



Kewaunee COUNTY



20-YEAR COMPREHENSIVE PLAN *Update* Including Kewaunee County Farmland Preservation Plan

2016

Prepared by:



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Kewaunee County **20-Year Comprehensive Plan** *Update*

Including
KEWAUNEE COUNTY
FARMLAND PRESERVATION PLAN UPDATE
(DATCP CERTIFIED: NOVEMBER 2016)

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Chapter 1

ISSUES & OPPORTUNITIES

PURPOSE OF THE COMPREHENSIVE PLAN

The *Kewaunee County 20-Year Comprehensive Plan Update* is a legal document that provides guidance for which local and county officials will refer to when making future land use decisions. This county comprehensive plan update was prepared to address current and anticipated development and preservation concerns that were not detailed in the county's initial comprehensive plan that was adopted in 2007.

The purpose of the plan is to identify strategies to efficiently meet the growing needs of the county through transportation improvements, provision of public services, housing development, and economic development. The *Kewaunee County Farmland Preservation Plan Update* (Chapter 7) is also included within this comprehensive plan to ensure the county's vast agricultural land and vital natural features are preserved into the future.

The county's Future Land Use Plan identifies generalized areas throughout Kewaunee County for preferred land use activities, and is the desired goal to be achieved through the implementation of this county comprehensive plan. The Future Land Use Plan map (Map 8.1), Farmland Preservation Plan mapping (Maps 7.1 thru 7.10), along with the county's development/preservation strategies shall be used in conjunction with the adopted community comprehensive plans, local zoning and land use ordinances, supporting planning materials, and other implementation tools to make informed land use decisions in Kewaunee County into the future.

State Planning Enabling Legislation

As outlined in the Comprehensive Planning legislation, s. 66.1001, Wis. Stats., this Kewaunee County comprehensive plan update allows the county to continue to regulate land use activities through several actions. Several of the actions listed below relate to the county's jurisdiction and shall be consistent with this comprehensive plan.

- (a) Official mapping established or amended under s. 62.23 (6).
- (b) Local subdivision regulation under s. 236.45 or 236.46.
- (c) County zoning ordinances enacted or amended under s. 59.69.
- (d) City or village zoning ordinances enacted or amended under s. 62.23 (7).
- (e) Town zoning ordinances enacted or amended under s. 60.61 or 60.62.
- (f) Shorelands or wetlands in shorelands zoning ordinances enacted or amended under s. 59.692, 61.351, 61.353, 62.231, or 62.233.

PUBLIC PARTICIPATION

During the development of this comprehensive plan update, Kewaunee County followed its "Written Procedures to Foster Public Participation" which were adopted by the County Board in 2004. These procedures provide a list of actions that encourage the public's involvement during the comprehensive planning process.



CHAPTER 1: ISSUES & OPPORTUNITIES

Update Process

The *Kewaunee County 20-Year Comprehensive Plan Update* was two-fold as the *Kewaunee County Farmland Preservation Plan* was also updated during the planning process and incorporated into this comprehensive plan (see Chapter 7). Revisions to the plan were based on development trends since the county's adopted 2007 comprehensive plan, along with the projected population and housing growth through 2040. The plan is the result of a cooperative effort between Kewaunee County staff and local officials. In order to collect valuable input during the planning process, local officials were requested to review and update future land use mapping, as well as farmland preservation maps for their communities. Ultimately, the county revised its future land use development strategy, future land use map (i.e., Future Land Use Plan), and implementation plan to ensure an up-to-date guidance tool is available for land use decisions for years to come. Staff from the Kewaunee County Land and Water Conservation, Kewaunee County Land Information, and the Bay-Lake Regional Planning Commission provided support, as requested, through a variety of informational meetings and an open house.

ISSUES AND OPPORTUNITIES

Land Use Issues and Conflicts

A variety of issues exist within the county that have an impact on the overall wellbeing of the county. Also, there are several combinations of land uses that traditionally cause some degree of conflict. Some examples in Kewaunee County include:

- Agricultural activities and non-agricultural developments - New non-farm developments should be made aware of active farms, as well as the sights, smells, and other activities that characterize farming operations.
- Land use activities impacting water quality (surface and groundwater contamination).
- Inconsistent preservation of natural resources.
- Fragmentation of agricultural lands and habitat.
- Failure to utilize best management practices for agriculture, construction, etc.
- Nonmetallic mining operations and residential development incompatibilities.
- Protection and enhancement of the Lake Michigan and Green Bay shorelines and other inland water features.
- Inconsistency in scale between new and existing development.
- Cooperation with the incorporated communities and towns regarding development patterns near municipal boundaries.
- Inadequate or inefficient provision of public services.
- Increased loads on county roads with irregular traffic and commuter patterns.
- Larger farm and construction equipment deteriorating local road networks.
- General business development happening in rural areas with improved technology.
- Need for more redevelopment in incorporated communities.



CHAPTER 1: ISSUES & OPPORTUNITIES

Existing Land Use Trends

The following list identifies existing land use trends and the most recent development patterns that are common in Kewaunee County or in the surrounding area.

- New development is primarily of large lot - low density residential tracts, spread throughout the county versus compact municipal growth patterns.
- Land use activities impacting water quality (surface and ground).
- Unsewered, scattered, fragmented, and noncontiguous development.
- Transportation system creating faster commutes.
- Large farm expansion and consolidation.
- Shoreland development along the waters of Green Bay and Lake Michigan.
- Environmental assets, prominent landscape features and wildlife habitats being infringed upon.
- Population and business migration out of the urban core causing sprawl conditions.
- Strip commercial development along highways.

Environmental and Infrastructure Considerations

The following environmental and public utility considerations should be utilized to provide communities within Kewaunee County with an indication of which areas are best suited for development.

- Vacant lands suitable for development exist throughout Kewaunee County. As a result, it is not necessary to propose development within the county's designated "environmental corridors". These areas add significantly to the aesthetic appeal of any community while providing important ecological and environmental functions such as stormwater retention and flood control.
- Environmental features should be utilized for potential parks and open space, or preserved to maintain wildlife habitat.
- Being located on the shores of Lake Michigan and Green Bay, it is essential that these valuable resources are protected from any negative impacts that may be associated with increased development.
- In an effort to make Lake Michigan and Green Bay more attractive for residents and visitors, the county should support studies and efforts to determine origins of contaminants and ways to prevent or reduce runoff.
- Consider the area's geologic make-up such as bedrock type, soil composition, soil depths, topography, etc. that can make soils susceptible to erosion, groundwater contamination or have an impact on surface water drainage.
- Karst features such as sinkholes, caves, swales, exposed bedrock, and fracture traces are prevalent in many areas of Kewaunee County and should be considered prior to any development or other land use activities.



