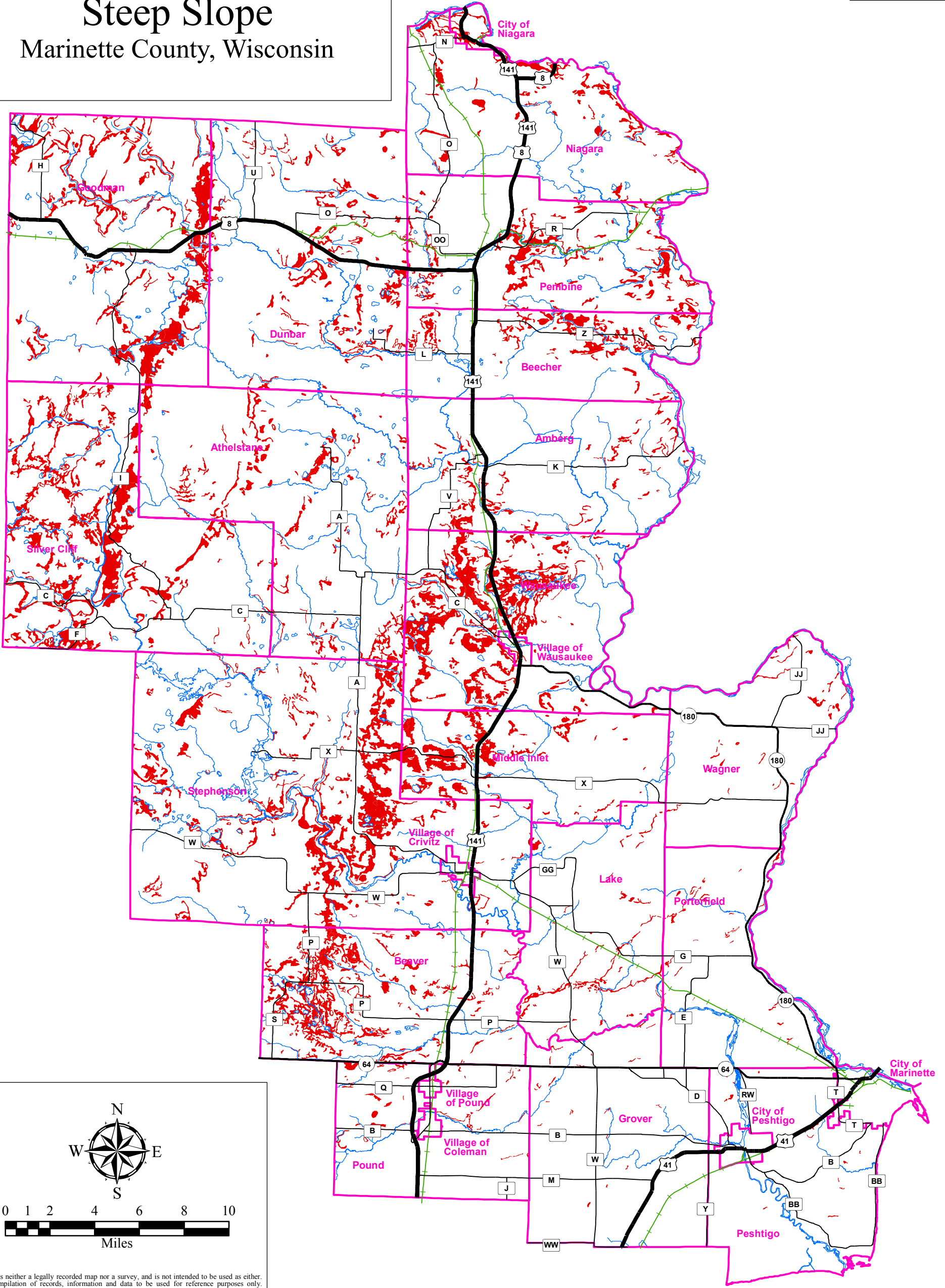
Source: NRCS, 2004; Marinette County;
Bay-Lake Regional Planning Commission, 2009.

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Steep Slope Marinette County, Wisconsin

Marinette County
20-Year Comprehensive Plan

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Base Map Features

- MCD Boundary
- U.S. Highway
- State Highway
- County Highway
- Railroad
- Surface Water

Steep Slope 12% or Greater

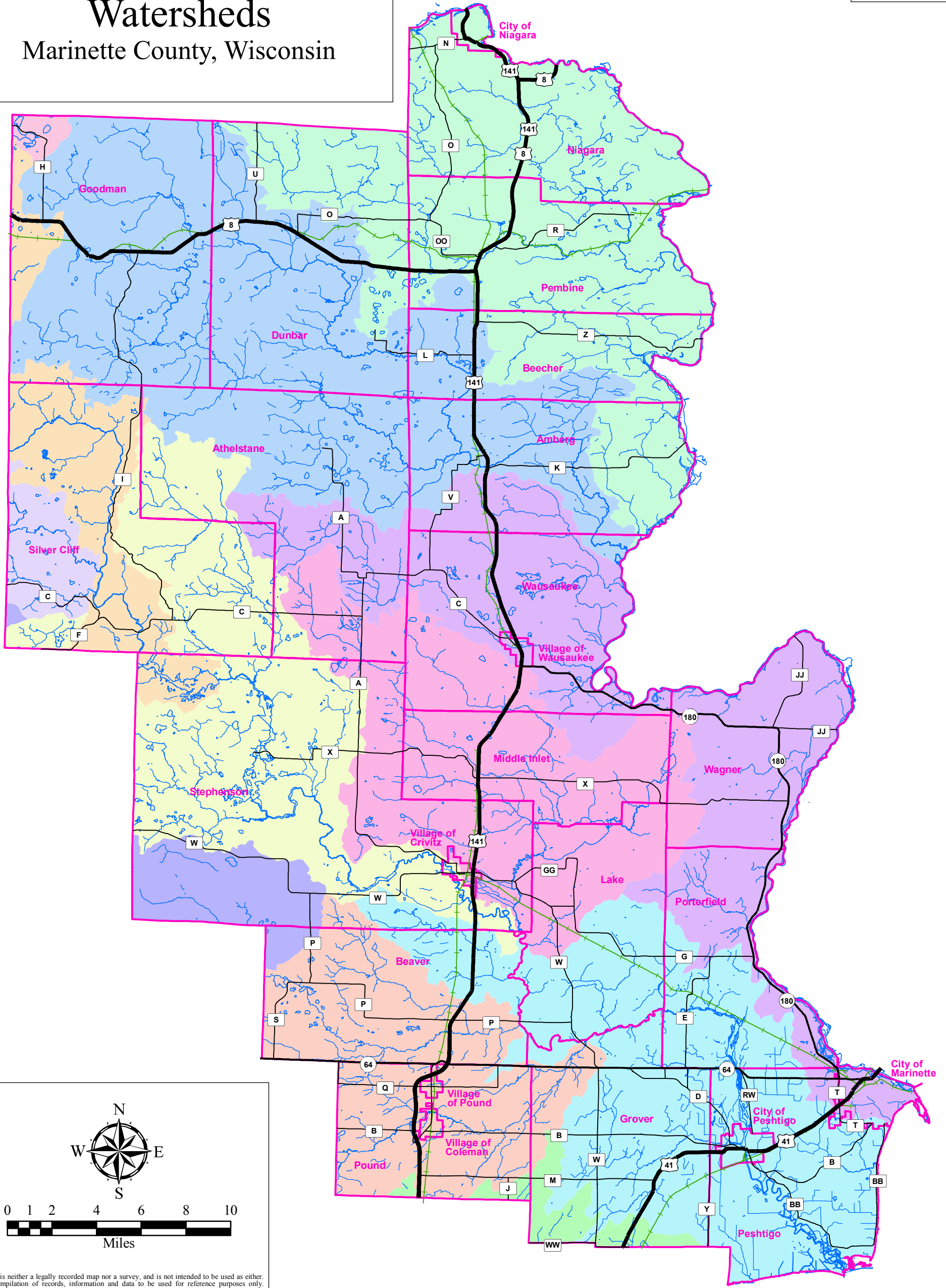
Note: Steep Slopes are derived from soil characteristics and do not represent actual elevation.

Source: NRCS, 2004; Marinette County; Bay-Lake Regional Planning Commission, 2009.

Volume II: County Resources

Watersheds

Marinette County, Wisconsin



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Base Map Features

- MCD Boundary
- U.S. Highway
- State Highway
- County Highway
- Railroad
- Surface Water

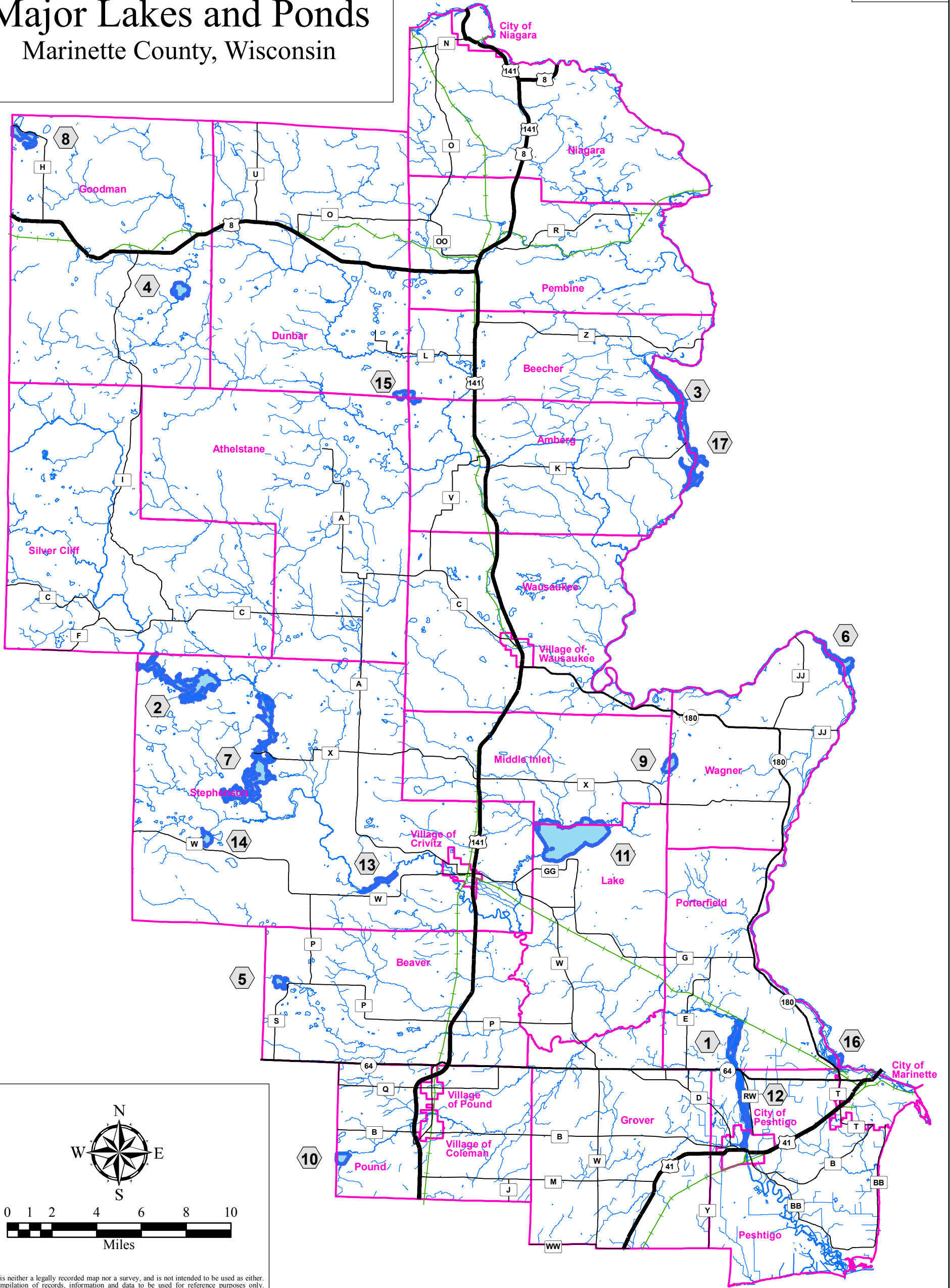
- | | |
|------------------------------------|--|
| Little Peshtigo River | Otter Creek and Rat River |
| Little River | Pemebonwon and Middle Menominee Rivers |
| Lower North Branch Oconto River | Pike River |
| Lower Peshtigo River | Popple River |
| Middle Inlet and Lake Noquebay | Upper Peshtigo River |
| Middle Peshtigo and Thunder Rivers | Wausaukee and Lower Menominee Rivers |

Source: WDNR, 1992; Marinette County; Bay-Lake Regional Planning Commission, 2009.

Major Lakes and Ponds Marinette County, Wisconsin







Marinette County
20-Year Comprehensive Plan

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Base Map Features

-  MCD Boundary
-  U.S. Highway
-  State Highway
-  County Highway
-  Railroad
-  Surface Water

 Major Lakes and Ponds

Note: Numbers Refer to Table 5.3 in Text

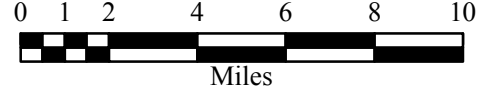
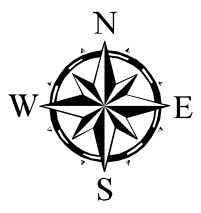
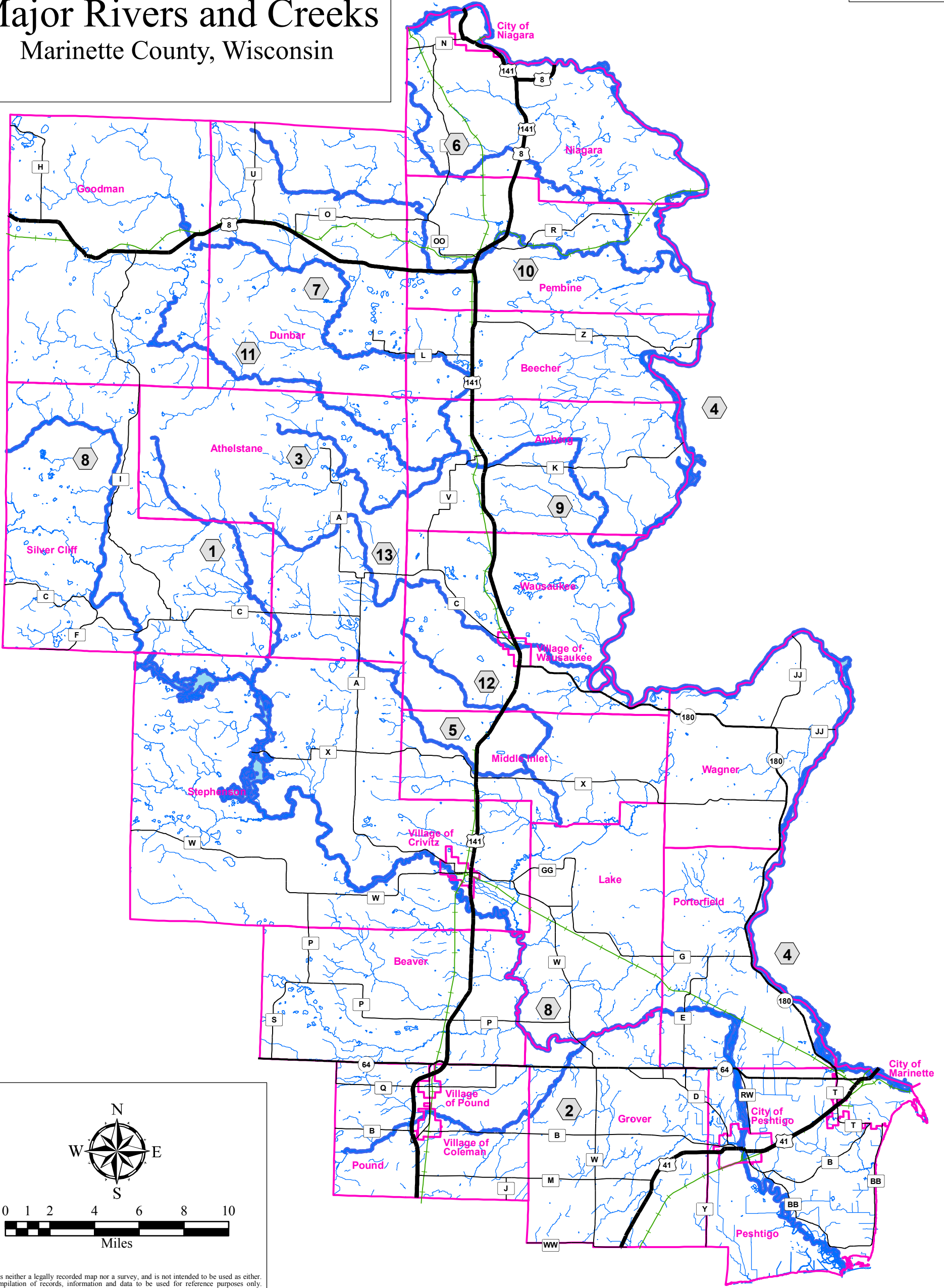
Source: WDNR, 1975; Marinette County;
Bay-Lake Regional Planning Commission, 2009.

Volume II: County Resources

Major Rivers and Creeks Marinette County, Wisconsin







Marinette County
20-Year Comprehensive Plan

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Base Map Features

-  MCD Boundary
-  U.S. Highway
-  State Highway
-  County Highway
-  Railroad
-  Surface Water

 Major Rivers and Creeks

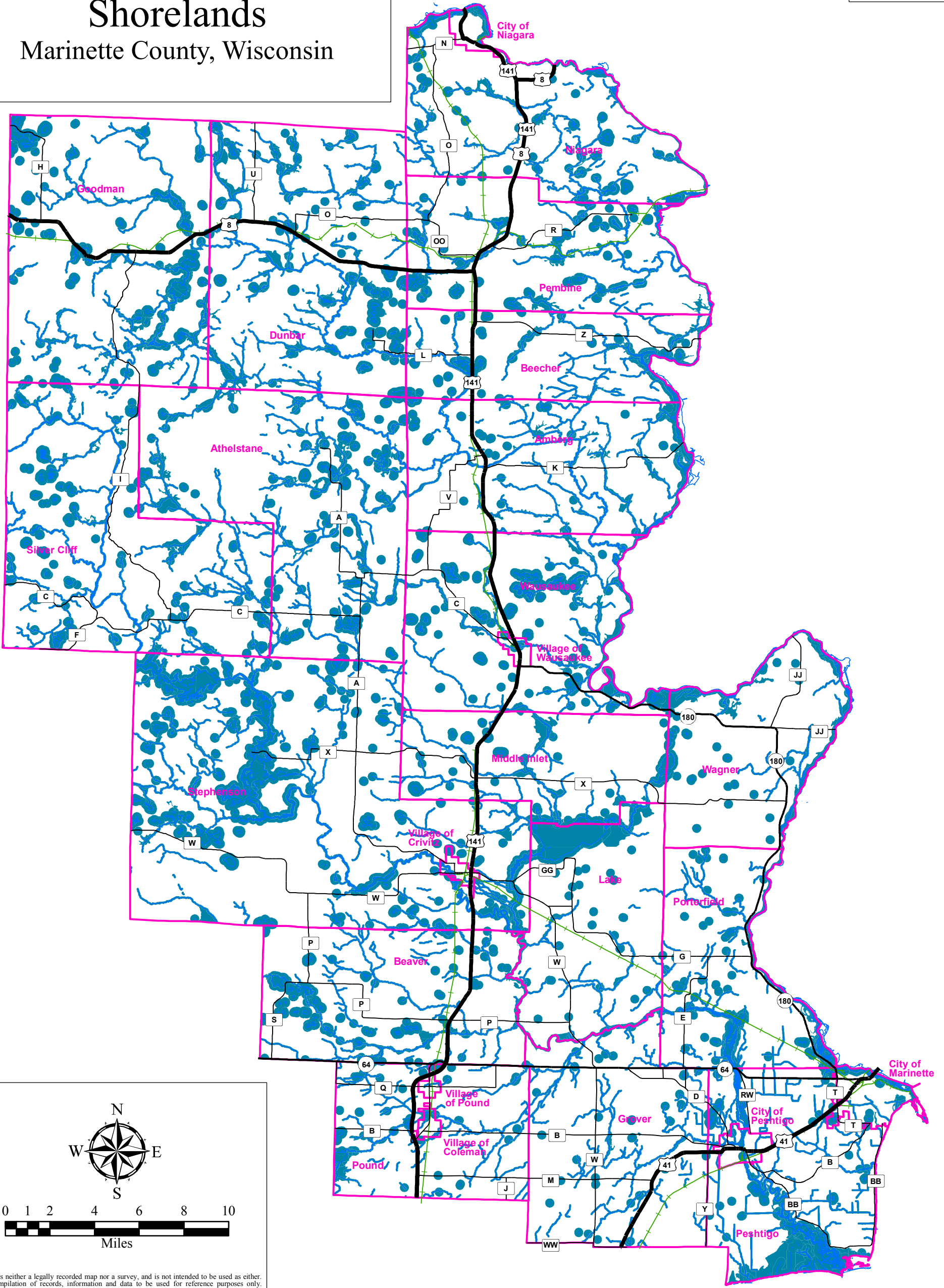
Note: Numbers Refer to Table 5.4 in Text

Source: WDNR, 1975; Marinette County; Bay-Lake Regional Planning Commission, 2009.

Volume II: County Resources

Shorelands

Marinette County, Wisconsin



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Base Map Features

- MCD Boundary
- U.S. Highway
- State Highway
- County Highway
- Railroad
- Surface Water

Shorelands

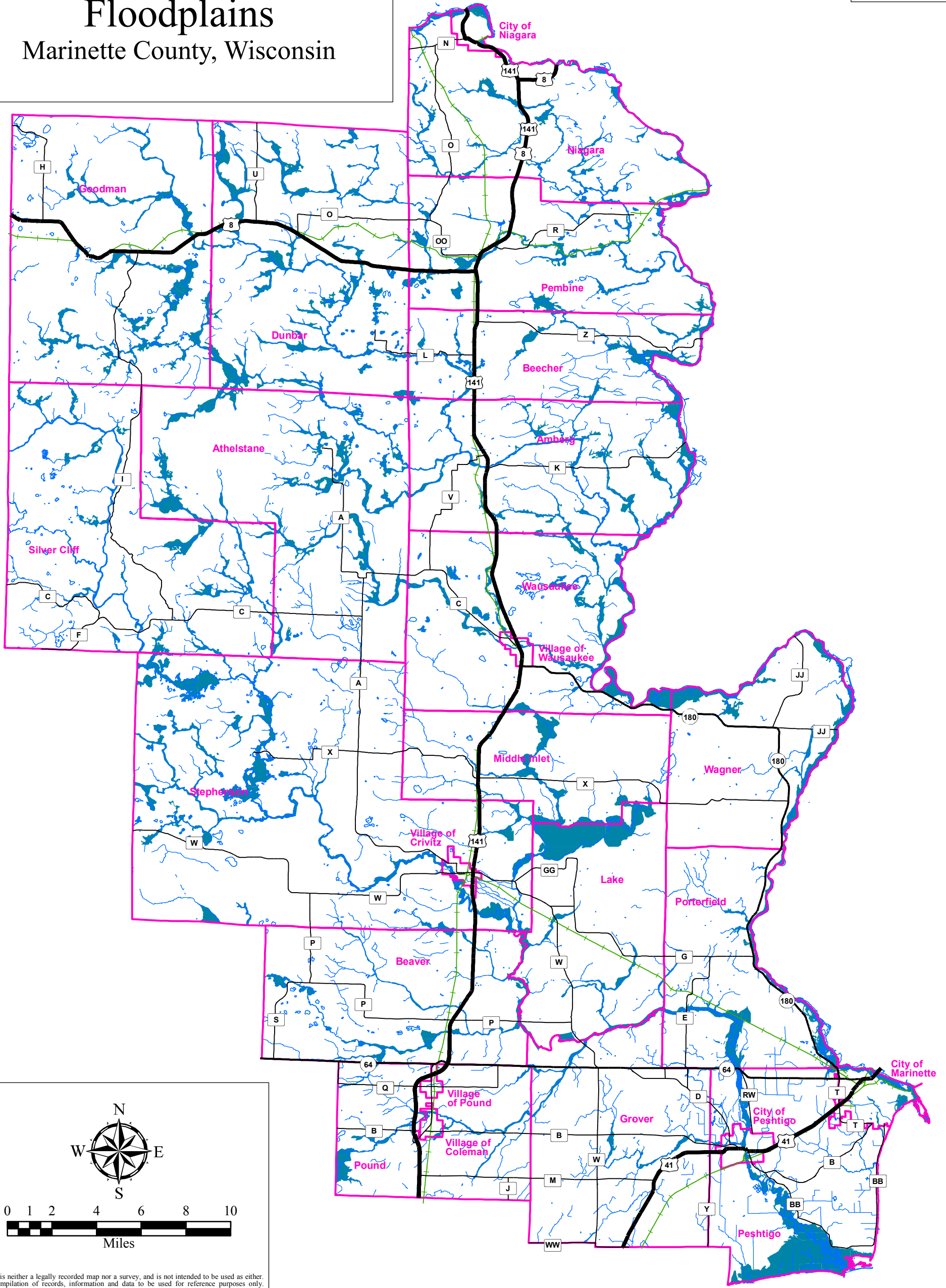
Source: FEMA, 1997; Marinette County;
Bay-Lake Regional Planning Commission, 2009.

Floodplains

Marinette County, Wisconsin







Marinette County
20-Year Comprehensive Plan


5-49



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Base Map Features

-  MCD Boundary
-  U.S. Highway
-  State Highway
-  County Highway
-  Railroad
-  Surface Water

 100 - Year Floodplain

Source: FEMA, 1997; Marinette County;
Bay-Lake Regional Planning Commission, 2009.

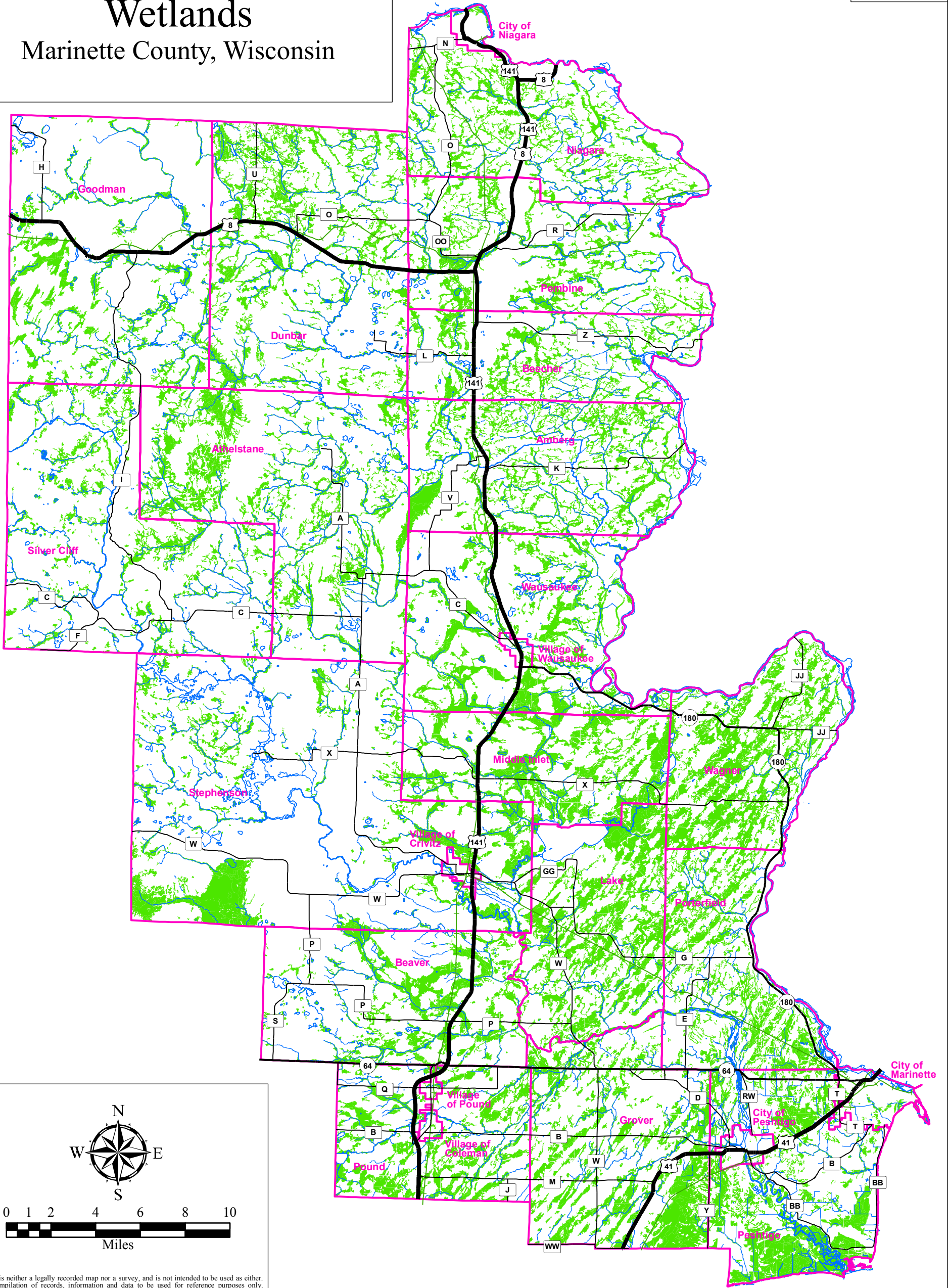
Volume II: County Resources

Wetlands

Marinette County, Wisconsin

Marinette County
20-Year Comprehensive Plan

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Base Map Features

- MCD Boundary
- U.S. Highway
- State Highway
- County Highway
- Railroad
- Surface Water

WDNR Wetlands
2 Acres or Greater

Source: WDNR, 1991; Marinette County; Bay-Lake Regional Planning Commission, 2009.

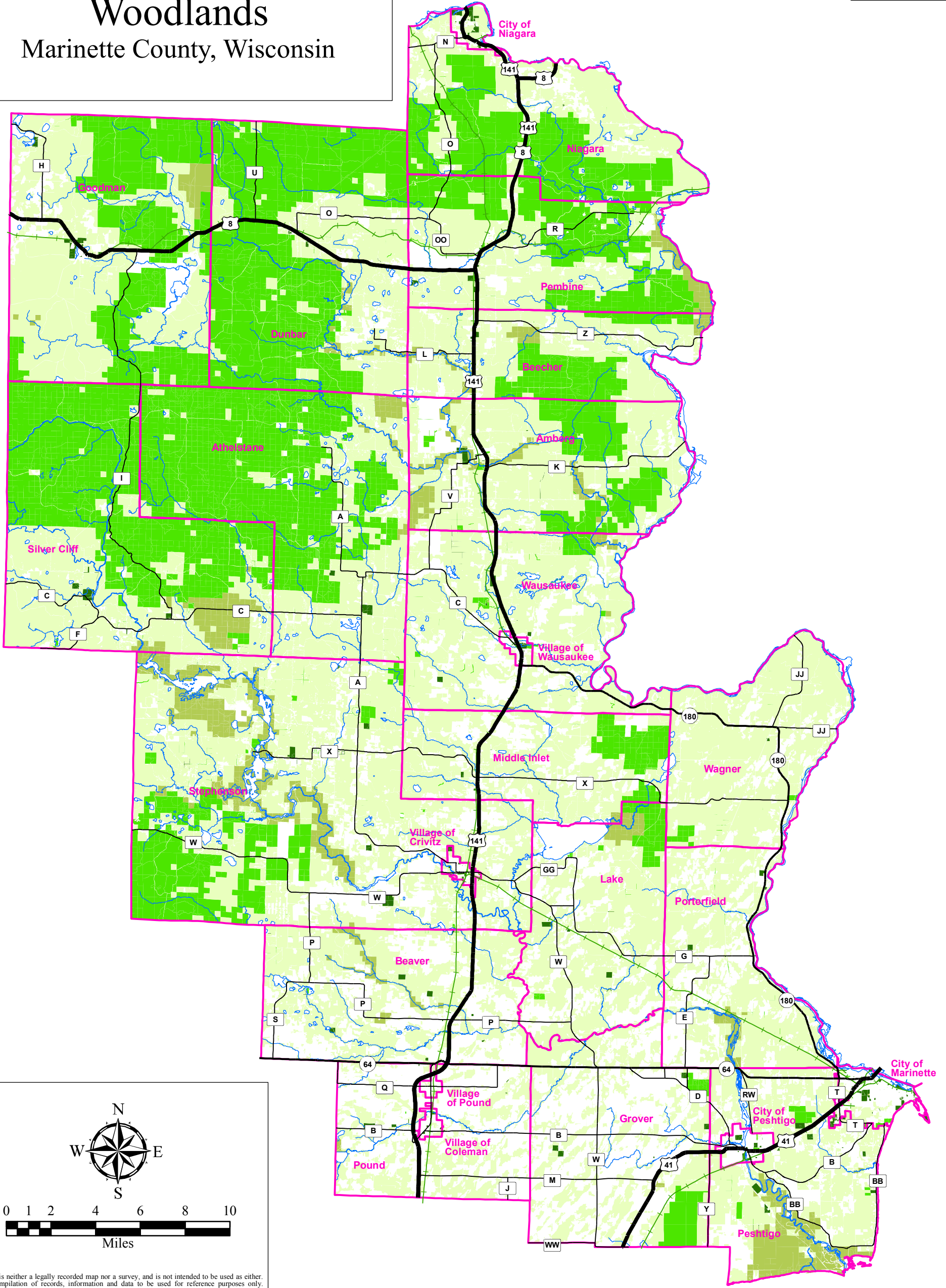
Volume II: County Resources

Woodlands

Marinette County, Wisconsin

Marinette County
20-Year Comprehensive Plan

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Base Map Features

- MCD Boundary
- U.S. Highway
- State Highway
- County Highway
- Railroad
- Surface Water

- State Owned Woodlands
- County Owned Woodlands
- Municipal Owned Woodlands
- Private Owned Woodlands

Source: Marinette County;
Bay-Lake Regional Planning Commission, 2009.

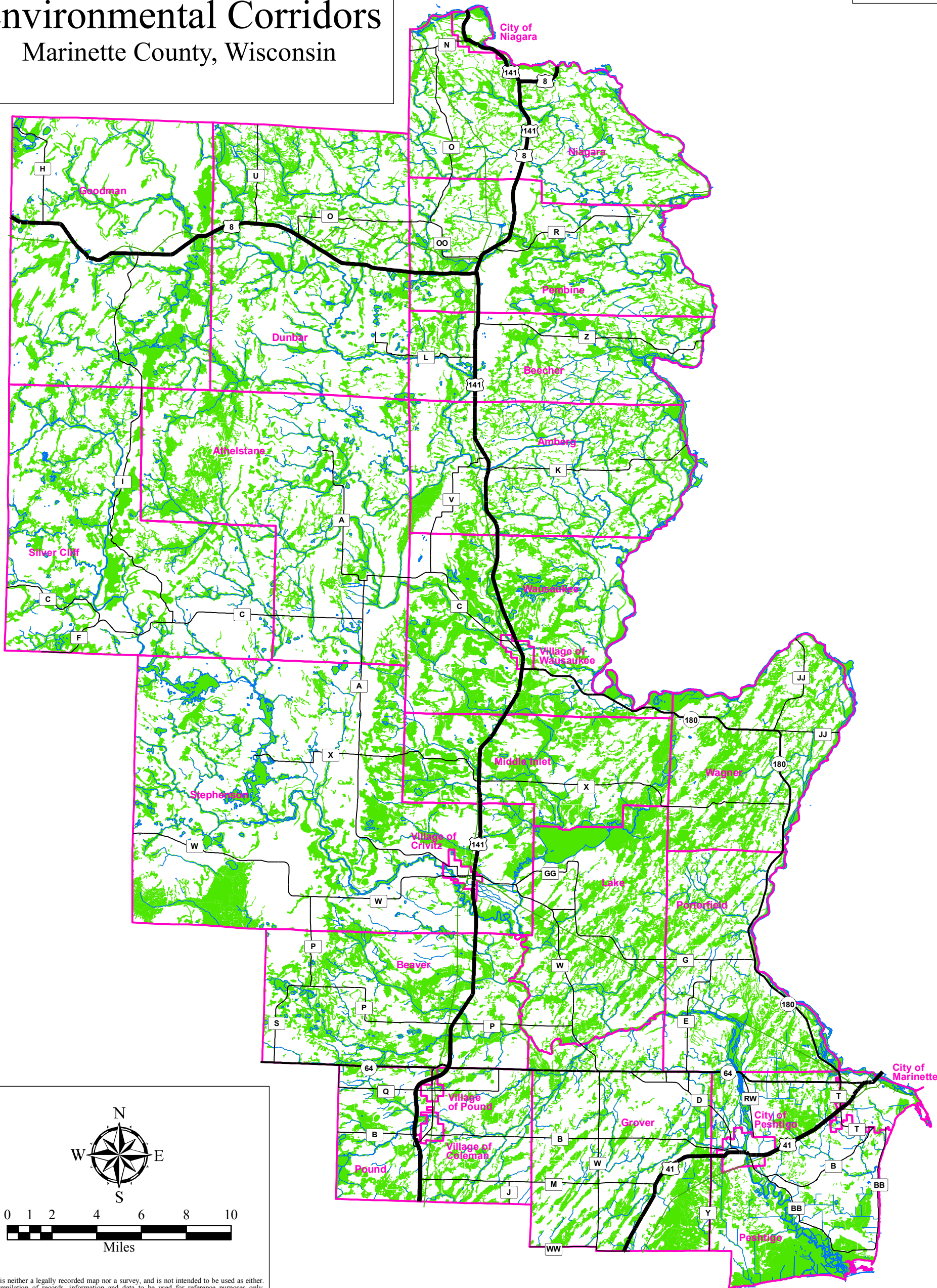
Volume II: County Resources

Environmental Corridors

Marinette County, Wisconsin

Marinette County
20-Year Comprehensive Plan

5-55



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Base Map Features

- MCD Boundary
- U.S. Highway
- State Highway
- County Highway
- Railroad
- Surface Water

- Environmental Corridors
 - Wetlands with 50-Foot Buffer
 - 100 - Year Floodplains
 - Steep Slope 12% or Greater
 - 75-Foot Buffer of Surface Water

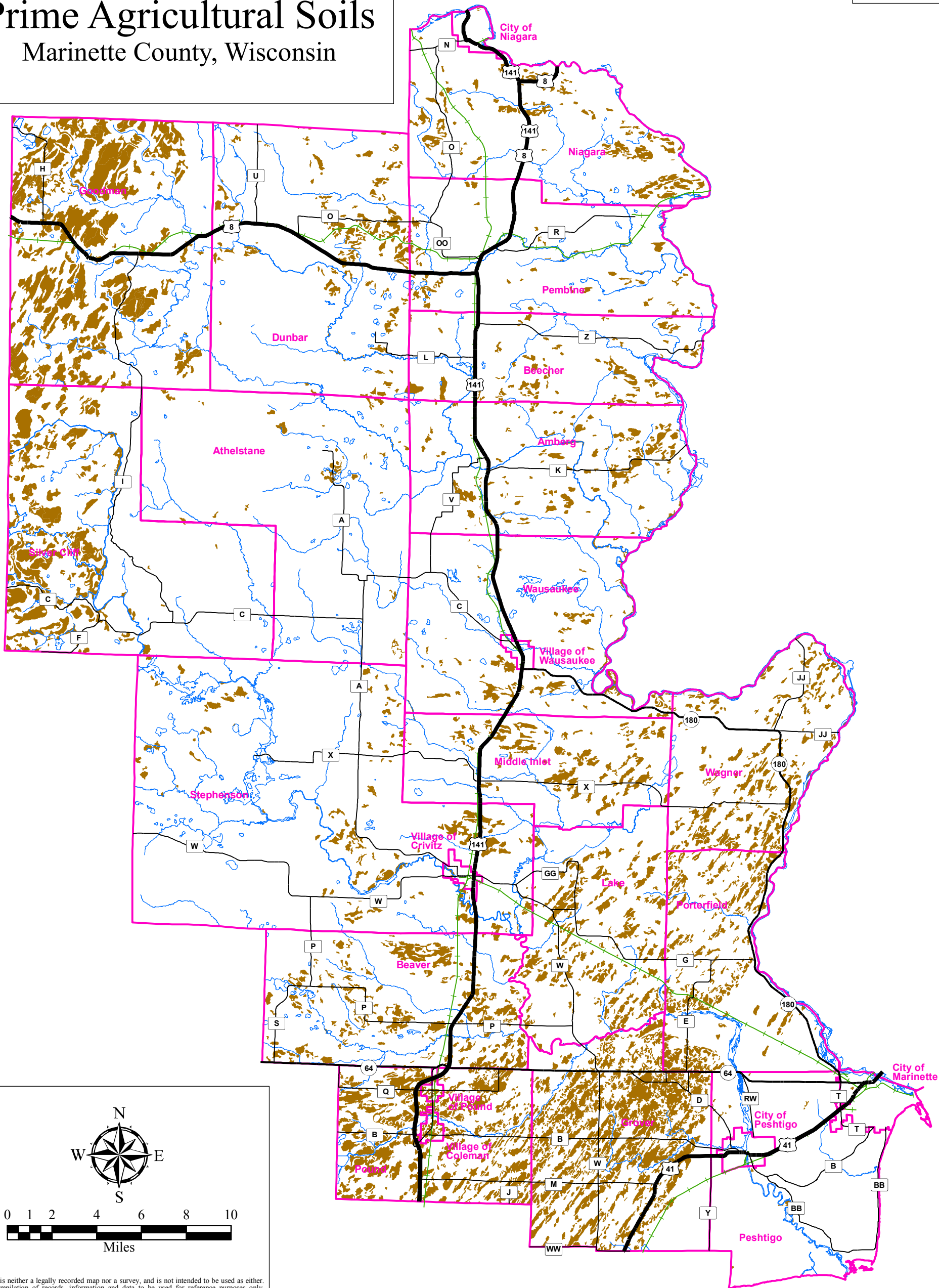
Source: WDNR, 1991; FEMA, 1997; NRCS, 2004; Marinette County; Bay-Lake Regional Planning Commission, 2009.

Volume II: County Resources

Prime Agricultural Soils Marinette County, Wisconsin

Marinette County
20-Year Comprehensive Plan

5-57



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Base Map Features

- MCD Boundary
- U.S. Highway
- State Highway
- County Highway
- Railroad
- Surface Water

Prime Agricultural Soils

Source: NRCS, 2004; Marinette County;
Bay-Lake Regional Planning Commission, 2009.

Volume II: County Resources

CHAPTER 6: POPULATION AND HOUSEING

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INTRODUCTION

Changes in population numbers and characteristics are instrumental in tracking the past growth patterns of a community in addition to predicting future population trends. Over time, the population characteristics of the County will directly influence housing, educational, community and recreational facility capacities and needs and will play an important role in the county’s future economic development.

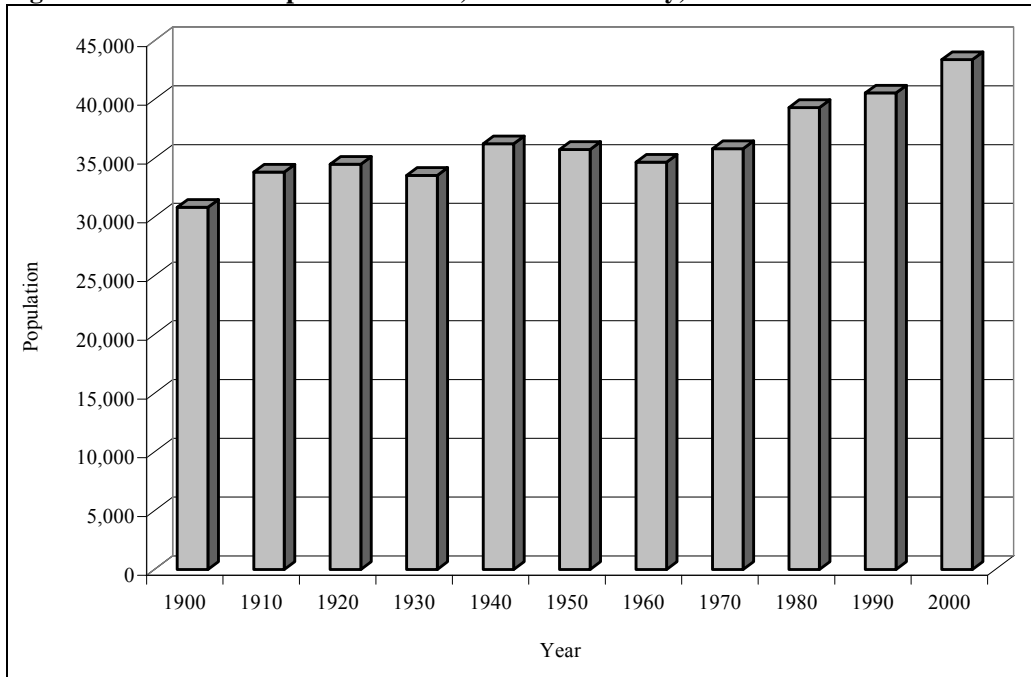
The housing portion of this chapter includes information about the current housing stock, structural and occupancy characteristics as well as details on future housing demand based on demographic projections. These housing related issues assisted in the development of strategies to help Marinette County become more prepared to meet future countywide housing needs.

POPULATION CHARACTERISTICS

Historical Population Trends

Marinette County experienced its highest population level of 43,384 in 2000, which represents a 9.6 percent increase from the 1990 population of 40,548 and an increase of nearly 41 percent over the 1900 census population of 30,822. Figure 6.1 illustrates the fluctuation in population Marinette County has experienced during the past century.

Figure 6.1: Historical Population Levels, Marinette County, 1900 - 2000



Source: U.S. Bureau of the Census, General Population Characteristics 1840-1990 and U.S. Census 2000; and the Bay-Lake Regional Planning Commission, 2008.

Table 6.1 displays the change in the county’s population levels since 1900 as well as the changes observed for Wisconsin during the same period. Over time, the population of the county has increased at a relatively gradual rate, with minor decreases shown from 1920 to 1930 and 1940 through 1970. The largest periods of population expansion in the county occurred between 1900

and 1910 and between 1970 and 1980 with increases of 9.7 and 9.8 percent, respectively.

The historical population trends for all Marinette County communities can be found in Table 6.15 at the end of this chapter.

Table 6.1: Historical Population Levels

Year	Marinette County	Percent Change from	
		Previous Decade	State of Wisconsin
1900	30,822	-	2,069,042
1910	33,812	9.7	2,333,860
1920	34,477	2.0	2,632,067
1930	33,530	-2.7	2,939,006
1940	36,225	8.0	3,137,587
1950	35,748	-1.3	3,434,575
1960	34,660	-3.0	3,951,777
1970	35,810	3.3	4,417,731
1980	39,314	9.8	4,705,642
1990	40,548	3.1	4,891,769
2000	43,384	7.0	5,363,715

Source: U.S. Bureau of the Census, General Population Characteristics 1840-1970, Bay-Lake Regional Planning Commission, December 1975; Census 2000; and Bay-Lake Regional Planning Commission, 2008.

Age and Sex Distribution

From 1980 to 2000, the county’s population has experienced several shifts in its age distribution (Figure 6.2), generally showing a trend towards older age groups. The most significant indicator of this is the decrease in the number of individuals between the ages of 20 and 39. In 1980, this group accounted for 26.2 percent of the county’s population. By 2000, this group’s representation dropped to 21.6 percent.

Additionally, during the same time 20-year period, the number of individuals between the ages of 40 and 59 steadily increased. In 1980, approximately 20 percent of the county’s population was comprised of individuals in this age group. However, by 2000, this group represented more than 28 percent of the total population.

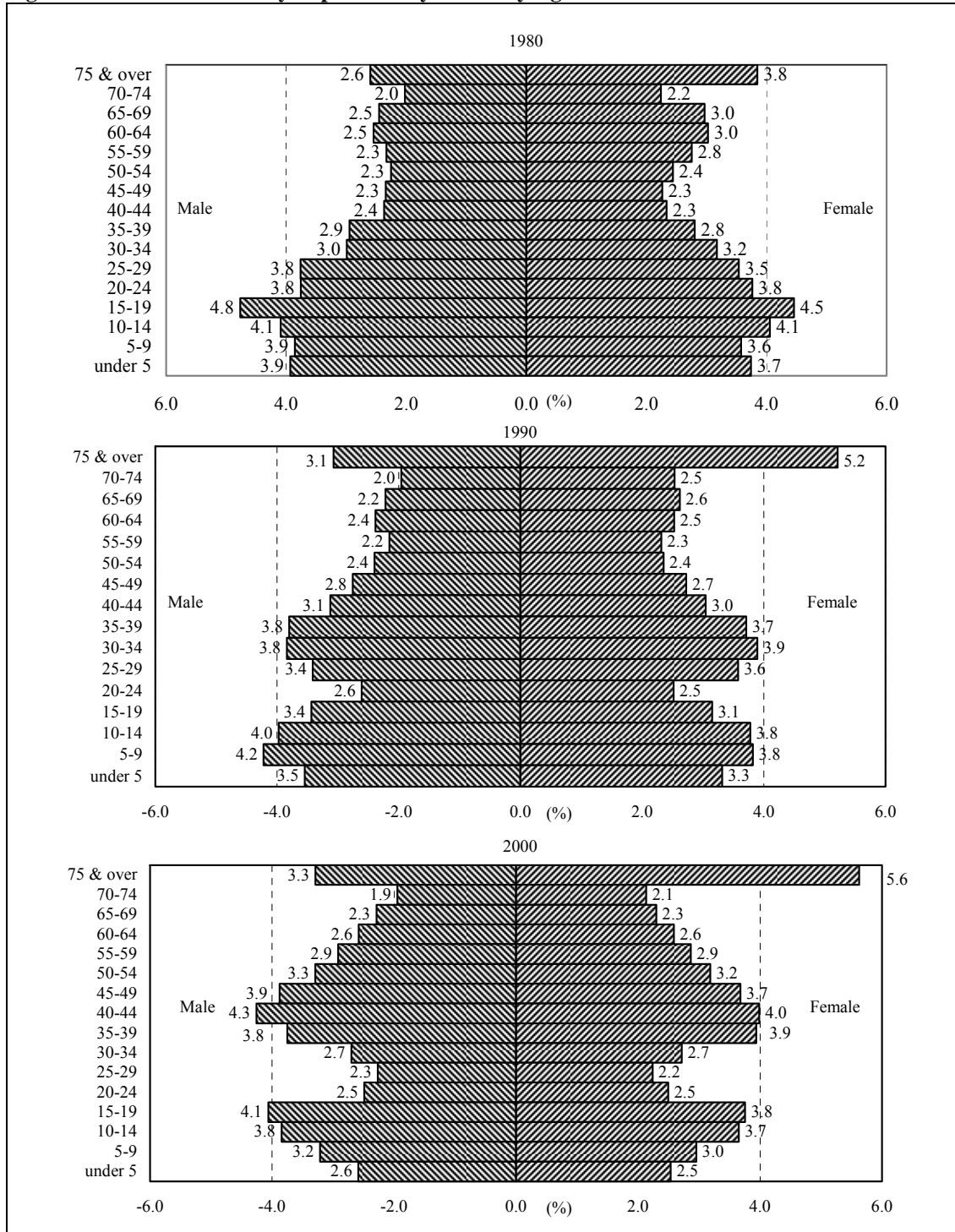
Additionally, the county’s population age 19 and under has steadily declined from 1980 to 2000. In 1980, these combined age groups comprised 32.4 percent of the total population. Twenty years later, that percentage had been reduced to 26.6 percent. Women in this age group comprised 15.9 percent of the population in 1980 compared to 16.7 percent for men. In 2000, the percentages had declined to 12.5 percent and 13.7 percent respectively.

However, this trend has not yet extended to the elderly population. Since 1990 the retirement age (65 and older) population has remained stable, accounting for approximately 17.5 percent of the county’s population. In 1980 the retirement age population was only slightly lower than that of 1990 and 2000, accounting for just slightly more than 16 percent of the count’s total population. Recent population trends indicate a significant increase in those between the ages of 30 and 64, (30 percent in 1980 compared to more than 40 percent in 2000) it could be expected that the number of people in the 65 and over age group would continue to increase over the next several decades.

Decade Population Pyramids

Figure 6.2 illustrates Marinette County’s population changes through population pyramids that compare age groups between males and females.

Figure 6.2: Marinette County Population Pyramids by Age and Sex



Source: U.S. Bureau of the Census, 1980 Census of Population and Housing, STF 1A, Table 10; 1990 Census of Population and Housing, STF 1A, Table P012; 2000 Census of Population and Housing SF-1; and Bay-Lake Regional Planning Commission, 2008.

School Age, Working Age, and Retirement Age

Table 6.2 divides the population of Marinette County into three age groups: school age (5-17), working age (16-64) and those of retirement age (65+). Similar information for each of the communities in Marinette County can be found in Table 6.16 at the end of this chapter.