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- Kewaunee County has documented the location of its environmentally significant areas in several reports, including this comprehensive plan update, the *Kewaunee Comprehensive Solid Waste Management Plan*, the Citizen's Resource Evaluation Workshop Report, the *Kewaunee County Soil and Water Conservation District Resource Conservation Plan*, and the *Kewaunee County Coastal Hazard Management Plan*. Refer to these reports when considering future development or other land use issues.
- An adequate transportation network of arterial, collector, and local roads are already in place throughout the county, which could readily serve future traffic flows generated from any increased growth.
- Orderly and efficient development patterns for future growth will allow communities in the county to provide adequate municipal sewer and water to its residents and businesses.
- The county should consider the adoption of a water plan in order to develop intermediate and long-range water supply plans to protect the groundwater quality.
- The county should consider the adoption of a sewer plan in order to establish the long-term needs for sewage collection, treatment, disposal, and to establish service areas.
- Increasing development in the rural communities may be costly due to the wide array of supporting services needed to accompany it. The towns should closely monitor all public utility costs associated with future development in order to best control future property taxes.

Redevelopment Opportunities

- Target blighted areas for rehabilitation. Business and residential sites that are beyond repair should be redeveloped in a way that maintains the area's building scales, architectural styles, etc.
- Examine upgrades to the transportation system for safer and more efficient travel, in addition to multi-modal options.
- Identify new technologies to provide the public with the most efficient utilities and services.
- Evaluate and devise a plan for the redevelopment of existing contaminated sites.
- Utilize natural areas for potential recreational uses and uses that are more productive from an economic standpoint, while maintaining natural beauty and function.

Anticipated Growth Patterns

Economic, demographic, environmental, and other elements make communities unique from each other. Forces such as government policies and cultural practices drive development patterns of a community. With development, comes the cost of providing efficient and adequate public facilities such as transportation networks, water and sewer infrastructure, schools, and recreation amenities and services. It is important for Kewaunee County to identify influencing factors and emerging trends, and to use the information to help the county grow and develop into the future.

- The population is shifting from the cities of Algoma and Kewaunee to the rural non-farm areas like the Village of Luxemburg and adjacent towns in the western portion of the county. Easy accessibility to the expanding Green Bay urban area is a contributing factor in this population increase.



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- Incorporated communities near the major highway corridors of State Highways 29, 42, 54, and 57, are expected to grow due to the close proximity of the City of Green Bay and other nearby cities of Sturgeon Bay, Two Rivers, and Manitowoc.
- Additional residential development will likely locate along the waters of Green Bay and Lake Michigan. The Dyckesville area, the shoreline areas adjacent to Algoma and Kewaunee, and the land area east of STH 42 between Kewaunee and Algoma are likely to experience growth.
- Rural development is likely to continue along the state, county, and town roads. These developments should not significantly impact prime agricultural lands, agricultural productivity, or valuable environmental features. In addition, traffic concerns and vehicle access should be discussed as linear growth along the road network is allowed to continue.
- Future concentrations of residential, commercial, or industrial development is likely to locate in areas with existing public sewer and water facilities. Areas where these facilities are available to support such development include the four incorporated communities, as well as the Dyckesville sanitary sewerage district.
- There will be a continued trend toward larger agricultural operations.
- Continued low density, scattered development in non-sewered rural areas is expected throughout the county resulting in fragmentation and parceling of larger tracts of land into smaller lots.

Land Supply

Kewaunee County contains a significant amount of suitable land for the development of residential, commercial, park and recreation, and industrial land uses without compromising its many natural features and productive farmland. The amount of land available for development within the county is determined by factoring in the existing development and areas recommended for preservation such as environmental corridors (i.e., wetlands with a 50-foot buffer, floodplains, areas of steep slope, 75-foot setback from water resources, other significant natural features, historic/cultural sites, etc.).

Kewaunee County's valuable natural features, its proximity to the Green Bay metro area, and the interstate highway system make Kewaunee County a desirable location to live, visit, recreate, and/or operate a business. The trend for many families has been to move from the larger cities to smaller communities or country living on larger tracts of land, resulting in longer travel distances to work. Commute times, however, are very reasonable due to an improved highway network. In the cities and villages, along with densely populated rural areas, there has been a trend toward more multi-family or apartment development where a higher population base can be located on less acres of land. There is also a demand for more assisted living facilities as the county's population continues to age.

The demand for highway commercial opportunities may increase along major highway corridors such as STH 29, 42, 54, and 57 due to ease of access and high visibility by motorists. There is sufficient land for properly located commercial and light industrial development along main transportation routes and within areas adjacent to incorporated municipalities where services can cost effectively be extended. Development demands along the county's shorelines are expected into the future as well.



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Land Price

The approximate cost per acre of lands within the county varies and depends on the physical landscape, surrounding land uses, location, access, services, along with other subjective factors. The rural portions of Kewaunee County will continue to be desirable to individuals/families. As a result, the value of these lands will likely increase. The lack of overall utilities, municipal water and sewer primarily will also limit some types of development that could occur within the towns. The land located within desirable business locations, such as those adjacent to the incorporated communities, and along major transportation corridors, will retain a higher value because of its development options. The long-term value of limited natural resources (e.g., woodlands, lakeshore, river frontage, and open space) will also continue to be strong because of their desirable appeal for building of full-time and seasonal homes and for recreational purposes.

Land prices will continue to fluctuate as the market continues to change. Local realtors maintain current information on residential, commercial, industrial and other land prices within the county.

DEVELOPMENT/PRESERVATION GOALS & OBJECTIVES

The following statements describe the county's intent regarding the overall growth/development and preservation during the next 20 years. The goal of this plan to provide guidance to officials when making land use decisions that reflect the interests of the county's municipalities and residents as well as to develop the county in an orderly, cost efficient manner.