The working age group (16 years to 64 years old) accounted for 62 percent of the county’s total population in 2000. The school age groups (5 years old to 17 years old) accounted for more than 18 percent of the total population and the retirement age group (65 years old and older) accounted for approximately 17.5 percent of the total population compared to just slightly more than 13 percent of the population statewide.

Table 6.2: Population by Age Groups and Sex, Marinette County, 2000

Age Groups	Total	Male Population	Female Population	Marinette County % of Total Population	Wisconsin % of Total Population
School Age					
5-11	3,926	2,040	1,886	9.0	10.1
12-14	2,002	1,021	981	4.6	4.5
15-17	2,051	1,067	984	4.7	4.5
Working and Voting Age					
16+	34,533	16,850	17,683	79.6	77.5
16-64	26,906	13,586	13,320	62.0	64.4
18+	33,183	16,164	17,019	76.5	74.4
18-64	25,556	12,900	12,656	58.9	61.4
Retirement Age					
65+	7,627	3,264	4,363	17.6	13.1
Total Population	43,384	21,415	21,969		

Source: U.S. Bureau of the Census, 2000 Census of Population and Housing, STF 1A, General Profile and Table P012; and Bay-Lake Regional Planning Commission, 2008.

Median Age

Table 6.3 displays the gradual increase of median age for Marinette County and the State of Wisconsin from 1970 to 2000. Similar information for each community within Marinette County can be found in Table 6.17 at the end of this chapter.

The county’s median age has risen from 33.5 years in 1970 to 40.5 years in 2000. This increase in median age provides further proof that the population of Marinette County is aging and at a rate that is greater than the state as a whole. This trend of an increasing median age should be considered when planning for the future needs of the county as an aging population generally demands additional community and specialized services.

Table 6.3: Median Age

Geographic Location	1970	1980	1990	2000
Marinette County	33.5	32.1	35.6	40.5
Wisconsin	27.2	29.4	32.9	36.0

Source: U.S. Bureau of the Census, Census of Population, General Population Characteristics, Wisconsin, 1970, Tables 33, 35; 1980 Table 14; 1990 STF 1A, General Profile; Census 2000 and Bay-Lake Regional Planning Commission, 2008.

Seasonal Population

In 2000, the county had a total of 7,586 seasonal housing units, along with an average number of persons per household of 2.38. The result is an estimated 18,055 additional people in the county considered seasonal residents. A large majority of those individuals maintain seasonal homes in the northern part of the county.

Table 6.4: Estimated Seasonal Population, 2000

	Marinette County	Wisconsin
US Census Population	43,384	5,363,675
Persons Per Household	2.38	2.5
Seasonal Housing Units*	7,586	142,313
Estimated Seasonal Population**	18,055	355,783

*Seasonal housing includes seasonal, recreational, or occasional use units, but does not include other vacant

**Estimated Seasonal Population = (Total Seasonal Housing Units * Marinette County’s 2000 Census - Persons per Household)

Source: U.S. Bureau of the Census, 2000 Census of Population and Housing and Bay-Lake Regional Planning Commission, 2008.

Population Projections

Population projections are an important factor in assessing the area’s future need for housing, community facilities, transportation, and other population-influenced facilities. They can also be used to forecast each individual community’s as well as county’s future expenditures, revenues, and tax receipts.

In 2008, the Wisconsin Department of Administration (WDOA) Demographic Services Center prepared population projections to the year 2030 for each community and county in the state by utilizing figures from three varying time periods.

According to the WDOA formula, Marinette County is projected to have a population of 47,415 persons by 2030. This represents an increase of 4,041 persons, or 9.3 percent more than the county’s 2000 Census count of 43,384 persons.

The Department of Administration also releases annual population estimates for counties and local units of government. The County’s WDOA estimated 2008 population was 44,823 persons which represents an increase of 3.3 percent from the 2000 Census population of 43,384.

Table 6.5 identifies WDOA 2008 population estimates and 2010-2030 population projections for Marinette County and the state. Population trends and WDOA projections for all communities within Marinette County can be found in Table 6.18 at the end of this chapter.

Table 6.5: Population Projections

Geographic Location	US Census 2000	Wisconsin Department of Administration (WDOA) 2008 Population Estimate and 2010 - 2030 Population Projections					# Change 2000-2030	% Change 2000-2030	
		2008*	2010	2015	2020	2025			2030
Marinette County	43,384	44,823	45,153	45,997	46,787	47,305	47,415	4,031	9.3%
State of Wisconsin	5,363,715	5,675,156	5,772,370	5,988,420	6,202,810	6,390,900	6,541,180	1,052,208	22.0%

Source: Wisconsin Department of Administration, Official Population Estimates, 2008.

In an effort to establish a range of possible population growth for the next 20 years, Marinette County utilized two additional population projections along with the previously mentioned 2004 WDOA projections. These additional projections are:

- A *Growth Trend* using the 1970, 1980, 1990 and 2000 Census figures and creating an exponential “growth trend” series to the year 2030. According to projection, the 2030 population for Marinette County would be 52,118 people, which is an increase of 8,734 people, or approximately 20 percent, from the 2000 Census population count of 43,384.
- A *Linear Trend* utilizing the 1970, 1980, 1990 and 2000 Census figures and creating a “linear trend” series to the year 2030. This method identified a 2030 population of 50,544 people for Marinette County, which is an increase of 7,160 people, or 16.5 percent, from the 2000 Census population count of 43,384.

It should be noted that the growth and linear trend population projections assume that the county will continue to grow based on past trends in population. Future population changes for individual communities or the county however slight may cause significant modifications to these projections.

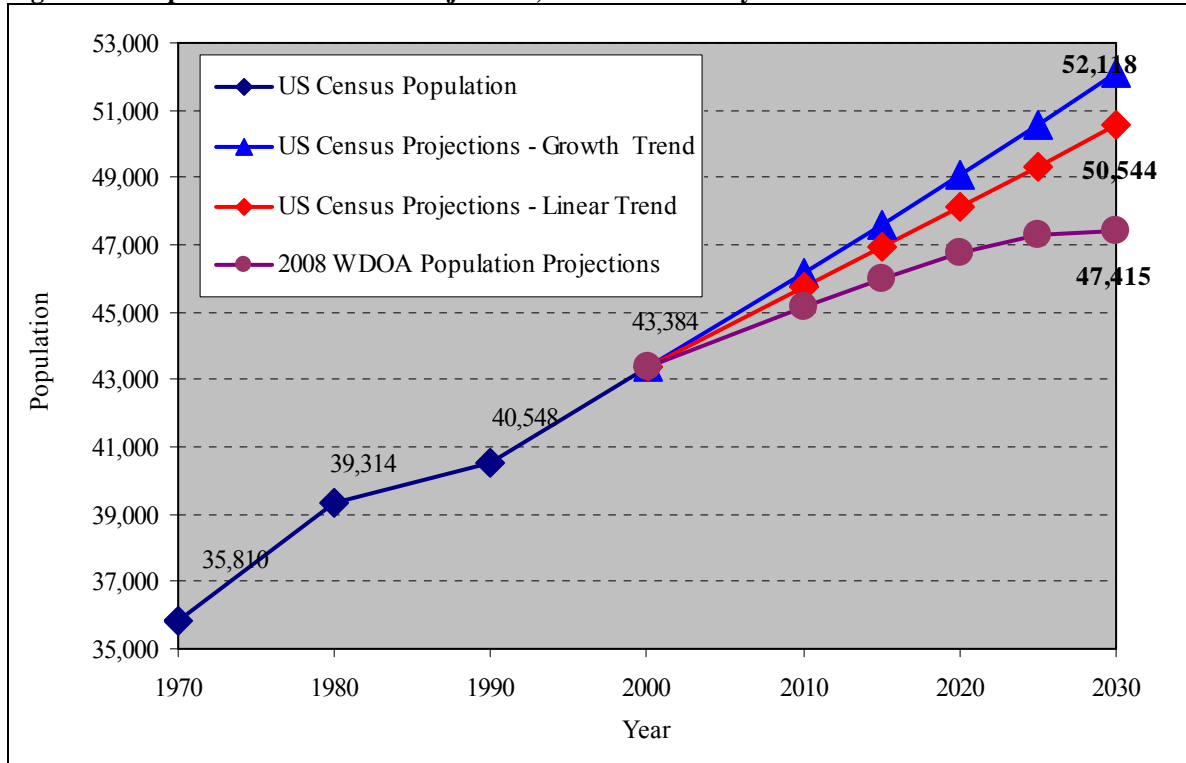
Table 6.6 and Figure 6.3 display the county’s actual 2000 U.S. Census count, Bay-Lake Regional Planning Commission “growth” and “linear” projections, and the Wisconsin Department of Administration’s 2008 projections. The WDOA projection, and the growth and linear trend projections are based on past population trends.

Table 6.6: Population Projections

Marinette County	2000	2010	2015	2020	2025	2030	# Change 2000 - 2030	% Change 2000 to 2030
US Census Population	43,384							
US Census Projections - Growth Trend	43,384	46,165	47,608	49,051	50,585	52,118	8,734	20.13
US Census Projections - Linear Trend	43,384	45,753	46,951	48,149	49,346	50,544	7,160	16.50
2008 WDOA Population Projections	43,384	45,153	45,997	46,787	47,305	47,415	4,031	9.29

Source: U.S. Department of Commerce, Bureau of the Census, 2000; Wisconsin Department of Administration, Official Municipal Population Projections 2008; Bay-Lake Regional Planning Commission, 2009.

Figure 6.3: Population Trends and Projections, Marinette County



Source: U.S. Bureau of the Census, Census of Population and Housing, 1970-2000; Wisconsin Department of Administration, Official Population Projections, 2004; and Bay-Lake Regional Planning Commission, 2008.

Seasonal Population Projections

As noted earlier in this chapter, in 2000 seasonal housing accounted for 24 percent of the total housing in the county. Therefore, it is important to consider the number of additional persons that may potentially be residing throughout the county on a seasonal basis.

By utilizing WDOAs final household projections for Wisconsin municipalities, the number of future seasonal housing units can be estimated. Assuming the 2000 ratio of seasonal housing units to occupied housing units stays constant, the number of future seasonal housing units can be projected using this ratio:

$$\text{projected occupied housing units} * \text{ratio of seasonal housing units to occupied housing units} = \text{projected seasonal housing units}.$$

Projections for future seasonal housing units can then be used to project future seasonal populations:

$$\text{projected persons per household} * \text{projected seasonal housing units} = \text{projected seasonal population}.$$

Table 6.7 illustrates seasonal population projections for Marinette County and the State of Wisconsin for 2005–2030. Seasonal population projections for all communities within Marinette County can be found in Table 6.19 at the end of this chapter.

Table 6.7: Seasonal Population Projections

Geographic Location	Estimated 2000 Seasonal Population	Projected Seasonal Population					
		2005	2010	2015	2020	2025	2030
Marinette County	18,055	18,250	19,145	19,331	19,449	19,474	20,454
State of Wisconsin	368,388	368,388	390,888	402,881	415,096	426,048	446,570

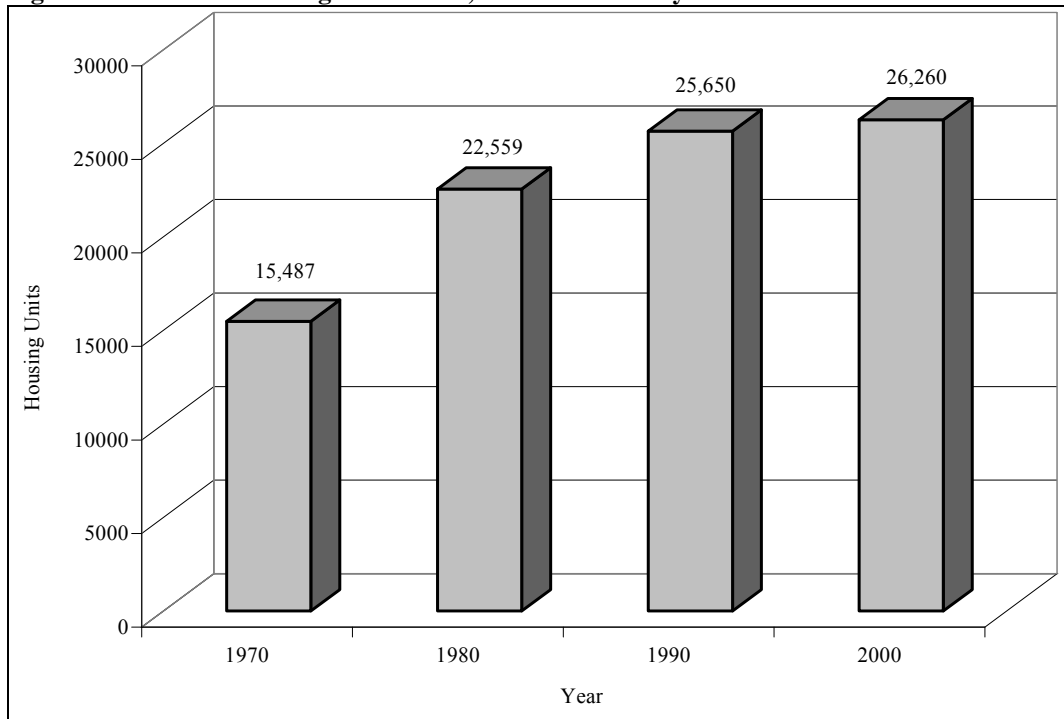
Source: U.S. Bureau of the Census, 2000 Census of Population and Housing, Table DP-1; Wisconsin Department of Administration Final Household Projections for Wisconsin Municipalities, 2000 – 2035, January 2009; WDOA Final Household Projections for Wisconsin Counties, 2000 – 2035, January 2009; and Bay-Lake Regional Planning Commission, 2009.

HOUSING CHARACTERISTICS

Total Housing Unit Levels by Decade

The total number of housing units within Marinette County has increased by nearly 70 percent from 1970 to 2000 (Figure 6.4 and Table 6.8). During this time, the number of available housing units in the county has increased slowly but consistently on a per decade basis. The county experienced the largest growth in the number of housing units between 1970 and 1980 when 7,072 units were added. Total housing units between 1970 and 2000 for all communities within Marinette County can be found in Table 6.17 at the end of this chapter.

Figure 6.4: Historic Housing Unit Levels, Marinette County



Source: U.S. Bureau of the Census, 1970 Census of Population and Housing, Series 100, Table 2; 1980 Census of Population and Housing, Table 45; 1990 Census of Population and Housing, STF 1A; State of Wisconsin Demographic Services Center, Table DP-1; and Bay-Lake Regional Planning Commission, 2006.

Table 6.8: Total Housing Units

Geographic Location	Year				Percent Change			
	1970	1980	1990	2000	1970-1980	1980-1990	1990-2000	1970-2000
Marinette County	15,487	22,559	25,650	26,260	45.66	13.70	2.38	69.56
Wisconsin	1,472,466	1,863,897	2,055,774	2,321,144	26.58	10.29	12.91	57.64

Source: U.S. Bureau of the Census, 1970 Census of Population and Housing, Series 100, Table 2; 1980 Census of Population and Housing, Table 45; 1990 Census of Population and Housing, STF 1A; Census 2000; and Bay-Lake Regional Planning Commission, 2008.

Housing Types - Units in Structure

A structure is a separate building that either has open spaces on all sides or is separated from other structures by dividing walls that extend from ground to roof. In determining the number of units in a structure, all housing units, both occupied and vacant, are counted. According to the 2000 Census, one unit detached structures comprised nearly 74 percent of the total housing types in Marinette County (Table 6.9). The second largest housing type found in the county was mobile homes at 16.4 percent of the total available housing.

The “1 unit, detached” classification is a single family home that is separate from any other type of building or structure. It should be noted that garages, car ports, breezeways, porches, and etc., are not considered separate structures. The “1 unit, attached” classification indicates that the single family home is attached to some other type of building such as a tavern, grocery store or office store front. The “2 units” classification denotes a typical two-family home or duplex.

Table 6.9: Units in Structure, 2000

Units	Marinette County		Wisconsin	
	Number	Percent	Number	Percent
1 unit, detached	19,383	73.8%	1,531,612	66.0%
1 unit, attached	187	0.7%	77,795	3.4%
2 units	743	2.8%	190,889	8.2%
3 or 4 units	356	1.4%	91,047	3.9%
5 to 9 units	343	1.3%	106,680	4.6%
10 to 19 units	287	1.1%	75,456	3.3%
20 or more units	576	2.2%	143,497	6.2%
Mobile home	4,298	16.4%	101,465	4.4%
Other	87	0.3%	2,703	0.1%
Total	26,260	100.0%	2,321,144	100.0%

Source: U.S. Bureau of the Census, 2000 Census of Population and Housing, SF- 1; and Bay-Lake Regional Planning Commission, 2008.

Housing Occupancy and Tenure

According to the 2000 Census Marinette County had 17,585 occupied housing units accounting for 67 percent of the housing in the county. The remaining 33 percent was attributed to vacant units including units used for seasonal, recreational, or occasional purposes (Table 6.10). Of the 17,585 occupied units, 13,951 were owner-occupied while 3,634 were renter-occupied.

Seasonal Housing

Of the 8,675 vacant housing units in the county, 7,586 were for seasonal, recreational, or occasional use. It is important to note that housing types can vary as they are converted from seasonal to year-round residences (or vice-versa). This occurs for a variety of reasons including retirement of the home owners or a change in ownership. These fluctuations in housing types can result in varying needs for emergency, healthcare, and other public services.

Housing occupancy and tenure for Marinette County and the State of Wisconsin are shown in Table 6.10. Similar figures for all communities in the county can be found in Table 6.22 at the end of this chapter.

Table 6.10: Housing Occupancy and Tenure, 2000

Geographic Location	Occupied			Vacant			Total Units	Percent Occupied	Percent Vacant
	Owner	Renter	Total	Seasonal, Recreational or Occasional Use	Other	Total			
Marinette County	13,951	3,634	17,585	7,586	1,089	8,675	26,260	67.0%	33.0%
State of Wisconsin	1,426,361	658,183	2,084,544	142,313	94,287	236,600	2,321,144	89.8%	10.2%

Source: U.S. Bureau of the Census, and Bay-Lake Regional Planning Commission, 2008.

Age of Housing

Approximately 22 percent of the housing structures in Marinette County were built prior to 1940 (Table 6.11). Between 1940 and 1990 an average of 2,934 housing units were added each decade. The structures added over this 50-year span account for about 60 percent of the housing structures in the county.

In more recent decades, there has been a surge in homes being built throughout the county. The most significant decade of housing growth in Marinette County occurred between 1970 and 1980 when nearly 5,200 units were constructed representing an increase of nearly 40 percent between 1970 and 1980. Between 1990 and the spring of 2000, approximately 4,200 units were constructed. This number represents nearly a 19 percent increase in the total housing stock in a span of a little more than 10 years.

Table 6.11: Housing Units by Year Structure Built

Year Structure Built	Marinette County		Wisconsin	
	Number	Percent	Number	Percent
1999 to March 2000	659	2.5%	50,735	2.2%
1995 to 1998	1,819	6.9%	170,219	7.3%
1990 to 1994	1,693	6.4%	168,838	7.3%
1980 to 1989	3,631	13.8%	249,789	10.8%
1970 to 1979	5,171	19.7%	391,349	16.9%
1960 to 1969	2,797	10.7%	276,188	11.9%
1940 to 1959	4,710	17.9%	470,862	20.3%
1939 or earlier	5,780	22.0%	543,164	23.4%
Total	26,260	100.0%	2,321,144	100.0%

Source: U.S. Bureau of the Census, 2000 Census of Population and Housing, SF- 3; and Bay-Lake Regional Planning Commission, 2008.

Condition of Housing Stock

The large number of housing units built prior to 1960 may be an indicator of the overall condition of the housing stock in Marinette County.

According to the Wisconsin Department of Commerce, the definition of a substandard unit is a housing unit which is in need of major repair or replacement in three or more of the following areas: roof, electrical, heating, plumbing, foundation/structure (including interior walls/floors/ceilings), siding, doors/windows and well/septic or water/sewer laterals.

With more than 10,000 units constructed prior to 1960 (Table 6.11), the possibility exists that several homes may be substandard based on conditions mentioned in the Department of Commerce definition.

Housing Values

In 2000, the majority of Marinette County’s housing units (nearly 50 percent) were valued between \$50,000 and \$99,999 (Table 6.12). The median value of specified owner-occupied housing units was \$69,800. In comparison, Wisconsin has a median value of \$112,200 with more than twice the percentage of homes falling within the \$150,000 and \$500,000 than Marinette County.

Table 6.12: Values of Specified Owner-Occupied Housing Units, 2000

Value*	Marinette County		Wisconsin	
	Number	Percent	Number	Percent
Less than \$50,000	2,487	27.2%	73,450	6.5%
\$50,000 to \$99,999	4,497	49.1%	396,893	35.4%
\$100,000 to \$149,999	1,334	14.6%	343,993	30.6%
\$150,000 to \$199,999	513	5.6%	173,519	15.5%
\$200,000 to \$299,999	273	3.0%	95,163	8.5%
\$300,000 to \$499,999	44	0.5%	30,507	2.7%
\$500,000 to \$999,999	10	0.1%	7,353	0.7%
\$1,000,000 or more	-	-	1,589	0.1%
Total Units	9,158	100.0%	1,122,467	100.0%
Median Value	\$69,800.00		\$112,200.00	

*Note: Census housing values may not be the actual assessed values; they are based on what the homeowner perceives the housing unit is worth.

Source: U.S. Bureau of the Census, 2000 Census of Population and Housing, SF-3; and Bay-Lake Regional Planning Commission, 2008.

Housing Costs - Rents and Mortgage

Providing affordable housing which meets the needs of current and future Marinette County residents is an important element of planning. Housing number, type, and location greatly impacts the economic development, transportation, utilities, natural features, and various other aspects of a comprehensive plan.

According to the U.S. Department of Housing and Urban Development (HUD), housing affordability is defined as paying no more than 30 percent of household income for housing.

Rent and Income Comparison

According to the 2000 Census, the median gross rent for renter-occupied housing units in the Marinette County was \$429.

The 2000 Census also reported that 497, or 24 percent, of 2,113 specified renter-occupied housing units paid more than 30 percent of their 1999 household income in gross rent. These occupants are considered to be living in non-affordable housing.

Owner Costs and Income Comparison

For owner-occupied housing units with a mortgage in 2000, the median monthly owner cost in the county was \$853. For owner-occupied units without a mortgage, the median monthly cost was \$264.

The 2000 census indicates that 1,235 owners out of 7,428 (17 percent) specified owner-occupied housing units paid more than 30 percent of their 1999 income for monthly owner costs. This 17 percent are considered to be living in non-affordable housing.

Housing Projections

Projected Occupied Housing Units

The following three methods were used to determine the most likely housing projection scenarios to the year 2030 for Marinette County. Table 6.13 and Figure 6.5 illustrate each of these projections.

- *Growth Trend* - Using historic census “occupied” housing counts from 1970 to 2000; a “growth trend” was created to the year 2030. Based on this projection, 9,141 total occupied housing units would be added by 2030, or an increase of nearly 52 percent from the 2000 Census count of 17,585 housing units (Table 6.13 and Figure 6.5).
- *Linear Trend* - A “linear trend” to the year 2030 also utilizes the historic census “occupied” housing counts from 1970 to 2000. This method indicated Marinette County would have 23,357 total occupied housing units, or an increase of approximately 33 percent by 2025.
- *WDOA Final Household Projections for Wisconsin Municipalities* – These projections were prepared by WDOA in January 2004 and indicate an increase of 2,899 housing units or approximately 16 percent by 2030.

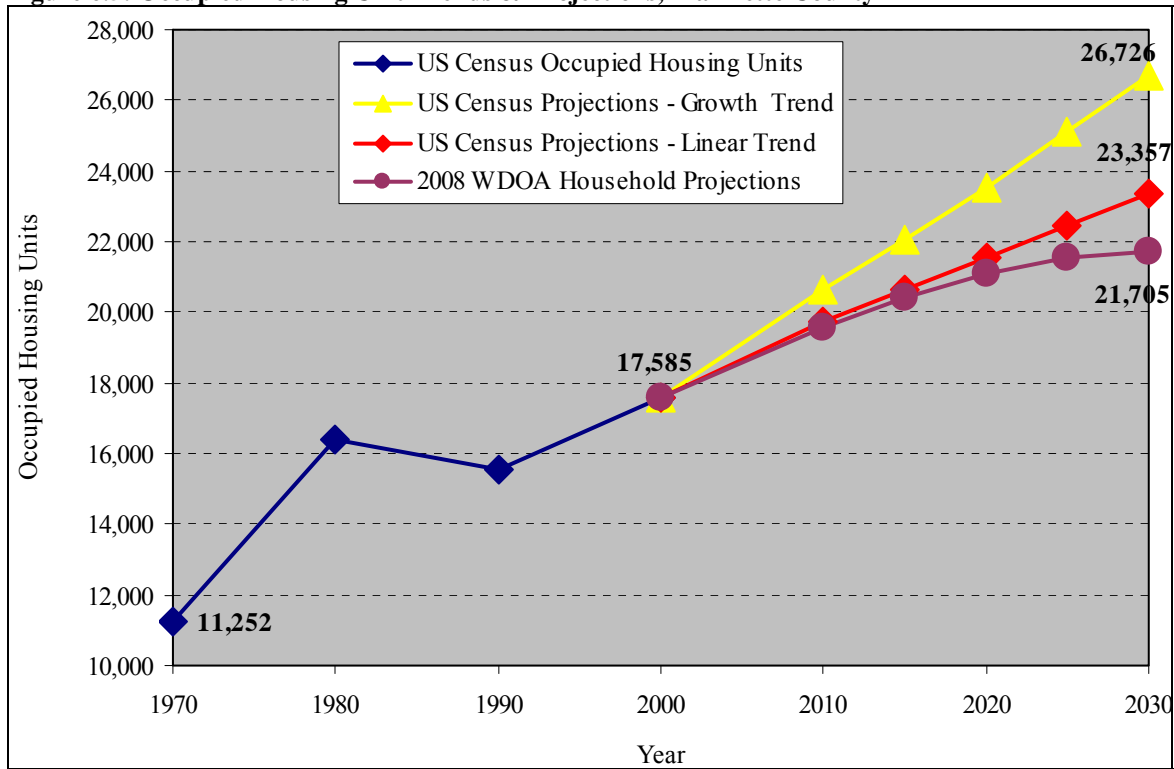
Table 6.13: Occupied Housing Unit Projections

Marinette County	2000	2010	2015	2020	2025	2030
2000 US Census Occupied Housing Units	17,585					
US Census Projections - Growth Trend	17,585	20,667	22,085	23,502	25,114	26,726
US Census Projections - Linear Trend	17,585	19,730	20,637	21,544	22,450	23,357
2008 WDOA Household Projections	17,585	19,551	20,436	21,109	21,524	21,705
Projected Persons Per Household	2.38	2.31	2.25	2.20	2.18	2.18

*2000 occupied housing unit values reflect corrections made by the Wisconsin Department of Administration (WDOA)

Source: Wisconsin Department of Administration, 2009; and Bay-Lake Regional Planning Commission, 2009.

Figure 6.5: Occupied Housing Unit Trends & Projections, Marinette County



Source: U.S. Bureau of the Census, 1970 Census of Population and Housing, Series 100, Table 2; 1980 Census of Population and Housing, Table 45; 1990 Census of Population and Housing, STF 1A; 2000 Census of Population and Housing, Table DP-1; Wisconsin Department of Administration Final Household Projections for Wisconsin Municipalities, 2000 – 2030, January 2009; and Bay-Lake Regional Planning Commission, 2009.

Projected Seasonal Housing Units

As noted earlier in this chapter, The 200 Census indicates that nearly 29 percent or a total of 7,586 of the total of 26,260 housing units in Marinette County are classified as seasonal housing. Therefore, it is important to consider the number of additional housing units that may potentially be built throughout the county for seasonal, recreational, or occasional use.

By utilizing WDOAs final household projections for Wisconsin municipalities, the number of future seasonal housing units can be estimated. Assuming the 2000 ratio of seasonal housing units to occupied housing units stays constant, the number of future seasonal housing units can be projected using this ratio:

$$\text{projected occupied housing units} * \text{ratio of seasonal housing units to occupied housing units} = \text{projected seasonal housing units}.$$

Table 6.14 illustrates seasonal housing unit projections for Marinette County and the state of Wisconsin for 2005 – 2025. Seasonal housing unit projections for all communities within Marinette County can be found in Table 6.21 at the end of this chapter.

Table 6.14: Seasonal Housing Unit Projections

Geographic Location	2000 Total Occupied Housing Units	2000 Seasonal Housing Units	Projected Seasonal Housing Units					
			2005	2010	2015	2020	2025	2030
Marinette County	17,585	7,586	8,032	8,434	8,816	9,106	9,284	9,363
State of Wisconsin	2,084,544	142,313	149,527	157,243	164,313	171,150	176,989	186,957

Source: U.S. Bureau of the Census, 2000 Census of Population and Housing, Table DP-1; WDOA Final Household Projections for Wisconsin Municipalities, 2000 – 2025, January 2009; WDOA Final Household Projections for Wisconsin Counties, 2000 – 2035, January 2009; and Bay-Lake Regional Planning Commission, 2009.

Subsidized and Special Needs Housing

Within Marinette County, there exists a variety of agencies to help locate, finance, and develop housing for persons with various physical and mental disabilities or other special needs. The Marinette County Department of Human Services has information on what is available through several organizations such as WHEDA, NEWCAP, and the Veteran’s Administration.

Housing Development Environment

Due to the overall rural nature of the area and rather small incorporated communities, Marinette County has a limited number of public utilities and services. However, the county more than makes up for those deficiencies by offering current and future residents some excellent quality of life features. The entire county has a wonderful scenic landscape that is comprised of thousands of acres of publicly owned land, lakes and streams, rich farming fields; long stretches overlook Green Bay of Lake Michigan; has access to major highways- US Highways 141 and 41 and State Highways 8, 64, and 181; boasts a competitive tax rate; and is situated just north of one of the most dynamic metropolitan areas in the state. These features, in addition to the trend in which people desire more open space to live, make Marinette County a very desirable place to live.

Marinette County and Community Level Population and Housing Tables

Table 6.15: Historical Population Levels, Marinette County Municipalities

Geographic Location (Date of Incorporation)	U.S. Census											WDOA Estimate
	1900	1910	1920	1930	1940	1950	1960	1970	1980	1990	2000	2005
Town of Amberg	1,375	2,816	1,004	680	891	811	641	665	852	917	854	863
Town of Athelstane		536	710	348	377	275	229	330	364	437	601	620
Town of Beaver		1,208	1,484	1,224	1,217	1,084	1,015	995	1,042	1,041	1,123	1,187
Town of Beecher				255	294	356	320	279	521	626	783	826
Town of Dunbar				317	349	353	309	359	522	838	1,303	1,260
Town of Goodman			1,266	1,443	1,390	1,037	870	750	803	758	820	848
Town of Grover	1,860	2,099	1,967	1,679	1,751	1,640	1,521	1,575	1,709	1,670	1,729	1,826
Town of Lake		617	711	678	764	828	766	741	915	989	1,064	1,152
Town of Middle Inlet			478	459	547	483	378	457	681	744	831	879
Town of Niagara			322	443	508	485	476	561	717	891	924	936
Town of Pembine			363	429	563	561	539	654	773	817	1,036	1,110
Town of Peshtigo	4,228	1,493	1,558	1,510	1,840	2,214	2,719	2,951	3,566	3,564	3,819	3,973
Town of Porterfield	956	1,510	1,015	1,069	1,094	1,131	1,236	1,405	1,857	1,805	1,991	2,086
Town of Pound	2,545	2,050	2,320	1,526	1,464	1,314	1,264	1,297	1,412	1,386	1,367	1,400
Town of Silver Cliff				176	224	148	136	189	267	259	529	600
Town of Stephenson	842	1,379	1,290	1,592	1,876	1,771	1,762	2,202	2,137	2,288	3,065	3,418
Town of Wagner			471	458	593	580	473	500	624	660	722	794
Town of Wausaukee	1,685	1,956	1,553	582	560	564	476	497	753	937	1,196	1,319
Village of Coleman (1903)				407	562	668	718	683	852	839	716	704
Village of Crivitz (1974)									1,041	996	998	1,006
Village of Pound (1914)				246	310	354	273	284	407	434	355	338
Village of Wausaukee (1924)				663	655	612	608	557	648	656	572	557
City of Marinette (1887)	16,195	14,610	13,610	13,734	14,183	14,178	13,329	12,696	11,965	11,843	11,749	11,500
City of Niagara (1913 and 1992)			1,946	2,033	2,266	2,022	2,098	2,347	2,079	1,999	1,880	1,860
City of Peshtigo (1903)		1,975	1,440	1,579	1,947	2,279	2,504	2,836	2,807	3,154	3,357	3,481
Marinette County	30,822	33,812	34,477	33,530	36,225	35,748	34,660	35,810	39,314	40,548	43,384	44,543
State of Wisconsin	2,069,042	2,333,860	2,632,067	2,939,006	3,137,587	3,434,575	3,951,777	4,417,731	4,705,642	4,891,769	5,363,715	5,617,744

Note: Date of Incorporation in Parenthesis.

Note: The City of Niagara was incorporated as a village in 1913 and a city in 1992.

Source: U.S. Bureau of the Census, General Population Characteristics 1840-1970, Bay-Lake Regional Planning Commission, December 1975; Census 2000; and Bay-Lake Regional Planning Commission, 2008.

Table 6.16: Population by Age Groups, Marinette County Municipalities, 2000

Geographic Location	School Age						Working and Voting Age						Retirement Age		Total Population		
	5-11		12-14		15-17		16+		16-64		18+		18-64			65+	
	Number	% of Total	Number	% of Total	Number	% of Total	Number	% of Total	Number	% of Total	Number	% of Total	Number	% of Total		Number	% of Total
Town of Amberg	50	5.9%	41	4.8%	47	5.5%	711	83.3%	525	61.5%	685	80.2%	499	58.4%	186	21.8%	854
Town of Athelstane	37	6.2%	24	4.0%	25	4.2%	504	83.9%	385	64.1%	488	81.2%	369	61.4%	119	19.8%	601
Town of Beaver	109	9.7%	40	3.6%	63	5.6%	893	79.5%	700	62.3%	853	76.0%	660	58.8%	193	17.2%	1,123
Town of Beecher	74	9.5%	32	4.1%	27	3.4%	615	78.5%	484	61.8%	599	76.5%	468	59.8%	131	16.7%	783
Town of Dunbar	92	7.1%	34	2.6%	36	2.8%	1,139	87.4%	1,028	78.9%	1,109	85.1%	998	76.6%	111	8.5%	1,303
Town of Goodman	59	7.2%	33	4.0%	30	3.7%	692	84.4%	502	61.2%	667	81.3%	477	58.2%	190	23.2%	820
Town of Grover	191	11.0%	92	5.3%	83	4.8%	1,316	76.1%	1,072	62.0%	1,266	73.2%	1,022	59.1%	244	14.1%	1,729
Town of Lake	101	9.5%	52	4.9%	53	5.0%	852	80.1%	694	65.2%	816	76.7%	658	61.8%	158	14.8%	1,064
Town of Middle Inlet	51	6.1%	40	4.8%	36	4.3%	698	84.0%	522	62.8%	673	81.0%	497	59.8%	176	21.2%	831
Town of Niagara	121	13.1%	51	5.5%	55	6.0%	700	75.8%	590	63.9%	658	71.2%	548	59.3%	110	11.9%	924
Town of Pembine	87	8.4%	58	5.6%	70	6.8%	822	79.3%	618	59.7%	781	75.4%	577	55.7%	204	19.7%	1,036
Town of Peshtigo	347	9.1%	171	4.5%	176	4.6%	3,044	79.7%	2,488	65.1%	2,924	76.6%	2,368	62.0%	556	14.6%	3,819
Town of Porterfield	164	8.2%	92	4.6%	128	6.4%	1,579	79.3%	1,346	67.6%	1,493	75.0%	1,260	63.3%	233	11.7%	1,991
Town of Pound	137	10.0%	70	5.1%	88	6.4%	1,031	75.4%	851	62.3%	977	71.5%	797	58.3%	180	13.2%	1,367
Town of Silver Cliff	59	11.2%	19	3.6%	17	3.2%	419	79.2%	332	62.8%	405	76.6%	318	60.1%	87	16.4%	529
Town of Stephenson	208	6.8%	132	4.3%	110	3.6%	2,566	83.7%	1,933	63.1%	2,495	81.4%	1,862	60.8%	633	20.7%	3,065
Town of Wagner	78	10.8%	29	4.0%	36	5.0%	554	76.7%	443	61.4%	539	74.7%	428	59.3%	111	15.4%	722
Town of Wausaukee	126	10.5%	71	5.9%	54	4.5%	921	77.0%	733	61.3%	886	74.1%	698	58.4%	188	15.7%	1,196
Village of Coleman	69	9.6%	32	4.5%	34	4.7%	565	78.9%	417	58.2%	545	76.1%	397	55.4%	148	20.7%	716
Village of Crivitz	96	9.6%	40	4.0%	34	3.4%	792	79.4%	541	54.2%	767	76.9%	516	51.7%	251	25.2%	998
Village of Pound	44	12.4%	17	4.8%	21	5.9%	275	77.5%	238	67.0%	258	72.7%	221	62.3%	37	10.4%	355
Village of Wausaukee	66	11.5%	28	4.9%	25	4.4%	438	76.6%	313	54.7%	422	73.8%	297	51.9%	125	21.9%	572
City of Marinette	1,057	9.0%	531	4.5%	555	4.7%	9,339	79.5%	7,144	60.8%	8,966	76.3%	6,771	57.6%	2,195	18.7%	11,749
City of Niagara	197	10.5%	118	6.3%	90	4.8%	1,430	76.1%	1,079	57.4%	1,377	73.2%	1,026	54.6%	351	18.7%	1,880
City of Peshtigo	306	9.1%	155	4.6%	158	4.7%	2,638	78.6%	1,928	57.4%	2,534	75.5%	1,824	54.3%	710	21.1%	3,357
Marinette County	3,926	9.0%	2,002	4.6%	2,051	4.7%	34,533	79.6%	26,906	62.0%	33,183	76.5%	25,556	58.9%	7,627	17.6%	43,384
State of Wisconsin	538,337	10.0%	241,078	4.5%	240,922	4.5%	4,157,030	77.5%	3,454,362	64.4%	3,996,289	74.5%	3,293,621	61.4%	702,668	13.1%	5,363,675

Source: U.S. Bureau of the Census, 2000 Census of Population and Housing, STF 1a, General Profile and Table P012; and Bay-Lake Regional Planning Commission, 2008.

Table 6.17: Median Age, Marinette County Municipalities

Geographic Location	1970	1980	1990	2000
Town of Amberg	38.5	36.1	39.3	45.8
Town of Athelstane	33.5	35.8	40.2	48.9
Town of Beaver	31.1	31.6	35.8	41.4
Town of Beecher	51.3	35.7	39.5	42.3
Town of Dunbar	40.4	26.1	23.9	21.3
Town of Goodman	38.2	33.7	39.0	45.4
Town of Grover	26.9	28.0	33.5	37.8
Town of Lake	31.4	29.4	35.3	41.6
Town of Middle Inlet	38.4	35.6	40.8	46.4
Town of Niagara	27.0	28.9	31.5	38.3
Town of Pembine	35.3	31.6	35.9	41.9
Town of Peshtigo	33.3	31.5	34.9	41.4
Town of Porterfield	26.5	26.1	33.0	39.8
Town of Pound	26.5	29.1	32.6	37.5
Town of Silver Cliff	43.5	38.8	44.2	46.4
Town of Stephenson	37.3	38.5	42.3	48.5
Town of Wagner	31.2	30.9	36.5	39.9
Town of Wausaukee	40.1	33.4	36.4	42.9
Village of Coleman	33.5	29.4	33.9	41.7
Village of Crivitz	-	34.7	39.9	41.3
Village of Pound	40.0	26.4	28.3	34.5
Village of Wausaukee	34.0	35.4	37.3	39.6
City of Marinette	31.3	32.5	34.7	38.8
City of Niagara	30.7	33.5	35.6	38.6
City of Peshtigo	35.1	35.8	38.9	39.7
Marinette County	33.5	32.1	35.6	40.5
State of Wisconsin	27.2	29.4	32.9	36.0

Source: U.S. Bureau of the Census, Census of Population, General Population Characteristics, Wisconsin, 1970, Tables 33, 35; 1980 Table 14; 1990 STF 1A, General Profile; Census 2000 and Bay-Lake Regional Planning Commission, 2008.

Table 6.18: Population Projections, Marinette County Municipalities

Geographic Location	US Census 2000	Wisconsin Department of Administration (WDOA) and Bay-Lake Regional Planning Commission (BLRPC) Population Projections						# Change 2000-2030	% Change 2000-2030
		2008*	2010	2015	2020	2025	2030		
Town of Amberg	854	868	846	836	826	812	790	-64	-7.5%
Town of Athelstane	601	629	646	681	716	746	769	168	28.0%
Town of Beaver	1,123	1,205	1,203	1,236	1,267	1,291	1,303	180	16.0%
Town of Beecher	783	848	850	892	933	969	995	212	27.1%
Town of Dunbar	1,303	1,252	1,454	1,566	1,677	1,777	1,857	554	42.5%
Town of Goodman	820	858	863	880	896	906	909	89	10.9%
Town of Grover	1,729	1,846	1,862	1,907	1,949	1,979	1,992	263	15.2%
Town of Lake	1,064	1,189	1,163	1,205	1,244	1,276	1,296	232	21.8%
Town of Middle Inlet	831	900	910	947	983	1,012	1,032	201	24.2%
Town of Niagara	924	957	959	978	998	1,011	1,015	91	9.8%
Town of Pembine	1,036	1,126	1,167	1,234	1,299	1,356	1,401	365	35.2%
Town of Peshtigo	3,819	4,008	4,081	4,206	4,325	4,419	4,473	654	17.1%
Town of Porterfield	1,991	2,109	2,135	2,197	2,255	2,300	2,326	335	16.8%
Town of Pound	1,367	1,417	1,392	1,393	1,393	1,385	1,366	-1	-0.1%
Town of Silver Cliff	529	606	633	687	740	788	827	298	56.3%
Town of Stephenson	3,065	3,517	3,547	3,795	4,035	4,248	4,420	1,355	44.2%
Town of Wagner	722	831	829	871	913	948	973	251	34.8%
Town of Wausaukee	1,196	1,349	1,395	1,496	1,593	1,680	1,751	555	46.4%
Village of Coleman	716	700	673	642	612	579	542	-174	-24.3%
Village of Crivitz	998	1,035	1,002	999	996	986	970	-28	-2.8%
Village of Pound	355	331	325	311	296	280	262	-93	-26.2%
Village of Wausaukee	572	550	529	505	482	456	427	-145	-25.3%
City of Marinette	11,749	11,365	11,320	11,137	10,943	10,694	10,366	-1,383	-11.8%
City of Niagara	1,880	1,831	1,816	1,773	1,728	1,675	1,610	-270	-14.4%
City of Peshtigo	3,357	3,496	3,553	3,623	3,688	3,732	3,743	386	11.5%
Marinette County	43,384	44,823	45,153	45,997	46,787	47,305	47,415	4,031	0
State of Wisconsin	5,363,715	5,675,156	5,772,370	5,988,420	6,202,810	6,390,900	6,541,180	1,052,208	0

Source: U.S. Bureau of the Census, Census of Population and Housing, 1980-2000; Wisconsin Department of Administration, for years cited; Wisconsin Department of Administration, Official Population Projections, 2009; and Bay-Lake Regional Planning Commission, 2009.

Table 6.19: Seasonal Population Projections, Marinette County Municipalities

Geographic Location	Estimated 2000 Seasonal Population	Projected Seasonal Population				
		2010	2015	2020	2025	2030
Town of Amberg	1,138	1,136	1,125	1,113	1,090	1,054
Town of Athelstane	1,583	1,715	1,810	1,903	1,983	2,032
Town of Beaver	167	180	186	190	193	194
Town of Beecher	1,402	1,531	1,612	1,688	1,745	1,783
Town of Dunbar	1,293	1,345	1,452	1,553	1,646	1,706
Town of Goodman	650	688	703	718	723	721
Town of Grover	73	79	81	83	84	84
Town of Lake	230	253	262	271	277	280
Town of Middle Inlet	606	668	697	725	743	755
Town of Niagara	253	264	270	276	279	278
Town of Pembine	976	1,106	1,175	1,236	1,287	1,322
Town of Peshtigo	287	318	329	339	345	348
Town of Porterfield	127	137	141	145	148	149
Town of Pound	38	39	39	39	39	38
Town of Silver Cliff	1,806	2,178	2,366	2,547	2,715	2,830
Town of Stephenson	5,207	6,060	6,510	6,929	7,271	7,528
Town of Wagner	247	286	301	316	328	334
Town of Wausaukee	1,392	1,633	1,759	1,876	1,968	2,044
Village of Coleman	18	17	16	16	15	14
Village of Crivitz	33	34	34	34	33	33
Village of Pound	17	15	15	14	13	12
Village of Wausaukee	43	40	39	37	35	32
City of Marinette	101	98	97	95	93	90
City of Niagara	10	9	9	9	9	8
City of Peshtigo	48	50	51	52	53	52
Marinette County	18,055	18,878	19,278	19,594	19,721	19,647

Source: U.S. Bureau of the Census, 2000 Census of Population and Housing, Table DP-1; WDOA Final Household Projections for Wisconsin Municipalities, 2000 – 2030, January 2009; WDOA Final Household Projections for Wisconsin Counties, 2000 – 2035, January 2009; and Bay-Lake Regional Planning Commission, 2009.

Table 6.20: Number of Housing Units, Marinette County Municipalities,

Geographic Location	Housing Units			Percent Change		
	1980	1990	2000	1980-1990	1990-2000	1980-2000
Town of Amberg	784	922	942	17.6%	2.2%	20.2%
Town of Athelstane	801	999	995	24.7%	-0.4%	24.2%
Town of Beaver	541	615	542	13.7%	-11.9%	0.2%
Town of Beecher	599	809	971	35.1%	20.0%	62.1%
Town of Dunbar	579	771	793	33.2%	2.9%	37.0%
Town of Goodman	629	648	680	3.0%	4.9%	8.1%
Town of Grover	613	652	676	6.4%	3.7%	10.3%
Town of Lake	663	704	524	6.2%	-25.6%	-21.0%
Town of Middle Inlet	661	748	643	13.2%	-14.0%	-2.7%
Town of Niagara	308	418	453	35.7%	8.4%	47.1%
Town of Pembine	639	826	871	29.3%	5.4%	36.3%
Town of Peshtigo	1,349	1,490	1,567	10.5%	5.2%	16.2%
Town of Porterfield	721	780	848	8.2%	8.7%	17.6%
Town of Pound	486	527	537	8.4%	1.9%	10.5%
Town of Silver Cliff	733	880	963	20.1%	9.4%	31.4%
Town of Stephenson	3,255	3,786	3,777	16.3%	-0.2%	16.0%
Town of Wagner	425	503	384	18.4%	-23.7%	-9.6%
Town of Wausaukee	660	947	1,036	43.5%	9.4%	57.0%
Village of Coleman	352	361	352	2.6%	-2.5%	0.0%
Village of Crivitz	419	449	457	7.2%	1.8%	9.1%
Village of Pound	156	171	174	9.6%	1.8%	11.5%
Village of Wausaukee	314	333	294	6.1%	-11.7%	-6.4%
City of Marinette	5,057	5,268	5,553	4.2%	5.4%	9.8%
City of Niagara	763	826	812	8.3%	-1.7%	6.4%
City of Peshtigo	1,052	1,217	1,416	15.7%	16.4%	34.6%
Marinette County	22,559	25,650	26,260	13.7%	2.4%	16.4%

Source: U.S. Bureau of the Census, 1970, Series 100, Table 2; 1980 Census of Population and Housing, STF 1A, Table 4; 1990 Census of Population and Housing, STF 1A; 2000 Census; WDOA Revised Census Counts, 2000 and 2003; and Bay-Lake Regional Planning Commission, 2008.

Table 6.21: Seasonal Housing Unit Projections, Marinette County Municipalities

Geographic Location	2000 Total Occupied Housing Units	2000 Seasonal Housing Units	Projected Seasonal Housing Units				
			2010	2015	2020	2025	2030
Town of Amberg	395	527	559	567	570	566	554
Town of Athelstane	270	710	818	884	944	997	1,033
Town of Beaver	444	66	76	80	83	86	87
Town of Beecher	334	599	696	750	798	836	864
Town of Dunbar	274	509	563	622	676	726	762
Town of Goodman	360	285	321	336	348	355	359
Town of Grover	633	27	31	33	34	35	35
Town of Lake	418	90	105	112	118	122	125
Town of Middle Inlet	366	267	313	334	353	367	377
Town of Niagara	348	95	105	111	115	117	118
Town of Pembine	429	405	488	531	567	599	622
Town of Peshtigo	1,416	110	130	137	144	148	151
Town of Porterfield	770	49	56	59	62	64	65
Town of Pound	499	14	15	16	16	16	16
Town of Silver Cliff	216	737	945	1,051	1,150	1,242	1,310
Town of Stephenson	1,369	2,335	2,889	3,178	3,437	3,653	3,829
Town of Wagner	283	97	119	129	137	144	148
Town of Wausaukee	469	546	681	751	814	865	909
Village of Coleman	316	8	8	8	8	7	7
Village of Crivitz	406	15	16	17	17	17	17
Village of Pound	149	7	7	7	6	6	6
Village of Wausaukee	251	19	19	18	18	17	16
City of Marinette	5,095	45	47	47	47	46	45
City of Niagara	760	4	4	4	4	4	4
City of Peshtigo	1,315	20	22	23	24	25	25
Marinette County	17,585	7,586	8,434	8,816	9,106	9,285	9,363

Source: U.S. Bureau of the Census, 2000 Census of Population and Housing, Table DP-1; WDOA Final Household Projections for Wisconsin Municipalities, 2000 – 2030, January 2009; WDOA Final Household Projections for Wisconsin Counties, 2000 – 2035, January 2009; and Bay-Lake Regional Planning Commission, 2009.

Table 6.22: Housing Occupancy and Tenure, Marinette County Municipalities, 2000

Geographic Location	Occupied			Vacant			Total Units	Percent Occupied	Percent Vacant
	Owner	Renter	Total	Seasonal, Recreational or Occasional Use	Other	Total			
Town of Amberg	343	52	395	527	20	547	942	41.9%	58.1%
Town of Athelstane	245	25	270	710	15	725	995	27.1%	72.9%
Town of Beaver	354	90	444	66	32	98	542	81.9%	18.1%
Town of Beecher	282	52	334	599	38	637	971	34.4%	65.6%
Town of Dunbar	211	63	274	509	10	519	793	34.6%	65.4%
Town of Goodman	298	62	360	285	35	320	680	52.9%	47.1%
Town of Grover	546	87	633	27	16	43	676	93.6%	6.4%
Town of Lake	385	33	418	90	16	106	524	79.8%	20.2%
Town of Middle Inlet	336	30	366	267	10	277	643	56.9%	43.1%
Town of Niagara	321	27	348	95	10	105	453	76.8%	23.2%
Town of Pembine	354	75	429	405	37	442	871	49.3%	50.7%
Town of Peshtigo	1,336	80	1,416	110	41	151	1,567	90.4%	9.6%
Town of Porterfield	704	66	770	49	29	78	848	90.8%	9.2%
Town of Pound	441	58	499	14	24	38	537	92.9%	7.1%
Town of Silver Cliff	206	10	216	737	10	747	963	22.4%	77.6%
Town of Stephenson	1,224	145	1,369	2,335	73	2,408	3,777	36.2%	63.8%
Town of Wagner	263	20	283	97	4	101	384	73.7%	26.3%
Town of Wausaukee	428	41	469	546	21	567	1,036	45.3%	54.7%
Village of Coleman	220	96	316	8	28	36	352	89.8%	10.2%
Village of Crivitz	242	164	406	15	36	51	457	88.8%	11.2%
Village of Pound	96	53	149	7	18	25	174	85.6%	14.4%
Village of Wausaukee	142	109	251	19	24	43	294	85.4%	14.6%
City of Marinette	3,485	1,610	5,095	45	413	458	5,553	91.8%	8.2%
City of Niagara	592	168	760	4	48	52	812	93.6%	6.4%
City of Peshtigo	897	418	1,315	20	81	101	1,416	92.9%	7.1%
Marinette County	13,951	3,634	17,585	7,586	1,089	8,675	26,260	67.0%	33.0%
State of Wisconsin	1,426,361	658,183	2,084,544	142,313	94,287	236,600	2,321,144	89.8%	10.2%

Source: U.S. Bureau of the Census, 1970, Series 100, Table 2; 1980 Census of Population and Housing, STF 1A, Table 4; 1990 Census of Population and Housing, STF 1A; 2000 Census; WDOA; and, Bay-Lake Regional Planning Commission, 2008

CHAPTER 7: ECONOMIC DEVELOPMENT

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INTRODUCTION

The Economic Development chapter of the *Marinette County 20-Year Comprehensive Plan* provides a detailed inventory of the county's labor force and economic base. This includes information on labor force characteristics such as educational attainment, unemployment rates, and industry and employment forecasts. A review of the economic base consists of revenues by industry, location quotient analysis, and an analysis of community finances. Many of these characteristics and trends are compared to the State of Wisconsin as a way to measure the county's economic standing against the state as a whole. This chapter also contains a summary of the county's economic strengths and weaknesses with respect to attracting and retaining businesses, and whether or not there is sufficient land and sites for such businesses and industries. In addition, there is an identification, evaluation and promotion of environmentally contaminated sites for redevelopment as potential future commercial and industrial sites.

The purpose of this economic inventory and analysis is to establish a set of strategies to promote the stabilization, retention, and expansion of Marinette County's economy. These strategies consist of a set of goals, objectives, policies, and programs that work in conjunction with the implementation of Marinette County's 20-year Future Land Use Plan (Chapter 3). Refer to Chapter 4 of this document for a detailed listing of these development strategies.

ECONOMIC DEVELOPMENT COMPONENTS

Economic development activities must function within the context of the entire socio-economic environment. This is accomplished through the development of strategies linked to four primary economic development components: 1) infrastructure; 2) business development; 3) workforce development; and 4) community cash flow. These components in-turn consist of several individual elements that influence the quality and effectiveness of economic development within the county. This section describes each of these four core economic development components.

Infrastructure

Infrastructure provided by both government and private business is the support system needed for producing and delivering goods and services. Examples of infrastructure include:

- Utilities (e.g., water, sanitary and storm sewer, gas, electric, natural gas, telecommunications)
- Transportation (e.g., roads, parking lots, airports, ports, rail, signage, sidewalks, trails)
- Social (e.g., schools, fire, emergency, hospitals, libraries)
- Communications (e.g., telephone, radio, television, computer, satellite, cellular)

Marinette County must be able to identify current and future needs and work with both local communities and the private sector to ensure adequate infrastructure is in place to support future business growth.

Business Development

Business development refers to business retention, expansion, attraction, and start-up activities.

- *A business retention and expansion program* identifies and monitors existing and changing needs of current employers. It is important to appropriately remove or offset any obstacles that restrict growth of existing businesses to allow them to remain competitive through the

establishment of workforce development programs, integration of technology, and expansion/upgrades to infrastructure.

- *Business attraction* activities are designed to encourage businesses looking to expand or relocate to do so in Marinette County. In order to attract new businesses, a community must provide a competitive and attractive environment. It is essential to market a community's unique features, attributes that make it a positive business climate, key quality of life elements, skill level of the workforce, and available services that businesses are searching for when making relocation or expansion plans.
- *Entrepreneurship and new business development* helps diversify the economic base through the creation of new jobs that have a tendency to stabilize the local economy. Building an effective support system for promising businesses is an important responsibility of the county economic development organization. To adequately assist emergency businesses, there should be land available with public infrastructure (e.g., streets and utilities), inexpensive incubator space with services, a range of transportation options, high speed internet access, and easy permitting of home-based businesses.

Workforce Development

Marinette County needs a well-rounded workforce to stay competitive, keep existing businesses strong, retain young people in the county, and raise the area's general standard of living. Workforce development programs are primarily provided through partnerships with local job centers, local school districts, and institutions of higher education. Occasionally, local employers will provide instructors and equipment for use in these training programs. Companies have found it more economical to share training resources and facilities with other employers. The result is a better working relationship among those businesses participating in such collaborative training programs.

Community Cash Flow

As Marinette County pursues new dollars coming into the county, it can look at two primary sources: those brought in by individuals, and those brought in by organizations, businesses or governments.

- New dollars brought in by individuals consist of earned income (wage and salary) and transfer income (government payments and investment dividends).
- New dollars brought in by entities or institutions include tourism revenue, aids for roads and human services, shared revenue, and government contracts or grants.

ECONOMIC ASSESSMENT

Economic Strengths, Opportunities, Aspirations, and Results

The Bay-Lake Regional Planning Commission, in conjunction with staff from Marinette County, UW-Extension, and the Marinette County Association for Business and Industry, conducted Economic S.O.A.R. (Strengths, Opportunities, Aspirations, and Results) Workshops to identify important economic opportunities and to fully examine the county's economic climate. Workshops were held in Crivitz on September 15, 2008 and in Niagara on September 22, 2008.

The SOAR process differs from the more traditional economic analysis workshop that evaluates a community's Strengths, Weaknesses, Opportunities and Threats (or SWOT Analysis) in that it is a more positive approach to planning for the future. The SWOT tends to focus equally on those aspects of the community that block or impede positive community development; while the SOAR focuses on identifying those components of the community's economic composition that provide opportunities for improvement.

Through what is termed "appreciative inquiry" the facilitator attempts to determine the communities strengths (What are the communities greatest assets?); opportunities (What are the best possible opportunities?); and, aspirations (what is the preferred future?). Finally, the participants attempt to identify measurable improvements that will determine success.

The SOAR approach to this process starts with a strategic inquiry. During this inquiry an organization's greatest Strengths and Opportunities are discovered and explored among the participants. The participants are invited to share their Aspirations and co-construct their most preferred future.

The following issues identified from the two workshops will help Marinette County and local municipalities prepare strategies to promote their economic strengths and identify opportunities and aspirations for results. The following bullets are a compilation of both the Niagara and Crivitz workshop results.

Strengths

- Abundant natural resources
- Safe communities
- Proactive citizens
- Cooperative local governments
- Economically stable
- Communities support businesses
- Attractive main streets
- Numerous parks and green spaces
- Neat and orderly
- Family oriented
- Year round recreational opportunities
- Friendly
- Natural beauty transitioning to industry
- Hiking trails
- Passive sports

Opportunities

- Small, retail businesses
- Investments in communities
- Uniform downtown plans
- Release of county forest land for development
- Town of Niagara website (combine Town & City)

- No vacant structures
- Recreation destination
- Tourism
- Self sustaining
- Sustainable forest industry
- Need to modernize
- Sense of pride, happy working together
- Inviting to outsiders

Aspirations

- Using paper mill for multi-use with small business
- Improve economics in Niagara
- Continue to improve and expand infrastructure (sewer, water and roads) as need
- Hi-tech jobs
- Organized hikes/educational nature walks
- Clean up buildings and improve roads and infrastructure
- Set building appearance standards
- Preservation of family farms
- Get mill running
- More marketing & promotion
- More small business
- small, clean businesses
- infrastructure maintained
- Need equine trail in county (none in county)
- Need good quality bike trails in county
- More housing starts
- Need to keep young people here
- Take care of vacant buildings
- Schools need help, perhaps consolidate
- Need business and industry for young people to work
- Industry that isn't same old-new industries for future such as alternative fuels
- Beautification of town
- Railway expanded for tourism such as passenger
- Representation of history
- More rec. areas/facilities/areas
- Better roads
- More businesses
- Reestablish general store/quick mart
- Cleaner community
- Financial help to start businesses
- Keep kids in area

- Less rules/ordinances/permits – combine/consolidate
- Limit growth
- Make it easier to start businesses
- Small technical college in Crivitz
- Utilization of waste wood along roads and in forests
- Passenger rail service to Marinette’s cities, villages and towns
- Industrial Park projects
- Planned and coordinated redevelopment of business façade/theme

Results

- Sustainable Community
- Thriving and stable economic base
- Economic diversity
- Expanded recreation and tourism industry
- Educational facilities have been expanded
- More growth
- Educated and skilled workforce
- Adaptive reuse of the mill property
- Downtown revitalized

The results of the S.O.A.R. process were instrumental in drafting the economic development goals and identifying appropriate tools for the implementation of this portion of the Comprehensive Plan.

Economic Weaknesses

The following weaknesses for Marinette County communities in attracting and retaining businesses was derived from the S.O.A.R. workshop findings and from S.W.O.T. analyses conducted in other northern Wisconsin counties similar, and adjacent to, Marinette County.

Weaknesses

- Paper mill closed
- Need to improve and expand infrastructure (sewer, water and roads)
- Lack of hi-tech jobs
- Some buildings need to be cleaned up and some roads and infrastructure need improvements
- Lack of building appearance standards
- Loss of family farms and many with no plan for succession of ownership
- Lack of marketing & promotion for new and current businesses
- Lack of small business
- Lack of silent sport amenities (equine, bike, and walking trails and recreation areas) to attract young people for larger workforce
- Lack of housing starts
- Many young people leave the area after high school and college
- Too many vacant buildings

- Schools need help, perhaps consolidate
- Lack of business and industry for young people to work
- Need to transition to new industries such as alternative fuels
- Need more businesses
- Lack of general stores/quick marts
- Lack of financial assistance to start a new business
- Limit rules/ordinances/permits – combine/consolidate
- Need to make it easier to start businesses
- Lack of technical colleges
- Need planned and coordinated redevelopment of business façade/theme
- Great distance to larger markets
- Many challenges to farming including low commodity prices, difficulty competing in global market, short growing season, less than ideal soil conditions, and limited access to markets.

LABOR FORCE CHARACTERISTICS

A key component to economic development is the quality and quantity of the area’s labor force. The overall skill level of the workforce dictates what types of businesses Marinette County will be able to attract and support in the future. This section focuses on several characteristics of the county’s labor force including general information on education levels; incomes; the types of occupations in which individuals are employed; the types of business in which people are working; commuting patterns; unemployment rates; labor participation rates; and a review of how these characteristics influence the region’s employment forecast.

Educational Attainment

The education levels attained by the county’s residents are often a good indicator of the type of jobs and the general standard of living found in those areas. Counties with higher percentages of people with a post high school education will be able to attract employers offering higher paying professional and technical positions. Table 7.1 illustrates the levels of educational attainment for individuals age 25 and over in Marinette County as noted in the 2000 Census.

Table 7.1: Educational Attainment*, 2000

Education Level	Marinette County		Wisconsin	
	Number	Percent	Number	Percent
Less than 9th Grade	1,803	6.1	186,125	5.4
9th to 12th grade, no diploma	3,364	11.4	332,292	9.6
High school graduate (includes equivalency)	13,221	44.7	1,201,813	34.6
Some college, no degree	5,666	19.2	715,664	20.6
Associate degree	1,706	5.8	260,711	7.5
Bachelor's degree	2,683	9.1	530,268	15.3
Graduate or professional degree	1,132	3.8	249,005	7.2
Percent high school graduate or higher		82.5		85.1
Percent bachelor's degree or higher		12.9		22.4

*Age 25 years old and older

Source: U.S. Bureau of the Census, 2000 Census, DP-2; and Bay-Lake Regional Planning Commission, 2008.

As shown by Table 7.1, the percentage of individuals who have a high school diploma is nearly 45 percent, which is significantly better than the state average of 35 percent. Overall, Marinette County compares less favorably to Wisconsin when it comes to the number of individuals holding an Associate Degree or higher. Fewer than 19 percent of the county’s residents have a higher education degree compared to Wisconsin at 30 percent. Limited access to the Northeast Wisconsin Technical College branch located in the City of Marinette or the low demand for post secondary degrees or certification by local employers may be a couple of reasons for such a low percentage.

Median Household Income

Table 7.2 provides a comparison of median household incomes for Marinette County and State of Wisconsin for 1989 and 1999. The 1999, median household income was \$35,256 compared to \$27,916 in 1989. Both figures are significantly below the State of Wisconsin for these same time periods. However, it does represent an encouraging 26 percent increase for the county during that 10 year time span. The county’s median income of \$35,256 in 1999 was 81 percent of the state’s median income for the same year.

Median household income is one measure of average household income. It divides the household income distribution into two equal parts: one-half of the households fall below the median line while the other one-half are above it. The median household income is a good indicator of the general economic well-being of all households in the county.

Table 7.2: Median Household Income,

Location	1989	1999	% Change 1989 - 1999
Marinette County	27,916	35,256	26.3
Wisconsin	29,442	43,791	48.7

Source: U.S. Bureau of the Census, 1990 Census of Population and Housing, STF 3A Table P080A; U.S. Bureau of the Census, 2000, DP-3; and Bay-Lake Regional Planning Commission, 2008.

Occupation

Table 7.3 lists the employed persons by occupational classification for Marinette County in 2000. The employment opportunities for many of the county’s residents are located within the cities of Peshtigo, Marinette, and Menominee, Michigan.

In 2000, the majority of Marinette County residents were employed in production, transportation, and material moving occupations (25 percent); or management, professional, and related service fields (24 percent). The larger manufacturing plants and trucking firms in the cities of Peshtigo, Marinette, and Menominee, Michigan account for the high percentage of workers in the production, transportation, and material moving sector. The county’s public school systems, Marinette County, hospital and medical clinics, and several larger manufacturers may explain why another 24 percent of the county’s residents work in occupations within the management, professional, and sales fields.

Table 7.3: Employed Persons by Occupation, 2000

Occupation	Marinette County		Wisconsin	
	Number	Percent	Number	Percent
Management, professional, and related	4,981	24.5	857,205	31.3
Service	3,308	16.3	383,619	14.0
Sales and office	4,427	21.8	690,360	25.2
Farming, fishing, and forestry	372	1.8	25,725	0.9
Construction, extraction, and maintenance	2,107	10.4	237,086	8.7
Production, transportation, and material moving	5,141	25.3	540,930	19.8
Total	20,336	100.0	2,734,925	100

Source: U.S. Bureau of the Census, 2000 Census, DP-3; and Bay-Lake Regional Planning Commission, 2008.

Industry

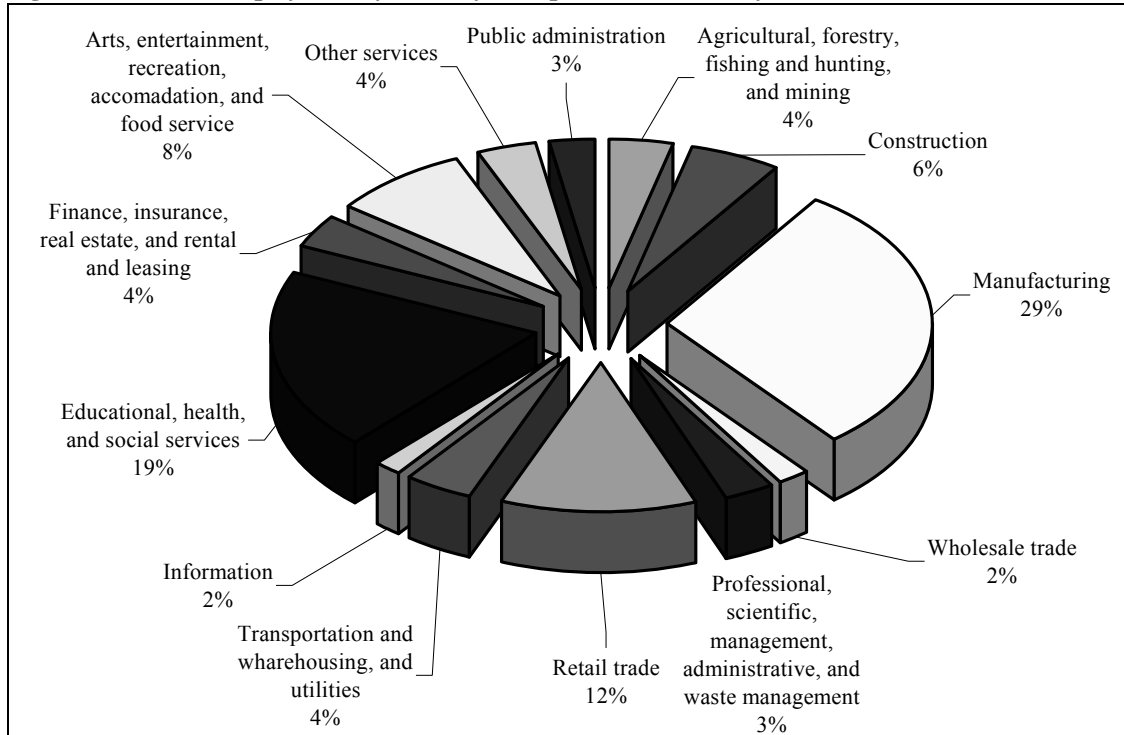
Table 7.4 shows employment by major industry group for Marinette County. In 2000, nearly 30 percent of employed county residents worked in manufacturing followed by educational, health and social services at approximately 20 percent, and retail at 12 percent. The remaining 38 percent of the employed population was evenly distributed among the other 10 industries. These percentages are similar to those of the state. Manufacturing remains the economic engine for the county and is supported strongly by the educational, health and social services industry.

Table 7.4: Employed Persons by Industry Group, 2000

Industry	Marinette County		Wisconsin	
	Number	Percent	Number	Percent
Agricultural, forestry, fishing and hunting, and mining	800	3.9	75,418	2.8
Construction	1,137	5.6	161,625	5.9
Manufacturing	6,017	29.6	606,845	22.2
Wholesale trade	408	2.0	87,979	3.2
Retail trade	2,410	11.9	317,881	11.6
Transportation and warehousing, and utilities	853	4.2	123,657	4.5
Information	334	1.6	60,142	2.2
Finance, insurance, real estate, and rental and leasing	749	3.7	168,060	6.1
Professional, scientific, management, administrative, and waste management	629	3.1	179,503	6.6
Educational, health, and social services	4,015	19.7	548,111	20.0
Arts, entertainment, recreation, accommodation, and food service	1,700	8.4	198,528	7.3
Other services (except public administration)	713	3.5	111,028	4.1
Public administration	571	2.8	96,148	3.5
Total	20,336	100.0	2,734,925	100.0

Source: U.S. Bureau of the Census, 2000 Census, DP-3; and Bay-Lake Regional Planning Commission, 2008.

Figure 7.1: Percent Employment by Industry Group, Marinette County, 2000



Source: U.S. Bureau of the Census, 2000 Census, DP-3; and Bay-Lake RPC, 2008.

Commuting Patterns

Commuting patterns highlight the counties that have a strong economic base and are able to attract workers from surrounding communities and counties. Conversely, they also identify areas that lack local employment opportunities for their residents or perhaps serve as “bedroom” communities that may offer a greater number of, and perhaps more affordable, housing options in comparison to other locations.

Identifying and tracking commuting patterns is a labor market concept that refers to worker flows between municipalities and/or counties. In 2000, approximately 75 percent (15,050) of the 19,991 employed Marinette County residents worked within Marinette County (Table 7.5). In that same year, 4,941 working residents of Marinette County commuted out of the county for work, whereas 5,161 workers from other counties traveled into Marinette County to work. The result is a net gain of 220 working residents coming from other counties to Marinette County for employment.

Marinette County’s residents primarily traveled to area counties of Brown and Oconto in Wisconsin and Menominee and Dickinson in Michigan; and Oconto for work. Furthermore, 151 residents of Marinette County traveled to Outagamie and Milwaukee counties, and even

further distances to work. In comparison, only 37 individuals from those same areas traveled to Marinette County for employment. This is a good indication that the state’s well maintained highway and road system make traveling long distances safer and more efficient.

Table 7.5: County-to-County Worker* Flow for Marinette County Residents, 2000

County	County Residents Commute to	County Workers Commute from	Net Commute
Menominee, MI	1,550	3,267	1,717
Brown	1,060	156	-904
Dickinson, MI	974	458	-516
Oconto	712	701	-11
Forest	81	110	29
Outagamie	80	13	-67
Milwaukee	71	24	-47
Florence	36	151	115
Elsewhere	377	281	-96
Total	4,941	5,161	220
Work w/in Marinette	15,050		

*Workers 16 years old and older

Source: U.S. Census Bureau, 2000; WDOA; Bay-Lake Regional Planning Commission, 2008.

Unemployment Rate

Table 7.6 and Figure 7.2 highlight the fluctuations in Marinette County’s civilian labor force since 1990. Variations in the number of persons in the labor force are the result of many factors including shifts in the age and sex characteristics of the population; the proportion of citizens age 16 and over working or seeking employment; and seasonal occupations.

The **unemployment rate** is the proportion of the civilian labor force (age 16 and older) that is currently unemployed and actively seeking employment. It excludes persons in the armed forces and those residents under age 16. Persons not employed and not looking for work are not counted as part of the labor force; therefore, they are not counted as unemployed.

Based on WDOA population estimates, the civilian labor force comprised 48 percent of Marinette County’s population in 1995 and 50 percent in 2005. Further, the county’s labor force increased by 1,937 workers, or nearly 10 percent, from 1995 to 2006.

Table 7.6: Average Civilian Labor Force Estimates, Marinette County

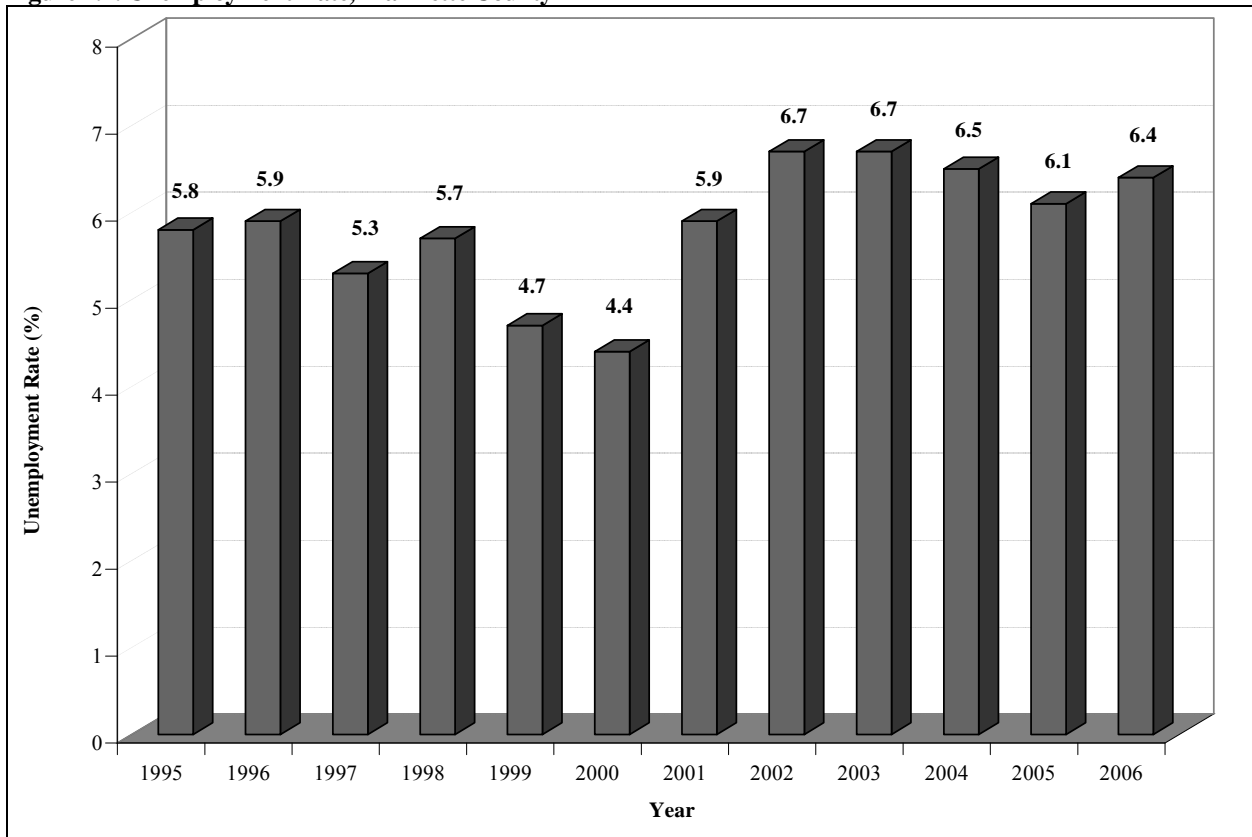
Year	Total Civilian Labor Force	Employed	Unemployed	% Civilian Labor Force Unemployed
1995	20,146	18,980	1,166	5.8
1996	20,384	19,173	1,211	5.9
1997	20,885	19,775	1,110	5.3
1998	21,469	20,247	1,222	5.7
1999	21,354	20,360	994	4.7
2000	22,568	21,586	982	4.4
2001	22,771	21,423	1,348	5.9
2002	22,838	21,314	1,524	6.7
2003	22,838	21,314	1,524	6.7
2004	22,802	21,312	1,490	6.5
2005	22,441	21,068	1,373	6.1
2006	22,083	20,659	1,424	6.4

Source: Wisconsin Department of Workforce Development, Civilian Labor Force Estimates, for years cited; and Bay-Lake Regional Planning Commission, 2008.

Between 1995 and 2006 the county’s unemployment rate amongst the civilian labor force averaged 5.8 percent. The county’s unemployment rate of 4.4 percent in 2000 was the lowest during this time span, whereas the 2002 and 2003 unemployment rates of 6.7 percent were the highest (Figure 7.2). It is important to note that continued high unemployment rates can be the result of a much greater problem that may indicate an under-skilled or under-educated workforce or an area that lacks sufficient infrastructure or capital investment to support economic expansion.

The number of employed Marinette County residents rose from 18,980 to 20,659 between 1995 and 2006, which reflects an additional 1,679 workers. This translates to a nine percent increase in employment within this time period.

Figure 7.2: Unemployment Rate, Marinette County



Source: Wisconsin Department of Workforce Development, Civilian Labor Force Estimate, 1990-2005; and Bay-Lake Regional Planning Commission, 2008.

Companies looking to expand operations frequently inquire about areas with higher unemployment rates, or excess labor, from which to draw labor. With rapidly growing economies in many parts of the Upper Midwest, one of the major criteria companies use in selecting an area in which to locate is the amount of available labor that is already skilled, or has, the potential for obtaining the skills the employers are seeking for their particular operations.

Labor Participation Rate

According to the 2006 *Marinette County Workforce Profile* completed by the Wisconsin Department of Workforce Development, approximately 63 percent of Marinette County's population are in the labor force which is lower than 66 of Wisconsin's 72 counties. Marinette's LFPR is slightly below Wisconsin's LFPR of 71 percent and the national rate of 65 percent. Like the state and nation, the county's LFPR is projected to decrease over the coming decades due to an aging, retiring population.

As outlined in "Chapter 6: Population and Housing" of this Comprehensive Plan, Marinette County has a slightly older than average population in comparison to the State of Wisconsin. This is projected to continue as individuals age 65 and over comprise a larger percentage of the population while the younger portion of the population decreases proportionately. From a labor market perspective, the implications of a declining labor force participation rate due to a growing and aging population could be continued labor shortages in certain industries and occupations.

The fraction of the working-age population, generally 16 years and older, that is employed or seeking employment is referred to as the **labor force participation rate (LFPR)**. The LFPR is a strong economic measure that is sometimes a better indicator of the area's labor market health than its unemployment rate.

Industry and Employment Forecast

Industry and employment projections have been developed for the ten county Bay Area Workforce Development district which consists of Brown, Door, Florence, Kewaunee, Manitowoc, Marinette, Menominee, Oconto, Shawano, and Sheboygan counties. According to a Wisconsin Department of Workforce Development analysis conducted in August 2006 for industry employment projections for 2014, the following is likely to occur in this region:

- Overall total non-farm employment in the region will increase by 10 percent or 30,670 new jobs.
- Manufacturing is currently the largest employing industry sector in the region and will remain the largest industry sector through 2014. However, the total number of manufacturing jobs will continue to decrease by nearly 10 percent by 2014 due in part by the downsizing or closing of several paper manufacturing plants.
- Occupations in manufacturing are expected to move away from general labor positions to more semi-skilled and skilled operator and technician jobs. This is due primarily to production processes that have integrated more efficient technology.
- The education and health services sector is projected to show the largest numeric employment growth by adding 11,690 jobs from 2004 to 2014.
- Goods producing industry sectors such as construction, mining, natural resources, and manufacturing will continue its strong growth by adding 2,810 jobs by 2014 or a solid 18 percent increase.
- The leisure and hospitality industry will demonstrate strong growth as well by adding nearly 4,520 new jobs by 2014.

Local Employment Forecast

- From 1990 to 2000, the manufacturing and educational, health, and social services industries continued to have the largest share of employment for residents of Marinette County as seen in Table 7.4. This county trend does follow the regional trend and is expected to continue for the next several years.
- According to the Wisconsin Department of Workforce Development, there are a number of occupations that will be in great demand by the year 2014. They include:
 - Teachers
 - Registered Nurses
 - Nursing Aids, Orderlies, and Attendants
 - Welders, Cutters, Solderers, and Brazers
 - Machinists
 - Truck Drivers
- Northeast Wisconsin Technical College, Bay de Noc Community College, the University of Wisconsin-Green Bay, and the University of Wisconsin-Marinette will be important components in educating the area’s workforce for these growing fields.

ECONOMIC BASE

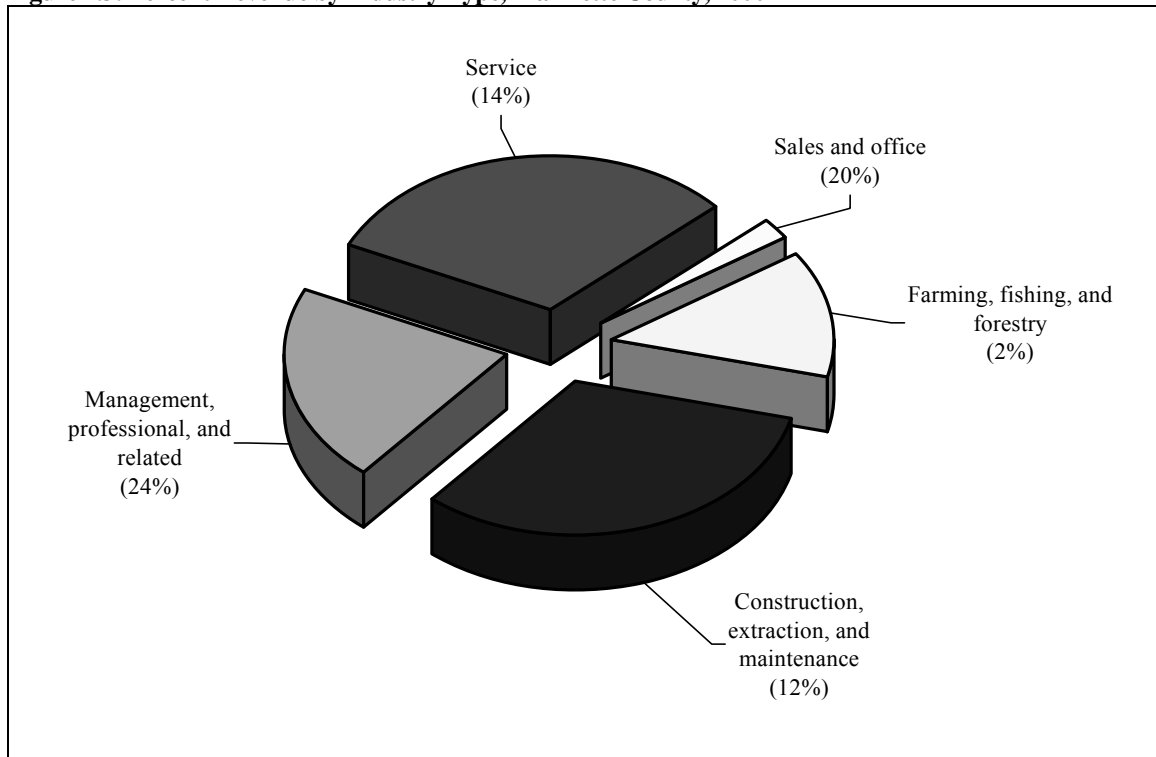
Revenues by Industry

Table 7.7 and Figure 7.3 provide an overview of how much each industry contributes to the overall Marinette County economy. Please note this does not include agriculture or forestry. Manufacturing continues to be one of the cornerstones for the county’s economy by contributing over \$278 million, or just over 43 percent, of the total income provided by all seven industries. The services and construction industries grew a healthy 401 and 341 percent over the last 20 years, respectively. Overall, income from all industries rose a robust 148 percent during the last 20 years indicating the local economy has been strong and growing.

Table 7.7: Income by Industry Type, Marinette County

Area	1980	1990	2000	% Change
Mining	\$628	\$340	\$0	-100.0
Construction	\$6,825	\$16,053	\$30,106	341.1
Manufacturing	\$143,369	\$204,492	\$278,866	94.5
Transportation and Public Utilities	\$9,475	\$19,569	\$31,282	230.2
Trade	\$40,449	\$52,317	\$82,438	103.8
Services	\$27,215	\$60,983	\$136,439	401.3
Government	\$30,837	\$55,199	\$84,117	172.8
Total	\$258,798	\$408,953	\$643,248	148.6

*Figures Provided in Thousands
 Source: Wisconsin Department of Commerce 2006.

Figure 7.3: Percent Revenue by Industry Type, Marinette County, 2000

Source: Wisconsin Department of Commerce 2006.

Agriculture

According to a 2004 UW-Extension report entitled, *Marinette County Agriculture: Value and Economic Impact*, agriculture:

- Provided jobs for 1,216 county residents, or five percent, of the county's entire workforce.
- Contributed \$86.6 million, or 3.8 percent, of the county's total economic activity and two percent of the county's total income. Of this \$86.6 million, \$67 million is the result of the sale of all farm and value-added products, \$15.5 million in business to business purchases, and \$4.1 million in the spending of earnings of those in agriculture related occupations.
- Paid nearly \$2.4 million in taxes (not including all property taxes paid to local schools).

The county's milk producers and dairy industry contribute over \$27 million to the county's economy. Greenhouses, tree farms, nurseries, and other horticultural business are rapidly growing segments of Marinette County's agricultural industry. Horticulture generates \$3.8 million in county economic activity and provides over 111 full-time and seasonal jobs.

Forestry

According to the *Marinette County Forestry 15-Year Plan*, the county forest consists of approximately 231,000 acres and ranks as the second largest county forest in the state. This vast forestland boasts virtually limitless outdoor activities. Recreation enthusiasts can travel over miles and miles of ATV and snowmobile trails or ski through quiet winter wonderlands; anglers can fish for trout on hundreds of miles of unspoiled rushing streams; and tourists and residents have the opportunity to drive the rustic roads and visit parks with breathtaking waterfalls.

Not only are the forest lands attractive and scenic, but they also provide revenue on the average of

\$1.5 million annually in timber sales which goes directly into the county operating budget. Some of the money is used to maintain and enhance recreational sites and trails that generate additional revenue for the county. Camping and park user fees contribute over \$100,000 annually for the county. The county forest also supplies about 60,000 cords of wood a year for forest industries which provide more jobs than any other industry in the county. For more detailed information on county park revenues and projects, please see the *Marinette County Forestry 15 Year Plan*.

Tourism

Sitting on Green Bay of Lake Michigan and serving as the gateway to Northern Wisconsin, Marinette County is strategically located in and adjacent to some of Wisconsin's most beautiful forests. The county has plenty to offer everyone – the outdoor enthusiast, people interested in cultural/historical attractions, and those individuals seeking unique shopping venues. Tourism is a vital component of Marinette County's local economy. Businesses that cater to tourism such as resorts, motels, campgrounds, bed and breakfasts, and retail stores are expanding services to meet the diverse needs of the thousands of people who come to the county each year to take advantage of the walking and biking trails, the many parks, golf courses, historic sites, and area attractions.

The following information was published as part of the Wisconsin Department of Tourism's 2008 Economic Impact Study prepared by Davidson-Peterson Associates, Inc. The report is based on traveler expenditures made in Wisconsin from December 2007 through November 2008. The purpose of the study was to measure the economic benefits Wisconsin residents and the government derive from dollars spent by travelers.

- In 2008, Marinette County ranked 30th in the state for traveler spending staying neutral from 2007.
- Travelers spent an estimated \$116.6 million in Marinette County in 2008, up from \$113.7 in 2007, an increase of 2.7%.
- 15% of all expenditures were made in winter, which amounted to \$16.9 million; 20% were made in spring (\$23.7 million); 41% in summer (\$47.6 million); and 24% in fall (\$28.4 million).
- It is estimated that traveler spending supported 2,672 full time equivalent jobs and \$32,369,109 in wages and salaries.
- Traveler spending in Marinette County generated a total impact of \$6 million in taxes and other fees for local government, which reflects an increase of 5.87 percent from \$5.7 million in 2007.
- Travelers generated \$14.3 million in state revenues (lodging, sales, and meals taxes) in 2008, which reflects an increase of 3.2 percent from \$13.8 million in 2007.
- When this study was first initiated in 1994, travelers spent \$44 million in Marinette County. By 2008, travelers spent \$116.6 million, representing an increase of 265 percent.

In a recent study completed by Unique Business Solutions, LLC, Marinette County is seeking to increase its tourism revenue through niche marketing and creating a brand unique to the county. It was determined through visitor guide requests from 2007 and 2008; potential visitors are mainly from the eastern portion of Wisconsin along the I-43 corridor with the Chicago area ranking as the second strongest market. Central Wisconsin and western Wisconsin are the third and fourth strongest markets. These four areas will be the focus of future marketing efforts.

Major Employers

Marinette County boasts a variety of large employers from both the public and private sectors. The top public sector employers include Marinette County and the Marinette Public Schools. The private industries are from a number of different sectors including manufacturing and health care. The size and diversity of these employers have provided a solid economic foundation for the county and its many communities.

Table 7.8: Top Ten Employers in Marinette County, 2005

Establishment	Product or Service	Location	Size (Dec. 2004)
Karl Schmidt Unisia, Inc.	Carburetor, piston, ring, valve, mfg.	City of Marinette	1000+ employees
Marinette Marine Corporation	Ship building and repairing	City of Marinette	500-999 employees
Bay Area Medical Center	General medical and surgical hospitals	City of Marinette	500-999 employees
Waupaca Foundry, Inc.	Iron foundry	City of Marinette	500-999 employees
Ansul Fire Protection	Fire protection equipment	City of Marinette	500-999 employees
County of Marinette	Government	City of Marinette	250-499 employees
Stora Enso North American Corp.	Paper, except newsprint, mills	City of Marinette	250-499 employees
Marinette Public Schools	Elementary and secondary schools	City of Marinette	250-499 employees
Aerial Company	Equipment merchant wholesalers	City of Marinette	250-499 employees
Silvan Industries	Plate work manufacturing	City of Marinette	250-499 employees

Source: DWD, Bureau of Workforce Information, ES-202, July 2005.

Employment by Economic Division

The economic future of Marinette County requires a thorough understanding of the local and county economies. The Economic Base Analysis technique divides the economy into basic and non-basic sectors.

- A. The basic sector is made up of local businesses that are dependent on external factors. Manufacturing and local resource-oriented firms depend principally upon non-local factors and usually export their goods.
- B. The non-basic sector is comprised of those firms that depend largely upon local business conditions.

Location Quotient Analysis

In order to strengthen and grow the county’s overall economy, it is important to develop and enhance the basic sector. The Location Quotient Analysis technique is used to identify the basic and non-basic sectors of a local economy. The analysis uses the United States as the standard for comparison with the county’s economy (Table 7.9).

The most notable changes in the county’s economy since 1990 are the *declines* in farm employment, agriculture, and mining; and *increases* in employment in

A **Location Quotient** highlights how the balance of employment in a local economy compares to the balance in employment in the region as a whole. The proportion of jobs in each local industrial sector is measured, as a ratio, against its corresponding sector at the regional level. To conduct a **Location Quotient (LQ) Analysis**, nine basic economic divisions are used:

Four goods-producing sectors: agriculture; forestry and fishing; mining; construction; and manufacturing; and

Five services-producing sectors: transportation and public utilities; wholesale trade; retail trade; finance, insurance and real estate; and services.

- If the LQ is less than 1.0, that industry is not meeting local demand and implies that the goods or services of that sector are being “imported” from somewhere else within the region.
- An LQ equal to 1.0 suggests that the local employment is exactly sufficient to meet the local demand for a given good or service.
- An LQ greater than 1.0 suggests that local employment produces more goods and services than the local economy can use; therefore these goods and services are exported to non-local areas.

construction, transportation and public services, and services.

Overall, Marinette County’s economy is quite diversified providing a number of different employment opportunities for its residents. When the location quotient increases over time, this suggests that the county’s economy is getting closer to reaching and exceeding local demands.

Table 7.9: Employment by Industry Group

Item	Marinette County		United States		Percent Change 1990-2000		Marinette County Location Quotient	
	1990	2000	1990	2000	Marinette	U.S.	1990	2000
Total full-time and part-time employment	21,156	25,630	139,380,900	166,758,800	21.1	19.6		
Farm employment	1,056	862	3,153,000	3,113,000	-18.4	-1.3	2.21	1.80
Nonfarm employment	20,100	24,768	136,227,900	163,645,800	23.2	20.1	0.97	0.98
Private employment	17,738	22,318	114,995,900	140,701,800	25.8	22.4	1.02	1.03
Ag. Services, forestry, fishing & other	211	0	1,454,000	2,121,100	-100.0	45.9	0.96	0.00
Mining	24	0	1,044,100	784,200	-100.0	-24.9	0.15	0.00
Construction	741	1,204	7,261,800	9,446,300	62.5	30.1	0.67	0.83
Manufacturing	6,654	7,367	19,694,200	19,114,800	10.7	-2.9	2.23	2.51
Transportation and public utilities	815	1,197	6,550,600	8,244,400	46.9	25.9	0.82	0.94
Wholesale trade	635	755	6,720,500	7,584,100	18.9	12.9	0.62	0.65
Retail trade	3,907	4,515	22,885,500	27,222,300	15.6	18.9	1.12	1.08
Finance, insurance and real estate	821	1,166	10,714,600	13,193,800	42.0	23.1	0.50	0.58
Services	3,930	5,697	38,670,600	52,990,800	45.0	37.0	0.67	0.70
Government and government enterprises	2,362	2,450	21,232,000	22,944,000	3.7	8.1	0.73	0.69
Federal, civilian	134	153	3,233,000	2,892,000	14.2	-10.5	0.27	0.34
Military	203	196	2,718,000	2,075,000	-3.4	-23.7	0.49	0.61
State and local	2,025	2,101	15,281,000	17,977,000	3.8	17.6	0.87	0.76
State	187	212	4,404,000	4,949,000	13.4	12.4	0.28	0.28
Local	1,838	1,889	10,877,000	13,028,000	2.8	19.8	1.11	0.94

Source: U.S. Department of Commerce, Bureau of Economic Analysis, REIS 1969-2000; and Bay-Lake Regional Planning Commission, 2008.

Threshold Analysis

Export Base (“Basic Employment”)

In 2000, two “basic employment areas” within the Marinette County economy were considered exporters: manufacturing and farm employment along with two “non-basic employment areas”: retail trade and overall private employment. They produce more goods and services than the local economy can use and export excess goods to other areas.

Non-Export Base (“Non-Basic Employment”)

Several industries stand out with lower LQs: finance, insurance, and real estate; services; government; and construction. These industries are not meeting local demand for given goods or services and therefore import those needed services from other counties.

County Finances

Table 7.10 and Table 7.11 illustrate a history of the taxes levied and collected in Marinette County. From 2000 to 2006, the county’s full value increased by 62 percent or \$1.317 billion. The total property tax also increased \$12.7 million or 29 percent for the same period. These numbers are a good indication the county is growing at a healthy and steady rate.

Table 7.10: Comparative Tax Appropriations, Marinette County

Year Levied	Full Value	Total Property Tax	State Tax Credit	Full Value Rate		Taxing Jurisdiction Share				
				Gross	Effective	School	Vocational	County	Local	Other
2000	\$2,123,510,500	\$44,935,468	\$3,173,053	0.02116	0.01966	\$21,642,043	\$2,899,222	\$11,652,361	\$7,366,336	\$1,375,504
2001	\$2,374,272,000	\$47,306,536	\$3,324,433	0.01992	0.01852	\$23,701,178	\$3,776,685	\$10,602,251	\$7,761,310	\$1,465,113
2002	\$2,598,313,600	\$50,232,125	\$3,500,089	0.01933	0.01798	\$24,603,331	\$4,123,671	\$11,634,548	\$8,319,782	\$1,550,796
2003	\$2,815,417,500	\$53,229,474	\$3,558,724	0.01890	0.01764	\$26,606,125	\$4,299,623	\$12,057,629	\$8,285,861	\$1,980,232
2004	\$2,961,399,600	\$56,092,050	\$3,636,847	0.01894	0.01771	\$28,367,901	\$4,422,599	\$12,432,748	\$8,715,995	\$2,152,805
2005	\$3,193,621,200	\$55,823,013	\$3,658,144	0.01747	0.01633	\$27,357,080	\$4,680,902	\$12,698,061	\$9,048,287	\$2,038,681
2006	\$3,441,159,000	\$57,649,181	\$4,600,969	0.01675	0.01541	\$28,446,559	\$4,950,968	\$12,983,767	\$9,342,128	\$1,925,755

Source: Wisconsin Department of Revenue, City, Village and Town Taxes, for years cited; and Bay-Lake Regional Planning Commission, 2008.

The ability to finance development and infrastructure projects is calculated by general obligation debt capacity. The aggregate amount of indebtedness, including existing indebtedness of any municipality, shall not exceed five percent of the value of the taxable property located in the municipality.

Marinette County’s debt as of December 31, 2005, was \$8,308,069. This left a debt margin of \$151,372,991. The county’s existing debt has dropped \$40 million from 2004 to 2005, while growing at a healthy 50 percent rate over this time period. This reduction in debt corresponds to 83 percent. Marinette County is growing at a steady rate while maintaining a manageable debt; therefore, the county has access to considerable financing for future projects to include emergency infrastructure or facilities improvements, if necessary.

Table 7.11: Public Indebtedness, Marinette County

Year	Full Value	Debt Limit*	Existing Debt	Debt Margin
2000	\$2,123,510,500	\$106,175,525	\$35,314,508	\$70,861,017
2001	\$2,374,272,000	\$118,713,600	\$33,730,575	\$84,983,025
2002	\$2,598,313,600	\$129,915,680	\$51,937,579	\$77,978,101
2003	\$2,815,417,500	\$140,770,875	\$50,383,142	\$90,387,733
2004	\$2,961,399,600	\$148,069,980	\$48,781,193	\$99,288,787
2005	\$3,193,621,200	\$159,681,060	\$8,308,069	\$151,372,991

*Debt Limit equals five percent of the full value.

Source: Wisconsin Department of Revenue, Bureau of Local Finance Assistance, Equalized Value and Debt Limit Value, for years cited; and Bay-Lake Regional Planning Commission, 2008.

SITES FOR BUSINESS AND INDUSTRIAL DEVELOPMENT

Existing Site Inventory and Analysis

Through the completion of a detailed land use inventory conducted in the summer and fall of 2008 for Marinette County, commercial land uses consist of nearly 1,100 acres and nearly 2,500 acres utilized for industrial activities.

Evaluation of Environmentally Contaminated Sites for Commercial and Industrial Uses

According to the Wisconsin Department of Natural Resources (WDNR), 832 environmental incidences have occurred in Marinette County with the first being noted in 1980. Please refer to the Bureau for Remediation and Redevelopment Tracking System (BRRTS) on the WDNR website for further details on these listings.

According to the WDNR, 40 incidences remain open as of January 2008; three more were conditionally closed and the remaining incidences have been closed. A majority of the open cases are leaking underground storage tanks or a site that has been identified as having some level of contaminated soil or groundwater. During the Comprehensive Planning process, county officials should be familiar with these sites. Local community officials should also understand the type and location of the incidences occurring within their municipalities. These areas may be prime locations for redevelopment for another land use such as commercial or industrial development.

Depending on the type of incident, it will fall under the jurisdiction of the Wisconsin Department of Agriculture, Trade, and Consumer Protection; Wisconsin Department of Commerce; or the Wisconsin Department of Natural Resources either in their Waste Management Division or the Remediation or Redevelopment Division. The incident will have been identified by type with a status report as described below.

Types of Activities

Abandoned Container (AC): An abandoned container, with potentially hazardous contents, has been inspected and recovered. No known discharge to the environment has occurred. If the container discharged a hazardous substance, a SPILL activity will be created at this location.

Leaking Underground Storage Tank (LUST): A LUST site has contaminated soil and/or groundwater with petroleum, which includes toxic and cancer causing substances. However, given time, petroleum contamination naturally breaks down in the environment (biodegradation). Some LUST sites may emit potentially explosive vapors.

Environmental Repair (ERP): ERP sites are sites other than LUSTs that have contaminated soil and/or groundwater. Examples include industrial spills (or dumping) that need long term investigation, buried containers of hazardous substances, and closed landfills that have caused contamination. The ERP module includes petroleum contamination from above-ground (but not from underground) storage tanks.

Spills: A discharge of a hazardous substance that may adversely impact, or threaten to impact public health, welfare or the environment. Spills are usually cleaned up quickly.

General Property Information (GP): This activity type consists of records of various milestones related to liability exemptions, liability clarifications, and cleanup agreements that have been approved by DNR to clarify the legal status of the property.

Case Status

Open Status: This status pertains to Spills, LUST, ERP, VPLE and Abandoned Container activities in need of clean up or where cleanup is still underway.

Conditionally Closed Status: These activities are where cleanup actions were approved, but the site closure will not be approved pending receipt of documentation of abandonment of wells or disposal of soil.

Closed Status: This category includes activities where investigation and cleanup of the contamination has been completed and the state has approved all cleanup actions.

Historic Spill: These Spills are where cleanups may have been completed prior to 1996 and no end date is shown. Spill Activities in this category show Historic status. Please contact the regional spills coordinator if you need more information.

GeneralProperty: These areas involve liability exemptions, liability clarifications, etc. to clarify the legal status of the property. The same property may include other open or closed activities, e.g. Spills, LUST, etc.

No Remediation or Redevelopment Action Required: There was, or may have been, a discharge to the environment and, based on the known information, DNR has determined that the responsible party does not need to undertake an investigation or cleanup in response to that discharge.

Marinette County Economic Development Tables

Table 7.12: Median Household Income, Marinette County Municipalities

Geographic Location	1989	1999	Percent Change
Town of Amberg	\$16,211	\$26,667	64.5
Town of Athelstane	\$16,563	\$29,602	78.7
Town of Beaver	\$19,185	\$35,187	83.4
Town of Beecher	\$21,071	\$29,107	38.1
Town of Dunbar	\$17,361	\$32,917	89.6
Town of Goodman	\$18,807	\$31,087	65.3
Town of Grover	\$27,900	\$40,536	45.3
Town of Lake	\$24,345	\$39,432	62.0
Town of Middle Inlet	\$17,875	\$32,054	79.3
Town of Niagara	\$37,448	\$40,250	7.5
Town of Pembine	\$22,292	\$34,395	54.3
Town of Peshtigo	\$33,689	\$50,792	50.8
Town of Porterfield	\$26,458	\$46,898	77.3
Town of Pound	\$25,729	\$38,750	50.6
Town of Silver Cliff	\$18,750	\$31,053	65.6
Town of Stephenson	\$20,044	\$34,516	72.2
Town of Wagner	\$21,979	\$39,792	81.0
Town of Wausaukee	\$20,000	\$35,530	77.7
Village of Coleman	\$21,142	\$35,703	68.9
Village of Crivitz	\$18,088	\$26,250	45.1
Village of Pound	\$18,194	\$32,692	79.7
Village of Wausaukee	\$15,208	\$25,313	66.4
City of Marinette	\$21,321	\$31,743	48.9
City of Niagara	\$25,000	\$33,828	35.3
City of Peshtigo	\$26,125	\$34,898	33.6
Marinette County	\$27,916	\$35,256	26.3
State of Wisconsin	\$29,442	\$43,791	48.7

Source: U.S. Bureau of the Census, 1990 Census of Population and Housing, STF 3A Table P080A; U.S. Bureau of the Census, 2000, DP-3; and Bay-Lake Regional Planning Commission, 2008.

Table 7.13: Educational Attainment*, Marinette County Municipalities, 2000

Geographic Location	Less than 9th Grade		9th to 12th grade, no diploma		High school graduate (includes equivalency)		Some college, no degree		Associate degree		Bachelor's degree		Graduate or professional degree	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Town of Amberg	52	7.8	91	13.7	307	46.2	120	18.1	33	5.0	33	5.0	28	4.2
Town of Athelstane	21	4.7	89	20.0	226	50.7	69	15.5	16	3.6	15	3.4	10	2.2
Town of Beaver	105	13.2	99	12.5	340	42.9	146	18.4	49	6.2	36	4.5	18	2.3
Town of Beecher	32	5.8	73	13.2	229	41.3	134	24.2	17	3.1	49	8.8	20	3.6
Town of Dunbar	14	3.3	36	8.4	185	43.3	83	19.4	25	5.9	51	11.9	33	7.7
Town of Goodman	30	4.8	107	17.1	308	49.3	93	14.9	25	4.0	44	7.0	18	2.9
Town of Grover	94	8.4	116	10.4	579	51.9	189	17.0	56	5.0	64	5.7	17	1.5
Town of Lake	74	9.4	106	13.5	310	39.3	156	19.8	51	6.5	72	9.1	19	2.4
Town of Middle Inlet	69	10.9	108	17.0	273	43.1	106	16.7	18	2.8	44	6.9	16	2.5
Town of Niagara	41	6.6	38	6.1	261	42.2	120	19.4	49	7.9	80	12.9	30	4.8
Town of Pembine	25	3.3	109	14.4	313	41.3	178	23.5	35	4.6	68	9.0	30	4.0
Town of Peshtigo	127	4.6	165	6.0	1,155	41.9	512	18.6	157	5.7	451	16.4	189	6.9
Town of Porterfield	63	4.6	128	9.4	616	45.1	298	21.8	84	6.2	127	9.3	49	3.6
Town of Pound	80	9.2	63	7.3	428	49.5	145	16.8	43	5.0	68	7.9	38	4.4
Town of Silver Cliff	23	5.6	61	15.0	204	50.0	72	17.6	18	4.4	28	6.9	2	0.5
Town of Stephenson	136	5.8	291	12.5	1181	50.6	410	17.6	140	6.0	122	5.2	54	2.3
Town of Wagner	37	7.2	50	9.7	282	54.5	91	17.6	17	3.3	33	6.4	7	1.4
Town of Wausaukee	47	5.7	123	14.8	354	42.7	188	22.7	29	3.5	64	7.7	24	2.9
Village of Coleman	40	8.5	42	9.0	209	44.7	78	16.7	30	6.4	55	11.8	14	3.0
Village of Crivitz	55	8.3	114	17.1	301	45.2	114	17.1	28	4.2	34	5.1	20	3.0
Village of Pound	16	7.3	13	6.0	91	41.7	61	28.0	8	3.7	15	6.9	14	6.4
Village of Wausaukee	29	8.0	45	12.4	172	47.5	65	18.0	23	6.4	19	5.2	9	2.5
City of Marinette	422	5.3	895	11.3	3,444	40.3	1,488	18.8	559	7.1	754	9.6	332	4.2
City of Niagara	52	4.3	126	10.3	537	44.0	302	24.7	54	4.4	125	10.2	25	2.0
City of Peshtigo	119	5.3	276	12.3	916	40.7	448	19.9	142	6.3	232	10.3	116	5.2
Marinette County	1,803	6.1	3,364	11.4	13,221	44.7	5,666	19.2	1,706	5.8	2,683	9.1	1,132	3.8
State of Wisconsin	186,125	5.4	332,292	9.6	1,201,813	34.6	715,664	20.6	260,711	7.5	530,268	15.3	249,005	7.2

*Age 25 years old and older

Source: U.S. Bureau of the Census, 2000, DP-2; Bay-Lake Regional Planning Commission, 2008.