Since each of Kewaunee County's communities administer most of their own land use controls, the following Kewaunee County development strategies are very broad. The local comprehensive plans provide a more detailed list of strategies to assist with implementation of the comprehensive plans and ensure consistency with local zoning ordinances.

Natural Resources

GOAL: Manage a clean and healthy natural environment for the residents and visitors of Kewaunee County by preserving and protecting key natural resources.

Objectives:

1. Evaluate the potential adverse impacts of proposed developments and community growth on environmental features.
2. Minimize fragmentation of woodlands and other natural resource areas in proposed developments. Work with developers to incorporate valuable environmental features into the development design.
3. Monitor the impacts of fluctuating Lake Michigan water levels on shoreline areas and identify potential coastal hazards.
4. Participate in efforts to maintain the natural beauty and integrity of the Lake Michigan shoreline.
5. Ensure the county's shoreland protection regulations minimize potential impacts of developments proposed adjacent to rivers, lakes, streams, and wetlands.



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6. Identify and pursue funding sources for the acquisition of specific natural areas the county may wish to protect.
7. Monitor the local and regional impacts caused by invasive species and work with other entities to control invasive species influences on the environment. When necessary, educate and encourage individuals to modify their behavior and activities in efforts to reduce the spread of invasive species.
8. Work natural resource entities to evaluate the impacts of land uses, development, and agricultural activities on karst topography. Consider the impacts to groundwater quality and quantity.
9. Investigate and consider tools for erosion control (e.g., buffer strips, easements, land use controls, flood controls, etc.).
10. Advocate for environmental corridors to be used for wildlife habitat, conservancy, trails, and outdoor recreation activities (e.g., hiking, hunting, etc.).
11. Protect and preserve the Niagara Escarpment.
12. Any present and future mining sites should not adversely affect surrounding land uses and promote the reclamation and restoration of these sites to a natural setting.

Agricultural Resources

GOAL: Identify the county's agricultural resources and preserve contiguous areas of prime farmland to allow present and future generations the opportunity to farm.

Objectives:

1. Value the economic importance of agriculture in the county.
2. Advocate for the use of sound farming and soil conservation methods to minimize surface and groundwater contamination and soil erosion. Encourage the adoption of local erosion control ordinances.
3. Advocate for the majority of non-farm development to occur in recommended development areas and not on productive agricultural soils.
4. Encourage towns to provide orderly and well-planned development of non-farm land uses that have minimal negative impacts on agricultural lands and farm operations.
5. Limit situations and land-use conflicts by communicating with prospective non-farm developments regarding the importance of agriculture for the county and the related activities, farm equipment, noises, odors, etc. they will likely experience living in an agricultural area.
6. The effects of climate change may need to be considered along with other evolving factors that could affect the future of farming, such as changes in agricultural practices and technology.



Cultural Resources

GOAL: Promote and, whenever possible, preserve the county's historic and cultural sites.

Objectives:

1. Whenever feasible, take measures to preserve buildings, structures, as well as landscape features that are the county's cultural history.
2. Assist communities with tying historic and archeological resources to recreational areas to encourage access to the sites and knowledge of their significance, where appropriate.
3. Work with state, federal, and county historical societies and other appropriate organizations to catalog historic and cultural sites and advocate for their preservation.

Housing

GOAL: To offer a variety of quality housing opportunities for all segments of the county's population while minimizing the adverse impacts on agriculture and the environment.

Objectives:

1. Encourage new residential developments in or near urbanized areas where public services and facilities exist (see Future Land Use Plan map) in an effort promote residential growth, while also preserving the prime farmland, natural resources, and wildlife habitat of the county.
2. Explore innovative residential development techniques with developers and home builders in an effort to minimize potential impacts on the environment.
3. Advocate for adequate housing for all persons including low and moderate income, elderly, and residents with special needs.
4. When feasible, rehabilitate and preserve the existing housing stock.
5. Identify affordable housing for first-time home buyers.
6. When possible, work with the Northeastern Wisconsin CDBG-Housing Program to apply for grants and become involved in programs (e.g., Lakeshore CAP Inc., WHEDA, etc.) to address housing needs.
7. Work with the local communities, state agencies, and planning entities to monitor population characteristics to stay informed of changing demographics within the county.



Economic Development

GOAL: Provide opportunities for economic development while protecting and enhancing Kewaunee County's agricultural and environmental assets.

Objectives:

1. Expand the number of employers in the county through business expansion, retention, development, and recruitment.
2. Work with the Kewaunee County Economic Development Corporation, Progress Lakeshore, local chambers of commerce, and regional planning entities to promote economic development and diversify the economic base of the county.
3. Continue to recognize agriculture as a strong component of the local economy. Maintain a strong relationship with farmers to stay informed of issues and concerns.
4. Increase the quantity and quality of the labor force through education, marketing, etc.
5. Advocate that business developments be reviewed for compatibility with existing land uses and do not adversely impact surrounding uses.
6. Commercial and industrial growth should be directed to areas where community facilities, services, and infrastructure exist or can be readily extended.
7. Work with local officials to revitalize commercial, downtown, and industrial areas.
8. Support local efforts to ensure there is adequate industrial/business park space available for future development.
9. Utilize the county's state highway corridors as opportunities to promote business and industrial development.
10. Cooperate with EDA, WEDC, USDA-Rural Development, WisDOT and other agencies to provide technical and financial assistance.
11. Continue to establish strategies that increase tourism and recreation revenue within the county.
12. Support and promote the maritime industry.
13. Evaluate previous environmentally contaminated or brownfield sites and consider these location for continued or future commercial uses.



Transportation

GOAL: Attain a safe, convenient, and efficient transportation system that will effectively serve the existing development patterns and meet anticipated transportation demand generated by existing and planned land uses.

Objectives:

1. Advocate for a transportation system that provides for all transportation modes (i.e., motor vehicles, pedestrians, and bicycles) and is compatible with surrounding land uses.
2. Maintain a safe system of bicycle, walking and motorized recreational vehicle paths and trails.
3. Support safe and convenient pedestrian traffic movement for people of all ages and physical abilities.
4. Encourage safe, convenient, and efficient vehicular movement near all commercial, industrial, and public facility locations.
5. Work with WisDOT to address any road deficiencies and deterioration as industrial/agricultural equipment increases in size and weight.
6. The county and communities should continue to rate the pavement conditions of county and local roads and ensure proper maintenance.
7. Whenever possible, minimize the disturbance of environmental corridors and prime agricultural land for the development of transportation facilities.
8. Remain aware of any recommendations in the state plans for rail and air transportation in order to determine potential impacts on the county.
9. Review WisDOT's State Highway 20-Year Strategic Plan and Six Year Highway Improvement Program.