Table 7.14: Employed Persons by Occupation, Marinette County Municipalities, 2000

Geographic Location	Management, professional, and related		Service		Sales and office		Farming, fishing, and forestry		Construction, extraction, and maintenance		Production, transportation, and material moving	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Town of Amberg	81	25.5	58	18.2	41	12.9	6	1.9	34	10.7	98	30.8
Town of Athelstane	32	15.3	57	27.3	43	20.6	16	7.7	25	12.0	36	17.2
Town of Beaver	129	25.5	60	11.9	95	18.8	30	5.9	41	8.1	151	29.8
Town of Beecher	58	17.3	70	20.8	65	19.3	9	2.7	39	11.6	95	28.3
Town of Dunbar	109	19.7	132	23.8	203	36.6	4	0.7	34	6.1	72	13.0
Town of Goodman	76	19.6	68	17.5	35	9.0	12	3.1	47	12.1	150	38.7
Town of Grover	183	21.0	115	13.2	179	20.6	36	4.1	100	11.5	258	29.6
Town of Lake	142	26.2	76	14.0	90	16.6	31	5.7	88	16.2	115	21.2
Town of Middle Inlet	76	21.5	47	13.3	76	21.5	8	2.3	53	15.0	94	26.6
Town of Niagara	152	32.1	60	12.7	133	28.1	4	0.8	46	9.7	78	16.5
Town of Pembine	114	23.1	78	15.8	122	24.7	9	1.8	65	13.2	105	21.3
Town of Peshtigo	755	36.1	158	7.6	457	21.9	20	1.0	192	9.2	509	24.3
Town of Porterfield	278	25.6	151	13.9	194	17.9	5	0.5	149	13.7	307	28.3
Town of Pound	171	24.5	80	11.5	127	18.2	40	5.7	76	10.9	204	29.2
Town of Silver Cliff	28	17.6	23	14.5	48	30.2	5	3.1	27	17.0	28	17.6
Town of Stephenson	319	23.4	328	24.1	246	18.0	40	2.9	142	10.4	288	21.1
Town of Wagner	47	13.8	40	11.7	78	22.9	25	7.3	54	15.8	97	28.4
Town of Wausaukee	100	20.7	75	15.5	96	19.8	17	3.5	62	12.8	134	27.7
Village of Coleman	91	26.8	38	11.2	97	28.6	4	1.2	17	5.0	92	27.1
Village of Crivitz	74	19.6	91	24.1	75	19.8	4	1.1	43	11.4	91	24.1
Village of Pound	35	17.1	28	13.7	48	23.4	1	0.5	18	8.8	75	36.6
Village of Wausaukee	56	23.0	52	21.4	26	10.7	9	3.7	36	14.8	64	26.3
City of Marinette	1,378	24.6	1,020	18.2	1,323	23.7	18	0.3	414	7.4	1,438	25.7
City of Niagara	150	17.8	161	19.1	247	29.3	6	0.7	126	15.0	152	18.1
City of Peshtigo	347	23.5	242	16.4	283	19.2	13	0.9	179	12.1	410	27.8
Marinette County	4,981	24.5	3,308	16.3	4,427	21.8	372	1.8	2,107	10.4	5,141	25.3
State of Wisconsin	857,205	31.3	383,619	14.0	690,360	25.2	25,725	0.9	237,086	8.7	540,930	19.8

Source: U.S. Bureau of the Census, 2000, DP-3; Bay-Lake Regional Planning Commission, 2008.

CHAPTER 8: TRANSPORTATION

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INTRODUCTION

This chapter provides an inventory of the existing transportation facilities that serve Marinette County and the communities within the county. Additionally, this element of the comprehensive plan also addresses Marinette County's future transportation needs and concerns. The transportation facility and services inventory includes descriptions of the various modal elements of the county's transportation system. Those elements include: the county's road and highway system; public transit systems; elderly and disabled transportation services; intercity bus services; bicycle transportation (including some pedestrian facilities); rail service; air service; harbors and marinas; and commercial trucking.

The detailed description of the street and highway system includes: the functional classification of roads within the county; traffic counts; traffic flow capacity; traffic crashes; access controls; and park and ride lots.

This chapter also includes an inventory and analysis of applicable transportation plans and programs, including: the Wisconsin State Highway Plan; Connections 2030 (the state long-range multimodal transportation Plan under development); the WisDOT Six-Year Highway Improvement Program; the State Airport Plan; the Public Transit – Human Services Transportation Coordination Plan for Marinette County; the State Pedestrian Plan; and state, regional and local bicycle plans. In addition, this element of the plan compares local plans to transportation plans developed at the state, regional and county levels. At the conclusion of the chapter, specific transportation system recommendations are presented. These recommendations include: road improvements; local mileage certification; initiating or updating of pavement management programs; employment of adequate design standards; speed limit controls; application of traffic considerations; assessment of special transportation needs; development of a countywide bicycle facilities plan; and recommended transportation programs.

INVENTORY OF TRANSPORTATION FACILITIES

Through its comprehensive planning program, Marinette County and its municipalities seek to establish a safe and efficient transportation system for motor vehicles, pedestrians, bicycles and other modes that is compatible with county and local comprehensive plans.

There are nearly 2,000 miles of county highways, town road and municipal streets in Marinette County (excluding U.S. and State highways). Of these, over 340 miles (17 percent) are county trunk highways, while 1,621 miles or 83 percent are town roads and city/village streets. Approximately 95 percent of the total county highways are classified as major and minor collectors; 4.7 miles of the total county miles are classified as arterials while 23.55 miles are functionally classified as local roads. County highways tend to involve more collectors, while roads under municipal jurisdiction tend to involve more local function roads. State highways (including Interstate and U.S. marked highways) tend to be arterial facilities.

The county highway system compliments the U.S. and State arterial highway system, which in Marinette County totals more than 148 linear miles.

The county and local municipal jurisdictional responsibilities relative to the local road system include maintenance, repair and reconstruction of streets and roads as required. The primary funding source for maintaining, rehabilitating and reconstructing the county highway and local

road systems is the state's disbursement of general transportation aids. Through this funding program, the state provides a payment to the county and to local municipalities for costs associated with such activities as road and street reconstruction, filling potholes, snow removal, grading shoulders and marking pavement.

The county's major highway transportation routes include USH 8, USH 41 and USH 141, in addition to State Highways, 64 and 180. The U.S. and State highways are complimented by an extensive county trunk highway system and local road network, all of which provide access to the communities located within Marinette County, the region and the state.

Currently, the county has only unsigned shared roadways to serve bicyclists. In spite of having limited facilities, the county's local street and road system can and does safely and efficiently serve the needs of bicyclists in cases where traffic levels remain low to moderate.

The transportation facility inventory conducted for this plan also determined that the county has access to multimodal transportation services and facilities including: three park and ride lots; an urban transit (Shared-Ride Taxi Service) operation serving the City of Marinette; transportation services for the county's elderly and disabled residents administered by Marinette County Elderly Services; freight rail service; corporate air service at the Twin County Airport in Menominee, Michigan; international and national destination passenger air service from General Mitchell International Airport (Milwaukee) and Austin Straubel International Airport (metropolitan Green Bay); an active commercial harbor and several recreational boat marinas; and access to passenger ferry service between Menominee, Michigan and Sturgeon Bay, Wisconsin (in season).

Streets and Highways

There are several basic considerations useful in assessing the street and highway system within Marinette County. These considerations include: the functional classification of the existing street and highway system; annual average daily traffic on streets and highways within the county; and an evaluation of the system's capability to handle present and projected future traffic volumes. This information can provide an indication of the street and highway improvements that may be needed during the planning period.

Functional Classification of Streets and Highways

Streets and highways, which are the principal component of the traffic circulation system, can be divided into three categories: arterial, collector and local facilities. The three categories of streets and highways are determined by the function that the street or highway in question serves in relation to traffic patterns, land use, land access needs, and traffic volumes. The street and highway system for Marinette County has been functionally classified based on criteria identified in Tables 8.1 (for the Marinette Urban Area and for portions of the county classified as "rural"). Map 8.1 shows the functional classification of streets and highways in rural portions of Marinette County.

Table 8.1: Functional Classification Criteria for Streets and Highways in Urban Areas

URBAN PRINCIPAL ARTERIALS						
Basic Criteria					Mileage Percent of System Range	
System Continuity (Rural - Urban Interface)		Must meet Land Use Service or Spacing plus Traffic Volume or Parenthetical Current ADT Alone				
A rural minor arterial remains an urban minor arterial until it meets one of the following:		Land Use Service	Spacing	Current ADT*	5.0% to 10.0%	
Current ADT Alone	Intersects with an Urban Arterial plus Current ADT					
≥15,000	≥9,000	A principal arterial should be within one mile of the following land uses: a. Main central business district of the urban area b. Type 1 and 2 airports c. Regional shopping centers d. Major colleges and universities e. Community and regional parks f. Industrial parks g. Large stadia, arenas, or civic centers	Maximum: 1 mile in central business district; 3 to 5 miles in other parts of urbanized area	≥9,000 (≥30,000)		

*The roadway or highway segment must be a minimum of a mile long.

URBAN MINOR ARTERIALS						
Basic Criteria					Supplemental Criteria	Mileage Percent of System Range
System Continuity (Rural - Urban Interface)		Must meet Land Use Service or Spacing plus Traffic Volume or Parenthetical Current ADT Alone			Must meet two of the criteria below plus 90% of Current ADT	
A collector remains an urban collector until it meets one of the following:		Land Use Service	Spacing	Current ADT*		10.0% to 15.0%
Current ADT Alone	Intersects with an Urban Collector or Arterial plus Current ADT					
≥9,000	≥4,500	A minor arterial should be within a half mile of the following land uses: a. Central business districts of each satellite community b. Type 3, 4 and 5 airports c. Community shopping centers d. Junior or community colleges e. Large industrial plants f. High schools g. Large office buildings h. Community hospitals i. Clinics j. Sub-community parks k. Golf courses All commercial retail strip development over one quarter mile in length not on a principal arterial. Interconnection of the main central business district with satellite community central business districts.	Maximum: One half mile in central business district; two miles in other parts of urbanized area	≥4,500 (≥15,000)	1. Bus Route 2. Truck Route 3. Signalization 4. Interchanges with a freeway 5. Major river crossing/ restrictive topography	

*The roadway or highway segment must be a minimum of one half mile long.

Table 8.1: Functional Classification Criteria for Streets and Highways in Urban Areas, continued

URBAN COLLECTORS						
Basic Criteria				Supplemental Criteria	Mileage Percent of System Range	
Must meet one of the below criteria plus Current ADT or the Parenthetical Current ADT Alone				Must meet two of the criteria below plus 90% of Current ADT		
System Continuity	Land Use Service	Spacing	Current ADT*			
<p>May penetrate each residential neighborhood and connect to nearby arterial.</p> <p>May include the logical street system for traffic circulation in the central business district (relative to land use service).</p> <p>A rural collector remains a collector when crossing into an urbanized area until it meets the urban minor arterial criteria.</p>	<p>A collector should be within a quarter mile of the following land uses:</p> <ul style="list-style-type: none"> a. Elementary, intermediate or middle schools b. Small industrial plants c. Large warehousing d. Neighborhood shopping centers e. Small office buildings f. Neighborhood parks g. Marinas 	<p>Maximum: One quarter mile in central business district; one mile in other parts of urbanized area</p>	<p>≥2,250 (≥9,000)</p>	<ul style="list-style-type: none"> 1. Bus route 2. Truck route 3. Signalization 4. Interchanges with a freeway 5. Major river crossing/restrictive topography 	5.0% to 10.0%	

*The roadway or highway segment must be a minimum of one quarter mile long.

URBAN LOCAL STREETS		
All public streets not classified as arterials or collectors.		<p>65.0% to 80.0%</p> <p>68.0% to 73.0% in most urbanized areas</p>

Source: Wisconsin Department of Transportation, *Functional Classification Criteria*, 2003; and Bay-Lake Regional Planning Commission, 2008.

RURAL PRINCIPAL ARTERIALS						
Basic Criteria				Supplemental Criteria	Mileage Percent of System Range	
Must meet any two of the criteria below				None		
Population Service*	Land Use Service	Spacing	Current ADT			
<p>Connect places ≥50,000 with other places ≥50,000</p> <p>Connect places 5,000 - 49,999 with places ≥50,000</p>	Provide access to major recreation areas of the state.	Maximum: 30 miles between Principal Arterials	≥6,000		2.0% to 4.0% statewide	

*A place is considered served by a principal arterial if the principal arterial either penetrates its boundary or comes within 10 miles of the center of the place and penetrating service is provided by a minor arterial.

RURAL MINOR ARTERIALS						
Basic Criteria				Supplemental Criteria	Mileage Percent of System Range	
Must meet any two of the criteria below				Must meet both of the criteria below plus 90% of Current ADT		
Population Service*	Land Use Service	Spacing	Current ADT			
<p>Connect places 1,000 - 4,999 to places ≥50,000</p> <p>Connect places 5,000 - 49,999 to other places 5,000 - 49,999</p> <p>Connect places 1,000 - 4,999 to places 5,000 - 49,999, or with principal arterials</p>	Serve all traffic generating activities with an annual visitation of 300,000, if not served by a principal arterial.	Maximum: 30 miles between Arterials	≥2,000	<ul style="list-style-type: none"> 1. Alternate population connection 2. Major river crossing/restrictive topography 	4.0% to 8.0% statewide	

*A place is considered served by a minor arterial if the minor arterial either penetrates its boundary or comes within two miles of the center of the place and a major collector provides penetrating service.

Table 8.1: Functional Classification Criteria for Streets and Highways in Urban Areas, continued

RURAL MAJOR COLLECTORS*					
Basic Criteria				Supplemental Criteria	Mileage Percent of System Range
Must meet any two of the criteria below or the Parenthetical Current ADT Alone				Must meet two of the criteria below plus 90% of Current ADT	
Population Service**	Land Use Service	Spacing	Current ADT***		
Connect places 1,000 - 4,999 to other places 1,000 - 4,999	Land Use Service Index ≥16.	Maximum: 10 Miles between Major Collectors or Higher Function Routes	≥1,000 (≥4,000)	1. Alternate population connection 2. Major river crossing 3. Restrictive topography 4. Interchange with a freeway 5. Parallel to a principal arterial	5.0% to 18.0% countywide Most counties should be at 7.0% to 14.0%
Connect places 500 - 999 to places ≥50,000					
Connect places 500 - 999 to places 5,000 - 49,999					
Connect places 500 - 999 to places 1,000 - 4,999					
Connect places 500 - 999 to other places 500 - 999					
Connect places 100 - 499 to places ≥50,000					
Connect places 100 - 499 to places 5,000 - 49,999					
Connect places 100 - 499 to places 1,000 - 4,999					
Connect places 100 - 499 to places 500 - 999, or with higher function routes					

*Loop routes and stub ended routes less than five miles long and meeting the basic criteria for a major collector should be limited to a minor collector classification.

**A place is considered served by a major collector if the major collector comes within a half mile of the center of the place.

***The roadway or highway segment must be a minimum of a half mile long.

Table 8.1: Functional Classification Criteria for Streets and Highways in Urban Areas, continued

RURAL MINOR COLLECTORS					
Basic Criteria				Supplemental Criteria	
Must meet any two of the criteria below or the Parenthetical Current ADT Alone				Must meet two of the criteria below plus 90% of Current ADT	Mileage Percent of System Range
Population Service*	Land Use Service (served if within one half mile of place)	Spacing	Current ADT**		
Connect places 100 - 999 to other places 100 - 999	Land Use Service Index ≥8	Maximum: 10 Miles between Minor Collectors or Higher Function Routes	≥400 (≥1,600)	1. Alternate population connection 2. Major river crossing 3. Restrictive topography 4. Interchange with a freeway 5. Parallel to a principal arterial	5.0% to 10.0% countywide
Connect places 50 - 99 to places ≥50,000					
Connect places 50 - 99 to places 5,000 - 49,999					
Connect places 50 - 99 to places 1,000 - 4,999					
Connect places 50 - 99 to places 500 - 999					
Connect places 50 - 99 to places 100 - 499, or with higher function routes					
*A place is considered served by a minor collector if the minor collector comes within a half mile of the center of the place. **The roadway or highway segment must be a minimum of a half mile long.					

RURAL LOCAL ROADS	
All public roads not classified as arterials or collectors.	65.0% to 75.0% countywide Most counties should be at 68.0% to 72.0%
Source: Wisconsin Department of Transportation, <i>Functional Classification Criteria</i> , 2003; and Bay-Lake Regional Planning Commission, 2008.	

Arterial Facilities

The function of an arterial facility is to move traffic over medium to long distances, often between regions as well as between major economic centers, quickly, safely and efficiently. Arterial facilities are further categorized into either “principal” or “minor” arterial facilities based on traffic volumes, land use service and other criteria. In Marinette County, there are five “arterial” highways providing service on a regional scale. The highways are United States Highway 41, United States Highway 141, United States Highway 8, State Highway 64 and State Highway 180.

USH 8

USH 8 enters the state of Wisconsin at the Minnesota state line at Saint Croix Falls and near Norway, Michigan, approximately 6 miles east of the City of Niagara. The total length of USH 8 in Wisconsin is approximately 256 miles and its approximate length in Marinette County is 25 miles (including both segments east and west of USH 141).

USH 8 is a major two-lane east-west route across the northern half of the state that is serving through traffic between the Twin Cities area of Minnesota and eastern half of Michigan's Upper Peninsula. USH 8 is a National Highway System (NHS) route from Minnesota, across the state, to the north junction of USH 8 and USH 141, south of Niagara.

USH 41

USH 41 is classified as a principal arterial highway. In Wisconsin, USH 41 extends from I-94 southwest of the City of Kenosha to the USH 41 Bridge in the City of Marinette, and has an approximate overall length of 224 miles with approximately 15 miles of the highway located in Marinette County. In 1930 the last section of gravel surfaced USH 41, between the City of Oconto and the Oconto/Marinette County line, was paved. In 1972, the portion of USH 41/USH 141 from the northern end of the freeway near Suamico north of Green Bay to the USH 41/USH 141 "split" at Abrams was converted to four-lane, divided highway. In 1989 the portion of USH 41 from Peshtigo to the southern limits of Marinette was converted to four-lane, divided highway.

In 1991 and 1992, the interchange at the USH 41/USH 141 "split" at Abrams was constructed and the portion of USH 41 from the split northeasterly to the southern limits of the City of Oconto was converted to four-lane, divided expressway along its existing alignment.

In 1999, the interchanges at CTH S (at the unincorporated community of Sobieski) and at the USH 41 & USH 141 "split" (at Abrams) were completed as part of the ongoing conversion of the portion of USH 41/USH 141 from Suamico (in Brown County) to the community of Abrams to full freeway standards. In 2000, the interchange at Brown Road was completed and USH 41/USH 141 from Suamico northerly to Abrams was now a fully-controlled access freeway facility.

Over the past decade USH 41 has been upgraded so that nearly 90 percent of the existing route is currently four-lane (or more) divided highway, with a total of 87 percent built to either freeway or expressway standards. The 21 mile section of USH 41 from just west of the City of Oconto to the City of Peshtigo is currently the only section of USH 41 in the state that remains a two-lane roadway.

The construction of additional two-lanes between the City of Peshtigo and the City of Oconto is currently underway. The facility expansion, completed in 2009, will include bypasses of the City of Peshtigo and the City of Oconto, with a new four-lane bridge crossing the Peshtigo River just south of the city. The expansion of USH 41 from the City of Oconto to the City of Peshtigo will provide additional roadway capacity to serve existing and projected traffic volumes and improve the safety and efficiency of the roadway.

USH 141

USH 141 debuted along with the rest of the US Highway system in late 1926 as an alternate route to USH 41 between Milwaukee and Green Bay. It replaced STH 17 from downtown Milwaukee to Manitowoc and took over the route of STH-16 from Manitowoc to downtown Green Bay. At that time, the highway running northerly from Abrams to Niagara was part of STH 57.

Before the construction of Interstate 43 between the cities of Milwaukee and Green Bay, USH 141 provided the primary north to south highway link between the two major urban areas along Lake Michigan. Presently, the southern terminus (beginning point) of USH 141 is the I-43 exit (Exist 178) near the Village of Bellevue, just southeast of downtown Green Bay. The highway's northern terminus in Wisconsin (ending point) is the Michigan state line on the Menominee River Bridge in the City of Niagara. The total length of USH 141, in Wisconsin, is slightly more than 102 miles with approximately 59 miles located within Marinette County.

Historically, USH 141 was to only provide an alternate route to USH 41 from Milwaukee to Green Bay, sticking close to the Lake Michigan shore while its "parent" route traveled inland via Fond du Lac, Oshkosh and Appleton, however within a few years after being designated, it was extended northerly from Green Bay into Michigan at Iron Mountain, then northwesterly back into Wisconsin and once again into Michigan and northerly to a new terminus at USH 41 near Covington. Beginning in 1980 and 1981, the Milwaukee to Green Bay portion was replaced by I-43, leaving only the portion from Green Bay northerly.

For over three decades, the portion of USH 141 from Green Bay, through Oconto County and the southern portion of Marinette County has slowly been upgraded to freeway and expressway standards. Starting with the portion of USH 41/USH 141 from Velp Avenue on Green Bay's west side, northerly in the early-1970s to 2000 when the last segment of expressway just south of Abrams was converted to fully controlled-access freeway. Just a few years later, existing USH 141 from Abrams northerly began to be upgraded to expressway standards, first to just north of STH 22 (2002), then northerly past Lena on a new bypass (2005) with a further extension to the Village of Coleman and the Village of Pound in Marinette County, again with a bypass, opened to traffic in 2006 which was completed in 2007. No further expressway upgrades north of STH 64 are currently planned.

STH 64

STH 64 enters the State of Wisconsin at the Minnesota state line and crosses the entire state to its terminus at United States Highway 41 in the City of Marinette (at the intersection of Marinette and Hall avenues). The total length of STH 64 in the state is 275.65 miles, its length in Marinette County is slightly more than 27 miles.

As originally designated in 1917, STH 64 ran only 18 miles from STH 38 (now USH 141) at the Village of Pound to STH 15 (now USH 41) in the City of Marinette. By 1921, STH 64 was either complete or under construction all the way across the state to Stillwater, Minnesota. It was c.1926 when the highway was routed through its current corridor from Mountain to the Village of Pound, with the old routing east from Suring designated STH 157 for a time. Other less-dramatic realignments have brought the highway to its current alignment across the state.

STH 180 (Minor Arterial)

State Highway 180 begins at its intersection with State Highway 64 (intersection of Roosevelt and Hall Avenues in the City of Marinette) and runs approximately 30 miles west and north, where it terminates at its intersection with USH 141 in the Village of Wausaukee.

Until 1948, STH 158 ran from STH 64 north and west to USH 141 at Crivitz. In 1948, STH 158 in its entirety was given back to county control as CTH-W. At the same time, CTH-C from the City of Marinette to Wausaukee was transferred from county to state control and designated STH 180. With the exception of the "softening" of some of this highway's sharper curves over the years, STH 180 has remained largely unchanged since 1948. One change, though, did remove STH 180 from Riverside Drive within the City of Marinette, transferring it to its present alignment on Roosevelt Road on the western edge of the city.

Collector Facilities

The primary function of streets and highways classified as "collectors" is to provide general "area to area" routes for local traffic. Collector facilities take ("collect") traffic from the local streets and highways (and the land based activities supported by the local streets and highways)

and provide relatively fast and efficient routes to farm markets, agricultural service centers and larger urban areas. With an overall socioeconomic trend that is characterized by the decline of small and medium agricultural concerns, and a significant increase in the number of rural single-family residential properties, collector facilities generally serve the same function but with different trip purposes. Collector facilities serve to distribute traffic between local and arterial facilities, between home and the work place, home and the place of worship, home and school, and between the home and those places where business and commerce are conducted.

Collector facilities in Marinette County are classified as “rural collectors.” Rural collectors are divided into rural major and minor collectors. Rural major collectors include all and portions of County Highways BB, B, Y, T, D, E, W, G, GG, X, S, F, C, A, K, Z, R, O, and U, and Parkway Road (Table 8.2).

Rural minor collectors include portions of County Highways, as well as a small number of town roads with higher traffic volumes.

Table 8.2: Major Collector Highways in Marinette County

Highway/Road	From - To
CTH Y	City of Peshtigo to City of Oconto
CTH BB	City of Peshtigo to City of Oconto
CTH BB	City of Peshtigo to City of Marinette
CTH W	Oconto County line north to Village of Crivitz and west to Mountain (Oconto County)
CTH F	CTH W east to USH 41
CTH S	Oconto ounty line north to West 16th Road
West 16th Road	CTH S west to Parkway Road
Parkway Road	West 16th Road north to CTH C
CTH B	City of Peshtigo west to Village of Coleman and west to Oconto County line
CTH D	City of Peshtigo west to STH 64
CTH E	CTH D north to CTH G (through Porterfield)
CTH G	STH 180 west to Loomis and CTH W
CTH GG	Loomis north to Lake Noquebay and then west to CTH W at Crivitz
CTH A	Village of Crivitz west and then north to CTH C at Athelstane
CTH X	STH 180 west to Middle Inlet (USH 141) and continuing west to High Falls Flowage
CTH C	Village of Wausaukee west to CTH C
CTH C	CTH A west to Silver Cliff and Wabeno (Oconto County)
CTH K	Amberg (USH 141) east to the Menominee River bridge
CTH Z	Beecher (USH 141) east to Menominee River bridge
CTH U	USH 8 north to Michigan state line
CTH O	USH 8 east and then north to City of Niagara
CTH N	City of Niagara west to Aurora in Florence County
CTH R	USH 14 at Pembine east to Horseshoe Road (Kremlin Mine Site)
Dam/Morgan Lake	CTH R north and west to USH 141

Source: Bay-Lake Regional Planning Commission, 2008.

Local Facilities

The primary and most important function of local streets and roads is to provide direct access to land adjacent to the street or highway. Local streets and roads are constructed to serve individual parcels of land and properties. Local streets and roads also tend to serve the ends of most trips within the county. All streets and highways that are not classified as arterial or collector facilities within the county are classified as local streets and roads.

Local streets and roads should be designed to move traffic from an individual lot (usually a person’s home or farm) to collector facilities, which in turn serve areas of business, commerce and employment. Local streets and roads should not be designed or located in such a manner that they would or might be utilized by through traffic.

Mileage Certification

Marinette County and any local government that increased or decreased the mileage of its streets or highways are required to file a certified plat with WisDOT by December 15 of each year. Local governments that have no changes in total local street and highway miles are required to file a certified plat or a certified statement that no mileage increases or decreases have occurred. In addition, Marinette County and each of its communities are required to provide WisDOT with a numeric based evaluation of the pavement condition of each segment of street and highway in each municipality every two years.

Table 8.3 lists each town, village and city within Marinette County and the street and highway mileage under county or municipal jurisdiction by function. Table 8.3 does not include the functional classification of state trunk highways (including U.S. marked highways); most state trunk highways are functionally classified as principal arterials.

There are over 1,960 miles of street and highway under county and local jurisdiction in Marinette County; about 16.5 percent (342.45 miles) of these facilities are county trunk highways, while the remaining 93.5 percent (1,621 miles) are local streets and roads. Slightly more than 77 percent of the county’s total road facilities are classified as “local” roads, approximately 22 percent are classified as collector roads, and less than one percent are classified as arterial roads and streets.

Table 8.3: Street and Highway Miles, Marinette County Municipalities, 2007

Municipality Name	Gross Miles	County Jurisdiction			Municipal Jurisdiction				
		County Miles	Municipal Miles	Arterial	Collector	Local	Arterial	Collector	Local
Town of Amberg	99.15	14.88	84.27		14.88		6.86		77.41
Town of Athelstane	109.28	17.40	91.88		17.40		16.64		75.24
Town of Beacher	71.49	13.83	57.66		13.83				57.66
Town of Beaver	97.91	17.97	79.94		17.97		2.34		77.60
Town of Dunbar	98.65	12.86	85.79		10.41	2.45	7.10		78.69
Town of Goodman	62.61	12.42	50.19		12.42				50.19
Town of Grover	121.96	33.15	88.81		26.98	6.17			88.81
Town of Lake	82.97	21.00	61.97		21.00		5.89		56.08
Town of Middle Inlet	74.01	13.21	60.80		13.21		3.02		57.78
Town of Niagara	71.53	8.42	63.11		8.42		14.24		48.87
Town of Pembine	93.41	13.77	79.64		13.51	0.26	2.33		77.31
Town of Peshtigo	112.90	27.75	85.15	2.63	25.12		4.73		80.42
Town of Porterfield	81.08	9.80	71.28		9.80				71.28
Town of Pound	90.53	22.60	67.93		8.93	13.67			67.93
Town of Silver Cliff	110.41	29.34	81.07		29.34		8.11		72.96
Town of Stephenson	249.39	41.09	208.30		41.09		17.45		190.85
Town of Wagner	69.58	13.18	56.40		13.18				56.40
Town of Wausaukee	106.25	7.47	98.78		7.47		9.15		89.63
Village of Coleman	8.32	2.39	5.93		2.39				5.93
Village of Crivitz	17.80	3.07	14.73		3.07				14.73
Village of Pound	4.03	2.29	1.74		1.29	1.00			1.74
Village of Wausaukee	11.60		11.60				1.77		9.83
City of Marinette	75.54	2.31	73.23	2.08	0.23		9.77	10.42	53.04
City of Niagara	16.07	0.39	15.68		0.39			0.92	14.76
City of Peshtigo	26.97	1.86	25.11		1.86		1.40		23.71
Total Miles	1,963.44	342.45	1,620.99	4.71	314.19	23.55	9.77	112.37	1,498.85

Note: This table does not include the functional classification of state trunk highways (including Interstate and U.S. marked highways). Most state trunk highways are functionally classified as principal arterials.

Source: Wisconsin Department of Transportation, *Wisconsin Information System for Local Roads (WISLR)*, 2007; and Bay-Lake Regional Planning Commission, 2008.

Traffic Counts

An analysis of past and present traffic volumes is beneficial in determining the traffic conditions in a community. Traffic volumes are usually presented as an Annual Average Daily Traffic (AADT) figure, and are calculated for a particular intersection or segment of roadway. In the past, the Wisconsin Department of Transportation, as part of its traffic count program, provided highway traffic volumes from selected highways and roads for all state communities on a rotating basis, providing these counts for a county and each of its communities once every three years. For Marinette County, traffic volumes were last counted (at a limited number of locations) in 2006, with counts also taken in 2003 and 2001. The daily traffic counts are taken for 48 hours, and are reported as a 24 hour average weekday count for a specific data collection period.

Beginning in 2006, principal arterials and minor arterials over 5,000 AADT will continue to be counted by WisDOT every three years. Minor arterials under 5,000 AADT and collectors over 5,000 AADT will be counted every six years. Collectors under 5,000 AADT are to be counted every ten years. Special counts can be requested for highways where significant projects are planned. These statewide policy changes occurred because of cutbacks in the traffic counting program in 2005.

Table 8.4 and 8.5 lists the average annual daily traffic counts for all U.S. and State highways in Marinette County in 2001 and 2003 and 2006. These facilities include U.S. Highways 8, 41 and 141, as well as State Trunk Highways 64 and 180.

Table 8.4: Annual Average Daily Traffic, U.S. and State Highways, Marinette County

Highway Counter Location	AADT				
			Percent Change		Percent Change
	2001	2003	2001 - 2003	2006	2003 - 2006
USH 8					
East of Beech Avenue	1,800	1,800	0.0	1,700	(5.56)
West of CTH U	1,600	1,700	6.3	1,700	0.00
East of CTH Q	1,300	1,600	23.1	n/a	n/a
At 3 Mile Road	1,500	1,700	13.3	n/a	n/a
West of USH 141	2,000	2,100	5.0	1,700	(19.05)
East of USH 141	2,200	2,100	(4.5)	2,000	(4.76)
Norway, MI Bridge	2,100	2,100	0.0	2,000	(4.76)
USH 41					
South of CTH W (Oconto County)	10,600	8,900	(16.0)	10,000	12.36
North of Reif Road	8,800	9,300	5.7	8,800	(5.38)
Northeast of Flame Road	15,900	16,900	6.3	16,500	(2.37)
State Highway 180					
South of CTH G	3,100	3,500	12.9	3,200	(8.57)
South of CTH X	1,600	1,800	12.5	n/a	n/a
South of CTH JJ	1,200	1,300	8.3	1,300	0.00
At Hiatt Road	1,200	1,400	16.7	1,400	0.00
East of USH 141	1,800	2,000	11.1	n/a	n/a
State Highway 64					
East of CTH RW	3,900	4,700	20.5	n/a	
At Rehms Road	3,900	3,900	0.0	3,900	0.00
East of CTH W	3,100	3,000	(3.2)	2,800	(6.67)
West of CTH W	1,400	1,800	28.6	1,400	(22.22)
East of USH 141	1,500	1,600	6.7	n/a	
West of USH 141	1,700	2,100	23.5	1,800	(14.29)
East of CTH Q	1,700	1,900	11.8	n/a	n/a

Source: Wisconsin Department of Transportation, *Wisconsin Highway Traffic Volume Data*, 2001, 2003 and 2006; and Bay-Lake Regional Planning Commission, 2008.

Traffic has fluctuated significantly between 2001 and 2006 on Marinette County's U.S. and state highways. This has included several decreases in observed traffic volumes along several highways in cities and larger villages. Total traffic volumes in 2001, 2003 and 2006 are within the capacities of these highways to handle the traffic. Steep increases and decreases are often the result of local conditions at the time of the traffic volume count.

Table 8.5: Annual Average Daily Traffic, USH 141, Marinette County

Highway Counter Location	AADT				
	2001	2003	Percent Change 2001 - 2003	2006	Percent Change 2003 - 2006
USH 141					
South of Oconto County Line	7,800	8,800	12.82	8,300	(5.68)
North of CTH M	7,100	7,200	1.41	8,300	15.28
North of CTH B	7,800	8,700	11.54		
South of CTH Q	7,800	9,000	15.38	8,400	(6.67)
South of STH 64	7,600	8,200	7.89		
North of STH 64	7,000	8,300	18.57		
South of CTH P	6,000	6,600	10.00		
North of 17th Road	6,100	6,300	3.28	7,400	17.46
South of South Street (Crivitz)	7,000	7,000	0.00		
South of CTH W	8,800	9,100	3.41	9,200	1.10
South of CTH X	6,100	6,300	3.28	5,700	(9.52)
South of STH 180	5,500	5,800	5.45	6,000	3.45
South of CTH K	4,400	4,700	6.82	5,100	8.51
South of CTH Z	4,800	5,000	4.17	5,000	0.00
South of USH 8	5,000	5,300	6.00	5,700	7.55
North of USH 8 (west)	5,500	6,200	12.73	6,100	(1.61)
At CTH OO	4,600	5,100	10.87		
North of Cran Lane	4,500	4,200	(6.67)	5,300	26.19
At Spike Horn Lane	4,500	4,200	(6.67)	4,600	9.52
South of USH 8 to Norway	4,600	5,100	10.87	5,200	1.96
South of Niagara	4,800	5,100	6.25	5,100	0.00
Tyler Road (Niagara)	6,400	7,100	10.94	7,100	0.00
North of West Main Street (Niagara)	6,300	7,200	14.29	7,300	1.39
South of Wisc/Mich Bridge (Niagara)	7,200	8,100	12.50	8,400	3.70

Source: Wisconsin Department of Transportation, *Wisconsin Highway Traffic Volume Data*, 2001, 2003 and 2006; and Bay-Lake Regional Planning Commission, 2008.

Of the 15 locations on USH 141 where traffic was counted in 2001, 2003 and 2006, three locations showed significant increases between the 2003 count and the 2006 count. Annual average daily traffic increased on USH 141 (north of CTH M) by more than 15 percent between 2003 and 2006; and by 17.4 percent between the villages of Pound and Crivitz. Even more significantly, traffic increased by more than 26 percent on USH 141 at a count location north of Cran Lane, which is north of Pembine. However, total traffic volumes in both 2003 and 2006 are within the capacities of the highway to handle the traffic, and steep increases and decreases are often the result of local conditions at the time of the traffic volume count.

The traffic counts that were taken in 2006 by WisDOT illustrate the changes in traffic patterns and impacts of the improvements that were made to USH 141. A major impact of the construction was the removal of through traffic from the Village of Coleman and the Village of Pound resulting from the construction of the west bypass and interchange at CTH B. Table 8.6 illustrates that the overwhelming majority of the traffic that is utilizing the interchange is probably local traffic and that traffic is likely commuting to employment south of the villages.

Table 8.6: Annual Average Daily Traffic, USH 141/CTH B Interchange

Highway Counter Location	2006 (AADT)
USH 141 (CTH B Interchange)	
Northbound on ramp	370
Southbound on ramp	1,400
Northbound off ramp	1,300
Southbound off ramp	400

Source: Wisconsin Department of Transportation, *Wisconsin Highway Traffic Volume Data*, 2006; and Bay-Lake Regional Planning Commission, 2008.

Traffic Flow Capacity

The roads that serve the state, the region, and the county and local communities are designed and engineered to accommodate a maximum level of traffic, as illustrated in Table 8.7. The maximum total capacity of a multi-lane divided highway (such as USH 41 or USH 141) under ideal conditions is 2,000 vehicles per hour per lane, while the maximum total capacity of two-lane, two-way traffic highways (such as STH 64, most county highways and nearly all town roads) under ideal conditions is 2,000 vehicles per hour in both lanes. Volume-to-capacity ratios used for this measurement are determined by the Peak Hourly Traffic (PHT), regardless of traffic distribution by direction. The maximum capacity values presented in Table 8.7 should be considered the average maximum volume on various types of roads under ideal conditions.

Table 8.7: Uninterrupted Traffic Flow Capacities under Ideal Conditions

Highway Type	Capacity Peak Hour Traffic
Multi-Lane and Divided Highways	2,000 vehicles per lane
Two-Lane, Two-Way Highways	2,000 vehicles both lanes
Three-Lane, Two-Way Highways	4,000 vehicles all lanes

Source: Highway Capacity Manual (3rd Edition), Transportation Research Board, 1985; and Bay-Lake Regional Planning Commission, 2008.

As the comparison of the recorded average annual daily traffic, peak hourly traffic and traffic flow capacities in Table 8.7 indicate, at present, there are no known roads or road segments located within the county that have approached their design capacity.

Traffic Crashes

Vehicle crash reports (filed with local police departments, the Marinette County Sheriff's Department and with the Wisconsin Department of Transportation) provide the detail of the time, location, type and severity of the crash that has occurred. These reports are often excellent indicators of problems with road alignments, roadway construction, and geometric design of the road. The number, location and severity of crashes can often indicate problem areas (in terms of traffic safety) which can be alleviated through a variety of measures; alterations in the road geometry, enlargement of the intersection turning radii, placement of more prominent signs, relocation of access drives, and speed changes are just a few of the physical alterations and adjustments that can be made to make a specific intersection or area safer.

The crash data are further delineated by non-intersection and intersection crashes and by highway jurisdiction. Non-intersection crashes typically include: crashes between a vehicle and deer; crashes between a vehicle and a fixed object (such as a sign post, mailbox or tree); vehicles

leaving the road and sliding into a ditch; and crashes between a vehicle traveling on the roadway striking another vehicle entering or exiting the roadway or stopped to turn into a private property access. Intersection crashes are typically characterized by angle crashes, rear end crashes, and head-on crashes within the immediate area of a particular intersection. Intersection crashes often may be indicators of a problem with the sight triangle at the intersection (visibility), location and visibility of signs, and/or the geometric configuration of the roadway itself.

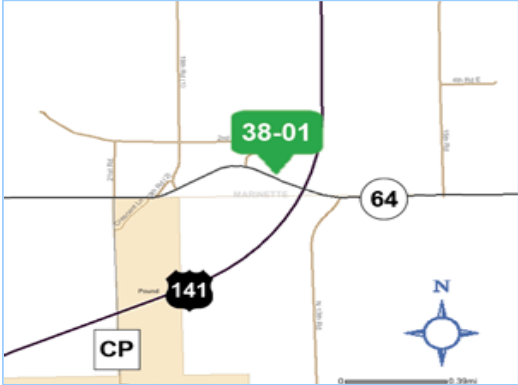
Access Controls

Access management is a means to maintain the safe and efficient movement of traffic along arterial highways by controlling the number and location of intersecting roads and driveways. Segments of USH 41 (the bypass of the City of Peshtigo under construction) and the USH 141 bypass of the village of Coleman and Pound, have been constructed as a freeway where access is totally controlled and prohibited except at interchanges. Likewise, the USH 141 bypass of Coleman/Pound has been constructed as a freeway with an interchange located at CTH B, west of the Village of Coleman. The Wisconsin Department of Transportation may also purchase access rights or employ various statutory and regulatory access control methods on rural state trunk highways which have sufficiently high traffic. In addition, state statutes allow counties, cities and villages (through an adopted ordinance) to control access on county highways that have traffic counts in excess of 1,000 vehicles daily.

Park and Ride Lots

Situated at various locations along major transportation routes, park and ride lots can be used to form carpools and vanpools and, in some major metropolitan areas, catch a ride on a commuter bus. There are 97 park and ride lots located throughout the state, and all of them are wheelchair accessible. In Marinette County, park and ride lots simply offer free parking.

There are three park and ride lots in Marinette County:



Marinette County Park and Ride Lot 38-01

To reach the Pound park and ride, motorists should take US 141 and head west on WIS 64. The lot is located on north side of WIS 64.

Description: Lighted asphalt lot with parking for 16 vehicles.

Services: Free parking

Marinette County Park and Ride Lot 38-02

To reach park and ride lot 38-02, motorists should take State Highway 64 and head north on County W. The lot is located immediately to the right.

Description: Asphalt lot with parking for 16 vehicles.

Services :Free parking

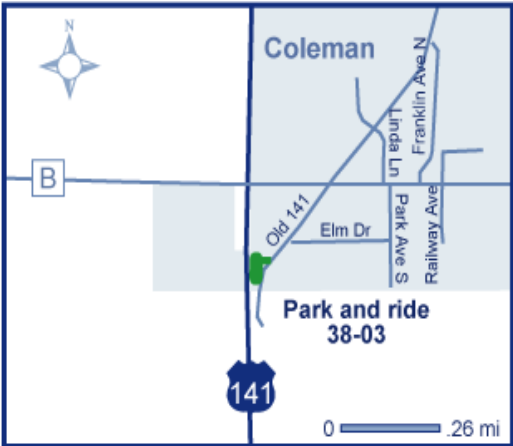


Marinette County Park and Ride Lot 38-03

To reach park and ride lot 38-03, motorists should take US 141 to County B in Coleman. Head east on County B. Turn south on Old 141. The lot is located on the west side of the roadway.

Description: Lighted, asphalt lot with parking for 31 vehicles.

Services; Free parking



Public Transportation/Transit

The City of Marinette operates a shared-ride taxi transit system with services provided by a private contractor. Taxi Inc provides door to door and seven day a week service (excluding holidays) utilizing three mini-vans and a full size wheelchair accessible van. Service is provided throughout the City of Marinette, as well as rural areas within a two-mile radius of the city, and the Cities of Menominee and Peshtigo. The only requirement for service is that the trip must originate in or be destined for the city of Marinette. In 2008, elderly passengers were charged \$1.75 per ride, and all other passengers (adults and children) were charged \$2.75 per ride. An additional fare of \$5.00 is charged to passengers riding to or from the city of Peshtigo. In 2007, the transit service was providing nearly 35,000 rides annually.



The funding for the deficit costs of the shared-ride taxi transit program is provided with state, federal and city assistance through an annual grant. In 2002, the state aid (the s. 85.20 urban mass transit operating assistance program) and the federal aid (the Section 5311 program) provided approximately 67 percent of the total transit program's operating cost. Passenger fares and the City of Marinette provide the remainder of the programs operating cost.

Elderly and Disabled Transportation

Elderly and disabled transportation systems refer to those programs that provide rides through scheduled bus services, volunteer programs with private vehicles etc. Current transportation services for elderly and disabled persons living within Marinette County are provided through programs administered by Marinette County Elderly Services (Rural Transportation Program) and the Marinette County Health and Human Services Department.

Marinette County Elderly Services provides medical related and nutritional related (to meal sites) trips which receive priority, followed by work related and recreational and/or business related trip needs for county residents. The cost of the special transportation services is borne by state subsidy through the Wisconsin Department of Transportation's Section 85.21 (*Special Transportation for the Elderly and Disabled Transportation*) grant program, and county funds (a minimum 20 percent match of the state grant is required), donations and fares collected from passengers.

Intercity Bus Transportation

In the past, nearly every small community in the state was connected by an intercity bus service, which traditionally served the elderly, those who could not drive, students, and those individuals unable to afford alternative forms of transportation. Following World War II, intercity bus systems helped to fill a void for "affordable transportation" that was created by the decline of passenger rail service. Unfortunately, intercity bus service suffered the same fate as passenger rail service; as intercity bus ridership decreased, the number of intercity bus routes operating within the state also declined drastically. Intercity bus routes now tend to serve only the largest urban centers and those smaller urban areas that just happen to be adjacent to a route that connects two larger cities.

Intercity bus services through Marinette is currently provided by Indian Trails Bus Service. They operate a line that runs from Calumet in Michigan's Upper Peninsula via USH 141, through the cities of Marinette, Peshtigo, Oconto, Green Bay and down to Milwaukee.

Bicycle Transportation

The following bicycle facility types are used in the inventory of the bicycle facilities in Marinette County. The facility types are defined by the American Association of State Highway and Transportation Officials; Guide for the Development of Bicycle Facilities (2000).

- **Shared Roadways (No Bikeway Designation)** are common highway, road or street that has no specific accommodations for bicyclist, where bicycling is permitted. The overwhelming majority of bicycle travel in the United States now occurs on highways, roads and streets without bikeway designations.
- **Signed Shared Roadway** are highways, roads, and streets with no specific accommodations for bicyclist except for bike route signs. A *publicly defined route* is a route defined by a legislative body (county, city, village or town) in a plan, formally adopted by the respective local unit of government or county. A locally defined route is a route recommended by a non-public group or organization (*Chamber of Commerce; bicycle club; trail group, etc.*). Either type may be signed, and often times, the routes are mapped routes. The routes/loops in Marinette County are defined in an adopted plan by the county; therefore, the routes are examples of publicly defined routes.
- **Bike Lanes or Bicycle Lanes** are roads with pavement markings and signing identifying a specific lane or right-of-way for bicyclist. Bike lanes are intended to delineate the right of way assigned to bicyclists and motorists, and to provide for more predictable movements by each.
- **Shared Use Paths** are bicycle facilities that are separate from the street and road system. Generally, shared use paths should be used to serve corridors involving streets and highways not suitable for bicyclists or where wide utility or former railroad right-of-way exists, permitting such facilities to be constructed away from the influence of parallel streets. Shared use paths should offer opportunities not provided by the road system.

Shared Roadways (No Bikeway Designation)

Within Marinette County, shared roadways without bicycle facilities include all local roads, minor arterials and collectors that based on volumes of traffic, pavement conditions and pavement widths, and other favorable factors such as good sight distance and minimal truck traffic provide suitable accommodations for bicyclist.

Signed Shared Roadways

Publicly Defined Routes

Marinette County contains a system of nine officially designated bicycle route loops, which are:

- **Menominee River Century Loop:** A 23 or 68 mile route that travels through the Cities of Marinette and Peshtigo and extends north to the Towns of Wagner and McAllister. The eastern portion of the loop extends into Michigan and travels along the Menominee River. This loop is used as part of the annual Menominee River Century bike ride, which attracts hundreds of bicyclists to the area each year.



- **Crivitz Loop:** A 12-mile loop in central Marinette County that travels through the Village of Crivitz and near Lake Noquebay. The loop does not include access to Lake Noquebay County Park. It is also not connected to any other loops in the system.
- **Thunder Mountain Loop/Parkway Road:** The 21-mile Thunder Mountain Loop provides access to Twin Bridge and Veterans Memorial Park. Because this route travels through the county's most popular tourism area, vehicular traffic can be heavy.
- The **Parkway Road** route travels north through the western part of the county. Designated a rustic road, Parkway Road is one of the most scenic areas of the county. Much of the route is surrounded by county-owned forest. McClintock and Goodman parks are along the route, and the northern end of the route ends at the Goodman Town Park (CTH H.) Approximately five miles of the route travels along USH 8, where a designated bicycle lane is available.
- **Coleman/Pound Loop:** The Coleman/Pound Loop travels north and links with the Village of Crivitz and the Crivitz Loop. The loop primarily travels along town roads, although small segments are designated along CTHs P and Q.
- **Morgan Park Side Trip:** Extending directly northeast of the Pembine/Amberg Loop, this route travels by two of Marinette County's tallest waterfalls - Long Slide Falls and Smalley Falls. Morgan County Park on Timms Lake is also along the route. The route dead-ends to the north in order to avoid traveling on USH 141, where designated bicycle lanes are not available.
- **Pembine/Amberg Loop:** A 30 or 45 mile route that provides access to Twelve Foot Falls and Dave's Falls County Parks. Two portions of the route, one near Pembine and the other near Dave's Falls Park, travel along heavily traveled USH 141. A designated bike lane along these sections of USH 141 is not available.
- **Four Seasons Loop:** Approximately 40 miles long, this loop travels by the Four Seasons Club on the Menominee River, and adjacent to the Miscauno Wildlife Area. The southwest portion of the loop provides access to Bulls Falls and to Dave's Falls County Park. A half-mile portion of the loop to Dave's Falls is along USH 141.
- **Pike River Loop:** Starting at Dave's Falls County Park, this loop travels south to the Village of Wausaukee and along much of the Pike River, which is designated a wild river by the Wisconsin Department of Natural Resources.

The bicycle route loops are recommended routes made by bicycle groups in the Marinette County area. The routes are located on less traveled roads through scenic areas in the county. Amenities are available in the towns and villages the routes pass through.

Locally Defined Routes

There are no locally defined routes in Marinette County.

Shared Use Paths

Bicycle Paths Located within Street Rights-of-Way

Marinette County does not have any bicycle paths located within street rights-of-way.

Off-Street Bicycle Paths

Marinette County does not have any off-street bicycle paths.

Recreational Trails

Marinette County does not have any recreational trails.

Bike Lanes or Bicycle Lanes

Marinette County does not have any bicycle lanes.

State Assessment of Bicycle Routes in Marinette County

The *Wisconsin Bicycle Transportation Plan 2020* assessed conditions for bicycling in Marinette County.

The Wisconsin State Bike Map classifies state and county highways throughout the state in terms of bicycling conditions. The map also identifies bicycle trails and mountain bike facilities, and provides contacts for local bicycle route information. Town roads are not rated for their bicycling conditions, but are identified with their road names and surface type. Each county map highlights the most favorable bicycling conditions while presenting the full continuum of roadways, from narrow town roads to U.S. Highways. This approach enables cyclists of all abilities to select their own routes to meet their individual transportation and recreational needs.

Map 8.2 illustrates the recommended bicycles facilities for Marinette County.

Railroads

The state of Wisconsin is currently served by 12 operating railroads utilizing a system of approximately 4,000 miles of track. Eleven freight railroads in Wisconsin operate on a system of over 3,400 route miles. Combined, they handled over 2.5 million cars and 136 million tons of freight per year.

Rail service in Marinette County is provided by the Canadian National Railroad Company (the CN) and the Escanaba & Lake Superior Rail Company (the E&LS).