Utilities/Community Facilities

GOAL: To advocate quality community facilities and public services that are well maintained, efficient and cost-effective for residents of the county.

Objectives:

1. Encourage concentrated development in areas where appropriate utilities, community facilities and public services are readily available.
2. Encourage coordination and sharing of community facilities and services between major providers, whenever possible.
3. Coordinate with communities to ensure an adequate supply of quality water will be available to meet the needs of the residential, business, and agricultural land uses.



CHAPTER 1: ISSUES & OPPORTUNITIES

4. Work with the local jurisdictions to monitor the potential impacts of development in groundwater recharge areas and on the stormwater drainage systems.
5. Monitor any changes to energy generation facilities and evaluate any possible impacts to the surrounding area.
6. Advocate for environmentally conscious utilities through alternative energy options such as wind power, solar power, hydroelectric generation, and others, where feasible.
7. Advocate for a level of police protection, fire protection, and emergency services that meets the needs of existing and planned future development patterns.
8. Promote the provision of adequate medical services, elderly care services, and childcare services.
9. Advocate for the proper disposal of wastewater and maintenance of septic systems to protect public health, groundwater, and surface water.
10. Encourage providers to continue to maintain an adequate level of service for solid waste, recycling, natural gas, electrical, broadband, telephone, cable, and telecommunications.
11. Monitor the location, condition, and capacity of public utilities and services, plus explore options which could be more cost effective and more efficient.
12. Promote cooperation and communication with the Algoma, Denmark, Kewaunee, and Luxemburg-Casco school districts; along with Northeast Wisconsin Technical College, to be involved with their long range planning activities including facility improvements, shared use of facilities, curriculum changes, etc.

Parks and Recreation

GOAL: To continue to support and offer a system of outdoor recreation opportunities that provide a variety activities for all age groups and abilities.

Objectives:

1. Cooperate with the local jurisdictions on maintenance and enhancements to the various county park facilities located within the county.
2. Continue to promote Kewaunee County parks and County Fairground activities.
3. Promote the various recreational facilities associated with the natural makeup of the county including the Ahnapee State Trail, Ice Age National Scenic Trail, and the accessibility to Lake Michigan and the waters of Green Bay. Also, encourage utilization of environmental corridors for potential parks and recreational use.
4. Consider access for the disabled, elderly and very young when planning/designing/coordinating and constructing any new recreation projects, including parking, trails, etc.



CHAPTER 1: ISSUES & OPPORTUNITIES

5. Implement, when feasible, recommendations in the county's park and outdoor recreation plan.
6. Encourage updates to local outdoor recreational plans, snowmobile plans, etc.
7. Work with adjacent government jurisdictions and other interested stakeholders to explore additional regional recreation opportunities.
8. Explore possible funding resources from agencies (e.g., WDNR, Wisconsin Coastal Management, etc.) for park upgrades or future recreation development.

Intergovernmental Cooperation

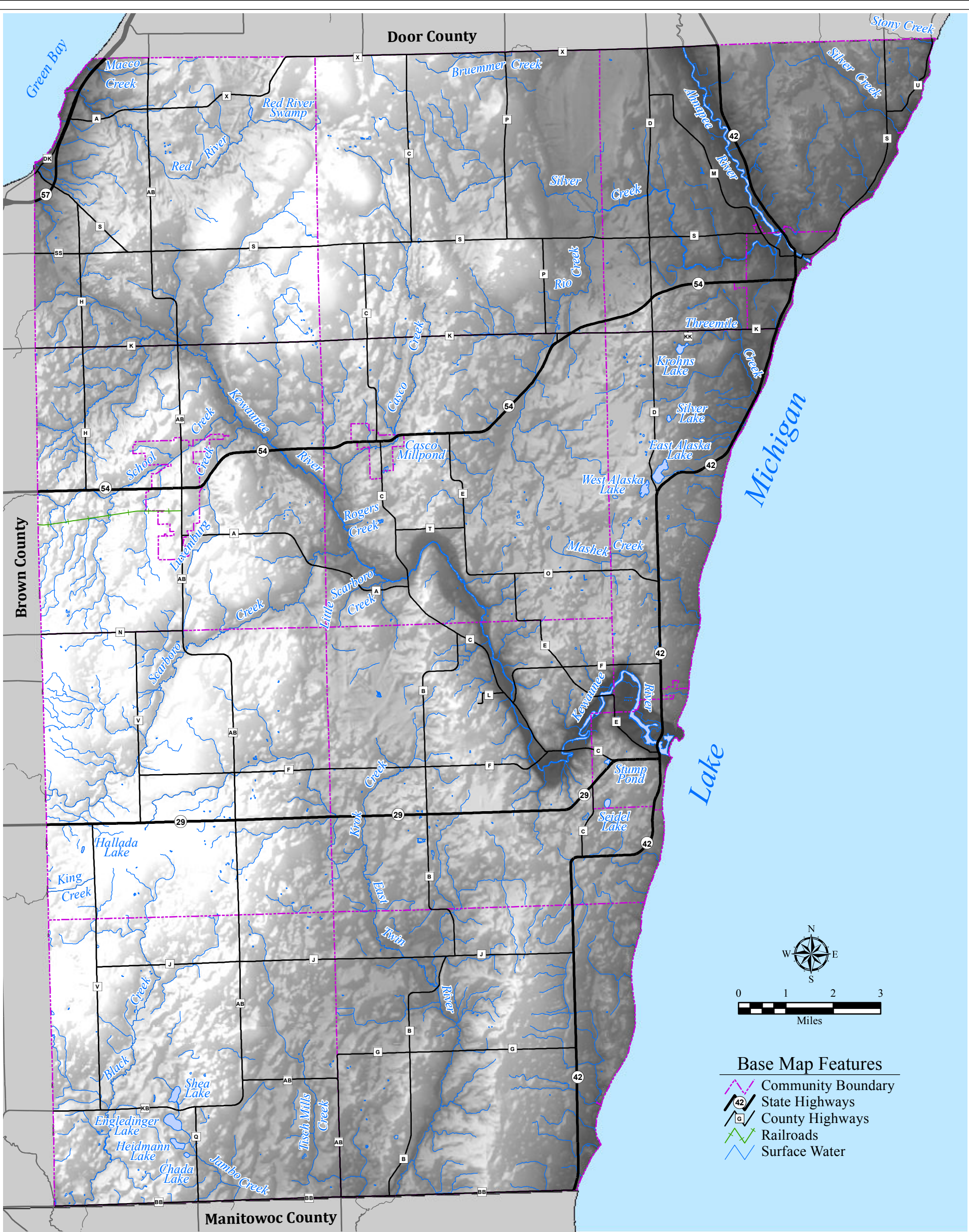
GOAL: To coordinate with the county's local jurisdictions, surrounding counties other interested public and private groups/agencies on planning projects.

Objectives:

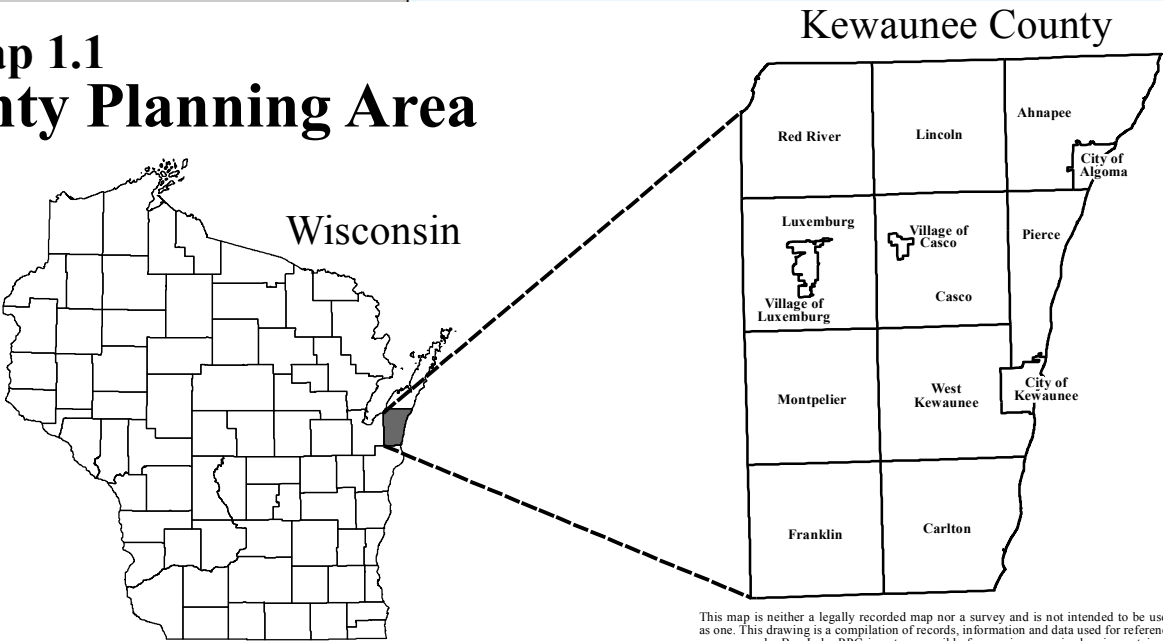
1. To improve communication and cooperation between and among units of government and the citizens they serve.
2. Promote coordination with local and neighboring communities on future planning projects to best maintain/improve the area.
3. Assist local units of government in identifying funding and technical resources to acquire and improve the services available to their residents.
4. Work with the cities of Kewaunee and Algoma, as well as the villages of Luxemburg and Casco, to remain aware of any plans to develop beyond their existing jurisdictional limits.
5. When necessary, periodically review and update the adopted 20-year comprehensive plan with assistance from the local units of government, in order to provide for the greatest possible benefits regarding future development and preservation of features including agricultural, natural, and cultural resources.

Land Use

GOAL: To ensure the county's future land use is developed/preserved according to the strategies of the local comprehensive plans and the strategies described in the county's future land use component (see Chapter 8).



Map 1.1
Kewaunee County Planning Area





Chapter 2

LAND USE, NATURAL, & CULTURAL RESOURCES

LAND USE INVENTORY

The land use inventory identifies a general perspective of the amount of acreage the various land uses occupy in Kewaunee County. A breakdown of Kewaunee County's land uses and acreages is detailed in Table 2.1. Refer to Map 2.1 for an illustration of the countywide land use inventory.

- The majority of the county is classified as undeveloped, while existing development covers just over seven percent of the county.
- The majority of the county is covered by croplands/pasture which make-up nearly 63 percent of the county's total land area.
- Woodlands make up the second largest land use in the county covering over 21 percent of the county. Some of the larger woodland areas in the county include the Black Ash Swamp in the Town of Lincoln, Duvall Swamp in Red River, and Lipsky Swamp in the Town of West Kewaunee. Many of the woodlands are also found adjacent to water features.
- Together, residential development and the transportation network comprise nearly 59 percent of the developed land uses in Kewaunee County.
- State owned lands make up roughly 3,220 acres of Kewaunee County, whereas county owned land accounts for approximately 910 acres (Map 2.4).

Table 2.1: Land Use Inventory, Kewaunee County

Land Use Type	Total (Acres)	Developed Land (Percent)	Total Land (Percent)
DEVELOPED			
Residential	5,903.1	36.47	2.68
Commercial	448.5	2.77	0.20
Industrial	339.5	2.10	0.15
Mining	713.4	4.41	0.32
Transportation	3,636.1	22.47	1.65
Communications/Utilities	211.2	1.30	0.10
Institutional/Governmental	386.2	2.39	0.18
Recreational	1,012.5	6.26	0.46
Agricultural Structures	3,533.6	21.83	1.61
Total Developed Acres	16,184.1	100.00	7.36
Land Use Type			
UNDEVELOPED			
Croplands/Pasture	138,539.4	67.97	62.97
Woodlands	46,443.3	22.79	21.11
Other Natural Areas	17,816.5	8.74	8.10
Water Features	1,015.9	0.50	0.46
Total Undeveloped Acres	203,815.1	100.00	92.64
Total Land Area	219,999.2		100.00

Source: Bay-Lake Regional Planning Commission, 2016.