Canadian National (CN)

The CN track which serves the Cities of Marinette and Peshtigo originates approximately 100 miles north, in the City of Ishpeming, Michigan. The track traverses south from Ishpeming through the Upper Peninsula, to the City of Marinette, on through Peshtigo, and then on to the City of Oconto before terminating at its regional hub in Green Bay. The CN is classified as a Class I railroad by the Wisconsin Department of Transportation generating over \$50 million dollars in annual revenues. The CN is one of the larger operating rail lines in the state of Wisconsin.



Service is also provided from Wells (just north of Escanaba, Michigan) west through Hermansville and Powers in the Upper Peninsula, through Pembine, Dunbar, Goodman and Armstrong Creek. This segment of CN track parallels USH 8, nearly crossing the entire state, before terminating at Cameron, just south of Rice Lake.

Escanaba & Lake Superior

The Escanaba & Lake Superior Railroad (E&LS) is a privately owned shortline railroad company operating in Northeastern Wisconsin and the Upper Peninsula of Michigan. Under current ownership, the E&LS has expanded from the original core line of 65 miles that was purchased in 1978, to over 235 miles of operating railroad in 2005. The E.&L.S. also has an headquarters in Wells, Michigan, with an office located in Green Bay, Wisconsin.



The 208 mile mainline of the E&LS stretches from Ontonagon, Michigan on the shores of Lake Superior to the City of Green Bay. In addition to the mainline, two key branches are the 6-mile Stiles Junction, to Oconto Falls, line and the 21-mile Crivitz to City of Marinette, line. Other lines owned by the E&LS include Channing to Republic, and Channing to Wells in Michigan. The E&LS operates on trackage rights over the Canadian National Railroad from North Escanaba, Michigan to Pembine. The E&LS connects with the Canadian National at Green Bay, North Escanaba, Pembine, and Iron Mountain, Michigan.

Air Service

The inventory of air transportation systems and facilities includes both public airports that service the region and also the private or semi-public airport facilities that service private commercial and recreational interest. Airports serving Marinette County include Austin Straubel International Airport at Green Bay, Twin County Airport at Menominee, Michigan; Crivitz Municipal Airport, and Ford Airport at Kingsford, Michigan.



Public Airports

Austin Straubel International Airport

At the regional level, the primary commercial-passenger and air freight service for residents of the City of Marinette is provided by Austin Straubel International Airport, located near the City of Green Bay. Austin Straubel is owned and operated by Brown County. Austin Straubel International Airport is currently served by six (6) passenger airlines serving nine (9) destinations; Atlanta, Chicago, Cincinnati, Detroit, Las Vegas, Marquette, Milwaukee, Minneapolis and Phoenix. In April, 2008, Continental Airlines will begin service to Cleveland.

Twin County Airport

Twin County Airport is located just west of the City of Menominee, Michigan, and just north of the City of Marinette. Available services include fuel, charter flights, and aircraft manufacturing services. The facility is owned jointly by the counties of Marinette, Wisconsin and Menominee, Michigan. It is managed and maintained by the Twin County Airport Commission.

Twin County Airport is home to several businesses including Enstrom (manufacturer of light piston and turbine powered helicopters) and a flight school. The airport consists of two runways

and associated taxi ways. One runway is 5,100 feet long and the other 5,990 feet. The runways can accommodate turbo prop airplanes and mid-size turbo jets. Other facilities include the main terminal building, maintenance garage, a warehouse building that is rented to Enstrom Helicopter, and an 81'x102" hangar that was rented to a fixed based operator. The terminal building includes the manager's office, counter space that was rented to a commuter airline, and a small office for pilot briefings which includes the weather computer and automated weather observation system. Tenant hangars are not owned by the airport. The tenants construct the hangars and are responsible for their own maintenance and utilities. They pay rent to the airport for the use of the airport land. They also pay property taxes on the hangar building. There are 40 aircraft based at the airport.

Crivitz Municipal Airport

Crivitz Municipal Airport is located in the town of Stephenson, three (3) miles southwest of the village of Crivitz. The airport is owned by the town of Stephenson and maintained by the Manager (FBO). It can be accessed by County trunk W, off of USH 141. The facility is classified as a Basic Utility-A (BU-A) airport, indicating that it is designed to accommodate aircraft of less than 6,000 pounds gross weight, with approach speeds below 91 knots and wingspans of less than 49 feet, typically single-engine piston. This airport has one asphalt runway that is 2,155 feet long and one turf runway that is 1,270 feet long. This facility provides no additional services.

Ford Airport

Ford Airport, located in Kingsford, Michigan (Dickinson County), is classified as a General Utility Two facility, which denotes that it is capable of serving large aircraft up to 60,000 pounds with wingspans of less than 118 feet. These aircraft range from typical corporate aircraft (including jets) to commuter airline aircraft. This facility has two asphalt paved runways, the longest of which is 6,500 feet. The facility is owned by Dickinson County and maintained by Superior Aviation (FBO). The airport can be accessed by State Highway 95, off of U.S. 2/141. Dickinson County/Ford Airport has a fixed base operator offering a full line of services. In addition, a regional commuter, Superior Airlines provides two flights daily to and from Minneapolis, Minnesota; and one flight daily, to and from Chicago, Illinois. The airport had 17,306 enplanements (passengers boarding or alighting) in 2001. Available services include fuel, major airframe and power plant repair, charter, rental and instructional services.

Private Recreational Airports

There are also several privately owned airstrips located within Marinette County providing general small craft services and/or recreational flights to the public. These small, private airport facilities offer minimal services, and are generally utilized by recreational fliers. Private recreational airports are generally characterized by short (2,000 to 3,000 foot) turf covered runways which can accommodate small single engine and light twin engine aircraft.

Private airport facilities are required to obtain a certificate of approval or permit from the Wisconsin Department of Transportation's Bureau of Aeronautics. The permit is issued if the Department determines that the location of the proposed airport is compatible with existing and planned transportation facilities in the area. Generally, permits are granted provided that the proposed air strip is located such that approaching and departing aircraft clear all public roads, highways, railroads, waterways or other traverse ways by a height which complies with applicable federal standards. The permit is issued upon satisfactory review of the application by

WisDOT, the county, the local jurisdiction in which the proposed facility would be located, and by the applicable regional planning commission.

There are also several privately owned airstrips located within Marinette County providing general small craft services and/or recreational flights to the public. These small, private airport facilities offer minimal services, and are generally utilized by recreational fliers. Private facilities are generally characterized by short (2,500' to 3,000') turf covered runways which can accommodate small single engine and light twin engine aircraft.

Waterborne Transportation

The City of Marinette, Wisconsin, on the south side, and the city of Menominee, Michigan, on the north side, form a deep-draft harbor at the mouth of Menominee River. The harbor is on the west side of the Bay of Green Bay, about 33 miles southwest of Porte des Morts Passage and 17 miles northwest of the Sturgeon Bay Ship Canal.

The Menominee River forms the State boundary between Wisconsin and Michigan for about 150 miles from its mouth. The principal commodities handled in the harbor are coal, stone, sand and salt.

Navigation Channel

A dredged entrance channel leads southwest from deep water in Green Bay between parallel piers at the mouth of Menominee River and then upstream for about 1.8 miles to about 600 feet below the Dunlap Avenue bridge. A turning basin is on the south side of the channel about 1.2 miles above the mouth. The entrance channel is marked by buoys, and the outer ends of the piers and the inner end of the north pier are marked by lights. There is a turning basin located in the inner harbor approximately 6,600 feet downstream of the entrance channel. The turning basin has an authorized depth of 21 feet.

Above the dredged channel, the river has depths of 1 to 5 feet, and is obstructed by numerous rocks. A dam blocks the river approximately 0.7 miles above the dredged channel

Menominee River Harbor at Marinette

The Menominee River Harbor is classified as a diversified cargo port by the Wisconsin Department of Transportation. That designation describes those ports which handle one or two types of freight, where that freight origin or destination, is limited to the immediate vicinity of the port.

Major port uses on the Marinette side of the river include: the Marinette Marine Corporation where ships are constructed and temporarily moored during outfitting and repair; and Marinette Fuel and Dock Company which receives dry bulk commodities such as coal, pig iron, salt, limestone and lime. Major port uses on the Menominee side of the river include: K & K Warehousing, Great Lakes Pulp & Fiber, Inc. and Menominee Paper Co.

Recreational Marinas

Harbor Town Marine

Harbor Town Marine is located on the mouth of the Menominee River in Marinette. The marina offers 110 permanent and transient slips. The marina can accommodate vessels up to 50 feet. Facilities include gasoline, diesel fuel and pumpout services. Special features include a dock attendant, a 13 ton lift, showers, kitchen facilities, indoor storage and park and picnic facilities.

Nestegg Marina

This marina is located on the Menominee River in Marinette. The marina offers 100 permanent slips and 5 transient slips. The marina can accommodate vessels up to 60 feet. The water depth is 15 feet. Facilities at this full service marina include gasoline, diesel fuel and pumpout services. Special features include a dock attendant, showers and restrooms. A Mercury Marine dealership sells and services several models of boats.

Menominee Marina

This marina is in Menominee, Michigan. The marina offers 263 permanent and transient slips. The marina can accommodate vessels up to 90 feet. The water depth is 8 feet. Facilities at this full service marina include gasoline, diesel fuel, fresh water and pumpout services. Special features include a dock attendant, showers, laundry facilities, park and picnic facilities, and restrooms.

M & M Yacht Club

Located on the western shores of the Bay of Green Bay, in the historic waterfront district of Menominee, Michigan, The M & M Yacht Club resides in the Menominee Marina. The yacht club has hosted several noteworthy sailing regattas). The M & M Yacht Club has reciprocal transient docking agreements with several other marinas and yacht clubs in the region.

INVENTORY OF APPLICABLE TRANSPORTATION PLANS AND PROGRAMS
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The following section of this chapter presents information on existing state, regional, county and local transportation related plans that apply to Marinette County.

Wisconsin State Highway Plan

The *Wisconsin State Highway Plan 2020* states that, “Wisconsin's State Trunk Highway system, consisting of approximately 11,800 miles of roads, is aging and deteriorating at the same time traffic congestion is increasing.” In response to this critical issue, WisDOT, in partnership with its stakeholders, developed the State Highway Plan 2020, a 21-year strategic plan which considers the highway system's current condition, analyzes future uses, assesses financial constraints and outlines strategies to address Wisconsin's preservation, traffic movement and safety needs. The plan will be updated every six years to reflect changing transportation technologies, travel demand and economic conditions in Wisconsin.

The Wisconsin State Highway Plan 2020 addresses three key elements or issues of concern relative to the State Highway System:

- Preserving the system by improving or replacing aging pavements and bridges;
- Facilitating movement of people and goods through an efficiently designed system, and with programs that reduce traffic congestion; and
- Improving highway safety through combined strategies of engineering, education and enforcement.

Connections 2030

Connections 2030 will be the statewide long-range transportation plan with a horizon year of 2030. Connections 2030 will address all modes of transportation – roadways, air, water, rail,

bicycle, pedestrian and transit – and ways to make the individual modes work better as an integrated transportation system. Connections 2030 will differ from WisDOT’s previous planning efforts. Beginning with the release of Translinks 21 in the mid 1990s, WisDOT has prepared a series of needs-based plans for various transportation modes.

Connections 2030 will be a policy-based plan. The policy recommendations include a series of action steps to be accomplished within two to four years, five to ten years, or more than ten years into the future. WisDOT may also identify critical priorities that metropolitan planning organizations (MPOs) must maintain if funding were to decrease during the timeframe covered by the plan.

While the final plan will include statewide policy recommendations, some of these recommendations may differ by specific corridors in the state. Connections 2030 will also include recommendations on such issues as economic development, land use, transportation finance and the environment. The goal of Connections 2030 is to provide a plan that can aid policy makers in future transportation decisions.

Six-Year Highway Improvement Program

The Wisconsin Department of Transportation develops a *Six-Year Highway Improvement Program* which addresses the *rehabilitation* of Wisconsin’s state highways. Rehabilitation falls into three major categories (resurfacing, reconditioning and reconstruction) giving it the often used abbreviation “3-R Program.”

Resurfacing entails provision of a new surface for a better ride and extended pavement life;

Reconditioning entails addition of safety features, such as wider lanes or softening of curves and steep grades; and

Reconstruction entails complete replacement of worn roads, including the road base and rebuilding roads to modern standards.

State Airport Plan

The *Wisconsin State Airport System Plan 2020* (SASP 2020) provides a framework for the preservation and enhancement of the system of public-use airports adequate to meet the current and future aviation needs of Wisconsin. The plan determines the number, location and type of aviation facilities required to adequately serve the state’s aviation needs over the 21-year planning period from 2000 through 2020. The plan defines the State Airport System and establishes the current and future role of each airport in the system.

Public Transit – Human Services Transportation Coordination Plan for Marinette County

The Bay-Lake Regional Planning Commission assisted Marinette County Elderly Services in developing its first *Public Transit – Human Services Transportation Coordination Plan* in 2006. These plans are required under federal law for counties to receive federal funding under three programs: the Section 5310 capital program, the Job Access Reverse Commute (JARC) program, and the New Freedom program. A meeting was held with stakeholders to develop the plan in early June of 2006, and the plan was submitted to WisDOT in September 2006.

The Bay-Lake Regional Planning Commission also assisted Marinette County Elderly Services in amending its Public Transit – Human Services Transportation Coordination Plan in 2007. The plan was amended primarily because Marinette County Elderly Services was submitting a grant application for vehicles under the Section 5310 capital program.

State Pedestrian Plan

The *Wisconsin Pedestrian Policy Plan 2020* outlines statewide and local measures to increase walking and to promote pedestrian comfort and safety. The plan provides a policy framework addressing pedestrian issues and clarifies WisDOT's role in meeting pedestrians' needs. It establishes actions and policies to better integrate pedestrian facilities into the transportation system over the next twenty years.

The state plan also provides recommendations to assist local officials in meeting their communities' pedestrian transportation responsibilities. The plan outlines specific design guidance for local officials found in WisDOT's Facilities Development Manual (FDM); state funding for local pedestrian projects provided primarily through the General Transportation Aids (GTA) Program; and safety and education program funding provided by WisDOT to local agencies.

State, Regional and Local Bicycle Plans

State Bicycle Plan

The *Wisconsin Bicycle Transportation Plan 2020* has as its two primary goals:

- Increase levels of bicycling throughout Wisconsin, doubling the number of trips made by bicycles by the year 2010 (with additional increases achieved by 2020); and
- Reduce crashes involving bicyclists and motor vehicles by at least 10 percent by the year 2010 (with additional decreases achieved by 2020).

Recommended actions include 1) developing local bicycle transportation plans; 2) providing suitable space for bicyclists when designing roadway projects; 3) following accepted bikeway guidance and standards; and 4) routinely considering bicyclists when developing roadway projects. The Wisconsin Department of Transportation produced a set of maps that identified bicycle conditions on major routes and roads for Marinette County. The maps assessed and identified bicycling conditions, planned state highway priority corridors and key linkages between major destination points. An analysis of the bicycling conditions for Marinette County can be found under "bicycle transportation" in the "Inventory of Transportation Facilities" section of this chapter.

Regional Bicycle Plan

The *Bicycle Facility Transportation Plan for the Bay-Lake Region* (adopted in 2002) identified a system of connecting routes and needed improvements connecting all municipalities and major destination points throughout the eight-county region, including Marinette County. The regional plan proposes transportation facility improvements (paving road shoulders to a usual width of five feet) to provide safe and efficient travel paths between communities located within Marinette County and the adjoining communities in adjacent counties. The Regional Bicycle Plan mostly recommends paving road shoulders (five feet in width) on several U.S., state and county highway segments in Marinette County, as well as a limited number of local road segments in the county with significant traffic.

TRANSPORTATION FACILITY FUNDING AND TECHNICAL ASSISTANCE PROGRAMS

There are numerous Federal and State programs that provide technical and financial support for the operation, maintenance and planning of the county's transportation Systems. See Appendix C for a list of those programs.

General Transportation Aids

General transportation aid is paid to local governments (counties, cities, villages, and towns) to assist in the maintenance, improvement, and construction of local roads. This aid must be used for transportation-related expenditures. Aid payments are made from the state's segregated transportation fund, which includes revenues from the motor fuel tax, vehicle registration fees, and other transportation-related taxes and fees. For 2006-07, general transportation aid payments equaled 26.3 percent of the transportation fund appropriations. General transportation aid is calculated and paid on a calendar-year basis, with quarterly payments on the first Monday of January, April, July, and October.

There are two basic formulas by which general transportation aid is distributed: (1) share of costs aid; and (2) mileage aid. In 1994, county and municipal governments began receiving separate general transportation aid distributions. Counties receive only share of costs aid, while municipalities receive payments based on either share of costs aid or mileage aid, whichever is greater. The Department of Transportation (DOT) is required, by October 1 of each year, to notify each county and municipal clerk of the estimated transportation aid payments to that county or municipality for the following calendar year.

Under 1999 Act 9, the general transportation aid formula was suspended for calendar year 2001 aid payments. Rather, DOT provided an aid amount to each recipient in 2001 that was equal to the aid amount that was received under the formula calculation for calendar year 2000. Beginning in 2002, and thereafter, payments are again made under the formula calculation.

Aid to Counties

Initial entitlements to counties are based on the share of costs formula. Share of costs aid amounts are computed by multiplying each county's six year average highway-related costs (2000 through 2005 for 2007 payments) by a statewide average cost-sharing percentage. This percentage "floats" to a level that generates general transportation aid payments equal to a targeted distribution for counties (\$93,682,400 for 2007, and thereafter). For the 2007 distribution, the county cost-sharing percentage is estimated at 22.5 percent.

Aid to Municipalities

Each municipal government's initial entitlement equals the greater of its share of costs aid or mileage aid amounts.

Share of Costs Aid. The share of costs formula works the same for municipalities as for counties. The targeted general transportation aid distribution for municipalities is \$294,736,000 for 2007, and thereafter. For the 2007 distribution, the municipal cost-sharing percentage is estimated at 18.3 percent.

Mileage Aid. Mileage aid amounts are computed by multiplying the number of miles of road or street under the jurisdiction of each municipality by a specified mileage rate (\$1,899 per mile for 2007, and thereafter).

Mileage Reporting

Since 2001, for the purposes of determining transportation aid, local governments must submit to DOT either: (a) a certified highway mileage plat, if changes in mileage have occurred within their jurisdiction since the last plat was submitted; or (b) a certified statement that no changes in jurisdictional mileage have occurred since the plat was filed. DOT may require that a certified plat be submitted for odd-numbered years following a federal, decennial census. Jurisdictional mileage includes highway mileage under the jurisdiction of a local unit of government that will be open and used for travel on the following January 1. Any changes in jurisdictional highway mileage are first reflected in mileage aid determinations for the second year following the year of the submission of the plats indicating the changes. Local governments, with the cooperation and assistance of DOT, must also conduct a biennial assessment of the physical condition of the highways within their jurisdiction and report the results to DOT. In making these assessments, local units of government are required to use a pavement rating system (PASER) approved by DOT.

In 2007, General transportation Aid to Marinette County totaled more than \$1,125,000 and transportation aids to the County's 25 communities totaled nearly \$4 million.

The 2008 flat rate has been set at \$1,956 per mile and will increase to \$2,015 per mile in 2009.

TRANSPORTATION RECOMMENDATIONS

Road Improvements

In order to improve traffic safety and to maintain the efficiency of state and county trunk highways, the County and its cities, villages and towns should continue to direct and promote development that minimizes direct access to these highways to the extent possible. This can be achieved by requiring adequately spaced driveways, by requiring frontage roads that access numerous properties or driveway accesses that can serve more than one property.

Local Mileage Certification

Each local government that increased or decreased the mileage of its roads and streets is required to file a certified plat with DOT by December 15 of each year. Local governments that have no changes in total local road miles are required to file a certified plat or a certified statement that no mileage changes have occurred. Local road certification also includes the requirement to report major street rehabilitation and improvements, new construction and reconstruction of existing streets. Asphalt overlays of one inch or more are considered major improvements to the road. Communities are not required to report crack filling or seal coating projects.

Initiate or Update Pavement Management Programs

Local streets and roads are rehabilitated, repaired and maintained with funds provided by the State's Local Roads Improvement Program (LRIP). This program provides each local unit of government in the state with financial support derived from state taxes on gasoline and other transportation/vehicle related surcharges for local road maintenance and repair.

It is recommended that a "pavement management" system be updated and utilized by the county and each of its municipalities. The system provides a detailed inventory and description of all streets and highways within the county and its municipalities, provides a detailed surface condition survey of those streets and highways, defines the goals and objectives of each local

municipality with respect to its road maintenance and repair, and establishes a long-term maintenance schedule which would prioritize the road maintenance and repair needs.

A pavement management program is simply a Capital Improvement Program geared specifically to the roads in each of the county's municipalities. The pavement management program provides the county and its municipalities with a detailed, defensible document, which will assist elected and appointed officials in making informed decisions regarding road maintenance and repair.

WisDOT now requires biennial updates of pavement management data from local jurisdictions; it is likely that most local jurisdictions in the county are already keeping their Pavement Management Program updated regularly.

Employ Adequate Design Standards

New highways and roads, in the optimum setting, should be designed for their projected and desired use. Design standards should be applied to all new construction and, where possible, existing roads which are to undergo major repair and reconstruction shall undergo this work according to the standards set forth in this plan.

In examining the design of town roads, the "roadscape" of these facilities also should be considered as well. The "roadscape" includes the area adjacent to the road and within the established right-of-way or the ditch that serves as a vegetative buffer between the road and the adjacent lots, a location for traffic signs and for utility lines.

Speed Limit Controls

Local units of government can change speed limits for their roads under authority and guidelines in the *Wisconsin Statutes*. Local officials play a key role in setting speed limits. They must balance the competing concerns and the opinions of a diverse range of interests, including drivers (who tend to choose speeds that seem reasonable for conditions) and land owners or residents (who frequently prefer and request lower speed limits than those posted), law enforcement agencies with statutory requirements, and engineering study recommendations.

The prevailing speed, the one which most drivers choose - is a major consideration in setting appropriate speed limits. Engineers recommend setting limits at the 85th percentile speed, where 85 percent of the freely flowing traffic travels at or below that speed. An engineering study measuring average speeds is required to determine the 85th percentile speed limit. Other considerations include the roads design limit. This is the highest and safest speed for which the road was designed, and takes into account the road type, geometry and adjoining land uses.

Speeds should be consistent, safe, reasonable and enforceable. When 85 percent of the drivers voluntarily comply with posted speed limits, it is possible and reasonable to enforce the limits with the 15 percent who drive too fast. Unreasonably low speed limits tend to promote disregard for the posted limits, and make enforcement much more difficult. They may also promote a false sense of security among residents and pedestrians who may expect that posting lower limits will change drivers' speed behavior.

Apply Traffic Considerations

Traffic considerations which the county's communities should take into account when planning for future development may include the following:

1. Adequate vehicular and pedestrian access should be provided to all parcels of land.

2. Local street systems should be designed to minimize through traffic movement.
3. The street pattern should minimize excessive travel.
4. A simple and comprehensible system of street names and house numbering should be provided.
5. Traffic generators located within new subdivisions (such as schools, churches and parks) should be considered in the local circulation pattern.
6. The planning and construction of local residential streets should clearly indicate their function.
7. The local streets should be designed for a relatively uniform and low volume of traffic.
8. Local streets should be designed to discourage excessive speeds.
9. Minimize intersections.
10. Devote a minimal but adequate amount of space to street uses.
11. Roads are a function of land use, and therefore should not unduly hinder the development of land.
12. Pedestrian and bicycle paths should be separated from vehicle paths where possible.

Assess Special Transportation Needs

Transportation services for elderly and disabled persons are provided by the county and by private nonprofit and for profit carriers. The County and its communities should play as active a role as possible in the support, development and maintenance of special transportation services for its elderly and disabled populations.

Bicycle Facilities Plan

It is recommended that the County develop a bicycle facilities plan that identifies future connections to existing facilities and to the other important destination points in the county, including, but not limited to, Tommy Thompson State Park, county and municipal parks, recreational areas and schools.

Recommended Transportation Programs

The following transportation programs are recommended:

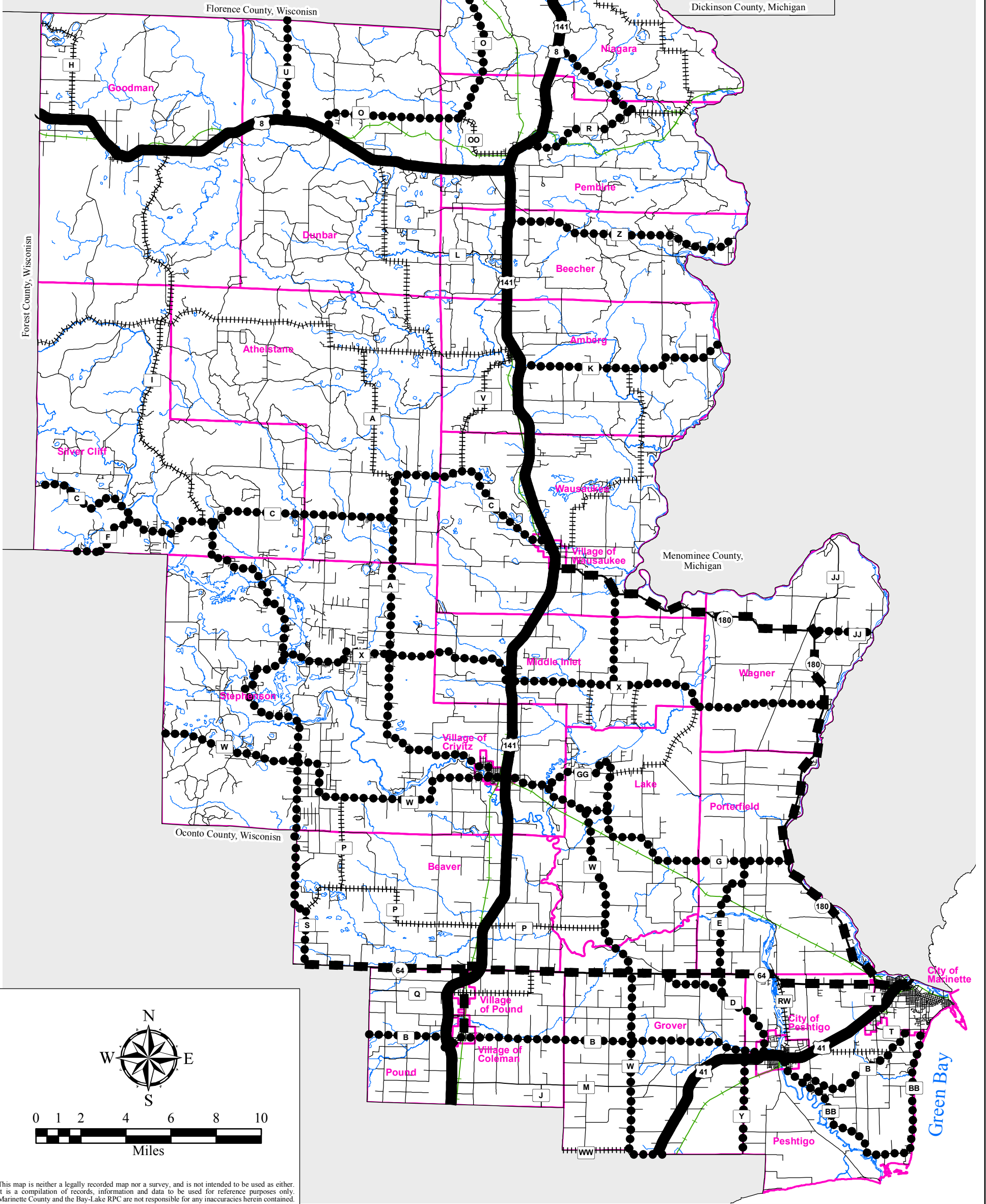
- Work with Marinette County, the Wisconsin Department of Transportation, and the Bay-Lake Regional Planning Commission to develop and maintain a long-range maintenance and improvement program for highways and roads.
- Work with the Marinette County Traffic Safety Commission and the Wisconsin Department of Transportation to provide an ongoing assessment of highway safety and efficiency.
- Work with the Wisconsin Department of Transportation to ensure safe and efficient access to all Interstate/U.S./State Highways and all arterial and collector streets and roads in the county.

Functional Classification of Roads

Marinette County, Wisconsin

Marinette County
20-Year Comprehensive Plan

8-31



This map is neither a legally recorded map nor a survey, and is not intended to be used as either. It is a compilation of records, information and data to be used for reference purposes only. Marinette County and the Bay-Lake RPC are not responsible for any inaccuracies herein contained.

Base Map Features

- MCD Boundary
- U.S. Highway
- State Highway
- County Highway
- Railroad
- Surface Water

Road Categories

- Principal Arterial
- Minor Arterial
- Major Collector
- Minor Collector

Source: WDOT; Marinette County;
Bay-Lake Regional Planning Commission, 2009.

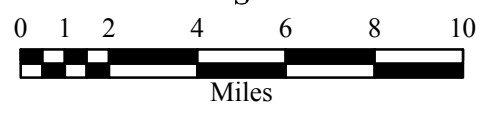
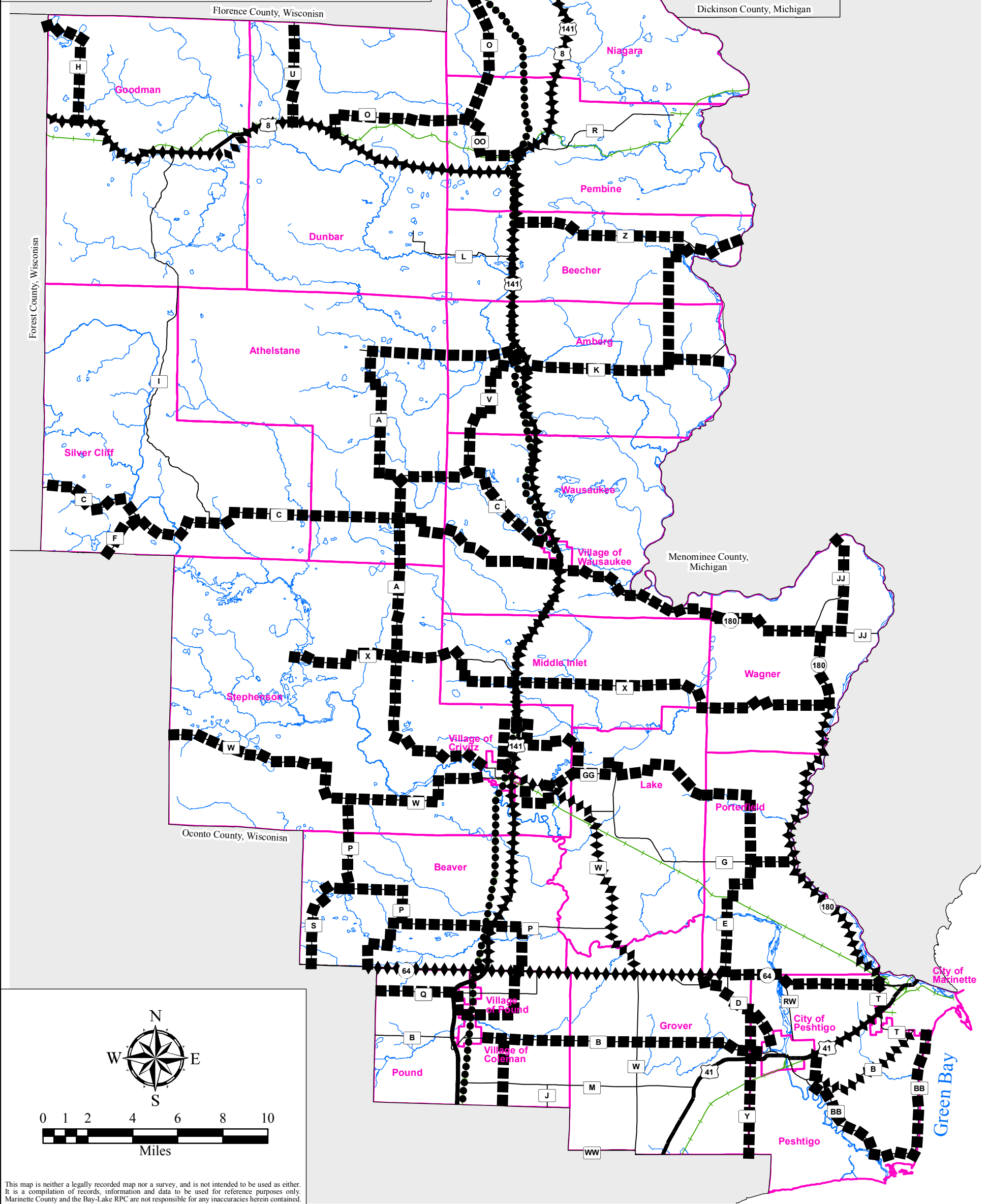
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Recommended Bicycle Facilities

Marinette County, Wisconsin

Marinette County
20-Year Comprehensive Plan

8-33



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Base Map Features

- MCD Boundary
- U.S. Highway
- State Highway
- County Highway
- Railroad
- Surface Water

Proposed Bicycle Accomadations Associated with Highway Rights-of-Way

- Existing Bicycle Routes
- Proposed Bicycle Routes

Bicycle Ways Associated with Natural Resource or Utility Corridors

- Proposed Bicycle Routes

Source: Marinette County; Bay-Lake Regional Planning Commission, 2009.

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CHAPTER 9: UTILITIES AND COMMUNITY FACILITIES

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INTRODUCTION

This chapter provides an inventory of the location, use, and capacity of existing utilities and community facilities in Marinette County. Public utilities and community facilities are important infrastructure needed to support a healthy, safe, and sustainable environment for individuals to live, work, and raise a family.

The availability, quality, and level of service are all contributing factors that attract and retain families and businesses in a community. These services include sanitary sewer service, storm water management, water supply, solid waste disposal, on-site wastewater treatment technologies, recycling facilities, parks, telecommunications facilities, power-generating plants and transmission lines, cemeteries, health care facilities, child care facilities and other public facilities, such as police, fire and rescue facilities, libraries, schools and other governmental facilities.

ELECTED OFFICIALS AND COMMITTEES

Marinette County Board of Supervisors

Marinette County is governed by an elected Board of Supervisors that represent 30 Supervisory Districts. These districts cover the county's eighteen towns, four villages, and three cities. All Supervisors serve a two-year term.

The County Board of Supervisors oversees many services provided by Marinette County. The Board of Supervisors has the responsibility of adopting and enforcing policies; establishing an operating budget; overseeing human resources; generating revenues through grants, taxes, and fees; making land use decisions through zoning; and ensuring services meet defined levels and quality. Much of this work is accomplished through committees comprised of Supervisors and supported by county staff.

UTILITIES INVENTORY AND ANALYSIS

Electric Service

Wisconsin Public Service, We Energies, and Oconto Electric Cooperative supply the majority of electric service to Marinette County communities and their residential, farm, commercial, and industrial customers.

The Cities of Marinette and Peshtigo purchase its electric supply from Wisconsin Public Service, the City of Niagara purchases its electric supply from We Energies, and the villages of Coleman and Pound and parts of the towns of Stephenson, Beaver, and Pound purchase their electric supply from Oconto Electric Cooperative.

Transmission Lines

Electricity is transmitted along any number of high voltage electric transmission lines owned and operated by the American Transmission Company (ATC). The major transmission lines within Marinette County include a 345-kV line that runs south from the Kingsford Hydroelectric Power Plant, owned by We Energies and located along the Menominee River. In addition, there are several 138 and 69-kV lines originating either from the Pulliam Power Plant in Green Bay or the Weston Power Plant located outside of Wausau. Both facilities are coal-burning power plants owned by Wisconsin Public Service.

Map 9.1 illustrates the location of the various transmission lines that distribute electricity to Marinette County residents.

Natural Gas

Natural gas is provided in areas of Marinette County by Wisconsin Public Service and We Energies. Wisconsin Public Service provides natural gas service to the cities of Marinette and Peshtigo, the villages of Coleman, Crivitz, Pound and Wausaukee, and all the towns within the county with the exception of Dunbar, Beecher, Amberg, Silver Cliff, and Athelstane. We Energies provides service to the town and city of Niagara.

Renewable Energy Sources

Renewable Energy Sources are sources of energy that are essentially inexhaustible. Such sources include water, solar, wind, and biomass (e.g., wood, waste, geothermal, hydropower, wind, photovoltaic, and solar thermal energy).

Fourteen hydropower facilities are located in or near Marinette County. Four are located in the town of Stephenson on High Falls, Johnson Falls, Caldron Falls, and Sandstone Rapids. Two are located along the Peshtigo River. The remaining hydropower facilities are located along the Menominee River.

Telecommunication Facilities

Telecommunications facilities include broadcasting, two-way radio, fixed-point microwave, commercial satellite, and cellular radio. Local telephone service is available through a number of providers. There are a variety of service providers also offering cellular and long distance telephone services.

A number of companies provide dial-up internet service to portions of the county. Additional lines also transmit high-speed internet such as T1, DSL, and cable. However, these higher speed internet capabilities are only available to limited areas of the county. Various satellite services offer access to high-speed internet as well and are available to all communities in the county.

Cable television is provided to the incorporated communities and in a limited number of towns. Dish Network and Direct TV offer satellite TV services to most areas of Marinette County.

Water Supply

Municipal water systems serve the majority of residential, commercial, and industrial users in the cities of Marinette, Peshtigo, and Niagara; the villages of Coleman, Crivitz, Pound, and Wausaukee; and the town of Goodman. These eight municipal water systems are supplied from groundwater through community wells. Each community's water system has been deemed sufficient to meet the everyday needs of their residents and in those rare instances where large quantities of water are needed for a short period to combat a structural, grassland, or forest fire.

Even though the current municipal water systems are considered adequate to service a forecasted increase in new users, the need to expand and/or upgrade these systems will be dependant on the types and numbers of new residential units and businesses that will locate within the seven communities over the next 20 years. Maintenance of wells, towers, pumps, lift stations, and piping will continue to be a priority as the current systems age and new development dictates a greater level of service and capacity.

Towns in Marinette County (except Goodman) are not serviced by municipal water systems. They rely on private individual or shared wells.

Sanitary Sewer Service

Wastewater Treatment Facilities

Wastewater in the urbanized and the more developed rural areas of Marinette County is treated by municipal wastewater treatment facilities. The sanitary sewer systems collect, pump, treat, and dispose of sewage discharged from residences, office buildings, and businesses. Municipal wastewater treatment systems encompass the following areas:

- City of Marinette and parts of neighboring towns
- City of Niagara
- City of Peshtigo
- Village of Coleman
- Village of Crivitz
- Village of Wausaukee
- Town of Goodman

The present municipal wastewater treatment systems are considered adequate at this time and for the next few years based on population projections. However, each system will need ongoing maintenance and their capacities evaluated on an ongoing basis as new development occurs in and adjacent to these municipal systems.

Sewer Service Area

A sewer service area is an identified geographic area where sewer services will most appropriately be made available sometime in the future. Delineating a service boundary is a critical step in designing sewage collection and treatment facilities to serve existing and future residents of the Sewer Service Area (SSA) that are cost effective and environmentally sound.

The service area is delineated using an area's 20-year population projection, an acceptable residential population density, and a forecast of non-residential (i.e. commercial and industrial growth) users all of which result in acreage demand and allocation. The service area excludes major areas found to be environmentally unsuitable for sewer development. Land included in the service area is deemed appropriate and economical to receive service; however, the governmental entities providing sewer service are not obligated to service specific areas.

The Marinette Areawide SSA encompasses 29 square miles of land in the southeastern corner of Marinette County and includes the City of Marinette and portions of the towns of Peshtigo and Porterfield.

Sanitary Sewer Districts

A sanitary sewer district is an independent special district providing wastewater collection, treatment, and disposal services to residents and businesses in a pre-determined geographic area. A board oversees the district and establishes an annual operating budget. An annual charge is based on the number of users in the district, type of user (residential, commercial, industrial) geographic area, and type of treatment and disposal. Users are assessed a fee that is collected bi-annually by the district to cover costs associated with the facilities. The Town of Goodman Sanitary District #1 is the only sanitary sewer districts within Marinette County.

Private Onsite Wastewater Treatment Systems

A private onsite wastewater treatment system (POWTS) is a system employing biological and mechanical processes to remove the viruses, bacteria, and other contaminants contained in the wastewater discharged from a dwelling or public building. The most common POWTS are conventional seepage trenches and beds; seepage pits; mound systems; and at-grade systems. Holding tanks are also regulated as a POWTS.

Chapter Comm 83 health and safety code sets parameters, options, prohibitions, and limitations for the design of POWTS. The purpose of this chapter is to establish uniform standards and criteria for the design, installation, inspection, and management of a private onsite wastewater treatment system, so it will protect public health by maintaining safe ground and surface waters. The code gives property owners the opportunity and flexibility to meet environmental performance standards with new treatment technologies where conventional systems were not previously permitted. As a result, communities should promote improved land use controls, orderly development patterns, and shared on-site systems to protect against the contamination of all water resources with the increase in use of these expanded systems.

Storm Sewer

The storm sewer system is designed to carry mainly rainfall runoff away from developed areas. The primary purpose of the storm sewer system is to drain excess rainfall to prevent flooding and provide drainage for roads and adjacent properties. These systems are not designed or meant to handle sewage.

Storm sewer systems consist of curbed streets, gutters, and a variety of storm pipelines with the inlets found at curbs or low-lying outdoor areas. Runoff is carried in underground pipes or open ditches and discharges (untreated) into streams or other surface water bodies. In the rural areas, stormwater primarily drains through a series of maintained ditches and culverts.

Although storm sewer systems are efficient at dispersing water away from developed areas to avoid flooding, they typically do not treat runoff. This is a concern for water quality in the watershed. Stormwater management is becoming increasingly important as more development creates greater runoff and increased susceptibility to poor water quality conditions.

COMMUNITY FACILITIES

Administrative Facilities

Marinette County Administration Center and Courthouse

The county’s administration center is located at 1926 Hall Avenue in the City of Marinette. The facilities house the County Administrative Coordinator, County Clerk, Clerk of Circuit Court, District Attorney, Child Support, Register in Probate, Corporation Counsel, County Treasurer, County Coroner, Court Commissioner, Finance, Human Resources, Information Services, Land Information, County Print Shop, Register of Deeds, Tourism, University of Wisconsin - Extension, and the County Veterans Service Office.

Other County Facilities

- Health and Human Services and Public Health, 2500 Hall Avenue, Marinette
- Economic Development, 601 Marinette Avenue, Marinette

- Emergency Operations Center including Emergency Management, Sheriff’s Department, and Jail, 2161 University Drive, Marinette
- Highway Facility and Public Works, 501 Pine Street, Peshtigo
- Dispatch/911, 2161 University Drive, Marinette
- Library Services, 1700 Hall Avenue, Marinette
- Wisconsin Job Center, 1605 University Drive, Suite B, Marinette

Solid Waste Disposal and Recycling Facilities

Waste is collected and disposed of either through public works departments, private haulers, or residents who transport their own refuse to designated areas. The waste is then hauled to the MAR-OCO Landfill located on N7785 Schaffer Road in the Town of Stephenson in Marinette County.

Recycling is regulated under Chapter 287 of the Wisconsin Statutes. Enacted in 1990, the Recycling Law effectively made recycling a mandatory activity by prohibiting certain materials from being disposed in landfills within the state. The Recycling Law allows yard waste, waste oil, and waste tires to be burned with energy recovery. A Wisconsin community must have an approved recycling program in order to use a Wisconsin landfill for disposal of municipal solid waste generated in that community.

Marinette County Land Information Department works cooperatively with all the municipalities to manage solid waste and state banned materials. Since 1995, the items listed below are banned from disposal in landfills and are collected at recycling centers. Some items may have a cost associated with their disposal.

- Lead
- Newspapers
- Major appliances
- Aluminum cans
- Corrugated cardboard
- Yard waste
- Bi-metal
- Cans
- Plastic containers¹
- Acid batteries
- Glass bottles and jars
- Magazines
- Used motor oil
- Steel (tin) cans
- Office paper
- Steel/aluminum
- Tires

In addition, all businesses and institutions must recycle computers and fluorescent bulbs unless they are managed as a hazardous waste.

Road Maintenance

The Highway Department's responsibility is to maintain the County and State Trunk Highway System for safety and convenience of people traveling through Marinette County. The Highway Department provides both general and winter maintenance including: patching, crack filling and seal coating of pavement, shoulder maintenance and vegetation control, bridge and culvert maintenance, litter and trash pickup, guard rail installation and repair, signing, pavement marking, and traffic control. Winter maintenance includes the application of sand and salt,

¹Currently only plastic food and beverage containers numbered one and two (#1 and #2) must be recycled. DNR has granted a waiver to collection requirements and disposal restrictions for plastic containers made of resins numbered three through seven (#3 - #7) and for polystyrene foam packaging.

plowing, shoveling and hauling snow. Additionally, the department provides road construction, pavement resurfacing (blacktopping), bridge repair, culvert repair, and installation. All the above-mentioned services are available to towns, cities, and villages upon request.

County storage, maintenance, and repair facilities are located in the:

- Village of Peshtigo
- Village of Crivitz
- Town of Pembine

Facility Maintenance

The Marinette County Maintenance and Facilities Department is responsible for maintenance and operation of county buildings in the City of Marinette, operation of the County Motor Pool, and consultation for operation and repairs of other county buildings.

Postal Services

Postal services for Marinette County residents and businesses are provided by U.S. Post Offices located in the following communities:

- City of Marinette
- City of Niagara
- City of Peshtigo
- Village of Coleman
- Village of Crivitz
- Village of Pound
- Village of Wausaukee
- Town of Amberg
- Town of Athelstane
- Town of Goodman
- Town of Pembine
- Town of Porterfield

Private parcel carriers (UPS, DHL, FedEx, etc.) also serve the county.

Protective and Emergency Services

Law Enforcement and Protection

The Marinette County Sheriff’s Department provides police protection to the towns and maintains mutual aid agreements with the cities of Marinette, Peshtigo, and Niagara, and the villages of Coleman, Crivitz, Pound, and Wausaukee. The Marinette County Sheriff’s Department is located at 2161 University Drive in the City of Marinette.

The Sheriff’s Department has a total of 29 sworn deputies that cover the county, state, and town roadways in Marinette County. There are 3 to 5 marked patrol squads (depending on availability) plus a Lieutenant scheduled 24 hours a day. One squad covers a north patrol zone, one the central zone, and one the south zone. The department provides assistance to fire departments, rescue squads, and city and village police departments as needed. All Marinette County Sheriff’s Department patrol squads carry automatic defibrillators.

Marinette County maintains a countywide emergency 911 system. The 911 calls are received at the county’s central dispatch center located at 2161 University Drive in the City of Marinette.

The following incorporated communities maintain their own Police Departments.

- *City of Marinette Police Department* located in the City Hall at 1905 Hall Avenue.
- *City of Niagara Police Department* located at 1029 Roosevelt Road.

- *City of Peshtigo Police Department* located at 331 French St.
- *Village of Coleman Police Department* located at 202 East Main Street.
- *Village of Crivitz Police Department* located at 800 Henriette Avenue.

Marinette County Jail

The Marinette County Jail is located at 2161 University Drive in the City of Marinette. It was built in 2004 and has a maximum capacity of 164 adult inmates. The jail has a total of 19 maximum security cell blocks; including 4 receiving cells, 11 segregation cells, 1 rubber cell, and 3 maximum pods. There are 5 medium and minimum pods and 5 huber dorms. Marinette County contracts with Oconto County to utilize their jail to alleviate inmate overcrowding. At this time the facilities are adequate and there is no need for improvements.

Fire Protection

Fire protection for Marinette County residents is provided by a number of local fire departments listed below. Service areas for each of these departments are illustrated on Map 9.2 (Fire Department Service Areas)

- *Niagara Fire Department* located on Jackson Street
- *Beecher-Dunbar-Pembine Fire Department* located on Rifle Range Road
- *Goodman Fire Department* located at 402 4th Street
- *Silver Cliff Fire Department* located at W13600 Highway C
- *Athelstane Fire Department* located at W10073 County Highway C
- *Amberg Fire Department* located at N15013 McClellan Alley
- *Wausaukee Fire Department* located at 428 Harrison Avenue
- *Wagner Fire Department* located at W2379 County Highway JJ
- *Middle Inlet Fire Department* located at N9299 US Highway 141
- *Stephenson Fire Department* located at W11280 County Highway X (with secondary location at W12580 County Highway W)
- *Crivitz Fire Department* located at 1211 F.J. Street
- *Lake Fire Department* located at West Loomis Road
- *Coleman Fire Department* located at 228 US Highway 141
- *Pound Fire Department* located at 2019 County Highway Q
- *Grover-Porterfield Fire Department* located at N3890 South Harmony Road
- *Peshtigo Town Fire Department* located on Old Peshtigo Road
- *Peshtigo City Fire Department* located at 331 French Street
- *Marinette Fire Department* located at 1450 Main Street

Each department maintains mutual aid agreements with neighboring departments to ensure there is adequate response and coverage during large fire events.

Insurance Service Office (ISO) - Public Protection Classification (PPC)

The adequacy of fire protection within a fire protection district is evaluated by the Insurance Service Office (ISO). ISO collects information on municipal fire-protection efforts in communities throughout the United States. In each of those communities, ISO analyzes the relevant data using their Fire Suppression Rating Schedule (FSRS) and assigns a Public Protection Classification (PPC) - a number from 1 to 10. Class 1 represents the best protection, and Class 10 indicates that the area's fire protection does not meet ISO's minimum criteria.

A community's PPC depends on the analysis of several components of fire protection including:

- fire alarm and communication systems including telephone systems, telephone lines, staffing, and dispatching systems;
- the fire department including equipment, staffing, training, and geographic distribution of fire companies; and
- the water supply system including the condition and maintenance of hydrants, and a careful evaluation of the amount of available water compared with the amount needed to suppress fires.

In addition, according to the National Fire and Police Association, fire protection should meet the following standards:

- A **high density residential**² community should have a fulltime staff and chief and an average response time of 4 minutes.
- A **medium density residential**³ community should have a staff that is partly on-call and an average response time of 6 minutes.
- A **low density residential**⁴ community should have all on-call staff, but does not need fulltime staff and an average response time of 8 minutes.

ISO helps communities evaluate their public fire-protection services. The program provides an objective, countrywide standard that helps fire departments in planning and budgeting for facilities, equipment, and training. Throughout the United States, insurers of homes and business property use ISO's Public Protection Classifications in calculating premiums.

Emergency Medical Services

All areas of the county are covered by the following EMS/ambulance service providers in or adjacent to Marinette County. Map 9.3 (EMS/Ambulance Service Areas) displays the service areas of each of the EMS/ambulance providers covering Marinette County. The emergency services are provided by a combination of paid volunteer and fulltime staff.

- *Niagara Area Emergency Unit Inc* located at 1241 Jackson St
- *Pembine-Dunbar-Beecher Rescue Squad* located at N18251 US Highway 141
- *Goodman-Armstrong Rescue Squad Inc* located at (PO Box 393)
- *Silver Cliff Rescue Squad* located at N11929 Parkway Road

² High density residential development is defined as residential development with 3 or more units per acre.

³ Medium density development with 1 to 2.99 units per acre.

⁴ Low density development having less than one unit per acre.

- *Wausaukee Rescue Squad Inc* located at 429 Harrison Street
- *Twin Bridge Rescue Squad Inc* located at W11280 County Highway X
- *Crivitz Rescue Squad Inc* located at 1100 Henriette Avenue
- *Brazeau Rescue Squad* located at 10892 Parkway Road
- *Coleman Area Rescue Squad Inc* located at 119 East 16th Road
- *Peshtigo Rescue Squad* is a volunteer squad with no permanent location.
- *Emergency Rescue Squad Inc* located at 623 Madison Street in the City of Marinette

Emergency Management

Marinette County Emergency Management directs and supports response agencies and departments during the event of a disaster or emergency. Emergency Management provides organized analysis, planning, decision making and assignment of available resources to mitigate (lessen the effect of or prevent), prepare for, respond to and recover from the effects of all hazards.

Education

Marinette County has 22 schools in eight school districts and two additional school districts cover portions of the county as illustrated on Map 9.4.

Public School Facilities

The following school districts maintain facilities located within Marinette County:

Beecher-Dunbar-Pembine School District

- Pembine School, N18775 Sauld Street, Pembine

Coleman School District

- Coleman Elementary and High School, 343 US Highway 141, Coleman

Crivitz School District

- Crivitz Elementary/Middle School, 718 Hall Hay, Crivitz
- Crivitz High School, 400 South Avenue, Crivitz

Goodman-Armstrong School District

- Goodman-Armstrong Creek Elementary School, Main Street, Goodman
- Goodman-Armstrong Creek High School, 1 Falcon Crest, Goodman

Marinette School District

- Garfield Elementary School, 1615 Carney Avenue, Marinette
- Merryman Elementary School, 611 Elizabeth Avenue, Marinette
- Park Elementary School, 1225 Hockridge Avenue, Marinette
- Marinette Middle School, 1011 Water Street, Marinette
- Marinette High School, 2135 Pierce Avenue, Marinette

Niagara School District

- Niagara School, 700 Jefferson Avenue, Niagara

Peshtigo School District

- Peshtigo Elementary School, 341 North Emery Avenue, Peshtigo
- Peshtigo Middle/High School, 380 Green Street, Peshtigo

Wausaukee School District

- Wausaukee School, N11941 US Highway 141, Wausaukee

There are two additional school districts that cover parts of Marinette County with facilities located in their respective communities:

- Lena School District
- Wabeno Area School District

Private School Facilities

There are also eight private school facilities found within Marinette County that provide education opportunities to residents of the area including the following:

- Pioneer Christian School, N17112 US Highway 141, Pembine
- Victory Academy for Boys, W4705 Wallace Road, Amberg
- Faith Christian School, 233 West Main Street, Coleman
- Marinette Catholic Central High School, 1045 Water Street, Marinette
- Holy Family School, 1232 Garfield Avenue, Marinette
- Trinity Evangelical Lutheran School, 1501 Thomas Street, Marinette
- St. Mary’s School, 141 South Wood Avenue, Peshtigo
- St. John Evangelical Lutheran School, N1926 Church Road, Peshtigo

Post-Secondary Institutions

Marinette County is part of the Northeast Wisconsin Technical College (NWTC) District of the Wisconsin Technical College System. The main NWTC campus is located in Green Bay, while a Community and Regional Learning Center is located in the City of Oconto Falls at 649 E. Jackson Street.