NATURAL RESOURCES

Natural Resources are major determinants of the Kewaunee County's development potential, therefore it is necessary to understand the role that natural resources play in the county. This component of the comprehensive plan identifies the extent, type, locations, limitations, and benefits of the county's natural resources and the influences they have on future planning and making decisions on policies.

Geology

- Niagara Dolomite bedrock formation underlies nearly all of Kewaunee County. This formation consists of sedimentary rocks which dip to the southeast towards Lake Michigan.
- A shale formation known as Maquoketa is found below the Niagara formation. This formation is found in the northwestern portion of the county (Town of Red River). Here, the rock dips gently to the southeast and is exposed along the northern shore of Green Bay as a 60 to 90 foot cliff in the region, better known as the "Niagara Escarpment".
- 80 percent of the county has slopes of less than 6 percent; 12 percent of the county has slopes of 6 to 12 percent, and 8 percent of the county has slopes of more than 12 percent.
- Soils in the county may be over 100 feet in depth above the bedrock and less than five feet thick in other areas of the county.

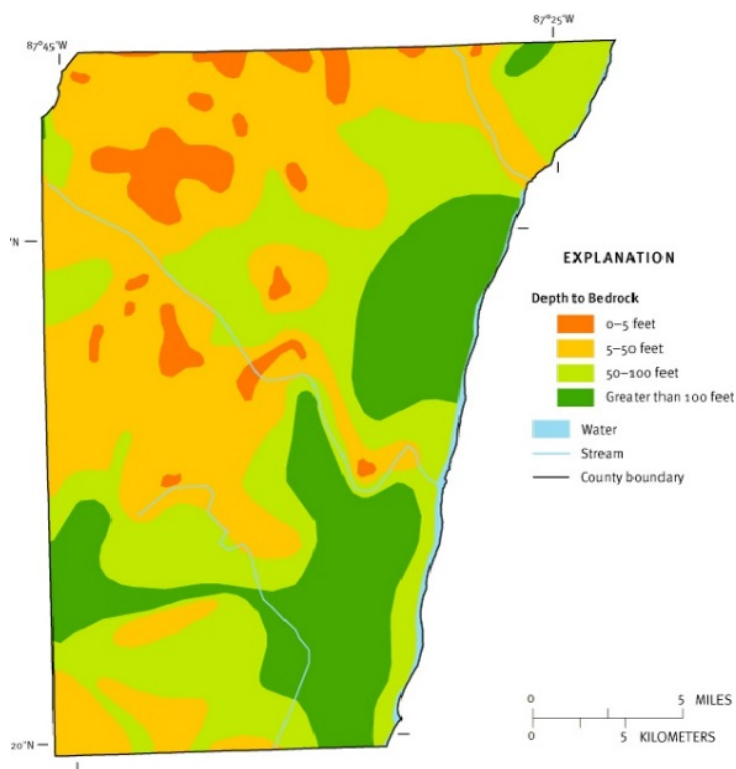


Figure 2.1: Depth to Bedrock, Kewaunee County

Karst

Kewaunee County contains karst landscapes in areas where shallow soils exist and the dissolution of a layer or layers of soluble carbonate (e.g., limestone or dolomite) bedrock creates large fissures, crevices, and possibly sinkholes (Map 2.2). The low soil depth and fractures in the bedrock make the groundwater supply very vulnerable to contamination.

Bedrock type, depth to bedrock, soil composition, and topography can impact...

1. excavation;
2. foundations;
3. location and effectiveness of site wastewater treatment systems;
4. residential and industrial development locations;
5. cost effectiveness of construction and maintenance of highways and streets;
6. natural infiltration of surface waters;
7. groundwater recharge;
8. groundwater susceptibility to contaminants;
9. manure application;
10. nutrient management;
11. animal feedlot/livestock facility siting; and
12. lagoon siting



Soils

Based on the Natural Resources Conservation Service's (NRCS) *Soil Survey of Kewaunee County, Wisconsin*, Kewaunee County contains eight diverse soil associations. 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.

- The soils in Kewaunee County were primarily formed in glacial till and glacial outwash and till. The soils consist primarily of clays and sandy loams, are nearly level to very steep and range from well drained to somewhat poorly drained.

The NRCS soil survey provides information on soil suitability and limitations for a variety of natural resource and engineering uses based on soil properties, site features, and observed performance of the soils. Soil suitability and limitations should be evaluated for private on-site wastewater treatment systems, construction of dwellings with basements, nonmetallic mining activities, etc.

Prime Agricultural Soils

The USDA, NRCS 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. Since agriculture plays an important role in the economic, cultural, and social structure of Kewaunee County, it will be important to preserve prime agricultural soils when any future development is considered.

- According to the NRCS, prime agricultural soils cover 79 percent of Kewaunee County.

Nonmetallic Mineral Resources

The *Soil Survey of Kewaunee County, Wisconsin* also identifies soils that would be the best sources for quality sand, gravel, and crushed stone. These mineral are needed for constructing the sub-base for roads, as well as comprise the primary components in concrete for the building of foundations and basement walls.

All active mines must have valid reclamation permits, issued by the regulatory authority (RA) with jurisdiction for the mine site, unless exempt from NR 135, Wis. Admin. Code. Reclamation of nonmetallic mines protects the environment through reduced erosion and wildlife habitat, allows productive end land uses, and has the potential to increase land values and tax revenues.

- There are 27 permitted nonmetallic mining locations in Kewaunee County.

Kewaunee County Soil Associations

1. Hortonville-Symco
2. Kewaunee-Manawa
3. Casco-Boyer
4. Waymor-Lamartine-Pella
5. Onaway-Solona-Hortonville
6. Carbondale-Cathro-Markey
7. Kolberg-Namur-Longrie
8. Wainola-Oakville

Three classes of prime agricultural soils in Kewaunee County

Prime farmland is the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and that is available for these uses.

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.





Water Resources

Surface Water

Map 1.1 displays the surface waters of Kewaunee County. These features provide valuable habitat for waterfowl and wildlife, as well as for recreational opportunities.