There are a number of four-year universities and two-year technical colleges serving Marinette County. They include the University of Wisconsin-Green Bay, St. Norbert College, Rasmussen College, University of Wisconsin-Marinette (City of Marinette), the College of Menominee Nation in Keshena, and Northland Baptist Bible College.

Library

Marinette County residents utilize library services provided through the Marinette County Consolidated Public Library Service. The library system is part of the overall Nicolet Federated Library System (NFLS), which covers the counties of Brown, Door, Florence, Kewaunee, Marinette and Oconto. The NFLS is funded by state taxes and provides services, equipment, monetary grants, professional consultation, and educational opportunities in northeastern

Wisconsin for the benefit of all residents. The public libraries located in Marinette County include:

- Stephenson Public Library (headquarters), 1700 Hall Avenue, Marinette
- Coleman-Pound Branch Library, 123 West Main Street, Coleman
- Crivitz Area Branch Library, 606 Louisa Street, Crivitz
- Goodman-Dunbar Branch Library, No. 1 Falcon Crest, Goodman
- Niagara Branch Public Library, 1029 Roosevelt Road, Niagara
- Peshtigo Branch Public Library, 331 French Street, Peshtigo
- Wausaukee Area Branch Library, 911 Cedar Street, Wausaukee

In addition to these public libraries, there are numerous school, church, health science, academic, and business libraries located throughout the county.

Health Care Facilities

Residents of the county are able to utilize the Bay Area Medical Center located at 3100 Shore Drive in the City of Marinette for emergency services and other medical needs. Surrounding hospitals including the Bond Medical Center in the City of Oconto, Community Memorial Hospital in the City of Oconto Falls, Bay Area Medical Center in the City of Menominee, and Dickinson County Healthcare System in Iron Mountain, Michigan are also utilized by county residents.

In addition to these healthcare centers there are a number of specialized facilities found throughout the county that provide such services as chiropractic, dental, orthopedic, and vision care.

Childcare Facilities

Childcare is a significant consideration for families and employers alike, since it is becoming the norm that both parents are part of the workforce and more families are headed by a single parent.

There are 24 licensed/certified childcare facilities in Marinette County, most of which are privately owned. Thirteen facilities are classified as family (up to eight enrolled) and eleven facilities classified as group (nine or more enrolled).

Information detailing each childcare facility's classification, hours, days of operation, and capacity is available through the Wisconsin Department of Health and Family Services website.

In addition, residents also utilize in-home/private unlicensed childcare facilities located throughout the county and surrounding areas.

Adult Care and Assisted Living Facilities

Marinette County contains several adult care facilities including nursing homes, Adult Family Homes (AFH), Community Based Residential Facilities (CBRF), and assisted rental housing.

- AFHs are facilities where three or four adults who are not related to the operator reside and receive care, treatment or services that are above the level of room and board and that may include up to seven hours per week of nursing care per resident.

- CBRFs are facilities where five or more unrelated people live together in a community setting. Services provided include room and board, supervision, support services, and may include up to three hours of nursing care per week.
- A nursing home is a place of residence for people who require constant medical care, at a lower level than a hospital. Usually the residents are elderly, but the term can apply to places of care for the mentally or physically ill.

An October 2007 Wisconsin Department of Health and Family Services inventory indicated Marinette County contained nine AFHs, eight CBRFs, and one nursing home.

Cemeteries

According to *Cemetery Locations in Wisconsin, 3rd Edition*, there are a combined total of 40 known cemeteries located within Marinette County. Some smaller family cemeteries can be difficult to identify and may not be included in this inventory. In addition, cemeteries in communities adjacent to Marinette County are also utilized for burials.

Parks and Recreation

Marinette County Park and Recreation Sites

Marinette County operates 22 recreation related properties. There are 11 major parks and 3 wayside parks including:

- Dave’s Falls
- Goodman Park
- McClintock Park
- Michaelis Park
- Twelve Foot Falls Park
- Veteran’s Memorial Park
- Twin Islands Wayside Park
- Dolan Lake Park
- Lake Noquebay Park
- Menominee River Park
- Morgan Park
- Twin Bridges Park
- Long Slide Falls Wayside Park
- Crystal Springs Wayside Park

Currently, six of these Marinette County parks provide camping opportunities with a total of 145 developed campsites.

In addition to these parks the County maintains three other specialty recreation areas, Thunder Mountain Overlook, Camp Bird and Harmony Arboretum, and six boat landings.

State Park and Recreation Sites

Governor Tommy G. Thompson Centennial State Park

The 2,600-acre Governor Tommy G. Thompson Centennial State Park is located 15 miles northwest of the village of Crivitz in the town of Stephenson. When completed, according to the *Master Plan for Governor Thompson State Park*, the park will be developed to provide opportunities for public recreation and education in a rustic, forest setting. Planned development for the park includes creation of campgrounds; trails for hiking, cross-country skiing, bicycling, horseback riding, and snowmobiling; improvement of the existing boat landing; and two day use areas.

Peshtigo River State Forest

The Peshtigo River State Forest is located in the towns of Stephenson and Silver Cliff and includes 25 miles of river, 3,200 acres of surface water, and 9,200 acres of forest. The state forest property is different from a state park in that a state park generally offers more recreation opportunities and modern camping experiences with running water and electric capabilities. Recreation opportunities in the Peshtigo River State Forest include snowmobile and ATV riding, boating and paddling, camping, fishing, hunting and trapping, cross-country skiing, hiking, mountain biking, and swimming.

Menominee River Natural Resource Area

This 1,962-acre property borders the west side of the Menominee River for about five miles. The property lies within the boundaries of the towns of Beecher and Pembine. Recreation opportunities in the Menominee River Natural Resource Area include camping, canoeing, hiking, fishing, hunting and trapping, bird watching, or even berry picking.

Peshtigo Harbor Wildlife Area

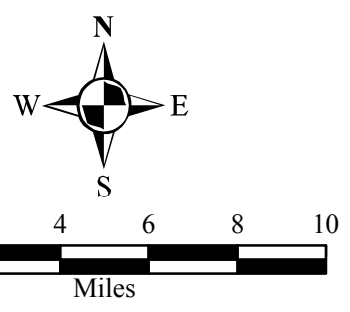
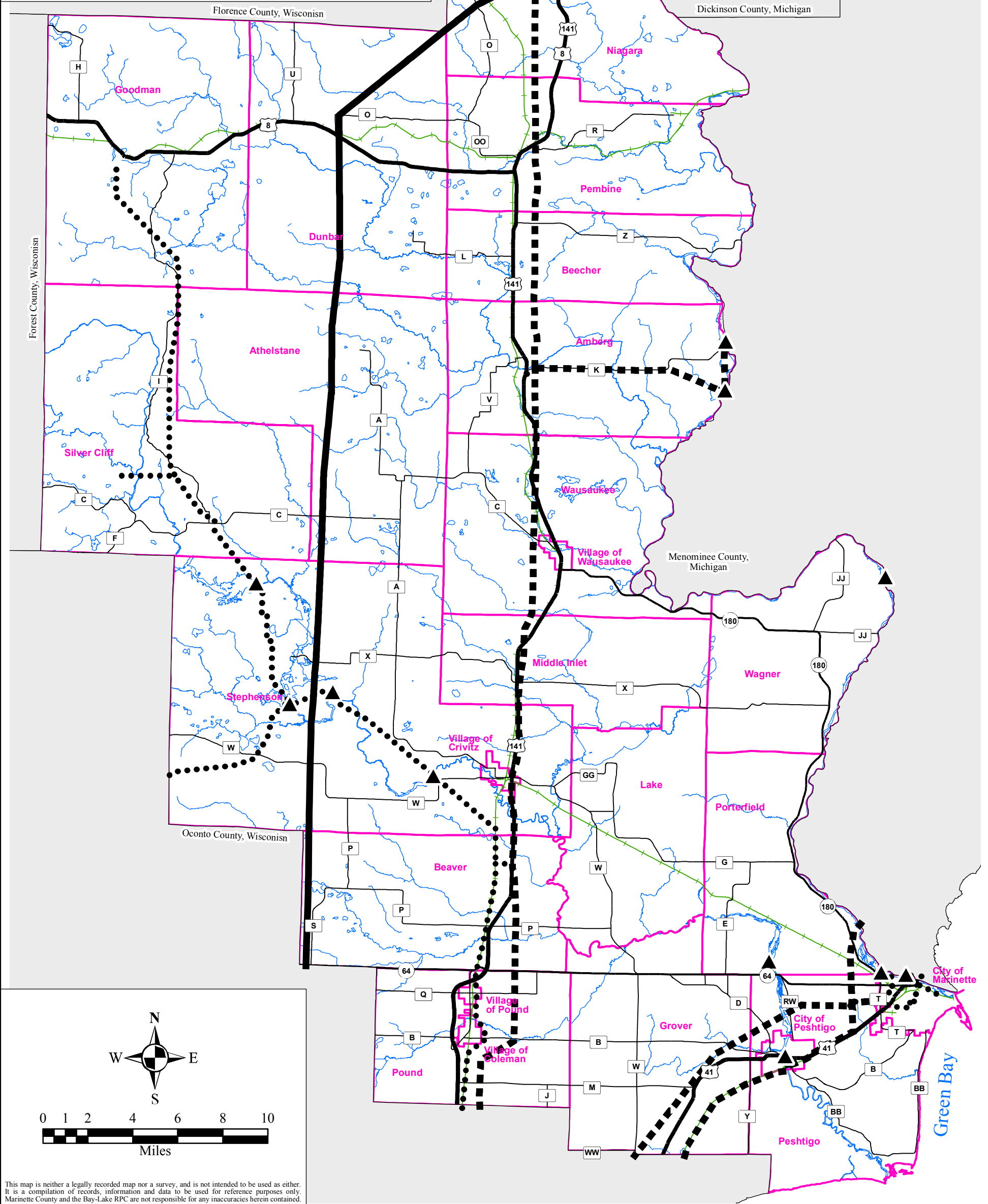
Peshtigo Harbor State Wildlife Area is 3,660 acres of state-owned land located in the town of Peshtigo on the west shores of Green Bay. Recreation opportunities in the Peshtigo Harbor Wildlife Area include canoeing and kayaking, hiking, cross-country skiing, bird viewing, and educational programming.

Power Generation & Transmission Facilities

Marinette County, Wisconsin

Village of Wausaukee
20-Year Comprehensive Plan

9-15



This map is neither a legally recorded map nor a survey, and is not intended to be used as either. It is a compilation of records, information and data to be used for reference purposes only. Marinette County and the Bay-Lake RPC are not responsible for any inaccuracies herein contained.

Base Map Features

- MCD Boundary
- U.S. Highway
- State Highway
- County Highway
- Railroad
- Surface Water

Generation Facility

- Hydroelectric Facility

Power Transmission Lines

- 345 kV
- 138 kV
- 69 kV

Source: ATC, 2008; Marinette County; Bay-Lake Regional Planning Commission, 2009.

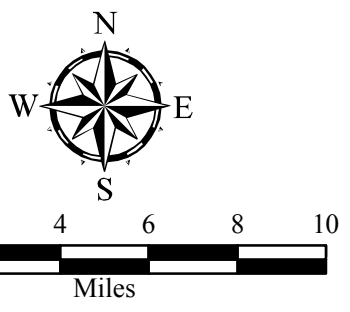
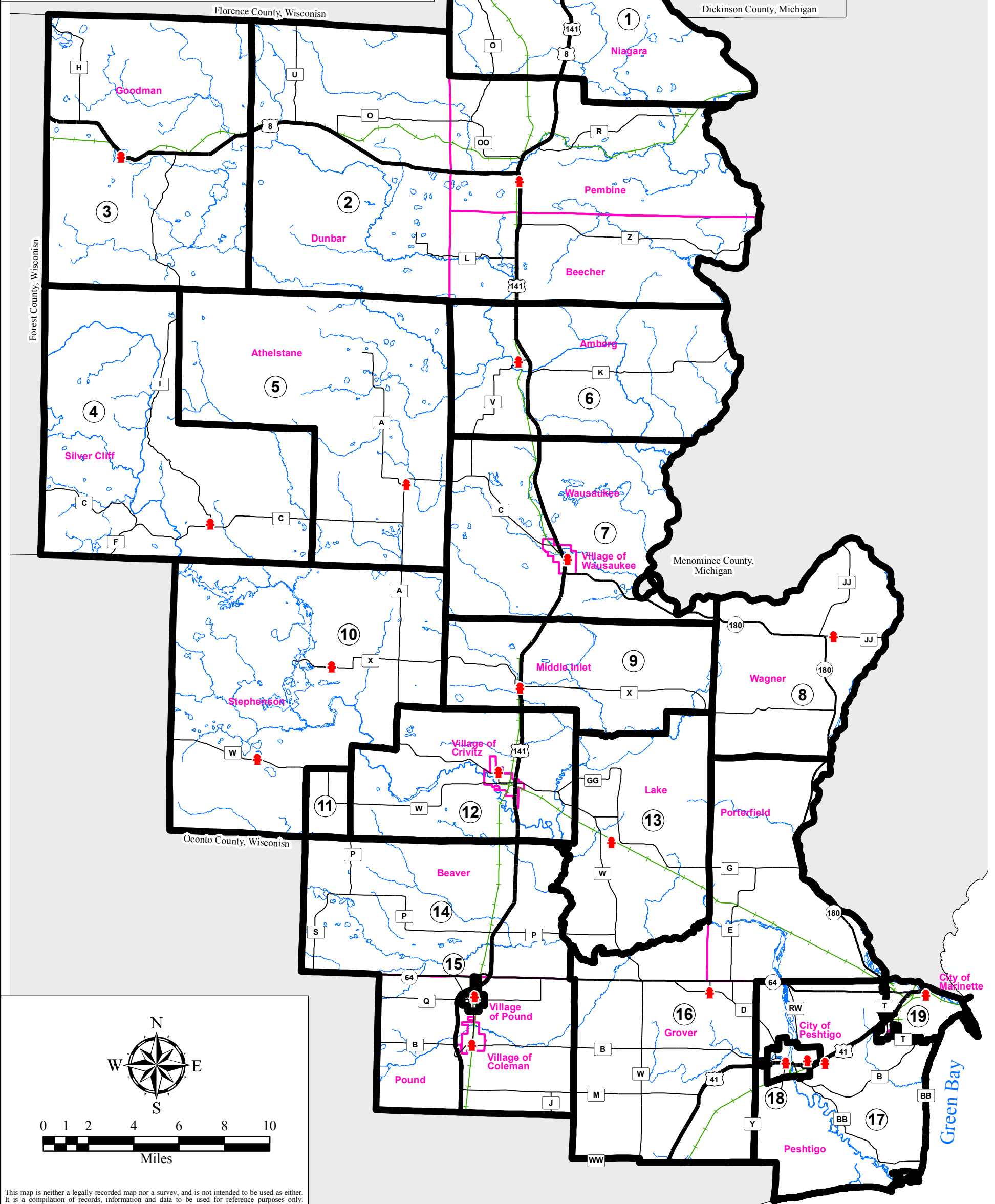
Volume II: Community Resources

Fire Department Service Areas

Marinette County, Wisconsin

Marinette County
20-Year Comprehensive Plan

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Base Map Features

- MCD Boundary
- U.S. Highway
- State Highway
- County Highway
- Railroad
- Surface Water

- Fire Department Service Area Boundary
- Fire Station

- | | |
|--|---|
| 1 - Niagara Fire Department | 10 - Stephenson Fire Department |
| 2 - Beecher-Dunbar-Pembine Fire Department | 11 - Dual (Stephenson and Crivitz) |
| 3 - Goodman Fire Department | 12 - Crivitz Fire Department |
| 4 - Silver Cliff Fire Department | 13 - Lake Fire Department |
| 5 - Athelstane Fire District | 14 - Coleman Fire Department |
| 6 - Amberg Fire Department | 15 - Pound Fire Department |
| 7 - Wausaukee Fire Department | 16 - Grover-Porterfield Fire Department |
| 8 - Wagner Fire Department | 17 - Peshtigo Town Fire Department |
| 9 - Middle Inlet Fire Department | 18 - Peshtigo City Fire Department |
| | 19 - Marinette Fire Department |

Source: Marinette County; Bay-Lake Regional Planning Commission, 2009.

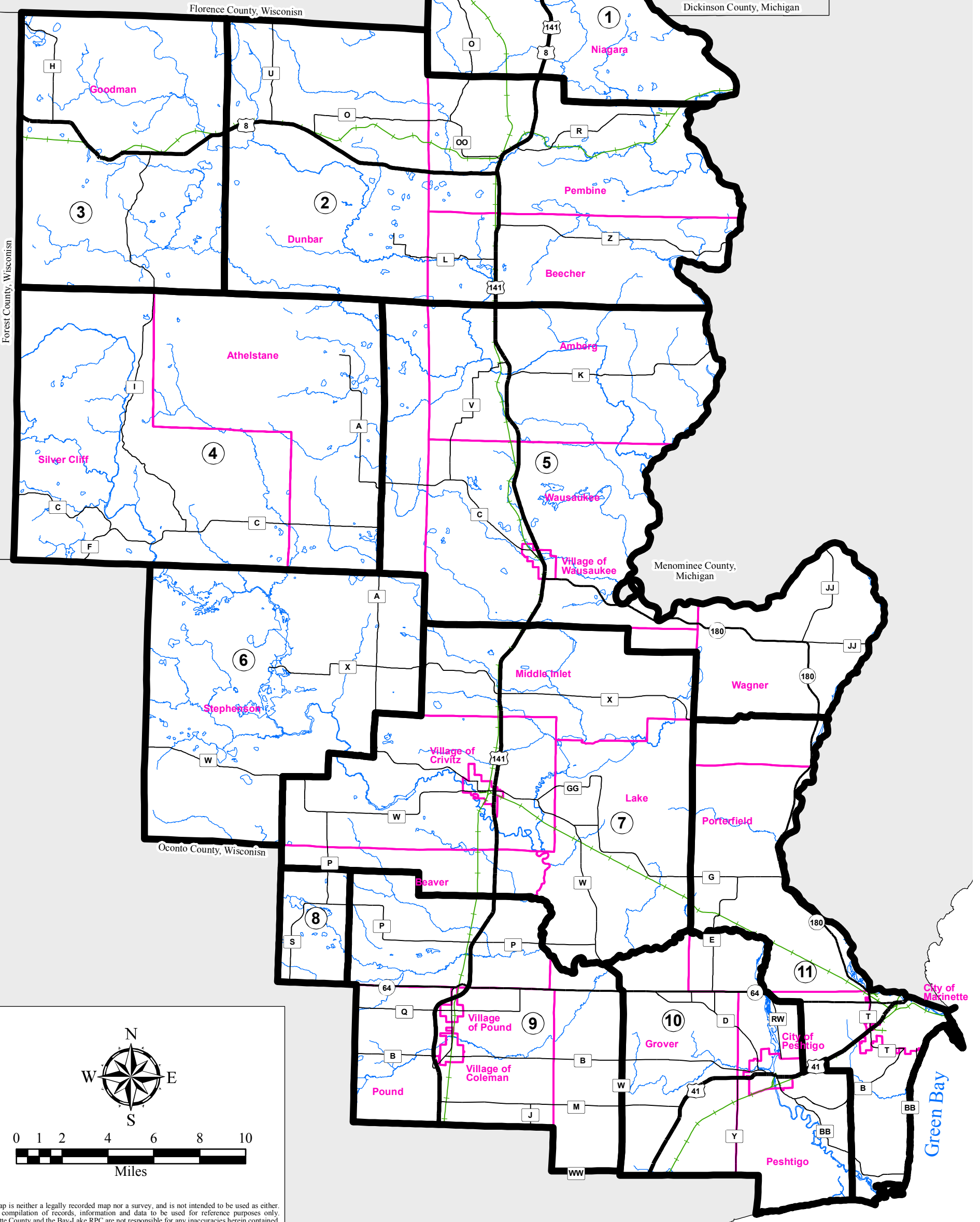
Volume II: County Resources

EMS/Ambulance Service Areas

Marinette County, Wisconsin

Marinette County
20-Year Comprehensive Plan

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Base Map Features

- MCD Boundary
- U.S. Highway
- State Highway
- County Highway
- Railroad
- Surface Water

EMS/Ambulance Service Area Boundary

- 1 - Niagara Rescue Squad
- 2 - Pembine Rescue Squad
- 3 - Goodman Rescue Squad
- 4 - Silver Cliff Rescue Squad
- 5 - Wausaukee Rescue Squad
- 6 - Twin Bridge Rescue Squad
- 7 - Crivitz Rescue Squad
- 8 - Brazeau Rescue Squad
- 9 - Coleman Rescue Squad
- 10 - Peshtigo Rescue Squad
- 11 - ERS & BAMC

Source: Marinette County; Bay-Lake Regional Planning Commission, 2009.

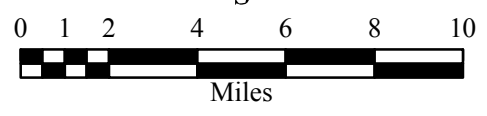
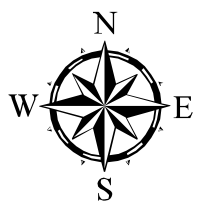
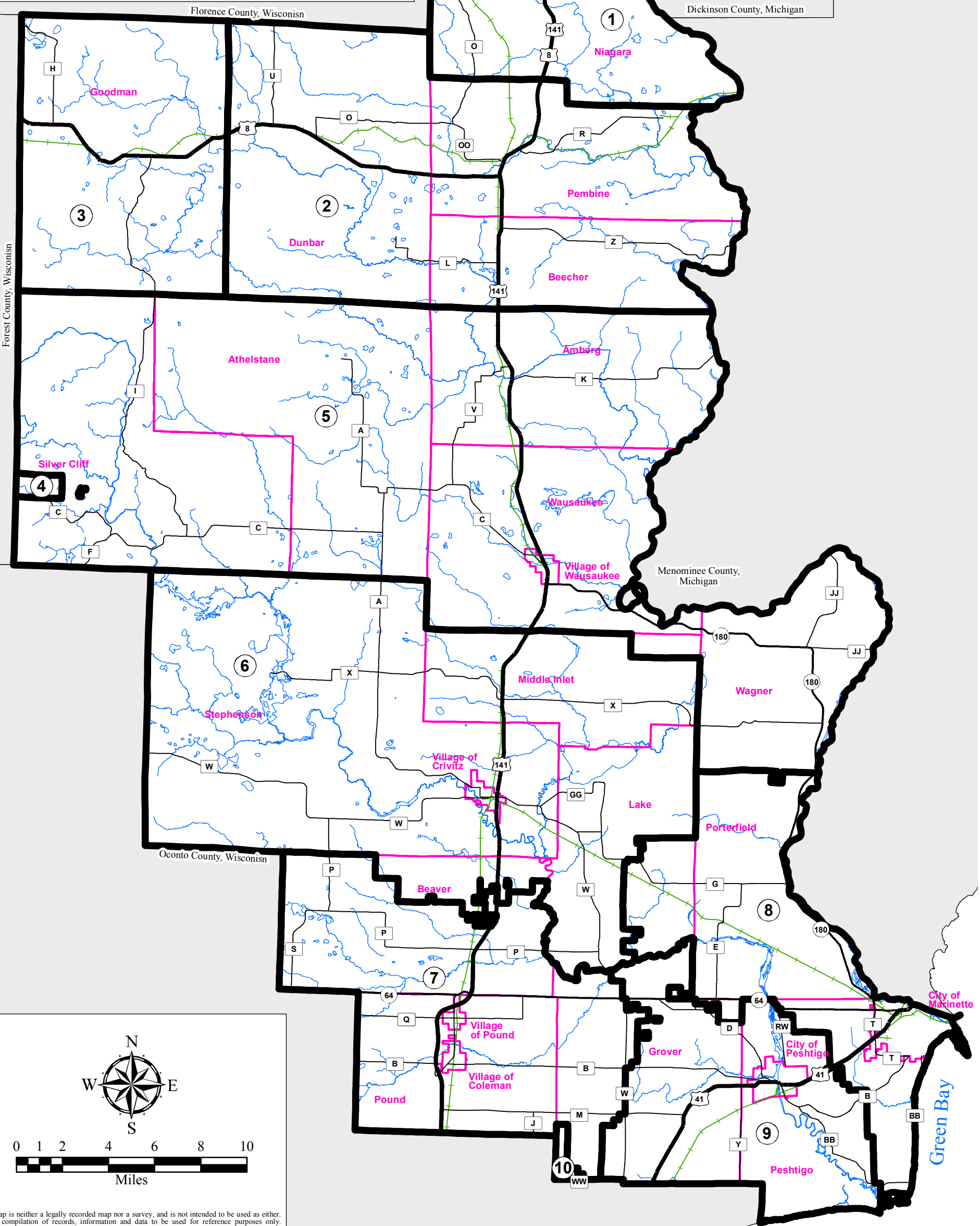
Volume II: County Resources

School District Boundaries

Marinette County, Wisconsin

Marinette County
20-Year Comprehensive Plan

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Base Map Features

- MCD Boundary
- U.S. Highway
- State Highway
- County Highway
- Railroad
- Surface Water

School District Boundary

- | | |
|---|-------------------------------|
| 1 - Niagara School District | 6 - Crivitz School District |
| 2 - Beecher Dunbar Pembine School District | 7 - Coleman School District |
| 3 - Goodman Armstrong Creek School District | 8 - Marinette School District |
| 4 - Wabeno School District | 9 - Peshtigo School District |
| 5 - Wausaukee School District | 10 - Lena School District |

Source: Marinette County; Bay-Lake Regional Planning Commission, 2009.

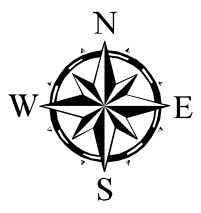
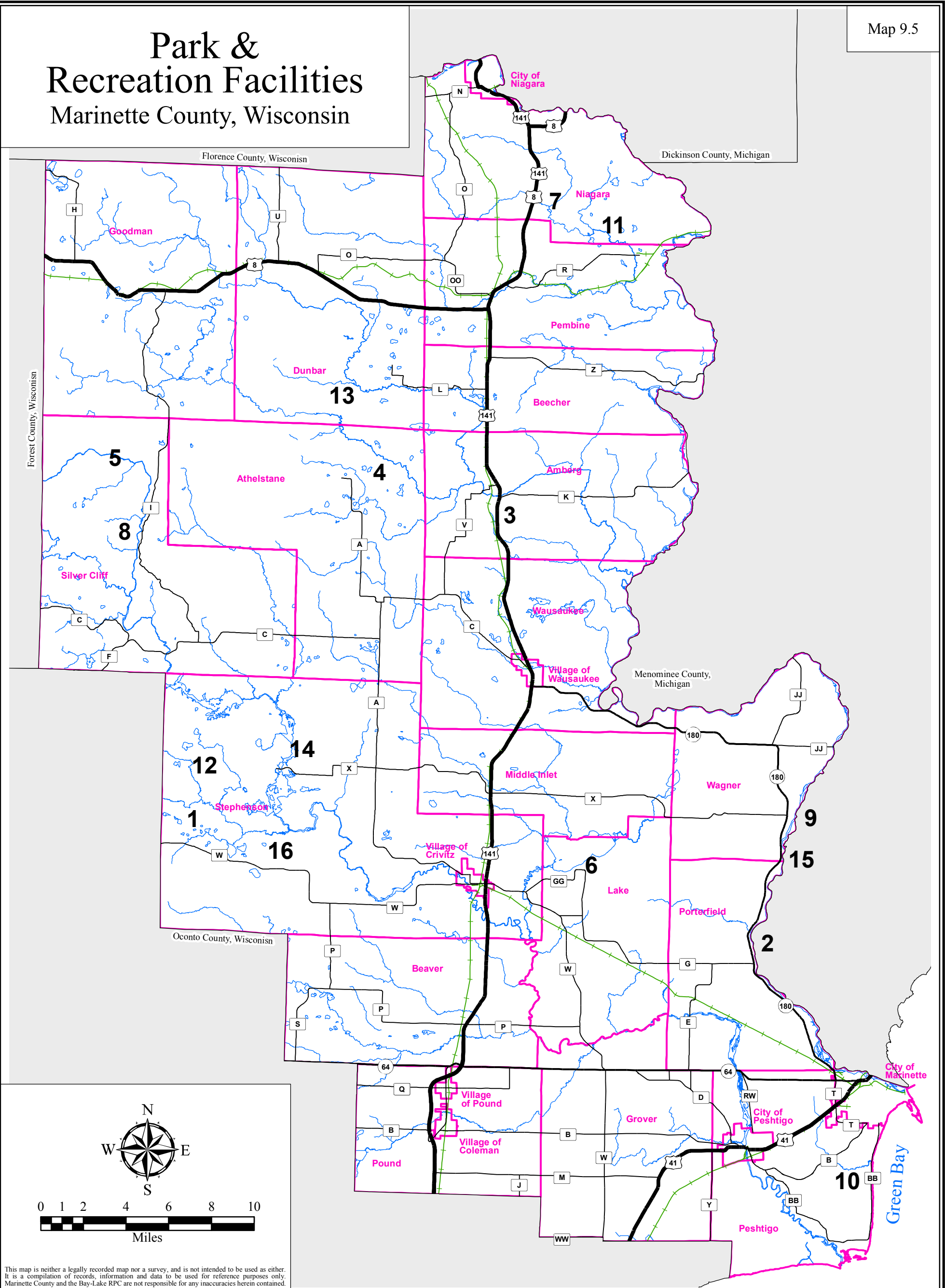
Volume II: County Resources

Park & Recreation Facilities

Marinette County, Wisconsin

Marinette County
20-Year Comprehensive Plan

9-23



This map is neither a legally recorded map nor a survey, and is not intended to be used as either. It is a compilation of records, information and data to be used for reference purposes only. Marinette County and the Bay-Lake RPC are not responsible for any inaccuracies herein contained.

Base Map Features

- MCD Boundary
- U.S. Highway
- State Highway
- County Highway
- Railroad
- Surface Water

County Park

- 1 - Camp Bird
- 2 - Crystal Springs Wayside Park
- 3 - Dave's Falls Park
- 4 - Dolan Lake Park
- 5 - Goodman Park
- 6 - Lake Noquebay Park
- 7 - Long Slide Falls Wayside Park
- 8 - McClintock Park
- 9 - Menominee River Park
- 10 - Michaelis Park
- 11 - Morgan Park
- 12 - Thunder Mountain Overlook
- 13 - Twelffoot Falls Park
- 14 - Twin Bridges Park
- 15 - Twin Islands Wayside Park
- 16 - Veteran's Memorial Park

Source: Marinette County; Bay-Lake Regional Planning Commission, 2009.

Volume II: County Resources

**CHAPTER 10:
LAND USE PLANS, CONTROLS, AND INVENTORY**

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INTRODUCTION

The previous chapters found in *Volume II: Marinette County Resources* provide background data and other pertinent information for the development of the county and local comprehensive plans. This chapter provides highlights from the countywide land use inventory conducted in 2008. The inventory determined where and what types of land uses exist within Marinette County and the acreages dedicated to those land uses. The mapping of existing land uses and understanding of definable development patterns will help assist Marinette County and local units of government better determine where lands are most suitable for development and appropriately allocate acreages needed for future residential, commercial, industrial, and other types of developed land uses. The presence of sanitary districts, adjacent land uses, existing infrastructure, preservation areas, environmental corridors, and other natural features will also influence the type and location of future development. To best promote the location and type of future land uses, an inventory of land use controls currently enforced by Marinette County is provided within this chapter.

MARINETTE COUNTY EXISTING LAND USE CONTROLS

The first section of this chapter provides a short description of the plans and regulatory controls adopted by the county and its communities that address the development of land. Each of the land use controls (e.g., zoning, subdivision, floodplain, shoreland ordinances, etc.) are noted and briefly discussed in this section. Individually and/or collectively, they may influence or restrict the location and type of development within many areas of the County Planning Documents

Planning Documents

Comprehensive Plans

Marinette County has not previously developed or adopted a comprehensive plan.

In Marinette County, *smart growth* land use plans, adopted as ordinances and meeting the state statutes (s. 66.1001), have been developed by the towns of Amberg, Athelstane, Beecher, Grover, Lake, Middle Inlet, Peshtigo, Porterfield, Pound, Silver Cliff, and Wagner. Additionally, the cities of Marinette and Peshtigo and the Village of Coleman have adopted *smart growth* plans.

Currently, the City of Niagara and the Villages of Crivitz and Wausaukee are developing long range land use plans that will, when adopted, meet the requirements of s. 66.1001.

Park and Outdoor Recreation Plan

Marinette County adopted a comprehensive outdoor recreation plan in 2007 which meets the eligibility requirements for participation in Federal Land and Water Conservation Fund (LAWCON) grant program. LAWCON provides grants to assist in the provision of outdoor recreation facilities.

The *Marinette County Comprehensive Outdoor Recreation Plan* was developed to serve as a guide in the maintenance and development of outdoor recreation facilities in order to provide a quality outdoor recreation experience for Marinette County residents and non-residents alike.

The purpose of this plan was to ensure optimal recreational opportunities through the continuation of current recreation programs and the development of new programs to meet

current and future demands. The document provides guidance to Marinette County and its communities in an effort to meet the recreational demands of its residents and visitors. The plan documents current recreational facilities and opportunities and identifies future needs in the development and coordination of outdoor recreation areas within the county.

The adopted plan ensures that the county (and the communities that participated in the process) will be eligible to apply for grants through the Land and Water Conservation Fund (LAWCON) and other funds available through the Wisconsin Department of Natural Resources (WDNR) Stewardship Program.

Ultimately the plan identified a five-year (2007 through 2011) capital improvement budget of more than \$638,000 for a variety of projects including the installation of toilets at several parks, land acquisition and development of campgrounds.

Farmland Preservation Plan

In 1977, Wisconsin's Farmland Preservation Act became law. The purpose of the law is to help local governments preserve farmland through local planning and zoning and by providing tax relief to participating farmers.

The Marinette County Farmland Preservation Plan of 1985 was written with attention given to urban growth that often results in the reduction of farmland, and to the alterations in facilities, services, and trends that affect the county's agricultural production. Several categories were established in the plan to accomplish the goal of preserving farmland through planned rural and urban growth. These categories include:

- *Farmland Preservation* - The agricultural lands should be maintained for agricultural use. These areas include soils with high productivity potential, lands which have historically been in agricultural production, and woodlands and wetlands that serve as an integral part of farm operations.
- *Environmental Overlay* - The Environmental Overlay Area consists of areas that should not be developed at urban densities due to shoreline conservation, flooding, wetland conservation, wildlife habitats, unique aesthetic feature, etc.
- *Conservancy Area* - This area includes public property, floodplains, wetlands and woodlands areas.
- *Rural Non-Farm Development* - Rural non-farm areas include unincorporated villages, existing concentrations of rural non-farm housing, and areas proposed to be developed with rural non-farm uses.
- *Urban Service Area* - Urban Service Areas are located adjacent to communities presently served with public water and/or sanitary sewer utilities.

Land Use Regulations

Land use controls utilized by the County and many of its communities include zoning, land division, setback, shoreland and floodplain ordinances.

The authority of governments to enforce zoning regulations was upheld by the US Supreme Court in 1926 in the landmark case of *Village of Euclid, Ohio v. Ambler Realty*. Since then, almost every major city in the nation, and many villages and towns has adopted a zoning code or

ordinance. Zoning regulates land use, including the size, shape and permitted uses of lots and structures. In most communities, zoning is the primary tool that guides land use.

Local governments in Wisconsin are granted extensive powers from the state relative to land use regulations. One of those powers is to create and enforce regulations that promote *public safety, health and general welfare*. This regulatory authority, called the *police power*, is the basis of the authority to regulate land use and carry out other functions like animal control and health regulations that help many communities maintain safe, clean and economically successful communities.

Marinette County Zoning (Chapter 17 of the County Code of Ordinances)

Marinette County has zoning jurisdiction within all unincorporated communities of the county. Marinette County maintains and administers the general zoning ordinance to achieve community goals such as promoting public health, safety, and welfare; protection of natural resources; and to maintain community character. General zoning utilizes a system of districts designated for different uses based on land suitability, infrastructure, avoidance of conflict with nearby uses, protection of environmental features, economic factors, and other local factors.

The County and its town's are divided into three (3) classes of use districts; the Forestry District; the Recreation District; and, the Unrestricted District.

- The *Forestry District* generally allows open space and recreational activities, recreational camps, private summer cottages, hunting camps, forest industries and the production of forest products. All other uses including farms and permanent residential structures are prohibited in the Forestry District.
- The *Recreation District* allows the same uses as in the Forestry District but imposes a setback of 200 feet from highways and lot lines for sawmills and other wood using industries. In addition, uses allowed in the Recreation District include: filling stations, garages, machine shops, restaurants, motels and hotels, rental cabins, cottages, resorts, taverns, commercial stores, dance halls, theaters, and other establishments servicing the recreational industry and family dwelling.
- In the *Unrestricted District* there are no restrictions on the use of land for any legal purpose. The Unrestricted District does, however, regulate off-premise signs. Off-premise signs are regulated by size, maximum height, lighting, and encroachment into an intersection sight triangle, distance from other signs and distance from incorporated community boundaries.

Floodplain Zoning (Chapter 19 of the County Code of Ordinances)

The Marinette County Zoning Ordinance regulates development in flood hazard areas to protect life, health and property and to provide a uniform basis for the preparation, implementation and administration of sound floodplain regulations for all county floodplains.

Areas regulated by the Marinette County Zoning Ordinance include all areas in the County that would be covered by the “Regional Flood.” These areas are divided up into three districts:

- The *Floodway District (FW)* consists of the channel of a river or stream and those portions of the floodplain adjoining the channel required to carry the regional flood waters.
- The *Floodfringe District (FF)* consists of that portion of the floodplain between the regional flood limits and the floodway.

- The *General Floodplain District (GFP)* consists of all areas which have been or may be hereafter covered by flood water during the regional flood. It includes both the floodway and floodfringe districts.

Shoreland-Wetland Zoning (Chapter 21 of the County Code of Ordinances)

The Marinette County Zoning Ordinance establishes zoning standards for use of shorelands along navigable waters. The shoreland standards apply to lands:

- In unincorporated communities of Marinette County that lie within 1,000 feet of the ordinary high water mark of navigable lakes, ponds or flowages; and
- Within 300 feet of the ordinary high water mark of all navigable rivers or streams, or to the landward side of the floodplain, whichever distance is greater.

The Marinette County ordinance also establishes minimum lot sizes for parcels within the shoreland zone, setbacks of buildings and structures from the water, a minimum sideyard for residential buildings of 10 feet on one side of the structure and 25 feet aggregated) standards for the alteration of surface vegetation and land surfaces, and a permit process for work taking place in waterways.

The shoreland-wetland zoning ordinance divides the navigable waters of Marinette County into three classes (Class I, Class II, and Class III waterways). The County’s Class I waters are provided the greatest degree of protection requiring unsewered lots of more than two acres (90,000 square feet). Class II waters are provides somewhat moderate protection requiring minimum (unsewered) lots of 60,000 square feet or more. Class III regulations provide protection to those shorelands that have already been largely developed into smaller lots of 30,000 square feet or more.

Land Division and Subdivision Regulations (Chapter 23 of the County Code of Ordinance)

Marinette County maintains a Land Division Ordinance. The ordinance applies to “any act of division of a lot, parcel, or tract which existed on the effective date of this ordinance by the owner thereof or his agent for the purpose of transfer of ownership or building development where the act of the division creates one or more new lots, parcels, tracts or units, if the lot, parcel, tract or unit being created is less than nine (9) contiguous acres.

Environmental Site Assessment (Chapter 10 of the County Code of Ordinance)

Hazardous waste and toxic substances have become a major concern in the acquisition and ownership of real estate. Federal and State laws and regulations impose sever restrictions and significant economic sanction upon the owners of real estate that contain hazardous waste and toxic substances. This ordinance protects the citizens of Marinette County by assessing the acquisition, of delinquent tax foreclosure, purchase, or otherwise, of lands by Marinette County that may or may not contain hazardous waste and toxic substances. It is the intent of Marinette County to foreclose on tax delinquent properties with known contamination so as to eliminate any health risk to the general public. Each property will be evaluated to determine the extent of the contamination and to determine whether the county has the resources to abate such health risks. It is an additional interest of Marinette County to manage all County-owned or controlled lands in such a manner as to meet the due care standards promulgated by State and Federal laws and regulations relating to toxic and hazardous substances, and to recommend precautions against foreseeable acts or omissions relating to such county-owned or controlled lands.

Private Sewage Systems (Chapter 15 of the County Code of Ordinances)

The Marinette County private sewage ordinance regulates the location, construction, installation, alteration and maintenance of onsite waste disposal systems.

Generally, the ordinance requires that all structures intended for human habitation or occupancy shall have a system for holding or treatment and dispersal of sewage and wastewater. A non-plumbing sanitation system (privy or outhouse) may be permitted when the structure served does not have indoor plumbing. Holding tanks are prohibited if the property can be served by a conventional system or mound system. The ordinance also requires that all onsite wastewater treatment systems shall be inspected and pumped every three (3) years – unless the inspection determines that the septic tank is less than one-third (1/3) full.

Forestry and Parks (Chapter 16 of the County Code of Ordinances)

Chapter 16 of the County’s Code of Ordinances contains the Forestry and Parks Ordinance. In addition to spelling out the responsibilities and powers of the Marinette County Forestry, Parks, Outdoor Recreation and Lands Committee, this ordinance regulates timber cutting on county forest land, use of county lands for recreational activities, all-terrain vehicle use, park use, and the use of Camp Bird. Additionally, the ordinance lists activities and actions that are prohibited on county owned land and in the county’s forest and parks.

Agricultural Performance Standards and Animal Waste Management (Chapter 18 of the County Code of Ordinances)

Contained in Chapter 18 of the Marinette County Code of Ordinances the Agricultural Performance Standards and Animal Waste Management Ordinance ensures the proper location, design, installation, use and abandonment of animal feedlots and waste storage facilities. Furthermore, the ordinance is intended to prevent the deliberate mismanagement of animal waste, reduce soil erosion and minimize the conflicts between agricultural operations and non-farm related land uses while protect the right to farm.

Non-Metallic Mining Reclamation (Chapter 20 of the County Code of Ordinances)

The primary purpose of this ordinance is to ensure the effective reclamation of non-metallic mining sites on which the active mining of the site has ceased. Chapter 20 is modeled on state wide uniform standards.

Minimum standards are listed to protect water and wetlands; protect groundwater; topsoil management; final grading and slopes; topsoil redistribution; and stabilization and revegetation of the site. All non-metallic mining sites operating in Marinette County must have a reclamation permit.

It should be noted that the Ordinance does not regulate the location of the non-metallic mining site; it only regulates what must be done to site, in terms of returning it as much as is possible to a useful condition. Operators must apply for a reclamation permit from the county which requires the submittal of detailed reclamation plan and financial assurances in an amount sufficient to implement and carry out the reclamation plan.

Local Zoning and Land Use Regulations

In addition to the county ordinances several of the county’s communities have developed and adopted ordinances to regulate land use. The ordinances adopted by the county’s communities range from detailed land use zoning ordinances contained within a general code of ordinances to

simple setback or building permit ordinances.

The town’s of Niagara, Grover, Pound and Wagner have developed and adopted a Code of Ordinance that includes detailed land use zoning ordinances.

MARINETTE COUNTY LAND USE INVENTORY

The inventory of Marinette County’s existing land uses was derived by three methods 1) utilization of existing land use maps that have been developed in previously adopted comprehensive plans; 2) heads up mapping utilizing 2008 air photos; and 3) field survey.

Of the 914,286 acres that comprise Marinette County, approximately 44,725 acres, or 4.89 percent of the total land area in the County is developed in various categories of land use. Conversely, approximately 869,500 acres is categorized as undeveloped. The total of the land that is undeveloped includes agricultural cropland; rivers and streams, natural areas and woodlands.

The developed land within the County includes 13,940 acres designated as a mixture of residential uses; 1,043 acres in commercial land uses; 2,478 acres in manufacturing or industrial uses; nearly 21,000 acres in transportation use; 393 acres in communications or utilities; 981 acres in institutional or governmental land uses; more than 2,300 acres developed as parks and playgrounds; 110,818 acres developed for agriculture that includes farm residences, barns, silos, sheds and outbuildings and more than 760,000 acres classified as natural areas land use.

Table 10.1: General Land Use Acres and Percent of Total, Marinette County, 2009

Land Use Category	Acres	Percent of Total
		Land Use
Residential	14,562	1.59%
Commercial	1,195	0.13%
Industrial/Manufacturing	2,530	0.28%
Transportation	20,856	2.28%
Communications/Utilities	374	0.04%
Institutional/Governmental Facilities	986	0.11%
Outdoor Recreation	5,134	0.56%
Agricultural/Silvicultural	110,874	12.13%
Natural Areas	757,772	82.88%
Total Acres	914,286	100.00%

Source: Bay-Lake Regional Planning Commission, 2009

Land Use Types and Amount

A detailed field inventory of land uses in Marinette County was completed by the Bay-Lake Regional Planning Commission in 2008 and 2009. Map 10.1 displays the land use within the County.

The following list of land use categories is based on a methodology created by the Bay-Lake Regional Planning Commission for conducting land use inventory only. This list is *not* intended to create specific definitions for regulatory purposes.

Residential Land Use category (14,562 acres) includes land used for non-transient-occupant dwelling units, both transportable and permanent structures. Uses are broken into the following subcategories: *Single Family, Two Family, Multi-Family, Mobile Home* and *Group Quarters*.

More than 12,100 acres is used for single-family residential purposes which represents nearly 29 percent of the total developed lands in the county. Slightly more than 1,400 acres or 3.35 percent of County land are developed as mobile home sites.

Commercial Land Use category (1,195 acres) includes lands used for retail sales or trade of goods and/or services, including enclosed participatory sports, lodging, and commercial head offices.

Industrial Land Use category (2,503 acres) includes lands used for fabrication of products, for wholesaling of products, for long-term storage of products and for extraction (mining) or transformation of materials.

Transportation Land Use category (20,856 acres) includes land corridors that serve the movement of people or materials, including related terminals and parking facilities. Uses include motor vehicle, air, marine, rail, and non-motorized-related transportation.

Communication/Utilities Land Use category (374 acres) includes land used for the generation, processing, and/or transmission of electronic communication or of water, electricity, petroleum or other transmittable products, and for the disposal, waste processing and/or recycling of by-products.

Institutional/Governmental Facilities Land Use category (986 acres) consists of lands used for public and private facilities for education, health, or assembly; for cemeteries and related facilities; and for all government facilities used for administration or safety except public utilities and areas of outdoor recreation.

Outdoor Recreation Land Use category (5,134 acres) includes lands used for outdoors sports and general recreation facilities, including picnic areas, playgrounds and ball diamonds.

Agriculture/Silviculture Land Use category (110,874 acres) includes lands used for the growth or husbandry of plants and animals and their products and for associated facilities such as sheds, silos and other farm structures.

Natural Areas Land Use category (757,772 acres) includes water areas; undeveloped that is primarily in a natural state including wetlands, grasslands and prairies, woodlands; land undergoing change from natural areas to another land use; and conservancy areas.

Table 10.2: Select Developed Land Uses, Marinette County, 2008

Residential Land Use		Acres	
Single Family Residential	12,128.96		
Single Family Residential Garage	214.57		
Two Family	65.98		
Multi-Family	101.45		
Group Quarters	5.23		
Mobile Homes	1,399.32		
Land Under Development	8.49		
Residential Vacant Lot	559.60		
Vacant Residential	78.86		
Total	14,562.45		

Commercial Land Use		Acres	
Retail Sales	956.59		
Retail Sales Vacant	5.11		
Shopping Centers	36.69		
Retail Services	147.35		
Office Parks	2.63		
Vacant Commercial	46.63		
Total	1,195.00		

Industrial/Manufacturing		Acres	
Manufacturing	1,026.95		
Wholesaling	44.41		
Extractive	1,245.76		
Open Storage	93.92		
Enclosed Storage	105.28		
Vacant	13.91		
Total	2,530.23		

Transportation		Acres	
Motor Vehicle Related	1,407.02		
United States Highway (Federal)	1,218.84		
State Highways	460.58		
County Highways	1,963.99		
Local Roads	12,925.73		
County and Federal Forest Roads	1,306.49		
Off-Street Parking	29.97		
Truck terminals	0.59		
Rail Related	1,515.19		
Air Port Related	26.01		
Vacant	1.43		
Total	20,855.83		

Institutional Governmental		Acres	
Administrative Buildings	19.29		
Schools	386.82		
Cemetaries	219.71		
Other	360.16		
Total	985.98		

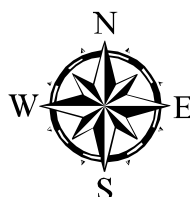
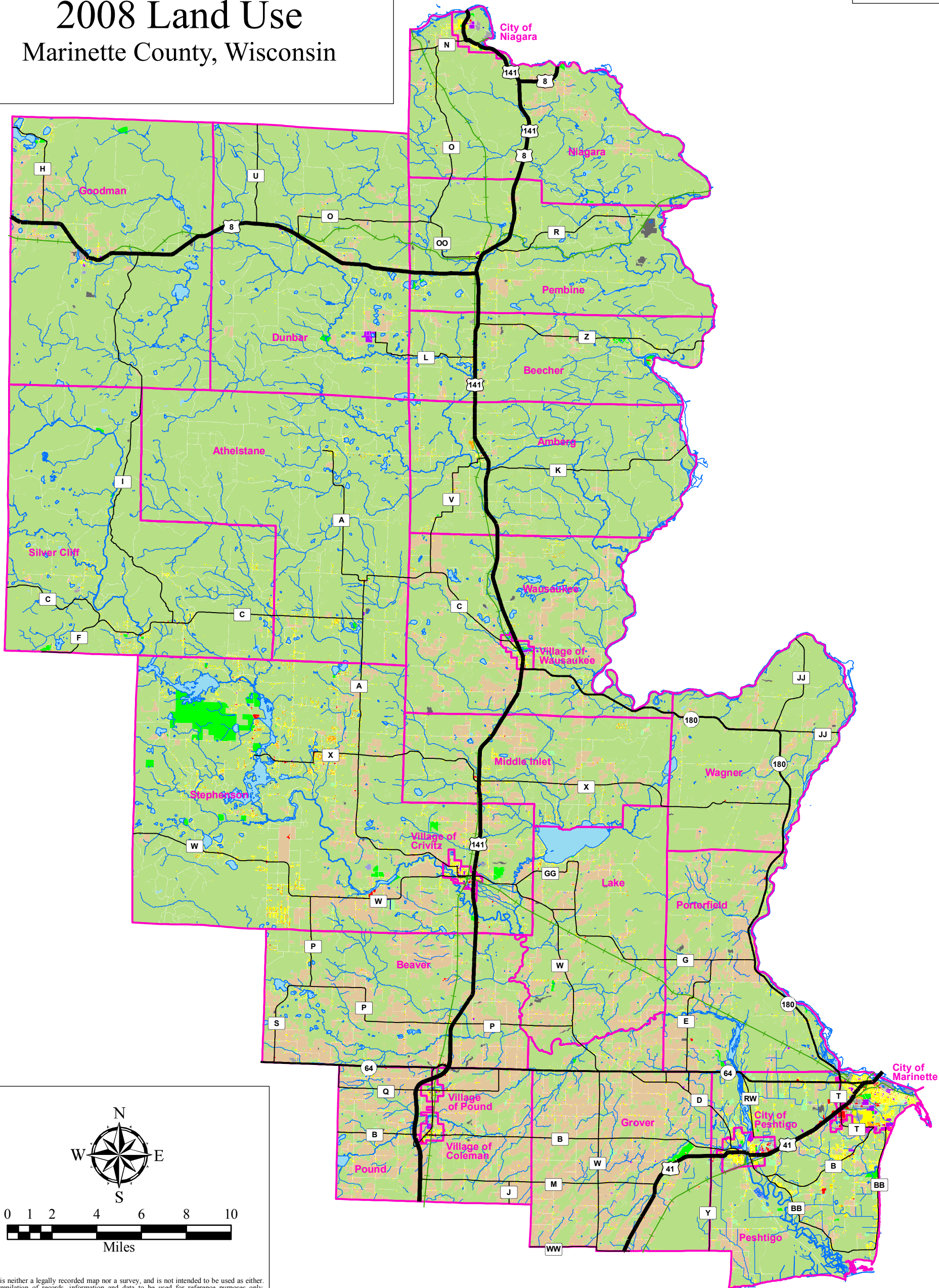
Natural Areas		Acres	
Water (Lakes, Rivers,Ponds, etc.)	19,638.22		
Natural Areas/Open Space	55,953.85		
Woodlands	682,180.35		
Total Acres	757,772.42		

Communications and Utilities		Acres	
Generation/Processing of Communication/Utilities	3.31		
Electric Power Plants	4.19		
Telephone and Telegraph Terminals/Dispatch Centers	4.65		
Radio/Television Stations	11.64		
Natural Gas Terminals/Plants	21.11		
Water Supply Filter Treatment Plants	2.58		
Water Supply Wells	0.98		
Transmission of Communication/Utilities	0.83		
Electric Power Substations	30.31		
Radio/Television Transmission Towers/Antennae	18.06		
Natural Gas Substations	1.73		
Other Liquid Fuel Substations	3.69		
Water Supply Booster/Pumping Stations	5.42		
Water Supply Storage Tanks/Reservoirs	5.66		
Waste Processing/Disposal/Recycling	5.34		
Trash/Garbage Landfills	44.73		
Other Trash/Garbage Dumps	38.51		
Sewage Treatment Plants	103.27		
Sewage Sludge or Water Supply Chemical Disposals	17.56		
Recycling/Disposals	38.09		
Abandoned Landfill	9.54		
Yard Waste	0.31		
Solid Waste Separation/Recycling Plants	2.81		
Total	374.31		

Outdoor Recreation Facilities		Acres	
Nature Study Areas	4.76		
Campgrounds	566.72		
Parks/Parkways/Forest-Related Picnic Areas	3,403.50		
Playfields/Ball Diamonds/Volleyball Courts	106.51		
Swimming/Wading Pools	7.63		
Tennis Courts	4.05		
Athletic Fields	32.16		
Golf Courses/Golf Driving Ranges	882.20		
Archery/Gun/Skeet Ranges	40.44		
Other	11.42		
Water Related Activities	75.00		
Total	5,134.37		

Agricultural/Silvicultural		Acres	
Fallow Fields	1,962.50		
Croplands/Pastures	103,344.43		
Long-Term Specialty Crops	2,530.13		
Animal Husbandry	238.93		
Fish Hatchery/Aquaculture	8.88		
Farm Buildings/Accessories	2,688.37		
Vacant Agriculture/Silviculture	101.03		
Total	110,874.37		

2008 Land Use Marinette County, Wisconsin



0 1 2 4 6 8 10
Miles

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Base Map Features

- MCD Boundary
- U.S. Highway
- State Highway
- County Highway
- Railroad
- Surface Water

- | | | | |
|--|-------------------|--|----------------------------|
| | Residential | | Communications/Utilities |
| | Mobile Homes | | Governmental/Institutional |
| | Commercial | | Parks and Recreation |
| | Industrial | | Open Space/Fallow Fields |
| | Extractive Mining | | Agricultural |
| | Transportation | | Woodlands/Natural Areas |

Source: Marinette County; Bay-Lake Regional Planning Commission, 2009.