- Kewaunee County contains three Outstanding and Exceptional Resource Waters per NR 102.11 of the Wisconsin Administrative Code. These features exhibit excellent water quality, high recreational and aesthetic value, and high quality fishing; but they may be impacted by nonpoint sources of pollution.
- Kewaunee County also contains impaired waters per Section 303(d) of the Clean Water Act meaning water quality standards are not being met (see inset).

Lake Michigan Levels

Lake Michigan water levels have risen dramatically since an all-time low of 576.02 feet in January 2013 (see map 2.3). This rebound is primarily due to the springs of 2013, 2014, and 2015 being wetter than normal, more ice cover, and less evaporation. According to the U.S. Army Corps of Engineers, in May of 2016, Lake Michigan was 14 inches above the long-term monthly average of May.

Fluctuating lake levels influence the shape and use of the water and shoreline areas in various ways including: shoreline developments, shoreline/bluff and beach erosion, impacts to coastal wetlands, increased nonpoint pollution, economic impacts (tourism, shipping, and recreation), wildlife habitats, and the unique historic and archeological resources of the area.

Watersheds

Kewaunee County lies within the Lake Michigan Watershed Basin which consists of six sub-watersheds as delineated by the Wisconsin Department of Natural Resources (WDNR).

Groundwater

The Eastern Dolomite aquifer is the most widely used source of groundwater supply in Kewaunee County. All private wells, along with municipal water systems, in the county get their drinking water exclusively from groundwater. Streams, lakes, and wetlands are fed by groundwater; thus fish and other wildlife are as dependent on abundant, clean groundwater as people.

Development and land use practices must be managed in a way that protects the county's valuable groundwater supply.

Kewaunee County Water Resources

Lakes and ponds:

14 named & 2 unnamed
total coverage: 254 acres

20 rivers and streams

Approx. 30 miles of Lake Michigan shoreline

Approx. 3 miles of Green Bay shoreline

Outstanding & Exceptional Resource Waters:

- Casco Creek
- Little Scarboro Creek
- Rogers Creek

2016 Impaired Waters:

- Ahnapee River
- East Alaska Lake
- East Twin River
- Kewaunee River
- Krok Creek
- Neshota River
- Red River
- Stony Creek
- Green Bay
- Lake Michigan

Watersheds:

- Ahnapee River
- East Twin River
- Kewaunee River
- Red River and Sturgeon Bay
- Stony Creek
- West Twin River



Wetlands

Wetlands play a crucial role in maintaining the health of our waters by providing clean water, flood protection, fish and wildlife habitat, as well as shoreland stabilization.

Kewaunee County contains over 35,000 acres of wetlands. Map 2.3 illustrates the WDNR inventoried wetlands greater than two acres.

Because of their importance, there are strict regulations regarding wetlands. Wisconsin Administrative Codes fall under the jurisdiction of the WDNR and mandate 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.

Floodplains

Floodplains provide for storm water retention, groundwater recharge, habitat for various types of waterfowl and wildlife and are considered a valuable recreational resource. Wisconsin requires counties, cities, and villages to adopt floodplain zoning ordinances to address the problems associated with development in floodplain areas. Any development adjacent to or within a designated floodplain should be discouraged, if not strictly prohibited. (Map 2.3).

Woodlands

There are a total of 46,444 acres of woodlands within Kewaunee County. Map 2.1 illustrates the woodlands.

Woodlands provide aesthetic views, wildlife habitat, and offer multiple recreational choices. Woodlands also maintain watershed cover, provide shade, serve as a windbreak, help reduce soil erosion, and act as a noise barrier.

Environmental Corridors

Environmental corridors (see inset) provide many ecological and human-valued services such as improved water quality, protection of natural resources, groundwater recharge, recreation areas and stormwater management. The 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.

Wildlife Habitat

Kewaunee County provides excellent wildlife habitat with its diverse landscape. The habitat also contains a variety of special concerned, threatened, and endangered species that have been documented such as fish, birds, snails, insects, and rare plants and shrubs. Refer to the WDNR's Natural Heritage Inventory for a complete listing of endangered resources in the county.

Wetlands:

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.



Duvall Swamp

Floodplains:

Areas, excluding the stream channel, subject to inundation by the 100-year recurrence interval flood event. This event has a 1% chance of occurring in any given year.

Environmental Corridors Components:

- WDNR wetlands;
- 100-year FEMA floodplains;
- Slopes 12 percent or greater; and
- 75-foot lake and river setback;
- Other designated State Scientific and Natural Areas or locally identified features.



Yellow-headed blackbird



CHAPTER 2: LAND USE, NATURAL, & CULTURAL RESOURCES

AGRICULTURAL RESOURCES

Agriculture is a major part of Kewaunee County's heritage as significant farmlands and working farms make up much of the county's landscape. Kewaunee County farmers own and manage over 176,700 acres, or 81 percent, of the county's land. This includes cropland, rangeland, pasture, tree farms, and farm forests.

Trends in Agriculture

Farm Size and Numbers

Kewaunee County farms are bigger, but fewer in number. According to the USDA Census of Agriculture, the number of farms in Kewaunee County has declined by nearly 20 percent between 2002 and 2012. The average acreage of farms, however, increased by 27 percent during the same time period.

Concentrated Animal Feeding Operations

Wisconsin has become home to an increasing number of Concentrated Animal Feeding Operations (CAFOs). The WDNR defines a CAFO is any livestock or poultry operation with 1,000 or more animal units. The WDNR requires that CAFOs have a Wisconsin Pollutant Discharge Elimination System (WPDES) CAFO permit to ensure proper planning, construction, and manure management to protect water quality from adverse impacts.

- In 2016, there were 16 WPDES CAFO operations located in Kewaunee County (15 dairy operations and 1 beef operation).

Agricultural Land Sales

Table 2.2 indicates that 4,630 acres of agricultural land sales occurred between 2010 and 2014 in Kewaunee County. The majority (93 percent) of the land sold was for continued agricultural use rather than converted to non-agricultural uses.