VOLUME II - APPENDIX A
HOUSING PROGRAMS AND RESOURCES

HOUSING PROGRAMS AND RESOURCES

There are a number of housing programs and tools available to assist Marinette County officials in obtaining and maintaining the desired housing environment they wish to provide their residents. An important first step in the successful utilization of those resources is ongoing education of citizens and local officials regarding the contents of the Housing Chapter of this comprehensive plan and on the importance of providing quality and affordable housing for all Marinette County residents. Elected and appointed county officials, as well as the citizens, need to understand the strong correlation between quality housing and the economic development, natural/cultural resources, land use, community facilities and transportation components of the county.

The following is a list of programs and resources available to implement the housing strategies found in Chapter 4 of this comprehensive plan. Some local implementation tools that compliment this list of programs and resources are Marinette County's zoning ordinances and enforcement regulations.

Local and Regional Programs

Northeast Wisconsin Community Action Program (NEWCAP) Inc. is a locally controlled, private, not-for-profit organization governed by a Board of Directors made up of low-income, public, and private sector representatives. The involvement of low-income representatives in various aspects of the agency's operation makes NEWCAP unique among human service organizations. The federally mandated mission of NEWCAP is to work toward the elimination of the causes of poverty by enabling and assisting low-income people to attain the skills, motivation, and opportunities necessary for them to become self-sufficient and independent. The organization services Oconto, Brown, Shawano, Menominee, Langlade, Oneida, Forest, Florence, Marinette, and Vilas Counties. The following are the housing related services provided by NEWCAP. www.newcap.org Not all these programs are available in every county:

- The Section 8 Voucher Housing Assistance Program
- The Section 8 Voucher Family Self-Sufficiency (FSS) Program
- The HOME Homebuyer Program
- The State Shelter Subsidy Grant Program
- The Weatherization Program

Tax Increment Financing (TIF) is a tool available to cities and villages in Wisconsin under section 66.1105 of the Wisconsin Statutes for redeveloping blighted areas. TIF can be used to cover costs of public works or improvements including costs for demolition, land assembly, public improvements, and new buildings. Under TIF, new private development creates higher property values, thus creating a greater tax base (the tax increment). This increment, or a portion of the increment, is set aside for reinvestment in the area. Tax increment financing could be used to assist in the building or rehabilitation of affordable housing for middle- and lower-income households.

State Programs

Wisconsin Department of Commerce Bureau of Housing (BOH) helps expand local affordable housing and supports services to people without housing. The fifteen federal and state programs managed by the Bureau aid elderly persons, people with disabilities, low and moderate income residents, and the homeless population. The Bureau works closely with local governments and non-profit housing organizations to deliver financial and technical housing assistance and to strengthen the capabilities of housing organizations. More than \$40 million is distributed annually to improve the supply of affordable housing for Wisconsin residents. The bureau:

- administers federal housing funds such as Home Investment Partnerships, (HOME) and CDBG;
- administers a variety of programs for persons with Special Needs (Homeless);
- provides state housing funds through local housing organizations;
- coordinates housing assistance programs with those of other state and local housing agencies; and
- develops state housing policy and provides housing information and technical assistance.
www.commerce.wi.gov/housing

The Wisconsin Housing and Economic Development Administration (WHEDA) also manages several federal housing programs. One program, the Low Income Housing Tax Credit Program, encourages housing development by providing private investors with income tax credits when they invest in low income housing development. Tax credits are allocated to housing projects on a competitive basis.

Information about WHEDA programs can be obtained by telephoning (800) 362-2761 or by visiting its web site at www.wheda.state.wi.us.

Wisconsin Historical Society's Division of Historic Preservation administers a 25-percent state income tax credit for repair or rehabilitation of historic homes. The tax credit is available to owner-occupants of non-income-producing historic residences. The property must be listed in, or eligible for, the State or National Register, or be determined to contribute to a State or National Register historic district. Eligible activities are limited to exterior work, rehabilitation or structural, electrical, mechanical, and plumbing systems.

www.wisconsinhistory.org/hp/architecture/tax_credit.asp

Wisconsin Department of Veterans Affairs makes available a variety of home acquisition and improvement programs for qualifying veterans and their dependents. These programs include the Home Purchase Program, Home Improvement Loan Program (HILP) may be used for additions, garage construction, repairs and remodeling (i.e., replace a roof, install new windows, a new furnace or a central air conditioning system) of a veteran's residence; and Primary Mortgage Loan (PML), that is different from the USDVA Home Loan Guaranty Program.
www.homeloans.va.gov

The Energy Assistance Bureau, within the Wisconsin Division of Energy, provides services to Wisconsin qualified residential households with energy assistance and weatherization needs. The Wisconsin Home Energy Assistance Program (WHEAP) administers the federally funded

Low Income Home Energy Assistance Program (LIHEAP) and Public Benefits Energy Assistance Program. LIHEAP and its related services help over 100,000 Wisconsin households annually. In addition to regular heating and electric assistance, specialized services include emergency fuel assistance, counseling for energy conservation and energy budgets, pro-active co payment plans, and emergency furnace repair and replacement. Services are provided locally through county social services offices, Tribal governments, private non-profit or other government agencies. www.heat.state.wi.us

Federal Programs

U.S. Department of Agriculture -Rural Development offers subsidized direct loans and non-subsidized guaranteed loan funds for the purchase and construction of homes by households in qualified rural areas of the state. The community must be of 20,000 or less, and there are special programs for Native Americans. Rural Development also provides low-interest mortgage loans for single family, owner-occupied residential home repair in rural areas. Some grants are available for very low-income elderly households. It provides funding through the 504 and the Housing Preservation Grant programs. www.rurdev.usda.gov/wi/programs/rhs/

U.S. Department of Housing and Urban Development provides vital public services through its nationally administered programs. It oversees the Federal Housing Administration (FHA), the largest mortgage insurer in the world, as well as regulates the housing industry business. The mission of the Office of Housing is to:

- Contribute to building and preserving healthy neighborhoods and communities;
- Maintain and expand homeownership, rental housing and healthcare opportunities;
- Stabilize credit markets in times of economic disruption;
- Operate with a high degree of public and fiscal accountability; and
- Recognize and value its customers, staff, constituents and partners.

Within the Office of Housing are three business areas:

1. HUD's Single Family programs include mortgage insurance on loans to purchase new or existing homes, condominiums, manufactured housing, houses needing rehabilitation, and for reverse equity mortgages to elderly homeowners.
2. HUD's Multifamily programs provide mortgage insurance to HUD-approved lenders to facilitate the construction, substantial rehabilitation, purchase and refinancing of multifamily housing projects, and healthcare facilities.
3. HUD's Regulatory programs are designed to assist homeowners and homebuyers to regulate real estate transactions. www.hud.gov

US Department of Veterans Affairs offers a number of programs and services for veterans and their dependents. In the area of housing, the department has several grants and loans available. Many of the programs are made available through the State Department of Veterans Affairs or local veteran's affairs offices. www.va.gov

National and Regional Not-for-Profit Organizations

Habitat for Humanity has local affiliates and is responsible for raising funds, recruiting volunteers, identifying project sites and constructing owner-occupied housing for the benefit of

participating low-income families. Their goal is to eliminate inadequate and poverty housing throughout the world. www.habitat.org

Movin' Out, Inc. creates opportunities for people with disabilities and their families to purchase and maintain their own homes, in housing and neighborhoods that are safe, affordable, accessible, and integrated. Movin' Out, Inc. is a housing organization providing information and assistance, housing counseling, and gap financing for purchase and rehabilitation to Wisconsin households with a member who has a permanent disability. www.Movin-out.org.

Tomorrow's Home Foundation was created in 2000 for several purposes:

- Assist disabled persons in the purchase of a manufactured or modular home via a down payment assistance grant;
- Provide emergency assistance grants designed to provide critical repairs so that individuals and families can stay in their manufactured or mobile home;
- create a method and mode for disposing of old, uninhabitable mobile homes that were blighting the countryside; and
- educate the manufactured and modular housing industry.

As a public charity, the Foundation provides a way to give back to the community for industry members and a method to assist populations that are underserved by other programs. For example, many other charitable and public service agencies do not provide housing assistance to persons in mobile home parks. The Tomorrow's Home Foundation fills this void.

www.tomorrowshomefoundation.org

WiFrontDoorHousing is a web-based community service that is intended to better connect providers of housing and housing services to renters who are looking for these types of housing opportunities. Their goal is to provide access to up-to-date housing information with user-friendly tools. These tools are customized for each of our user groups: renters, landlords, property managers, and the housing agency staff that help people find and keep housing. www.wifrontdoor.org

Rural Housing, Inc. was created in 1970 by the Rural Electrical Cooperatives as a statewide non-profit. Over the years, they have had federal, state, and private funding. They have served hundreds of rural communities and non-profit organizations with technical assistance, grant applications and advice. They have assisted thousands of low-income families with information, funds to repair their septic systems and wells, assistances for rent, and funds to purchase homes or stay in their homes. Millions of dollars have been leveraged for the very low-income rural residents of Wisconsin to:

- Assist low-income families obtain adequate, safe and sanitary housing;
- Help low-income households acquire appropriate water and wastewater services;
- Enable small communities and local organizations to more effectively address the needs of those with substandard shelter;
- Demonstrate new services and new approaches to address rural housing problems; and
- Alert the public and private sectors about the housing, water, and community development needs of low-income rural residents. www.wisconsinruralhousing.org

The Wisconsin Partnership for Housing Development works with local governments as consultants to help them understand their housing needs and find solutions, and as technical advisors that work under contract to HUD to help local governments design new housing programs or create local housing partnerships. Putting together the right combination of people and resources is essential to finding effective approaches to local or regional housing problems. We have experience in working with neighborhoods, villages, cities, counties and metropolitan areas, as well as grassroots community leaders and those most directly affected by poor housing and declining neighborhoods. www.wphd.org

Catholic Charities agencies strengthen their communities by empowering the people within them. They help families and individuals overcome tragedy, poverty, and other life challenges. Every agency is unique. They share a common goal of providing the services and programs that their particular community needs the most. Over 220,000 compassionate volunteers, staff, and board members comprise the driving force behind the Catholic Charities network. Their commitment goes beyond meeting peoples' daily needs. They build hopeful futures by helping people take control of their lives. www.catholiccharitiesinfo.org

NeighborWorks® America is comprised of local organizations and Neighborhood Housing Services of America, which has successfully built healthy communities since 1978. Together, with national and local partners, NeighborWorks creates new opportunities for residents while improving communities. NeighborWorks America is national nonprofit organization created by Congress to provide financial support, technical assistance, and training for community-based revitalization efforts. www.nw.org

VOLUME II - APPENDIX B
ECONOMIC DEVELOPMENT RESOURCES

ECONOMIC DEVELOPMENT RESOURCES

This section briefly explains the programs and resources available on each government level that are designed to help build economic development capacity through infrastructure expansion and to offer resources necessary to develop and grow businesses.

Federal

US Department of Commerce, Economic Development Administration (EDA)

EDA was established to work with states and regional planning commissions (economic development districts) to generate new jobs, retain existing jobs, and stimulate industrial and commercial growth in economically distressed areas and regions of the United States. The purpose of its program investments is to provide economically distressed communities with a source of funding for planning, infrastructure development, and business financing that will induce private investment in the types of business activities that contribute to long-term economic stability and growth. EDA's investments are strategically targeted to increase local competitiveness and strengthen the local and regional economic base. There are a number of investment programs offered by EDA.

The **Public Works Program** to empower distressed communities to revitalize, expand, and upgrade their physical infrastructure to attract new industry, encourage business expansion, diversify local economies, and generate or retain long-term, private sector jobs and investment. The **Economic Adjustment Assistance Program** assists state and local interests to design and implement strategies to adjust or bring about change to an economy. The program focuses on areas that have experienced or are under threat of serious structural damage to the underlying economic base. The **Research and Technical Assistance Program** supports research of leading edge, world class economic development practices as well as funds information dissemination efforts. The Technical Assistance Program helps fill the knowledge and information gaps that may prevent leaders in the public and nonprofit sectors in distressed areas from making optimal decisions on local economic development issues. EDA's **Partnership Planning Programs** help support local organizations (Economic Development Districts, Indian Tribes, and other eligible areas) with their long-term planning efforts and their outreach to the economic development community on EDA's programs and policies. (source: www.eda.gov)

US Department of Housing and Urban Development

The **Economic Development Initiative (EDI)** provides grants to local governments to enhance both the security of loans guaranteed through the **Section 108 Loan Program** and the feasibility of the economic development and revitalization projects they finance. EDI has been the catalyst in the expanded use of loans through the Section 108 Program by decreasing the level of risk to their CDBG funds or by paying for some of the project costs. There are congressionally earmarked and competitive EDI grants. Competitive EDI grants can be only be used in projects also assisted by the Section 108 Loan Program. Eligible activities include property acquisition, rehabilitation of public owned property, and economic development activities.

The **Brownfields Economic Development Initiative (BEDI)** is a key competitive grant program HUD administers to stimulate and promote economic and community development. BEDI is designed to assist cities with the redevelopment of abandoned, idled, and underused industrial and commercial facilities where expansion and redevelopment is burdened by real or potential environmental contamination. The purpose of the BEDI program is to spur the return of

brownfields to productive economic use through financial assistance to public entities in the redevelopment of brownfields, and enhance the security or improve the viability of a project financed with Section 108- guaranteed loan authority. Therefore, BEDI grants must be used in conjunction with a new Section 108-guaranteed loan commitment.

The **Section 108 Loan Guarantee Program** is a loan guarantee provision of the CDBG program. It provides communities with a source of financing for economic development, housing rehabilitation, public facilities, and large-scale physical development projects. Eligible applicants include entitlement communities. Activities eligible for Section 8 financing include economic development activities eligible under CDBG, acquisition of real property, rehabilitation of public property, installation of public facilities. The principal security for the loan guarantee is a pledge by the applicant public entity of its current and future CDBG funds. The maximum repayment period for a Section 8 loan is twenty years. (source: www.hud.gov)

USDA Rural Development

The US Department of Agriculture through its Rural Development offices offer a variety of funding options for many types of business ventures to include agriculture, manufacturing, processing, services, commercial, and retail. Rural Development is also instrumental in providing much needed financial resources to communities for infrastructure improvements and expansions primarily for waste water and water treatment facilities. They have direct and guaranteed loans for businesses and communities in addition to a number of grants.

The **Rural Business Opportunity Grant Program** provides technical assistance, training, and planning activities that improve economic conditions in rural areas of 50,000 people or less. A maximum of \$1.5 million per grant is authorized. **Rural Utilities Service (RUS) Grant Program** is designed to promote economic development and/or job creation projects including, but not limited to: project feasibility studies, start-up costs, incubator projects, and other reasonable expenses. Grants can be provided to rural communities through RUS borrowers to be used for revolving loan funds for community facilities and infrastructure, and for assistance in conjunction with rural economic development loans.

The **Rural Business Enterprise Grants Program (RBEG)** is available to public bodies, private nonprofit corporations, and federally-recognized Indian Tribal groups to finance and facilitate development of small and emerging private business enterprises located in areas outside the boundary of a City, or unincorporated areas of 50,000 or more and its immediately adjacent urbanized or urbanizing area. The small, or emerging business to be assisted must have less than 50 new employees, less than \$1 million in gross annual revenues, have or will utilize technological innovations and commercialization of new products and/or processes to be eligible for assistance. Funds can be used for a variety of things including, but not limited to: construction of buildings and plants, equipment, access streets and roads, parking areas, utility and service extensions, and a variety of other costs.

The Intermediary Relending Program money is lent to private non-profit organizations, any state or local government, an Indian Tribe, or a cooperative that is relented to by the intermediary to the ultimate recipients. The ultimate recipient must not be able to receive financing at reasonable rates or terms. (source: www.rurdev.usda.gov/wi/programs/index.htm)

US Department of Commerce National Oceanic and Atmospheric Administration (NOAA)

The **Coastal Zone Management Program (CZMP)** assists local and state governments in managing and revitalizing coastal areas for mixed-use development. The competing goals of commercial and industrial development, tourism, environmental protection, transportation and recreation are discussed in coastal management plans. The CZMP seeks to maintain the economic welfare of coastal communities and ecosystems through intergovernmental cooperation. The CZMP supports states through financial contributions, technical advice, participation in state and local forums, and through mediation. Wisconsin CZMP programs currently protect wetland ecosystems, reduce non-point pollution sources, reduce erosion and assist in meeting state and regional coastal goals. (source: www.coastalmanagement.noaa.gov/programs)

US Environmental Protection Agency

The **Brownfields Assessment and Cleanup Cooperative Agreements** objectives are to provide funding to inventory, characterize, assess, and conduct planning and community involvement related to brownfield sites; to capitalize a RLF fund; and to carry out cleanup activities at brownfield sites that are owned by the grant recipient. Eligibility for the assessment, RLF, and cleanup grants includes a general purpose unit of local government. This is a competitive grant program. There are separate guidelines for each of the three areas. Grant amounts are based on size and type of contamination, ranging from \$200,000 to \$350,000. (source: <http://epa.gov/brownfields/pilot/htm>)

US Department of the Interior - National Park Service

The **Land and Water Conservation Fund (LWCF)** is a visionary and bipartisan program, established by Congress in 1964 to create parks and open spaces, protect wilderness, wetlands, and refuges, preserve wildlife habitat, and enhance recreational opportunities. States receive individual allocations of LWCF grant funds based on a national formula. Then states initiate a statewide competition for the amount available to award via matching grants. (source: www.nps.gov/nrcr/programs/lwcf)

Small Business Administration (SBA)

The SBA provides financial, business counseling and training, and business advocacy to foster the development and success of small businesses. Financial assistance comes in the form of loans and grant programs including the **7(a) Loan Guarantee, Prequalification Loan, 7(m) Micro Loan, CDC/504 Loan, CAPlines Program, and 8(a) Business Development Program**. (source: www.sba.gov/wi/WI_FINANCING.html)

State

Wisconsin Department of Commerce

The federally funded **Community Development Block Grant (CDBG)** program can be used for housing, economic development and public facility improvements. The program is designed to assist economically distressed smaller communities with improvements to such things as utilities and streets, fire stations, community centers, and housing rehabilitation, as well as many other improvements needed by a community. The **CDBG-Economic Development (CDBG-ED)** program assists large businesses that will invest substantial private funds and create approximately 100 jobs as they expand or relocate in Wisconsin. Funds are awarded to a community, which then loans the funds to a business. The **Major Economic Development (MED) Program** is designed to assist businesses that will invest private funds and create jobs as

they expand in or relocate to Wisconsin. The **Rural Economic Development (RED) Program** provides working capital or fixed asset financing for businesses with fewer than 50 employees.

Specifically, the **CDBG-Public Facilities for Economic Development (PFED)** program is designed to assist communities with expanding or upgrading their infrastructure to accommodate businesses that have made a firm commitment to create jobs and invest in the community. The **CDBG-Public Facilities (CDBG-PF)** component helps eligible local governments upgrade community facilities, infrastructure, and utilities for the benefit of low- to moderate-income residents. The Main Street Program offers a variety of resources to include façade grants and technical and financial assistance to stimulate the revitalization of their respective areas. The **Brownfields Initiative** provides grants to persons, businesses, local development organizations, and municipalities for environmental remediation activities for brownfield sites where the owner is unknown, cannot be located or cannot meet the cleanup costs. The **Community-Based Economic Development Program (CBED)** is designed to promote local business development in economically-distressed areas. The program awards grants to community-based organizations for development and business assistance projects and to municipalities for economic development planning. The program helps community-based organizations plan, build, and create business and technology-based incubators, and can also capitalize an incubator tenant revolving-loan program. The **CDBG-Blight Elimination and Brownfield Redevelopment Program (BEBR)** can help small communities obtain money for environmental assessments and to remediate brownfields. The **CDBG-Emergency Grant Program** can help small communities repair or replace infrastructure that has suffered damages as a result of catastrophic events.

The **Community Development Zone (CDZ)** designation is a tax credit program for businesses planning to expand, relocate or start in the designated Community Development Zones (CDZ). CDZs in the BLRPC district include the cities of Green Bay, Sturgeon Bay, Two Rivers, and Manitowoc; and the Counties of Florence, Marinette, and Oconto. These tax credits are to be applied against a company's Wisconsin income tax liability. These credits are based on the number of new jobs that a company creates, and the wage level and benefit package that are offered to the employees. The **Enterprise Development Zone (EDZ)** program provides tax incentives to new or expanding businesses whose projects will affect distressed areas. Based on the economic impact of a proposed business project, the Department of Commerce will be able to designate an enterprise development zone. A zone is "site specific" and applies to only one business.

To compliment the bricks and mortar component of Commerce, there is funding specifically earmarked for employee training. Eligible businesses looking to train a significant number of its current or incoming workforce can apply for and receive a direct grant from Commerce for **Customized Labor Training (CLT)**. Companies with a few employees seeking training are eligible for the **Business Employees Skills Training (BEST) Program**. The focus of both programs is on the training or retraining of employees to incorporate new technologies or manufacturing processes.

Commerce provides financial resources to encourage the development of small businesses. Potential entrepreneurs can access an **Early Planning Grant (EPG)** of up to \$3,000 to obtain professional services necessary to evaluate the feasibility of a proposed start-up or expansion or develop a business plan. The **Entrepreneurial Training Grant Program (ETG)** is a comprehensive course designed to provide hands-on assistance in the writing of a business plan.

The technical assistance can be provided by the Small Business Development Center (SBDC) at UW-Green Bay or the regional Service Core of Retired Executives (SCORE) office.

Other programs offered by Commerce include: the **Employee Ownership Assistance Loan (EOP) Program** can help a group of employees purchase a business by providing individual awards up to \$15,000 for feasibility studies or professional assistance. The business under consideration must have expressed its intent to downsize or close. The **Industrial Revenue Bonds (IRB)** are municipal bonds whose proceeds are loaned to private persons or to businesses to finance capital investment projects. All Wisconsin municipalities, cities, villages, and town are authorized to issue IRBs. The **Technology Development Fund (TDF) Program** helps Wisconsin businesses research and develop technological innovations that have the potential to provide significant economic benefit to the state. The **Technology Development Loan (TDL)** program helps Wisconsin businesses develop technological innovations that have the potential to provide significant economic benefit to the state. This program is designed to help businesses commercialize new technology.

The **Minority Business Development (MBD) Loan Program** provides low interest loans to assist minority-owned companies with land and equipment purchase, working capital, and construction. The **Wisconsin Trade Project Program** can help small export-ready firms participate in international trade shows. The **Milk Volume Production (MVP) Loan Program** enables farmers to increase milk production by offering loan interest loans to purchase additional dairy cattle. The **Dairy 20/20 Early Planning Grant Program** covers third party services to assist the applicant with start-up, modernization, or expansion of a dairy operation. (source: www.commerce.state.wi.us)

Wisconsin Department of Transportation

The **Transportation Economic Assistance (TEA) Grants** provide up to 50% of costs to governing bodies, private businesses, and consortiums for road, rail, harbor, and airport projects that help attract employers to Wisconsin, or encourage business and industry to remain and expand in the state. Grants up to \$1 million are available for transportation improvements that are essential for an economic development project. The amount of DOT provided funding is dependent on the number of jobs being created or retained. The 50% local match portion can come from a combination of local, federal, state, or in-kind services.

In 1979, the **Harbor Assistance Program (HAP)** was created to assist harbor communities along the Great Lakes and Mississippi River in maintaining and improving waterborne commerce. Port projects typically include dock reconstruction, mooring structure replacement, dredging, and construction of facilities to hold dredged materials. The **Freight Rail Infrastructure Improvement Program (FRIP)** and **Freight Rail Preservation Program (FRPP)** were created to maintain and improve rail services throughout Wisconsin.

The **State Infrastructure Bank (SIB) Program**, similar to a private bank, offers a range of loans and credit options to help finance eligible surface transportation projects. The money can be used in conjunction with other programs. SIBs offer Wisconsin the ability to undertake transportation projects that would otherwise go unfunded or experience substantial delays. Communities can borrow the money to provide needed transportation infrastructure improvements to help preserve, promote, and encourage economic development and/or promote transportation efficiency, safety, or mobility. The Wisconsin SIB program is a revolving loan program providing capital for transportation projects from loan repayments and interest earned

from money remaining in the bank. Eligible projects include constructing or widening a road linking an inter-modal facility and providing better access to commercial and industrial sites. WisDOT charges 2 percent interest on the loan principal, with projects amortized up to 25 years. Eligible applicants are local units of government, Amtrak Railroad, private non-profit organizations, and Transit Commissions. (source: www.dot.wisconsin.gov)

Wisconsin Department of Tourism

Funding is available for local communities and regions to design their own marketing effort. The most popular and utilized program is the **Joint Marketing Grant (JEM)**. The grants are to assist in paying for the costs associated with developing a stronger advertising and public relations campaign to promote tourism. (source: <http://agency.travelwisconsin.com/Programs/programs/shtm>)

Wisconsin Department of Agriculture, Trade, and Consumer Protection

Financial resources are provided to help grow and diversify the state's agriculture industry. The **Agricultural Development and Diversification (ADD)** grant is awarded to projects that may create new opportunities within agriculture through new value-added products, new market research, new production or marketing techniques, or alternative crops or enterprises. Maximum grants are \$50,000. Eligible applicants are individuals, associations, agri-businesses, and industry groups. (source: <http://datcp.state.wi.us>)

Wisconsin Department of Administration

The Wisconsin Coastal Management Program was established in 1978 under the Federal Coastal Zone Management Act. Coastal management is defined as achieving a balance between natural resource preservation and economic development along our Great Lakes coasts. All counties adjacent to Lakes Superior and Michigan are eligible to receive funds. Coastal Management Grants are available for coastal land acquisition, wetland protection and habitat restoration, non-point source pollution control, coastal resources and community planning, Great Lakes education, and public access and historic preservation. (source: www.doa.state.wi.us)

Wisconsin Department of Natural Resources

Brownfields, Green Space, and Public Facilities grants help local governments clean-up brownfield sites intended for long-term public benefit, including green spaces, development of recreational areas or other uses by local governments. A city, village, town, county, redevelopment authority, community development authority, or housing authority is eligible to apply for funds. Eligible costs include remedial action plans and/or costs to develop a Remedial Action Plan. No grant may exceed \$200,000. The match requirement (20-50 percent) is determined by the amount of the grant. Site access and completed Phase I and II Environmental Site Assessments are required to receive a grant. Application deadline has been each year in January. (source: <http://dnr.wi.gov/org/caer/cfa/cfindex.html>)

Wisconsin Housing and Economic Development Authority (WHEDA)

WHEDA is responsible for a number of housing and economic development functions. It works with local and state economic development professionals, businesses, and lending institutions to help an individual expand or modernize a farm or business. **Loan Guarantees, direct loans, New Market Tax Credits,** and **interest rate subsidies** are utilized within a financial package to help ensure the project has the best chance for long term success. (source: www.wheda.com)

Other state resources include: *Impact Seven, Inc.*, is one of the more recognizable statewide organizations that provide micro-loans for small business start-ups and expansions. (source: www.impactseven.org) The *Wisconsin Women's Business Initiative Corporation (WWBIC)* also provides micro-loans to predominately women, minorities, and those of lower incomes. (source: www.wwbic.com) The *Wisconsin Business Development Finance Corporation (WBD)* provides financial assistance and resources to business and lenders throughout the state. (source: www.wbd.org) The *Wisconsin Innovation Network (WIN)* is one of the priority areas of the *Wisconsin Technology Council*. WIN is a community-based economic development organization dedicated to fostering innovation and entrepreneurship. (source: www.wisconsintechcouncil.org)

Regional

The Bay-Lake Regional Planning Commission (BLRPC)

The Bay-Lake Regional Planning Commission serves as an economic development district for the US Department of Commerce-Economic Development Administration. Potential EDA funded projects must be reviewed by the BLRPC for eligibility of federal funding. The BLRPC also provides technical assistance to local ED organizations and offers grant writing and administration services for various state and federal funding sources. (source: www.baylakerpc.org)

Northeast Wisconsin Regional Economic Partnership (NEWREP)

All eight counties of the BLRPC are part of Commerce's Eastern Wisconsin Technology Zone. The program provides income tax incentives for high-tech development in the region. The zone is designed to enhance the region's attractiveness to high-tech businesses and workers, build on the success of the biotechnology and manufacturing companies in the region, attract auxiliary companies, and help existing companies increase productivity. (source: www.northeastwisconsin.org)

New North, Inc.

The **New North** is the 18 county region in northeast Wisconsin. The New North brand unites the region both internally and externally, signifying the collective economic power behind the 18 counties. This consortium of business, economic development, chambers of commerce, workforce development, civic, non-profit, and education leaders are working to have the area recognized as competitive region for job growth while maintaining our superior quality of life. It represents a strong collaboration between the 18 counties that have come together behind the common goals of job growth and economic viability for the region. The power of the New North region working together is far greater than one county or one business alone. (source: www.thenewnorth.org)

Small Business Development Centers (SBDC)

SBDCs are located within the eleven 4-year universities. The SBDCs counselors offer advice, training, and resources to promote entrepreneurship and small business growth. Programs focus on minority entrepreneurship, startup business solutions, and established business solutions. Specific programs include business plan reviews and one-to-one business counseling. (source: www.wisconsinsbdc.org)

SCORE

SCORE is a more than 11,500 member volunteer association sponsored by the U.S. Small Business Administration. It matches volunteer business-management counselors with present and prospective small business owners in need of expert advice. SCORE has experts in virtually every area of business management. Local SCORE chapters offer workshops and no cost one-to-one counseling. (source: www.sba.gov)

Community Action Agencies

The purpose of **Community Action Agencies (CAA)**, as stated in the Economic Opportunity Act (EOA of 1964), is to stimulate a better focusing of all available local, state, private and federal resources upon the goal of enabling low-income families, and low-income individuals of all ages in all geographic areas, to attain the skills, knowledge, and motivations, and secure the opportunities needed, for them to become fully self-sufficient. The local CAA serving Oconto County is NEWCAP, Inc. located in the City of Oconto. It operate a variety of programs including their operation of Head Start, weatherization, housing, employment and training programs, family development, economic development, commodity distribution, senior and youth services, and many other valuable programs. In addition to providing direct services, CAAs often serve as program sponsors or grantees overseeing, although not necessarily directly operating programs. (source: www.newcap.org)

Utilities

Area utilities offer economic development assistance to communities and businesses in a number of ways to include the development of business plans, making available grants and loans, providing loan guarantees, and facilitating educational forums. Area utilities include:

- **Wisconsin Public Service Corporation** (www.wisconsinpublicservice.com),
- **Alliant Energy** (www.alliantenergy.com),
- **Rural Energy Cooperatives** (www.meuw.org), and
- **SBC** (www.sbc.com).

County and Local

University of Wisconsin Extension Office

The Community Resource Development Agent/Educator offers small business management assistance workshops or one-on-one counseling, as well as information on county revolving loan funds and other sources of financing. The local Extension agent for Oconto County is located within the county courthouse. (source: www.uwex.edu)

VOLUME II - APPENDIX C
TRANSPORTATION RESOURCES

TRANSPORTATION RESOURCES

The following are brief descriptions of the transportation programs administered by the Wisconsin Department of Transportation (WisDOT). The programs are divided into two categories: 1) formula driven programs for which funding is based on population and/or road mileage; and 2) competitive funding programs.

Wisconsin Department of Transportation

General Transportation Aid (GTA)

Town road improvements, construction and maintenance are funded, in part, through the state's disbursement of general transportation aids. The state provides a payment to each county and municipality in the state to pay a portion of the local governments' costs for such activities as road and street reconstruction, filling potholes, snow removal, grading shoulders, marking pavement, and repair of curb and gutters. The statutory "rate per mile" is \$1,825 for 2004. Beginning in 2000, each municipality was required to establish and administer a separate segregated account from which moneys may be used only for purposes related to local highways and must deposit into that account all state or federal money for local highway purposes.

Local Mileage Certification

Each local government that increased or decreased the mileage of its roads is required to file a certified plat with DOT by December 15th of each year. Local governments with no changes in their total local road miles are required to file a certified plat or a certified statement that no mileage increases have occurred. Beginning in 2001, the requirement for local governments to file certified plats with county clerks was eliminated and the mileage certification process was changed from an every other year activity to an annual activity. State GTA payments are based on the certified mileage of each local unit of government.

Local Roads Improvement Program (LRIP)

This program provides funding to local units of government for the costs associated with improving seriously deteriorating county highways, town roads, and municipal streets in cities and villages under the authority of the local unit of government. Projects are required to have a minimal design life of 10 years. This is a biennial program with all funds being distributed the first year. Applications are submitted through the county highway commissioners by November 15th of the odd numbered years.

There are three entitlement components for funding road improvements: 1) County Highway Improvement component (CHIP); 2) Town Road Improvement component (TRIP); and 3) cities and villages under Municipal Street Improvement component (MSIP). In addition, LRIP funds three statewide discretionary programs; CHIP-D County Highway Discretionary Improvement Program; 2) Trip-D Town road Discretionary Improvement Program; and 3) MISP-D Municipal Street Discretionary Improvement Program for cities and villages.

All LRIP projects are locally let, with up to 50 percent of the costs reimbursed by WisDOT upon completion, and the remainder matched by the local unit of government. Eligible projects include, but are not limited to, design and feasibility studies; and bridge replacement or rehabilitation, reconstruction, and resurfacing. Ineligible projects include, but are not limited to, new roads, seal coats, ditch repair, and/or curb and gutter construction.

Local Bridge Program

This program includes two separate programs 1) a statewide local bridge entitlement program and 2) a high cost local bridge program (high cost bridges are those that cost more than \$5 million and exceed 475 feet in length). It funds 80 percent of project costs to replace and rehabilitate structures on the Federal Bridge Register in excess of 20 feet. Bridges with sufficiency ratings less than 50 are eligible for replacement and those with sufficiency ratings less than 80 are eligible for rehabilitation.

Counties set priorities for funding within their area, with projects funded on a statewide basis. Local bridge projects are solicited by local WisDOT transportation office (District 3) staff during the winter of the odd numbered years, with program approval in summer of the odd numbered years. The program has a three-year cycle.

Flood Damage Aids

This program provides local governments with financial assistance to replace or improve roads or roadway structures that have had major damages caused by flooding.

County Forest Aid Program

This program provides assistance to counties that have eligible roads located within county forests. It is intended to defray the costs for the improvement and maintenance of public roads within a county forest.

Rural and Small Urban Area Public Transportation Assistance Program - Section 5311

Allocations to the State are set at the federal level. Funds may be used for operating assistance, and capital assistance. Eligible public transportation services include public transportation service operating or designed to operate in non-urbanized areas (a non-urbanized area is one that has a population of 50,000 or less).

Specialized Transportation Assistance Program for Counties - Section 85.21

Allocations under this formula program are based upon the proportion of the state's elderly and disabled population located in each county, subject to two minimums: no county can receive less than a one-half percent of the total annual appropriation; and no county can receive an allocation smaller than they received in 1992. A local match of 20 percent is required. Eligible expenditures include:

- directly provided transportation service for the elderly and disabled;
- purchase of transportation service from any public or private organization;
- a user-subsidy for the elderly or disabled passenger for their use of the transportation service;
- volunteer driver escort reimbursement;
- performing or purchasing planning or management studies on transportation;
- coordinating transportation services;
- performing or purchasing in-service training relating to transportation services; and/or
- purchasing capital equipment (buses, vans, etc.) for transportation services.

The following provides a brief description of *competitive* federal and state transportation grant programs.

Local Transportation Enhancement Program (TE)

Administered by WisDOT, the TE program provides funding to local governments and state agencies for projects that enhance a transportation project. Federal funds will cover up to 80 percent of the project, while the project sponsor is responsible for providing at least a 20 percent match. There are 12 eligible project categories;

- providing facilities for bicycles and pedestrians;
- providing safety and educational activities for pedestrians and bicyclists;
- acquiring scenic easements and scenic or historic sites;
- sponsoring scenic or historic highway programs; including the provision of tourist and welcome centers;
- landscaping and other scenic beautification;
- preserving historic sites;
- rehabilitating and operating historic transportation buildings and structures;
- preserving abandoned railway corridors;
- controlling and removing outdoor advertising;
- conducting archaeological planning and research;
- mitigating water pollution due to highway runoff or reducing vehicle caused wildlife mortality; and
- establishing transportation museums.

Surface Transportation Program - Discretionary (STP-D)

The STP-D program encourages projects that foster alternatives to single occupancy vehicle trips, such as rehabilitation and purchase of replacement vehicle for transit systems, facilities for pedestrians and bicycles, system-wide bicycle planning, and a wide-range of transportation demand management (TDM) projects. Communities over 5,000 are eligible to apply for the funds through the competitive application process.

Transportation Demand Management Programs

Transportation Demand Management consists of policies and programs designed to reduce the number of single occupant vehicles (SOV) trips in a region, especially during peak travel periods. There are two grant programs, the TDM Grant Program and Wisconsin Employment Transportation assistance Program (WETAP).

1. *TDM Grant Program* provides funding to successful grant recipients to implement projects that encourage innovative solutions and alternatives to reducing SOV trips. WisDOT accepts applications annually. Eligible applicants may include local governments, chambers of commerce, and others as defined by the program. The required local match is 20 percent of the project costs.

2. *Wisconsin Employment Transportation Assistance Program (WETAP)* is a joint program between the Wisconsin Department of Workforce Development (DWD) and WisDOT. It provides funding to help low-income people access, or retain or advance in employment with the goal of meeting the entire population's transportation needs. This program is funded with combined federal and state dollars, and requires a local match.

Application requirements include the development of regional job access plans that identify the need for transportation services and illustrate the alternatives proposed for the program. Plans should be developed between public transit providers, local units of government, transportation planners, human service agencies, low-income individuals and other interested parties

Transportation Economic Assistance (TEA Grant) Program

This program provides a 50 percent state grant to governing bodies, private businesses, and consortiums for road, rail, harbor and airport projects that are necessary to help attract employers to Wisconsin, or to encourage business and industry to remain and expand in Wisconsin.

Wisconsin's Rustic Roads Program

The Wisconsin Legislature established the Rustic Roads program in 1973 to help citizens and local units of government preserve what remains of Wisconsin's scenic, lightly traveled country roads.

Unique brown and yellow signs mark the routes of all officially-designated Rustic Roads. These routes provide bikers, hikers, and motorists an opportunity to leisurely travel through some of Wisconsin's scenic countryside. A small placard beneath the Rustic Roads sign identifies each Rustic Road by its numerical designation within the total statewide system. Each Rustic Road is identified by a 1 to 3 digit number assigned by the Rustic Roads Board. To avoid confusion with the State Trunk Highway numbering, a letter "R" prefix is used such as R50 or R120. The Department of Transportation pays the cost of furnishing and installing Rustic Roads marking signs.

An officially designated Rustic Road shall continue to be under local control. The county, city, village or town shall have the same authority over the Rustic Road as it possesses over other highways under its jurisdiction. A Rustic Road is eligible for state aids just as any other public highway. To qualify for the Rustic Road program, a road:

- should have outstanding natural features along its borders, such as rugged terrain, native vegetation, native wildlife, or include open areas with agricultural vistas which independently or in combination uniquely set this road apart from other roads.
- should be a lightly traveled local access road, one which serves the adjacent property owners and those wishing to travel by auto, bicycle, or hiking for purposes of recreational enjoyment of its rustic features.
- should be one neither scheduled nor anticipated for major improvements which would change its rustic characteristics.
- should have, preferably, a minimum length of 2 miles and, where feasible, should provide a completed closure or loop, or connect to major highways at both ends of the route.

A Rustic Road may be dirt, gravel or paved road. It may be one-way or two-way. It may also have bicycle or hiking paths adjacent to or incorporated in the roadway area. The maximum speed limit on a Rustic Road has been established by law at 45 mph. A speed limit as low as 25 mph may be established by the local governing authority.

The application information page includes a letter to prospective applicants explaining the Rustic Roads Program, petition, description and resolution forms to use in working with local government officials, and the state administrative codes governing the program. More information can be obtained by contacting your town chairman or the county highway commissioner or visit the WisDoT's website for more information.

VOLUME II - APPENDIX D
LAND USE INVENTORY CODES

APPENDIX D – LAND USE INVENTORY CODES

Bay-Lake Regional Planning Commission			
Land Use Inventory Summary Form (Version 2007)			
100	RESIDENTIAL	600	INSTITUTIONAL/GOVERNMENTAL
200	COMMERCIAL	700	OUTDOOR RECREATION
300	INDUSTRIAL	800	AGRICULTURE/SILVICULTURE
400	TRANSPORTATION	900	NATURAL AREAS
500	COMMUNICATION/UTILITIES		
CODE	LAND USE CLASSIFICATION	CODE	LAND USE CLASSIFICATION
100	RESIDENTIAL	500	COMMUNICATION/UTILITIES
110	Single Family Residential	510	Generation/Processing of Communication/Utilities
111	Single Family Residential Garage	511	Electric Power Plants
130	Two Family	512	Wind Turbine
150	Multi-Family	514	Telephone and Telegraph Terminals/Dispatch Centers
151	Multi-Family Garage	516	Radio/Television Stations
170	Group Quarters	521	Natural Gas Terminals/Plants
180	Mobile Homes	525	Other Liquid Fuel Terminal Plants
181	Mobile Home Garage	535	Water Supply Filter Treatment Plants
185	Mobile Home Open Space/Vacant Lot	537	Water Supply Wells
190	Land Under Residential Development	540	Transmission of Communication/Utilities
195	Residential Open Space/Vacant Lot	541	Major Electric Power Transmission Lines R/W
199	Vacant Residential	542	Electric Power Substations
		546	Radio/Television Transmission Towers/Antennae
200	COMMERCIAL	551	Major Natural Gas Transmission Lines R/W
210	Retail Sales	552	Natural Gas Substations
230	Shopping Centers	555	Other Major Liquid Fuel Transmission Lines R/W
250	Retail Services	556	Other Liquid Fuel Substations
270	Office Parks	572	Water Supply Booster/Pumping Stations
295	Commercial Open Space/Vacant Lot	577	Water Supply Storage Tanks/Reservoirs
299	Vacant Commercial	580	Waste Processing/Disposal/Recycling
300	INDUSTRIAL	581	Trash/Garbage Landfills
310	Manufacturing	582	Other Trash/Garbage Dumps
340	Wholesaling	583	Sewage Treatment Plants
360	Extractive	584	Sewage Sludge or Water Supply Chemical Disposals
380	Storage	585	Fly Ash and Other Fire Residue Disposal
381	Open	586	Recycling/Disposals
382	Enclosed	587	Abandoned Landfill
395	Industrial Open Space/Vacant Lot	588	Yard Waste
399	Vacant Industrial	591	Solid Waste Separation/Recycling Plants
400	TRANSPORTATION	595	Incinerators
410	Motor Vehicle Related	599	Vacant Communication/Utilities
411	Federal Highways		
412	State Highways		
413	County Highways		
414	Local Streets and Roads		
415	County Forest Roads		
416	Federal Forest Roads		
417	Off-Street Parking		
418	Bus Terminals		
419	Truck Terminals		
420	Other Motor Vehicle Related		
440	Rail Related		
460	Air Related		
480	Marine Related		
484	Piers/Docks		
490	Nonmotorized Related		
499	Vacant Transportation		

APPENDIX D – LAND USE INVENTORY CODES

CODE	LAND USE CLASSIFICATION	CODE	LAND USE CLASSIFICATION
600	INSTITUTIONAL/GOVERNMENTAL FACILITIES	700	OUTDOOR RECREATION
610	Administrative Institutions/Governmental Facilities	710	Cultural/Natural Activities
611	Administrative Buildings	712	Zoos
612	Post Offices	716	Nature Study Areas
613	Military Installations	721	Designated Historic/Cultural/Archaeological Sites
614	Municipal Garages	730	Land Related Activities
630	Safety Institutions/Governmental Facilities	731	Campgrounds
631	Police/Fire Stations/Offices	735	Lawns/Yards
637	Ancillary Municipal Safety Facilities	736	Parks/Parkways/Forest-Related Picnic Areas
638	Prisons or Jails	737	Separate Picnic Areas
640	Educational Institutions/Governmental Facilities	738	Lookout Tower
641	Pre-School/Day Care	741	Playfields/Ball Diamonds/Volleyball Courts
642	Primary Schools	745	Swimming/Wading Pools
643	Middle Schools	746	Tennis Courts
644	Secondary Schools	747	Trails
645	Vocational Schools	751	Athletic Fields
647	Two-Year Colleges/Universities	756	Ice Skating Rinks
648	Four-Year and Graduate Colleges/Universities	757	Roller Skating Rinks
651	Libraries	758	Ski Areas
652	Community Center	761	Golf Courses
655	Museums	762	Golf Driving Ranges
660	Health Institutions/Governmental Facilities	766	Archery/Gun/Skeet Ranges
661	Hospitals	768	Hunting Preserves
663	Clinics	769	Race Tracks
665	Long-Term Health Care Facilities	770	Other
680	Assembly Institutions/Governmental Facilities	780	Water Related Activities
681	Fairgrounds	781	Boat Launching Sites/Areas
682	Gymnasiums	782	Other Water Access Sites/Areas
683	Sports Stadium/Arenas	783	Marinas
684	Fraternal Organizations/Clubhouses	784	Lighthouse
690	Religious and Related Facilities	799	Vacant Outdoor Recreation
691	Churches/Temples/Synagogues		
694	Cemeteries		
699	Vacant Institutional/Governmental		
800	AGRICULTURE/SILVICULTURE	900	NATURAL AREAS
805	Fallow Fields	910	Water
810	Croplands/Pastures	911	Lakes
830	Long-Term Specialty Crops	912	Reservoirs and Ponds
850	Animal Husbandry	913	Rivers and Streams
851	Fish Hatchery/Aquaculture	914	Canals and Channels
870	Farm Buildings/Accessories	930	Vital Natural Functions
880	Commercial Forests	936	Wildlife Refuges
899	Vacant Agriculture/Silviculture	937	Designated Scientific Sites/Areas
		950	Other Natural Areas, including Open Space
		951	Woodlands
		952	Wetlands
		953	Grasslands
		954	Beaches
		955	Bluffs
		960	Other Publicly-Owned Natural Areas
		990	Land Under Development
		99999	City or Village

VOLUME II - APPENDIX E
DETAILED LAND USE TABULATION

APPENDIX E – DETAILED LAND USE TABULATION

Residential Land Use	Acres
Single Family Residential	12,128.96
Single Family Residential Garage	214.57
Two Family	65.98
Multi-Family	101.45
Group Quarters	5.23
Mobile Homes	1,399.32
Land Under Development	8.49
Residential Vacant Lot	559.60
Vacant Residential	78.86
Total	14,562.45

Commercial Land Use	Acres
Retail Sales	956.59
Retail Sales Vacant	5.11
Shopping Centers	36.69
Retail Services	147.35
Office Parks	2.63
Vacant Commercial	46.63
Total	1,195.00

Industrial/Manufacturing	Acres
Manufacturing	1,026.95
Wholesaling	44.41
Extractive	1,245.76
Open Storage	93.92
Enclosed Storage	105.28
Vacant	13.91
Total	2,530.23

Transportation	Acres
Motor Vehicle Related	1,407.02
United States Highway (Federal)	1,218.84
State Highways	460.58
County Highways	1,963.99
Local Roads	12,925.73
County and Federal Forest Roads	1,306.49
Off-Street Parking	29.97
Truck terminals	0.59
Rail Related	1,515.19
Air Port Related	26.01
Vacant	1.43
Total	20,855.83

Institutional Governmental	Acres
Administrative Buildings	19.29
Schools	386.82
Cemeteries	219.71
Other	360.16
Total	985.98

Natural Areas	Acres
Water (Lakes, Rivers, Ponds, etc.)	19,638.22
Natural Areas/Open Space	55,953.85
Woodlands	682,180.35
Total Acres	757,772.42

Communications and Utilities	Acres
Generation/Processing of Communication/Utilities	3.31
Electric Power Plants	4.19
Telephone and Telegraph Terminals/Dispatch Centers	4.65
Radio/Television Stations	11.64
Natural Gas Terminals/Plants	21.11
Water Supply Filter Treatment Plants	2.58
Water Supply Wells	0.98
Transmission of Communication/Utilities	0.83
Electric Power Substations	30.31
Radio/Television Transmission Towers/Antennae	18.06
Natural Gas Substations	1.73
Other Liquid Fuel Substations	3.69
Water Supply Booster/Pumping Stations	5.42
Water Supply Storage Tanks/Reservoirs	5.66
Waste Processing/Disposal/Recycling	5.34
Trash/Garbage Landfills	44.73
Other Trash/Garbage Dumps	38.51
Sewage Treatment Plants	103.27
Sewage Sludge or Water Supply Chemical Disposals	17.56
Recycling/Disposals	38.09
Abandoned Landfill	9.54
Yard Waste	0.31
Solid Waste Separation/Recycling Plants	2.81
Total	374.31

Outdoor Recreation Facilities	Acres
Nature Study Areas	4.76
Campgrounds	566.72
Parks/Parkways/Forest-Related Picnic Areas	3,403.50
Playfields/Ball Diamonds/Volleyball Courts	106.51
Swimming/Wading Pools	7.63
Tennis Courts	4.05
Athletic Fields	32.16
Golf Courses/Golf Driving Ranges	882.20
Archery/Gun/Skeet Ranges	40.44
Other	11.42
Water Related Activities	75.00
Total	5,134.37

Agricultural/Silvicultural	Acres
Fallow Fields	1,962.50
Croplands/Pastures	103,344.43
Long-Term Specialty Crops	2,530.13
Animal Husbandry	238.93
Fish Hatchery/Aquaculture	8.88
Farm Buildings/Accessories	2,688.37
Vacant Agriculture/Silviculture	101.03
Total	110,874.37

VOLUME II - APPENDIX F
GLOSSARY OF TERMS

PLANNING AND ZONING DEFINITIONS

- Alley:** a permanently reserved public or private secondary means of access to an abutting property.
- Accessory Structure:** a detached subordinate structure located on the same lot as and incidental to the principal structure.
- Accessory Use:** a use incidental to and on the same lot as a principal use. *See also* “accessory structure” and “principal building”.
- Acre:** a unit of area used in land measurement and equal to 43,560 square feet. This is approximately equivalent to 4,840 square yards, 160 square rods, 0.405 hectares, and 4,047 square meters.
- Adaptive Reuse:** the conversion of obsolescent or historic buildings from their original or most recent use to a new use.
- Adequate Public Facilities Ordinance (APFO):** an ordinance that ties development approvals to the availability and adequacy of public facilities. Adequate public facilities are those facilities relating to roads, sewer systems, schools, and water supply and distribution systems.
- Administrative Appeal (Appeal):** a quasi- judicial* process before the local zoning board to review a contested ordinance interpretation or an order of an administrative zoning official.
- Adverse Impact:** a negative consequence to the physical, social, or economic environment.
- Aesthetic Zoning:** the regulation of building or site design to achieve a desirable appearance.
- Affordable Housing:** housing that has its mortgage, amortization, taxes, insurance, and condominium and association fees constituting no more than 30% of the gross household income per housing unit. If the unit is rental, then the rent and utilities constitute no more than 30% of the gross household income per rental unit. *See s. COMM 202.01, Wis. Admin. Code.*
- Agriculture:** the use of land for farming, dairying, pasturage, apiculture (bees), aquaculture (fish, mussels), horticulture, floriculture, viticulture (grapes), or animal and poultry husbandry; this includes the necessary accessory uses for packing, treating, or storing the produce from these activities. *See also* ss. 30.40(1) and 91.01(1), *Wis. Stats* .
- Agricultural Conservation Easement:** conservation easements that restrict specifically farmland from development or specified farming practices and give farmers income, property, and estate tax reductions.
- Agricultural Protection Zoning:** a method for protecting agricultural land use by stipulating minimum lot sizes or limitations on non- farm use.
- Air Rights:** the ownership or control of all land, property, and that area of space at and above it at a height that is reasonably necessary or legally required for the full use over the ground surface of land used for railroad or expressway purposes.
- Amendment:** a local legislative act changing a zoning ordinance to make alterations, to correct errors, or to clarify the zoning ordinance. A class 2 notice must be published and a public hearing must be held before a county board may adopt a proposed amendment. *See s. 59.69, Wis. Stats.*
- Amenities:** features that add to the attractive appearance of a development, such as underground utilities, buffer zones, or landscaping.
- Americans with Disabilities Act (ADA):** a congressional law passed in 1990, which provides a clear and comprehensive national mandate for the elimination of discrimination against individuals with disabilities as well as clear, strong, consistent, enforceable standards addressing discrimination against individuals with disabilities.
- Amortization:** a method of eliminating nonconforming uses (usually minor structures) by requiring the termination of the nonconforming use after a specified period of time, which is generally based on the rate of economic depreciation of the use or structure.
- Annexation:** the process of incorporating an area of land in a township into a municipality. *See* ch. 66, subch. II, *Wis. Stats.*
- Appellate Body:** a body authorized to review the judgments made by administrative officers. For example, a board of adjustment hears appeals of the decisions of a county zoning administrator.
- Aquatic and Terrestrial Resources Inventory (ATRI):** a public and private partnership to gather, link, and make available data used for decisions affecting Wisconsin’s landscape; a systematic and comprehensive information management system developed by the Wisconsin DNR to improve environmental and resource management decisions.
- Aquifer:** a geologic formation, usually comprised of saturated sands, gravel, and cavernous and vesicular rock, that carries water in sufficient quantity for drinking and other uses.
- Aquifer Recharge Area:** the surface area through which precipitation passes to replenish subsurface water bearing strata of permeable rock, gravel, or sand.
- Architectural Control/ Review:** regulations and procedures requiring the exterior design of structures to be suitable, harmonious, and in keeping with the historic character or general style of surrounding areas.
- Area Variance (Variance):** the relaxation of a dimensional standard in a zoning ordinance decided by a local zoning board. *See* ss.59.69, 60.61, 60.62 and 62.23, *Wis. Stats* .
- Arterial:** a major street, which is normally controlled by traffic signs and signals, carrying a large volume of through traffic.
- Bargain Sale:** the sale of land (to a conservation organization, for example) at less than market value.
- Base Flood:** a flood that has a one percent chance of being equaled or exceeded in any give year, commonly called a 100- year flood. *See also* “floodplain”.

- Benchmark:** a performance- monitoring standard that allows a local government to periodically measure the progress of a local comprehensive plan’s goals and policies; also, a fixed and recorded elevation point from which another, relative elevation can be surveyed.
- Berm:** A low earthen ridge constructed as a landscaping feature or to direct runoff or deflect noise.
- Best Management Practices (BMPs):** the conservation measures and management practices intended to lessen or avoid a development’s impact on surrounding land and water.
- Billboard:** a sign that identifies or communicates a message related to an activity conducted, a service rendered, or a commodity sold at a location other than where the sign is located.
- Block:** a unit of land or contiguous lots or parcels bounded by a roadway or other barrier.
- Board of Appeals/ Board of Adjustment (BOA):** a board of appointed individuals that hears appeals on variances and exceptions. Board of Appeals applies to cities, villages, and towns, whereas Board of Adjustment applies to counties.
- Brownfields:** lands contaminated by spills or leaks and that are perceived to be unsuitable for future development due to its hazardous nature or owner liability concerns.
- Buffer Area:** an area separating two incompatible types of development or a development and sensitive natural resources.
- Build Out:** the maximum, theoretical development of land as permitted under zoning regulations.
- Build Out Analysis:** a projection, based on the maximum, theoretical development of all lands, of the impact of a community’s cumulative growth.
- Building Coverage:** *See “lot coverage”.*
- Building Line:** the line parallel to the street line that passes through the point of the principal building nearest the front lot line.
- Building Scale:** the relationship between the volume of a building and its surroundings, including the width of street, amount of open space, and volume of surrounding buildings. Volume is determined by the three- dimensional bulk (height, width, and depth) of a structure.
- Bulk Regulations:** standards that establish the maximum size of structures on a lot and the location where a building can be, including coverage, setbacks, height, impervious surface ratio, floor area ratio, and yard requirements.
- Bundle of Rights Concept of Property:** *See “rights”.*
- Business Improvement Districts (BID):** an area within a municipality consisting of contiguous parcels subject to general real-estate taxes other than railroad rights- of-way and that may include railroad rights- of- way, rivers, or highways continuously bounded by the parcels on at least one side. *See s. 66.1109(1)(b), Wis. Stats.*
- Business Incubator:** retail or industrial space, which may offer shared or subsidized management support such as information and advice on regulations, advertising, promotion, marketing, inventory, labor relations, and finances and facility support such as clerical staff, security, electronic equipment, and building maintenance that is affordable to new, low profit- margin businesses.
- By Right:** a use that complies with all zoning regulations and other applicable ordinances and that is permitted without the consent of a review board.
- Capital Improvement:** a physical asset that is large in scale or high in cost.
- Capital Improvements Plan/ Capital Improvements Program (CIP):** a city’s or county’s proposal of all future development projects and their respective cost estimates listed according to priority.
- Capital Improvement Programming/ Capital Improvement Planning:** the scheduling of budgetary expenditures for infrastructure to guide and pace development.
- Carrying Capacity Analysis:** an assessment of a natural resource’s or system’s ability to accommodate development or use without significant degradation.
- Census:** The census of population and housing, taken by the U.S. Census Bureau in years ending in 0 (zero). Article I of the Constitution requires that a census be taken every ten years for the purpose of reapportioning the U.S. House of Representatives.
- Census Tract:** a relatively permanent county subdivision delineated to present census data.
- Central Business District (CBD):** the primary, downtown commercial center of a city.
- Certificate of Appropriateness:** a permit issued by a historic preservation review board* approving the demolition, relocation, or new construction in a historic district.
- Certificate of Compliance:** an official document declaring that a structure or use complies with permit specifications, building codes, or zoning ordinances.
- Cesspool:** a buried chamber such as a metal tank, perforated concrete vault, or covered excavation that receives wastewater or sanitary sewage to be collected or discharged to the surrounding soil.
- City:** an incorporated municipality. Cities are divided into the four following classes for administration and the exercise of corporate powers: *Also see ch. 62, Wis. Stats.*
- a) Cities of 150,000 population and over- 1st class cities
 - b) Cities of 39,000 and less than 150,000 population- 2nd class cities.
 - c) Cities of 10,000 and less than 39,000 population- 3rd class cities.

d) Cities of less than 10,000 population- 4th class cities.

Clear Zone: an area within a roadway right-of-way that is free of any obstructions, thus providing emergency vehicle access.

Closed (Executive) Session: a governmental meeting or portion closed to everyone but its members and members of its parent body for purposes specified in state law. Governmental meetings are subject to Wisconsin's 'Open Meetings Law.' See s.19.81- 19.98, *Wis. Stats.*

Cluster Development Zoning (Clustering): concentrating the total allowable dwelling units on a tract of land into higher densities on a smaller portion of the tract, leaving the remaining land as open space. For example, in a five-acre minimum lot zoned area, 10 units would be constructed on 50 acres; however, 10 units could also be 'clustered' on 20 acres (allowing minimum two-acre lots), leaving the remaining 30 acres as common open space.

Collector: a street designed to carry a moderate volume of traffic from local streets to arterial* streets or from arterial streets to arterial streets.

Combination Zones: a zone that is placed over another, now underlying zone and that adds or replaces existing requirements of the underlying zone.

Commercial District: a zoning area designated for community services, general business, interchange of services, and commercial recreation.

Common Open Space: squares, greens, parks, or green belts intended for the common use of residents.

Community Development Block Grant (CDBG): a grant program administered by the U.S. Department of Housing and Urban Development (HUD), the state departments of Administration and Commerce, and the Wisconsin Housing and Economic Development Authority (WHEDA) that provides money for community rehabilitation and development. See s.16.358 and 560.045, *Wis. Stats.*

Community Development Zone: Zones meeting certain requirements and designated by the state Department of Commerce for the purpose of administering tax benefits designed to encourage private investment and to improve both the quality and quantity of employment opportunities. The Community Development Zone Program has more than \$38 million in tax benefits available to assist businesses that meet certain requirements and are located or willing to locate in one of Wisconsin's 21 community development zones. See s.560.70, *Wis. Stats.* See also "enterprise development zone".

Community of Place: See "sense of place".

Comprehensive Plan: a county development plan or city, village, town, or regional planning commission master plan prepared under and meeting the content requirements outlined in s.66.1001, *Wis. Stats.* Comprehensive plans provide a vision and general idea of how land should be used to assure public health, safety, and welfare.

Concurrency Management System: the process used to determine that needed public services are concurrent with a development's impacts.

Concurrency Test: an analysis of public facilities' ability to accommodate a development; in other words, adequate capacity of facilities must precede or be concurrent with a development's demand.

Conditional Use: a land use, construction activity, or structural development, which must be tailored to the site conditions and adjacent property uses through a public and technical review process, that is listed as a conditional use in a zoning district.

Conditional Use Permit: a permit issued by a zoning administrator, if the applicant meets certain additional requirements, allowing a use other than a principally permitted use.

Conditional Zoning: special conditions an owner must meet in order to qualify for a change in a zoning district designation.

Condominium: real estate and improvements where portions are designated for separate ownership and the remainder for common ownership. See s.703.02, *Wis. Stat.*

Congestion Mitigation and Air Quality Program (CMAQ): a program under the U.S. Department of Transportation intended to fund transportation projects and programs in non-attainment and maintenance areas that reduce transportation-related emissions.

Conservation Areas: environmentally sensitive and valuable lands protected from any activity that would significantly alter their ecological integrity, balance, or character except in cases of overriding public interest.

Conservation Development Zoning: a type of cluster development zoning that emphasizes a planned unit development for preserving open space, wetlands, natural landscaping, floodplains, or other prioritized resources as well as for preventing stormwater runoff.

Conservation Easement: a recorded legal agreement between a landowner and a qualified conservation agency that transfers development rights from the owner to the agency to protect natural or historic features. See s. 700.40, *Wis. Stats.*

Conservation Reserve Program: a federal Department of Agriculture program that pays farmers to convert 'erodible' cropland into vegetative cover.

Consolidated Metropolitan Statistical Area (CMSA): a statistical area defined by the U.S. Census; a large metropolitan statistical area with a population of one million or more that includes one or more primary metropolitan statistical areas (PMSA). See also "metropolitan statistical area" and "primary metropolitan statistical area" in this category.

Contested Case: a hearing similar to a court proceeding where parties have a right to review and object to evidence and cross-examine witnesses who testify.

Contiguous Properties: properties sharing a property line.

- Cooperative Agreement:** an agreement between two or more organizations to share in the financing or managing of a property, providing of services, or some other joint venture. *Also see ss. 66.0307, 150.84, and 299.80, Wis. Stats. for specific examples of authorized agreements .*
- County:** a political subdivision of the state. Counties are delineated in ch. 2, *Wis. Stats.* Wisconsin has 72 counties. *See ch. 59, Wis. Stats.*
- cul de sac :** a circular end to a local street [*French* , “bottom of the bag”]
- Dedication:** the transfer of property from private to public ownership.
- Deed Restriction:** a limitation, which is recorded with the county register of deeds and to which subsequent owners are bound, on development, maintenance, or use of a property.
- Design Guideline:** an activity standard that preserves the historic or architectural character of a site or building.
- Design Review/ Control:** an aesthetic evaluation, considering landscape design, architecture, materials, colors, lighting, and signs, of a development’s impact on a community
- Design Standards:** criteria requiring specific dimensional standards or construction techniques. *See also “performance standards”.*
- Detachment:** the transposition of land from a municipality back into a township. *See s. 66.0227, Wis. Stats.*
- Developer:** a person or company that coordinates the ownership, financing, designing, and other activities necessary for the construction of infrastructure or improvements.
- Development:** an artificial change to real estate, including construction, placement of structures, excavation, grading, and paving.
- Development Values:** the economic worth of land based upon the fair market price after residential, commercial, or industrial structures have been added.
- District:** a part, zone, or geographic area within the municipality where certain zoning or development regulations apply.
- Down Zoning:** a change in zoning classification that permits development that is less dense, intense, or restrictive. *See also “up zoning”.*
- Dwelling Unit:** the space in a building that comprises the living facilities for one family. *See also “multifamily,” “single-family attached,” and “single-family detached dwelling”.*
- Easement:** written and recorded authorization by a property owner for the use of a designated part of the property by others for a specified purpose. *See also “conservation easement”.*
- Ecological Impact:** a change in the natural environment that could disrupt wildlife habitat or vegetation, or that could cause air, water, noise, or soil pollution.
- Economic Unit:** units of land that, although they may be separated from one another physically, are considered one economically.
- Eminent Domain:** the right of a government unit to take private property for public use with appropriate compensation to the owner. *See ch. 32, Wis. Stats .*
- Enabling Act:** legislation authorizing a government agency to do something that was previously forbidden. *See also “takings”.*
- Enterprise Development Zone:** zones meeting certain statutorily defined criteria and designated by the state Department of Commerce for providing tax incentives to new or expanding businesses whose projects will affect distressed areas. An enterprise development zone is “site specific,” applying to only one business, and is eligible for a maximum of \$3.0 million in tax credits. The department can designate up to 79 zones, which can each exist for up to seven years. The department is allowed to vary zone benefits to encourage projects in areas of high distress. *See s.560.70, Wis. Stats. See also “community development zone”.*
- Environmental Corridors:** linear areas of natural resources that are critical to maintaining water quality and quantity and to providing habitat linkages that maintain biological diversity. Environmental corridors are often associated with rivers and streams.
- Environmental Impact Ordinance:** a local legislative act requiring an assessment of the potential harmful environmental effects of a pending development so that steps to prevent damage can be taken.
- Environmental Impact Report (EIR):** a report that assesses an area’s environmental characteristics and then determines the impact that a proposed development will have.
- Environmental Impact Statement (EIS):** a statement prepared under the National Environmental Policy Act (NEPA) or Wisconsin Environmental Policy Act (WEPA) predicting the impacts a proposed government action is likely to have on the environment and describing the affected environment and the alternative actions considered. *See s.1.11, Wis. Stats., P.L.91-190, 42 USC 4331, NR 150, Wis. Admin. Code.*
- Environmental Nodes:** discrete, inherently non- linear areas of natural resources that are sometimes isolated from areas with similar resource features. Planning objectives often include linking environmental nodes.
- Environmentally Sensitive Areas:** areas such as wetlands, steep slopes, waterways, underground water recharge areas, shores, and natural plant and animal habitats that are easily disturbed by development.
- Esplanade:** waterfront area intended for public use.

- Estate Management Strategies:** strategies enacted during a landowner’s lifetime or upon her death to help preserve family lands and farms.
- Ex parte Contact:** communication, which is normally prohibited, with a decision maker in a quasi- judicial proceeding, which is not part of a public hearing or the official record in a matter.
- Exactions:** compensation, which may take the form of facilities, land, or an actual dollar amount, that a community requires from a developer as condition of the approval of a proposed development project. Exactions may be incorporated into the community’s zoning code or negotiated on a project- by- project basis; but, they must reflect the type and extent of the expected adverse impacts of the development.
- Executive Session:** *See “closed session”.*
- Extraterritorial Zoning:** a local government’s authority to zone areas outside its boundaries. Under Wisconsin law, the extraterritorial zone for 1st, 2nd, and 3rd class cities extends 3 miles beyond the corporate limits. The limit extends 1½ miles beyond the municipal boundary for 4th class cities and villages. *See s.62.23(7a), Wis. Stats .*
- Exurban Area:** the area beyond a city’s suburbs.
- Fee Simple Acquisition:** the purchase of property via cash payment.
- Fee Simple Interest in Property:** absolute ownership of and with unrestricted rights of disposition to land. This describes the possession of all rights to property except those reserved to the state. *See “rights”.*
- Fiscal Impact Analysis:** the projection of the costs and benefits of additional or new facilities, rentals, or remodeling of existing facilities, including data relative to increased instructional, administrative, maintenance, and energy costs and costs for new or replacement equipment.
- Fiscal Impact Report:** a report projecting the costs and revenues that will result from a proposed development.
- Floating Zone:** an unmapped zoning district that is described in ordinance and on the zoning map only when an application for development is approved.
- Floodplains:** land that has been or may be covered by flood water during a ‘regional flood’ as is defined in NR 116, Wis. Adm. Code. The floodplain includes the floodway and floodfringe, and is commonly referred to as the 100- year floodplain.
- *Floodfringe:* that portion outside of the floodway covered by water during a regional flood.
This term is generally associated with standing water, but may under local floodplain zoning ordinances, be developed for specified purposes if development is protected from flooding.
 - *Floodway:* the channel of a river or stream and those portions of the floodplain adjoining the channel required to discharge a regional flood.
This term is generally associated with flowing water and is required by local floodplain zoning ordinances to remain undeveloped and free of obstructions. *See also “base flood”.*
- Forest Crop Law:** a program enacted in 1927 that exempts DNR approved privately owned forest land from general property taxes but instead requires the owner to make an acreage share payment or a state contribution. Under the program, land is taxed at a constant annual rate while its timber is taxed after harvest. Entries into the FCL closed as of 1 January 1986 with enactment of the Managed Forest Law. Today about 25,000 landowners, owning more than 2.5 million acres, are enrolled in the three existing forest tax laws: Forest Crop Law, Woodland Tax Law, and Managed Forest Law. *See ch. 70, Wis. Stats .*
- Front Lot Line:** the lot line separating an interior lot from the street, or the shortest lot line of a corner lot to a street.
- Gentrification:** the resettlement of low and moderate- income urban neighborhoods by middle and high- income professionals.
- Geographic Information System (GIS):** computer technology, tools, databases, and applications that provide spatial (geographic) data management, analysis, and mapping capabilities to support policy evaluation, decision- making, and program operations.
- Geologic Review:** an analysis of geologic features on a site, including hazards such as seismic hazards, surface ruptures, liquefaction, landslides, mud slides, erosion, and sedimentation.
- Gift Credit:** a dollar or in- kind matching amount (labor, supplies, land donation, etc.) required to secure funds for a development.
- Global Positioning System (GPS):** a computerized tool for determining longitudinal and latitudinal coordinates through the use of multiple orbiting satellites.
- Green Spaces:** *See “open spaces”.*
- Group Quarters:** The group quarters population includes all people not living in households. Two general categories of people in group quarters are recognized: (1) the institutionalized population and (2) the noninstitutionalized population.
- Growth Management:** the pacing of the rate or controlling of the location of development via law enactment to manage a community’s growth.
- Growth Trend Series:** In a growth series, the starting value is multiplied by the step value to get the next value in the series. The resulting product and each subsequent product is then multiplied by the step value.
- Hamlet:** a predominantly rural, residential settlement that compactly accommodates development.
- Hamlet Lot:** a small residential lot in a contiguous group with adjacent and fronting lots oriented toward each other in some ordered geometric way and forming a boundary with the surrounding countryside.

- Hazardous Substance:** any substance or combination of substances, including solid, semisolid, liquid or gaseous wastes, which may cause or significantly contribute to an increase in mortality or an increase in serious irreversible or incapacitating reversible illness or which may pose a substantial present or potential hazard to human health or the environment because of its quantity, concentration, or physical, chemical, or infectious characteristics. This term includes irritants, strong sensitizers, explosives, and substances that are toxic, corrosive, or flammable. *See s.292.01(5), Wis. Stats.*
- Heavy Industry:** the basic processing and manufacturing of products from raw materials; or, a use engaged in the storage or manufacturing processes using flammable or explosive materials or those that potentially involve offensive conditions. *See also "light industry".*
- Highly Erodible Soils:** soils highly susceptible to erosion as determined by an equation that considers soil type, slope, and amount of rainfall but does not consider current land management or vegetative cover. These soils are often identified in county soil survey books.
- Historic Area:** an area designated by an authority, having buildings or places that are important because of their historical architecture or relationship to a related park or square or because those areas were developed according to a fixed plan based on cultural, historical, or architectural purposes.
- Historic Preservation:** the research, protection, restoration, and rehabilitation of historic properties.
- Historic Property:** a building, structure, object, district, area, or site, whether on or beneath the surface of land or water, that is significant in the history, prehistory, architecture, archaeology, or culture of Wisconsin, its rural and urban communities, or the nation. *See s.44.31(3), Wis. Stats. See s.13.48(1m)(a), Wis. Stats .*
- Homeowner’s Association:** a nonprofit organization made up of property owners or residents who are then responsible for costs and upkeep of semiprivate community facilities.
- Home Rule:** constitutional provisions in some states that give local units of government substantial autonomy. Wisconsin is a “strong” home rule state.
- Housing Occupancy:** refers to whether a housing unit is occupied or vacant.
- Housing Tenure:** refers to whether the housing occupant is an owner or renter.
- Housing Unit:** a single-family house, townhouse, mobile home or trailer, apartment, group of rooms, or single room that is occupied as a separate living quarters or, if vacant, is intended for occupancy as a separate living quarters.
- Incorporation:** orderly and uniform development of territory from town to incorporated status. *See ch. 66, subch. II, Wis. Stats.*
- Impact Fees:** cash contributions, contributions of land or interests in land, or any other items of value that are imposed on a developer by a political subdivision to offset the community’s costs resulting from a development. *See s. 66.0617, Wis. Stats.*
- Impervious Surface:** a ground cover such as cement, asphalt, or packed clay or rock through which water cannot penetrate; this leads to increases in the amount and velocity of runoff and corresponds to increases in soil erosion and nutrient transport.
- Improvements:** the actions taken to prepare land, including clearing, building infrastructure such as roads and waterlines, constructing homes or buildings, and adding amenities.
- Incentive Zoning:** the granting of additional development possibilities to a developer because of the developer’s provision of a public benefit.
- Industrial District:** a district designated as manufacturing, research and development, or industrial park.
- Infill:** the development of the last remaining lots in an existing developed area, the new development within an area already served by existing infrastructure and services, or the reuse of already developed, but vacant properties. *See also “redevelopment”.*
- Infrastructure:** public utilities, facilities, and delivery systems such as sewers, streets, curbing, sidewalks, and other public services.
- Installment Sale:** a real estate transaction in which the landowner and the recipient negotiate terms for the property to be transferred over an extended period of time rather than all at once.
- Institutionalized Population:** The institutionalized population includes people under formally authorized, supervised care or custody in institutions at the time of enumeration; such as correctional institutions, nursing homes, and juvenile institutions.
- Intermodal Surface Transportation Efficiency Act, 1991 (ISTEA):** a federal transportation act that authorized the first 23 “high priority corridors” of the total 42 authorized by the ISTEA, the National Highway System Designation Act (1995), and the Transportation Equity Act for the 21st Century.
- Intelligent Transportation System (ITS):** a system of technologies, including traveler information systems to inform motorists of weather and road conditions, incident management systems to help emergency crews respond more efficiently to road incidents, and commercial vehicle operations to increase freight transportation efficiency, intended to relieve state highway congestion.
- Interim Zone of Influence:** a procedure for the exchange of information or resolution of conflicts on certain proposed land- uses between a city or town and the county.
- Interim Zone/ Development Controls:** *See “moratorium”.*
- Judicial Appeal:** the review of a local zoning decision by the state judicial system.
- Land:** soil, the ground surface itself, a subdivision, a tract or parcel, a lot, an open space, or the physical elements below ground.

- Land Banking:** the obtaining, holding, and subsequent release of lands by a local government for controlled development or conservation.
- Land Exchange:** a transaction where a public agency or nonprofit organization exchanges a land parcel for another land parcel with high conservation value.
- Land use Intensity System (LUI):** a comprehensive system created in the mid- 1960s by the U.S. Federal Housing Administration for determining or controlling the intensity of land development.
- Land use Inventory:** a study, cataloging the types, extent, distribution, and intensity of current and future uses of land in a given area.
- Land use Plan:** the element of a comprehensive plan that designates and justifies the future use or reuse of land. See s.66.1001, *Wis. Stats.*
- Landfill:** a disposal facility for solid wastes. *See ch.289, Wis. Stats.*
- Land Trust:** a private, nonprofit organization that protects natural and cultural resources through conservation easements, land acquisition, and education.
- Large- Lot Zoning:** a requirement that each new house be constructed on a minimum number of acres (generally, five or more acres). Developments that feature large- lot zoning may include the dispersal of some impacts, less efficient infrastructure, and greater areas of land use.
- Leapfrog Development:** new development separated from existing development by substantial vacant land.
- Leaseback:** *See “purchase/ leaseback”.*
- Level of Service (LOS):** a measurement of the quantity and quality of public facilities.
- Light Industry:** the manufacture and distribution of finished products, including processing, fabrication, assembly, treatment, packaging, incidental storage, and sales. *See also “heavy industry”.*
- Limited Development:** the development of one portion of a property to finance the protection of another portion.
- Linear Trend Series:** In a linear series, the step value, or the difference between the first and next value in the series, is added to the starting value and then added to each subsequent value.
- Lot:** a parcel of land that is occupied or intended for occupancy, including one main building and any accessory buildings, open spaces, or parking spaces. *See also “through lot”.*
- Lot Area:** the area of a horizontal plane bounded by the vertical planes through front, side, and rear lot lines.
- Lot Averaging:** the design of individual adjoining lots within a residential subdivision where the average lot is the minimum prescribed area for the zoning district.
- Lot-by- Lot Development:** a conventional development approach where each lot is treated as a separate development unit conforming to all land- use, density, and bulk requirements.
- Lot Coverage:** the total when an area of a lot covered by the total projected surface of all buildings, impervious surfaces, or vegetative coverage is divided by the gross area of that lot.
- Lot Depth:** the average horizontal distance between the front and rear lot lines.
- Lot Line:** the property lines at the perimeter of a lot.
- Lot Width:** the distance between side lot lines. This is generally measured at the front setback, but the specific protocol varies between jurisdictions.
- LULU:** a locally unwanted land use. *See also “NIMBY,” “NIABY,” and “NIMTOO”.*
- Main Street Program:** a comprehensive revitalization program established in 1987 to promote and support the historic and economic redevelopment of traditional business districts in Wisconsin. The Main Street Program is administered by the state Department of Commerce.
- Managed Forest Law:** a law enacted in 1985, replacing the Forest Crop Law and Woodland Tax Law, that exempts DNR approved privately owned forest land from general property taxes but instead requires the owner to pay an annual acreage payment, a state contribution, a yield tax, or a withdrawal penalty. Landowners have the option to choose a 25 or 50 year contract period. Enrollment is open to all private landowners owning ten or more acres of woodlands. Today about 25,000 landowners, owning more than 2.5 million acres, are enrolled in the three existing forest tax laws: Forest Crop Law (FCL), Woodland Tax Law (WTL), and Managed Forest Law (MFL). *See ch. 70, Wis. Stats.*
- Manufactured Housing:** a structure, containing within it plumbing, heating, air- conditioning, and electrical systems, that is transportable in one or more sections of certain sizes and is built on a permanent chassis, and when connected to the required utilities, is designed to be used as a dwelling with or without a permanent foundation. Such housing must comply with the standards established under the National Manufactured Housing Construction and Safety Standards Act. *See 42 USC 5401 to 5425 and ch.409, Wis. Stats.*
- Map:** a drawing or other representation that portrays the spatial distribution of the geographic, topographic, or other physical features of an area.
- Median age:** The midpoint age that separates the younger half of a population from the older half.
- Metropolitan Statistical Area (MSA):** a statistical area defined by the U.S. Census; a freestanding metropolitan area (i.e. an area with a minimum population of 50,000 and adjacent communities with a high degree of economic and social integration) or a Census Bureau defined urbanized area with a population of 100,000 or greater (75,000 in New England), not closely

associated with other metropolitan areas. Nonmetropolitan counties surround these areas typically. *See also “consolidated metropolitan statistical area” and “primary metropolitan statistical area”.*

Mini- Lot Development: a development containing lots that do not meet the minimum size or other requirements.

Mitigation: the process of compensating for the damages or adverse impacts of a development.

Mitigation Plan: imposed development conditions intended to compensate for the adverse impacts of the development.

Mixed- Use Development: a development that allows multiple compatible uses to be in close proximity to one another in order to minimize transportation infrastructure impacts and to create a compact, efficient neighborhood; for example, single family, multifamily, commercial, and industrial uses are located within a reasonable proximity to each other.

Modernization: the upgrading of existing facilities to increase the input or output, update technology, or lower the unit cost of the operation.

Moratorium: a temporary development freeze or restriction pending the adoption or revision of related public policies or provisions of public infrastructures or services.

Multifamily Dwelling: a building or portion occupied by three or more families living independently of each other.

Multimodal Transportation: an integrated network of various transportation modes, including pedestrian, bicycle, automobile, mass transit, railroads, harbors, and airports.

Municipality: a city, village, town, or other unit of local government. The application of this term varies and it often has specific legal meanings.

National Environmental Policy Act (NEPA): a congressional act passed in 1969, establishing a national environmental policy. NEPA requires federal agencies to consider the environmental effects of decisions early in their decision- making processes and to inform the public of likely impacts. Environmental impact statements (EISs) are prepared consistent with this law. The act also established the Council on Environmental Quality. *See P.L. 91- 190, 42 U.S.C. 4321- 4347. See also “environmental impact statement” and “Wisconsin Environmental Policy Act (WEPA)”.*

National Register of Historic Places in Wisconsin: places in Wisconsin that are listed on the national register of historic places maintained by the U.S. Department of the Interior, National Park Service.

Neighborhood Plan: a plan that provides specific design or property- use regulations in a particular neighborhood or district.

Neighborhood Unit: the model for American suburban development after World War II based around the elementary school with other community facilities located at its center and arterial streets at its perimeter.

Neotraditional Development: a land- use approach that promotes neighborhoods with a variety of housing and architectural types, a central gathering point, and interconnecting streets, alleys, and boulevards edged with greenbelts.* *See also “New Urbanism” and “smart growth”.*

Net Acre: an acre of land excluding street rights- of- way* and other publicly dedicated improvements such as parks, open space, and stormwater detention and retention facilities.

New Urbanism: an approach to development that includes the reintegration of components such as housing, employment, retail, and public facilities into compact, pedestrian- friendly neighborhoods linked by mass transit. *See also “Neotraditional development” and “smart growth”.*

NIABY: Not in anyone’s backyard. *See also “LULU,” “NIMBY,” and “NIMTOO”.*

NIMBY: Not in my backyard. *See also “LULU,” “NIABY,” and “NIMTOO”.*

NIMTOO: Not in my term of office. *See also “LULU,” “NIMBY,” and “NIABY”.*

Nonconforming Activity: an activity that is not permitted under the zoning regulations or does not conform to off- street parking, loading requirements, or performance standards.

Nonconforming Building: any building that does not meet the limitations on building size or location on a lot for its use and district.

Nonconforming by Dimension: a building, structure, or parcel of land that is not compliant with the dimensional regulations of the zoning code.

Nonconforming Lot: a use or activity which lawfully existed prior to the adoption, revision, or amendment of an ordinance but that fails to conform to the current ordinance.

Nonconforming Use: a use (or structure) that lawfully existed prior to the adoption or amendment of an ordinance but that fails to conform to the standards of the current zoning ordinance.

Noncontributing Building: a building or structure that does not add to the historic architecture or association or cultural values of the area.

Noninstitutionalized Population: The noninstitutionalized population includes all people who live in group quarters other than institutions, such as college dormitories, military quarters, and group homes. Also, included are staff residing at institutional group quarters.

North American Industry Classification System (NAICS): a classification system developed by the United States, Canada, and Mexico to provide comparable industrial production statistics collected and published in the three countries. The NAICS replaces the Standard Industrial Classification (SIC) system and provides for increased comparability with the International Standard Industrial Classification (ISIC) system developed and maintained by the United Nations. *See also “Standard Industrial Classification (SIC)”.*

- Office Park:** a large tract that has been planned and developed as an integrated facility for a number of separate office buildings and that considers circulation, parking, utilities, and compatibility.
- One-Unit, Attached:** This is a 1-unit structure that has one or more walls extending from ground to roof separating it from adjoining structures. In row houses (sometimes called townhouses), double houses, or houses attached to nonresidential structures, each house is a separate, attached structure if the dividing or common wall goes from ground to roof.
- One-Unit, Detached:** This is a 1-unit structure detached from any other house; that is, with open space on all four sides. Such structures are considered detached even if they have an adjoining shed or garage. A one-family house that contains a business is considered detached as long as the building has open space on all four sides. Mobile homes or trailers to which one or more permanent rooms have been added or built also are included.
- Open Session:** a meeting that is in accordance with Wisconsin's 'Open Meetings Law.' *See* s.19.85- 19.98, *Wis. Stats.*
- Open (Green) Spaces:** a substantially undeveloped area, usually including environmental features such as water areas or recreational facilities. *See also* "common open spaces".
- Ordinance:** a local law; a legislative enactment of a local governing body.
- Orthophoto Quad:** an aerial photograph that has been adjusted, via the correcting of distortions and inaccuracies due to plane tilt, elevation differences, or the curvature of the earth's surface, to reflect as accurately as possible the actual topography of the earth's surface.
- Outright Donation:** the donation of land to a unit of government or a qualified charitable land conservation management organization.
- Outright purchase:** the acquisition of land for the benefit of the public.
- Overlay Zone:** an additional land use or zoning requirement that modifies the basic requirements of the underlying designation.
- Parcel:** *See* "lot".
- Pedestrian Friendly:** a development that is primarily accessible to pedestrians rather than automobiles and with an emphasis on street sidewalks rather than parking.
- Performance Standards:** general criteria established to limit the impact of land uses or development. *See also* "design standards".
- Pervious Surface:** a ground cover through which water can penetrate at a rate comparable to that of water through undisturbed soils.
- Planned Unit Development:** land under unified control to be developed in a single development or a programmed series of phases. A planned development includes the provisions, operations, maintenance, facilities, and improvements that will be for the common use of the development districts, but which will not be maintained at general public expense.
- Plan Commission:** an appointed local government commission authorized to make and adopt a master plan, consistent with s.66.1001, *Wis. Stats.*, for the physical development of the city. *See* s.62.23, *Wis. Stats.*
- Plat:** a map of a lot, parcel, subdivision, or development area where the lines of each land division are shown by accurate distances and bearings.
- Point System:** numerical values assigned to a development's impacts on a community's resources.
- Political Subdivision:** a city, village, town, county, sanitary district, school district, inland lake protection and rehabilitation district, or other special purpose unit of government.
- Pre-acquisition:** a technique where one organization (usually a private land trust) purchases a property and holds it until another organization (usually a government agency) can allocate the funds to purchase it.
- Preservation:** leaving a resource undisturbed and free from harm or damage. While 'preservation' is often used interchangeably with 'conservation,' the latter entails a connotation of prudent resource use.
- Primary Metropolitan Statistical Area (PMSA):** a statistical area defined by the U.S. Census; an area within a consolidated metropolitan statistical area consisting of a large urbanized county or cluster of counties that demonstrates very strong internal economic and social links, in addition to close ties to other portions of the larger area. *See also* "metropolitan statistical area" and "consolidated metropolitan statistical area".
- Prime Agricultural Land:** land determined by local governments to be important for sustaining agricultural operations and that are often protected from conversion to other uses. *See* ch.91, *Wis. Stats.*
- Prime Farmland:** farmland classified by the Natural Resources Conservation Service as best for the crop production of row, forage, or fiber because of level topography, drainage, moisture supply, soil texture and depth, and susceptibility to erosion and runoff. Ideally, prime farmland allows least cost to both the farmer and the natural resources. *See* ch.91, *Wis. Stats.*
- Principal Building:** the building, including all parts connected, where the primary use of the lot is conducted.
- Private Road:** a way open to traffic, excluding driveways, established as a separate tract for the benefit of adjacent properties.
- Privately Owned Waste- Treatment Systems (POWTS):** sewage treatment and disposal systems, which are also called on- site sanitary systems, that are not connected to sewer lines or wastewater treatment plants.
- Public Dedication:** reserving land in a subdivision for public use such as a school or park.
- Public Road:** public property dedicated and reserved for street traffic.

Purchase of Development Rights (PDR): a public or private government initiative that acquires the development rights of property to limit development and protect natural features or open space. *See also "rights" and "transfer of development rights".*

Purchase/ Leaseback: an arrangement where a community purchases a natural area and then either leases it back with special lease restrictions or sells it back with deed restrictions designed to protect the natural features of the property.

Quarter, Quarter Zoning: a development standard that limits non-farm development to one house per 40 acres (¼ of ¼ of the original 640- acre section).

Quasi- Judicial Decisions: “resembling a court;” quasi- judicial decision making must follow rules of due process and is midway between legislative and administrative functions. Examples of quasi- judicial decisions include variances, appeals, and conditional- use permits.

Quasi- Public Use/ Facility: a use conducted or a facility owned or operated by a nonprofit or religious institution that provides public services.

Rear- lot Line: a lot line, opposite the front lot line, that generally does not abut a public roadway.

Redevelopment: any proposed replacement of existing development. *See also "infill".*

Redevelopment Authority: an authority, known as the “redevelopment authority of the city of [city name],” created in every city with a blighted area. This authority, together with all the necessary or incidental powers, is created to carry out blight elimination, slum clearance, and urban renewal programs and projects as set forth in Wisconsin Statutes. *See s.66.1333 (3)(a) 1, Wis. Stats .*

Reforestation: the planting or replanting of forest plants.

Regional Plan: a plan that covers multiple jurisdictions, often within the administrative area of a regional planning commission, and that can be prepared jointly by cooperating municipalities, regional planning commissions, state agencies, or other entities.

Requests for Proposals (RFP): a document describing a project or services and soliciting bids for a consultant’s or contractor’s performance.

Requests for Qualifications (RFQ): a document describing the general projects, services, and related qualifications of bidding consultants or contractors.

Reservation of Site: *See "public dedication".*

Reserved Life Estate: an arrangement where a landowner sells or donates property to another party (for example, a conservation organization) while retaining the right to lifetime use.

Revolving Fund: a conservation fund, replenished through donations or selling of the land to another conservation organization or a government agency, used to purchase land or easements.

Rezoning: an amendment to a zoning map or zoning ordinance that changes the zoning- district designation and use or development standards.

Right of First Refusal: an agreement between a landowner and another party (for example, a land trust) that gives the other party a chance to match any third- party offer to purchase lands.

Right of Way (ROW): a strip of land occupied by or intended to be occupied by a street, crosswalk, walkway, utility line, or other access.

Rights (The Bundle of Rights Concept of Property): government and private owners each hold portions of the bundle of rights in real property.

Owner property rights include:

- *Right to Use:* the right to improve, harvest, cultivate, cross over, or not to use.
- *Right to Lease:* the right to lease for cash or the right to hold a cash, including a share lease or third or fourth lease, a crop share lease, a one year lease, or a perpetual lease.
- *Right of Disposition:* the right to sell, to bequeath, to mortgage, or to establish trusts on all or part of a property.

Government property rights include:

- *Eminent domain: the right to purchase land for public use*
- *Escheat: the right for the succession in title where there is no known heir*
- *Regulation*
- *Taxation*

Riparian Areas: the shore area adjacent to a body of water.

Roadway Setback: the required or existing minimum distance between a public roadway (measured from the centerline or edge of right- of- way) and the nearest point on a structure.

Scenic Corridor: a linear landscape feature that is visually attractive (for example, stream corridors or blufflines).

Scenic Easement: an easement* intended to limit development in order to preserve a view or scenic* area.

Seasonal Dwelling: a dwelling not used for permanent residence or not occupied for more than a certain number of days per year. The standard varies between jurisdictions.

- Secondary Dwelling Unit:** an additional dwelling unit in a freestanding building or above a residential garage and located within or on the same lot as the principal dwelling unit.
- Sense of Place:** the constructed and natural landmarks and social and economic surroundings that cause someone to identify with a particular place or community.
- Set Back:** the minimum distance a building, structure, or activity can be separated from a designated feature such as a waterway or bluffline.
- Shoreland:** a state mandated water resource protection district that Wisconsin counties must adopt.
- Shorelands include lands adjacent to navigable waters within 1,000 feet of the ordinary high- water mark of a lake, pond, or flowage and within 300 feet of the ordinary high- water mark or floodplain of a river or stream.
- Shoreland- Wetland:** shorelands that are designated as wetlands on Wisconsin Wetlands Inventory maps. See *Wis. Stats.*
- Shoreline Stabilization:** the placement of structural revetments or landscaping practices to prevent or control shoreline erosion.
- Side Lot Line:** a lot line that is neither a front lot line nor a rear lot line.
- Single- family Attached Dwelling:** one of two or more residential buildings having a common wall separating dwelling units.
- Single- family Detached Dwelling:** a residential building containing not more than one dwelling unit surrounded by open space.
- Sign:** any device that is sufficiently visible to persons not located on the lot that communicates information to them.
- Site Plan:** a scaled plan, which accurately and completely shows the site boundaries, dimensions and locations of all buildings and structures, uses, and principal site development features, proposed for a specific lot.
- Sliding Scale Zoning:** a ratio of dwelling units to land acreage that concentrates development on smaller lots by increasing the minimum lot size for houses built on larger parcels.
- Smart Growth:** an approach to land- use planning and growth management that recognizes connections between development and quality of life. The features that distinguish smart growth approaches vary. In general, smart growth invests time, attention, and resources in restoring community and vitality to center cities and older suburbs. In developing areas, the approach is more town- centered, is transit and pedestrian oriented, and has a greater mix of housing, commercial, and retail uses. Smart- growth approaches preserve open space and other environmental amenities. The term is also used to refer to Wisconsin's comprehensive planning law. See s.66.1001, *Wis. Stats.* See also "*New Urbanism*" and "*Neotraditional development*".
- Special Designation:** the protection of scenic river corridors and other valuable resources through state or federal means such as recognition, acquisition, or technical assistance.
- Special District/ Special Purpose Unit of Government:** a government entity that is responsible for performing specific tasks and oversight essential to a community's or region's well being. Special districts include sanitary districts, metropolitan sewerage districts, drainage districts, inland lake protection and rehabilitation districts, business improvement districts, tax incremental financing districts, architectural conservancy districts, and port authorities.
- Special Exception:** See "*conditional use*".
- Spot Zoning:** a change in the zoning code or area maps that is applicable to no more than a few parcels and generally regarded as undesirable or illegal because it violates equal treatment and sound planning principles.
- Stand:** a number of plants growing in a continuous area. Examples include 'a stand of hardwood' or 'a stand of timber.'
- Standard Industrial Classification/ Standard Industrial Code (SIC):** an industry classification system to facilitate the collection, tabulation, presentation, and analysis of data relating to establishments and to ensure that data about the U.S. economy published by U.S. statistical agencies are uniform and comparable. See also "*North American Industry Classification System (NAICS)*".
- Statewide Comprehensive Outdoor Recreation Plan (SCORP):** a plan that aims to offer a research base and overall guidance for all providers of Wisconsin's outdoor recreation, including federal, state, county, city, village, and town governments, resorts and other businesses, and a variety of other public and private organizations. Ideally, SCORP is used in conjunction with other planning documents such as property master plans, community park and open space plans, the State Trails Strategic Plan, six- year development plans, and county and regional planning commission plans.
- Stewardship Program:** a state bonding program established by the Wisconsin Legislature in 1989 and re- authorized in 1999 that provides funds to protect environmentally sensitive areas and to maintain and to increase recreational opportunities across the state.
- Stormwater Detention/ Stormwater Retention:** the storage of stormwater runoff.
- Stormwater Management:** the reduction of the quantity of runoff, which affects flooding, or of pollutants generated at a development site and carried in stormwater.
- Story:** a space in a building between the surface of any floor and the surface of the next above floor or roof.
- Subdivision:** the description (usually by survey) and recording of separate land parcels or lots.
- Summary Abatement:** a legal action taken to suppress the continuation of an offensive land use. See also "*tax abatement*".
- Sustainability:** long- term management of ecosystems intended to meet the needs of present human populations without compromising resource availability for future generations.
- Sustainable Development:** development that meets the needs of the present generation without compromising the needs of future generations.

Takings: government actions that violate the Fifth Amendment to the U.S. Constitution, which reads in part, “nor shall private property be taken for public use, without just compensation.” Such actions include regulations that have the effect of “taking” property. The Supreme Court has established four clear rules that identify situations that amount to a taking and one clear rule that defines situations that do not.

The court has found “takings” in the following circumstances:

- where a landowner has been denied “all economically viable use” of the land;
- where a regulation forced a landowner to allow someone else to enter onto the property;
- where the regulation imposes burdens or costs on a landowner that do not bear a “reasonable relationship” to the impacts of the project on the community; and
- where government can equally accomplish a valid public purpose through regulation or through a requirement of dedicating property, government should use the less intrusive regulation, for example, prohibiting development in a floodplain property.

The Supreme Court has also said that where a regulation is intended merely to prevent a nuisance, it should *not* be considered a taking.

Tax Abatement: a release of a certain tax liability for a specific period of time and under certain circumstances. *See also “summary abatement”.*

Tax Increment: additional tax revenue resulting from a property- value increase; the amount obtained by multiplying the total of all property taxes levied on all taxable property within a tax- incremental district in a year by a fraction having as a numerator the value increment for that year in the district and as a denominator that year’s equalized value of all taxable property in the district. In any year, a tax increment is “positive” if the value increment is positive and “negative” if the value increment is negative. *See s.66.1105, Wis. Stats.*

Tax Increment Financing (TIF): a local governmental financing of private- sector redevelopment, anticipating the additional revenues of the tax increment.* *See s.66.1105, Wis. Stats.*

Town: the political unit of government; a body corporate and politic, with those powers granted by law. *See ch. 60, Wis. Stats.*

Township: all land areas in a county not incorporated into municipalities (cities and villages).

Tract: an indefinite stretch or bounded piece of land; in subdivisions, a tract is often divided into individual lots.

Traditional Neighborhood: a compact, mixed- use neighborhood where residential, commercial, and civic buildings are within a close proximity. *See also “Neotraditional development” and “New Urbanism”.*

Traffic Calming: the process of increasing pedestrian safety via decreasing automobile speed and volume.

Traffic Impact Analysis: an analysis of the impacts of traffic generated by a development.

Traffic Impact Mitigation Measure: an improvement by a developer intended to reduce the traffic impact created by a development.

Transfer of Development Rights: a technique, involving the designation of development (receiving) zones and protected (sending) zones, for guiding growth away from sensitive resources and toward controlled development centers by transferring development rights from one area to another via local law authorization such as a deed or easement. *See also “rights” and “purchase of development rights”.*

Transit- Oriented Development (TOD): moderate or high- density housing concentrated in mixed- use developments* that encourages the use of public transportation.

Transitional Use: a permitted use or structure that inherently acts as a transition or buffer between two or more incompatible uses.

TRANSLINKS 21: a statewide transportation system plan prepared by the Wisconsin Department of Transportation in response to federal and state laws.

Transportation Demand Management (TDM): a strategy that alleviates roadway stress by reducing vehicle density via the increasing of passengers per vehicle.

Transportation enhancements (ISTEA & TEA- 21): funds contributed by the federal highway transportation program to enhance cultural, aesthetic, and environmental aspects of local transportation and transit systems.

Underlying Zoning District: a term referring to a zoning district when it is affected by an overly district.

Undevelopable: an area that cannot be developed due to topographic or geologic soil conditions.

Unified Development Code: the combining of development regulations into a single zoning code.

Universal Transverse Mercator Grid (UTM): a civilian grid system, which uses only numbers and can be handled by digital mapping software and Geographic Information Systems.

Unnecessary Hardship: a unique and extreme inability to conform to zoning ordinance provisions due to physical factors; and, one of three tests a property must meet in order to qualify for a zoning variance.

Up Zoning: changing the zoning designation of an area to allow higher densities or less restrictive use. *See also “down zoning”.*

Urban Area: the area within a municipal boundary that is serviced by infrastructure; an intensively developed area with a relatively large or dense population.

Urban Forest: all trees and associated vegetation in and around a city, village, or concentrated development.

- Urban Growth Area:** an area designated for urban development and usually designed to protect open space or resources beyond its boundaries.
- Urban Growth Boundary:** the perimeter of an urban growth area.
- Urban Sprawl:** low- density, automobile- dependent, and land- consumptive outward growth of a city; the spread of urban congestion and development into suburban and rural areas adjoining urban areas.
- Utility Facilities:** any above ground structures or facilities used for production, generation, transmission, delivery, collection, or storage of water, sewage, electricity, gas, oil, or electronic signals.
- Variance:** a relaxation of dimensional standards by a local zoning board in compliance with statutory criteria. *See s.59.99(7), Wis. Stats.*
- Vehicle Miles Traveled (VMT):** a measure of automobile and roadway use.
- Village:** an incorporated area with a population under 5,000. *See ch. 61, Wis. Stats.*
- Watershed:** the area where precipitation drains to a single body of water such as a river, wetland, or lake.
- Wellhead Protection:** a plan to determine the water collecting area for a public well, identify the pollution sources within that area, and detect, prevent, and remedy potential contamination to the collecting area.
- Wetlands Inventory Map:** a map of wetlands classified according to their vegetation, hydrology, and types of human influence, developed by the Wisconsin Department of Natural Resources, used to identify wetlands for protection.
- Wetlands Reserve Program:** a federal program with state partnering to restore the functions and values of wetlands and to preserve riparian areas through conservation easements and wetland reconstruction.
- Wildlife Habitat Incentives Program:** a program that awards landowners federal cost- sharing funds after the installation of improvements to wildlife or fishery habitat.
- Wisconsin Administrative Code (Wis. Admin. Code):** a component of state law that is a compilation of the rules made by state agencies having rule- making authority. These rules provide the detailed provisions necessary to implement the general policies of specific state statutes
- Wisconsin Environmental Policy Act (WEPA):** a state law establishing a state environmental policy. WEPA requires state agencies to consider the environmental effects of decisions early in their decision-making processes and to inform the public of likely impacts and alternatives that were considered. Environmental impact statements (EISs) are prepared consistent with this law. *See also “environmental impact statement” and “National Environmental Policy Act (NEPA)” . See NR 150, Wis. Admin. Code, and s.1.11, Wis. Stats.*
- Wisconsin Initiative for Statewide Cooperation on Landscape Analysis and Data (WISCLAND):** a partnership between government agencies, private companies, and nonprofit groups to collect, analyze, and distribute landscape information.
- Wisconsin Register of Historic Places:** a listing of districts, sites, buildings, structures, and objects that are significant in national, state, or local history, architecture, archaeology, engineering and culture. The Wisconsin register of Historic Places is maintained by the Wisconsin State Historical Society. *See s. 44.36, Wis. Stats.*
- Woodland Tax Law:** a law enacted in 1954 that extended land eligibility of the Forest Crop Law to owners of small forest parcels. Entries into the WTL closed as of 1 January 1986 with enactment of the Managed Forest Law. Today about 25,000 landowners, owning more than 2.5 million acres, are enrolled in the three existing forest tax laws: Forest Crop Law, Woodland Tax Law, and Managed Forest Law. *See ch. 70, Wis. Stats.*
- Zero Lot Line:** the location of a building in such a manner that one or more of its sides rests directly on its lot line.
- Zone:** an area designated by an ordinance where specified uses are permitted and development standards are required.
- Zoning Inspector:** an appointed position to administer and enforce zoning regulations and related ordinances.
- Zoning Permit:** a permit issued by the land- use or zoning administrator authorizing the recipient to use property in accordance with zoning- code requirements.

Source: *Land-Use Lingo: A Glossary of Land-Use Terms*, WDNR, 2001.

Note: All references are to 1999-2000 Wisconsin Statutes.

Bay-Lake Regional Planning Commission

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