Table 2.2: Agricultural Land Transactions, 2010-2014

Year	Agricultural Land Continuing in Agricultural Use			Agricultural Land Being Diverted to Other Uses			Total of all Agricultural Land		
	Number of Transactions	Acres Sold	Dollars per Acre	Number of Transactions	Acres Sold	Dollars per Acre	Number of Transactions	Acres Sold	Dollars per Acre
2010	15	1,047	\$4,325	2	55	\$5,670	17	1,102	\$4,392
2011	11	876	\$4,667	1	129	\$6,485	12	1,005	\$4,900
2012	16	975	\$4,783	2	77	\$3,500	18	1,052	\$4,689
2013	5	280	\$4,920	1	45	\$4,334	6	325	\$4,839
2014	20	1,146	6,262	---	---	---	20	1,146	\$6,262
Average 2010-2014	13.4	865	\$4,991	1.2	61.2	\$3,998	14.6	926	\$5,016

Note: Agricultural land sold are land sales without building and improvements
Source: Wisconsin Agricultural Statistical Service, 2011 - 2015.

Kewaunee County Agriculture Statistics

Farming Trends:

'02: 915 farms, 174,212 acres
'07: 893 farms; 175,449 acres
'12: 734 farms; 176,735 acres

Average farm size 2012:
241 acres

2012 Farm Operator Demographics:

Total farm operators: 1,196
Male Operators: 841
Female Operators: 355

Average age of
principal farm operators:
56.2 years

Average number of years on
the present farm for principal
operators: 25.9 years

Farm Ownership:

- Family or Individuals: 87%
- Partnership: 8%
- Family corporations: 3%
- Non-family corporations or other: 2%



CHAPTER 2: LAND USE, NATURAL, & CULTURAL RESOURCES

Agricultural Uses

Kewaunee County continues to be a main contributor to Wisconsin's agriculture scene and the products produced in the county have a large economic impact. The following information provides a summary of prevalent agricultural commodities in Kewaunee County.

Table 2.3: Farm Numbers and Types

Livestock and Poultry				
	2007		2012	
Type	Number of Farms	Total Animals	Number of Farms	Total Animals
Cattle and calves	452	73,593	363	97,084
Hogs and pigs	31	1,763	17	2,799
Horses and Ponies	117	621	104	641
Layers	46	1,544	35	467
Broilers & other meat-type chickens	11	498	9	461
Goats (milk and angora)	28	141	17	83
Sheep and lambs	11	186	7	399
Harvested Crops				
	2007		2012	
Type	Number of Farms	Total Acreage	Number of Farms	Total Acreage
Forage*	483	48,586	380	49,228
Corn for grain	320	25,510	264	26,672
Corn for silage or greenchop	316	28,944	268	29,426
Soybeans	178	11,042	196	10,049
Wheat	183	11,674	185	12,095
Oats	189	5,559	154	4,199
Vegetables harvested for sale	33	1,453	33	1,510

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

Source: USDA Census of Agriculture, 2007 and 2012; and Bay-Lake Regional Planning Commission, 2016.

Other Livestock

Kewaunee County contained two alpaca farms, while three farms raised llamas, and another six farms contained rabbits.

Horticulture

Kewaunee County sales of Christmas trees, fruits and vegetables, greenhouse, nursery and floriculture products totaled over \$2 million in 2014. These products originate from the following farms within the county.

- 15 apple farms
- 4 grape farms
- 4 strawberries farms
- 5 nursery stock farms
- 4 farms producing bedding/gardening plants.
- 15 Christmas tree farms covering 269 acres

Forestry

According to the WDNR, since 2005, over 1,830 cord equivalents of timber products have been harvested from state-owned land in Kewaunee County.

Kewaunee County Dairy Farming

Dairy Farm Trends:

'02: 280 farms, 28,303 cows

'07: 252 farms; 34,774 cows

'12: 196 farms; 45,327 cows

2012 Total Milk Production:

1.029 billion pounds

2012 Average milk per cow:

24,500 pounds

**2 plants in the county
process dairy products**





CHAPTER 2: LAND USE, NATURAL, & CULTURAL RESOURCES

Bee Colonies

Bees are important for more than honey and other products, as they pollinate crops such as tomatoes, nuts and fruits. Bee die-off rates have dramatically increased recently due to insecticides, global warming, and mites. In an effort to continue to thrive, many beekeepers have had to import bees from other states.

Kewaunee County contained seven farms with bee colonies in 2012. Four of these farms collected 343 pounds of honey.

Organic Agriculture

Based on the 2012 Census of Agriculture, Kewaunee County had three farms that are USDA National Organic Program certified for organic production along with one farm that were USDA National Organic Program organic production exempt from certification. Wisconsin ranked fifth in the nation in organic sales in 2014.

Conservation Practices

In 2012, the Census of Agriculture, for the first time, asked whether producers applied specific practices to conserve the farmland or improve the productivity of their cropland. Such practices may protect land from water and wind erosion, improve water quality, provide wildlife habitat, and reduce producers' operating costs by reducing the number of trips over fields.

- In 2012, 48 farms in Kewaunee County practiced rotational grazing (i.e., dividing larger pastures into smaller units to rest the pasture and improve forage). Farmers also use crop rotation, cover crops, nutrient management and integrate pest management to help protect environmental resources and provide habitat for wildlife.

Biomass

According to the 2012 Census of Agriculture, five farms in Kewaunee County harvested biomass for use in renewable energy.

Agricultural Infrastructure

Kewaunee County's agriculture industry has a larger impact than just producing milk or livestock. The agriculture industry needs infrastructure to operate, which in turn, provides economic opportunities for other businesses. For instance, farmers need to have convenient access to supplies including machinery to work their fields, seeds to plant, feed for their animals, places to store grain, veterinarians to check on animals, etc.

Value of Agriculture Products Sold (\$1,000)

**Total Value:
\$276,619**

Livestock, poultry, and their
products: **\$217,677**

Crops including nursery and
greenhouse:
\$58,942

2012 Top Commodities (sales in millions)

- Milk: **\$190***
(* Kewaunee County ranks 6th
highest in WI)
- Grain: **\$33.95**
- Cattle & calves: **\$1.99**
- Fruits, tree nuts, & berries:
\$0.36
- Christmas trees & woody
crops: **\$0.10**

59

Farms that sell directly to
consumers (e.g., roadside
stands, farmers markets,
auctions, wineries, pick your
own operations).

\$469,000

Value of agriculture products
sold directly to consumers

*Source: USDA Census of Agriculture,
2012.*



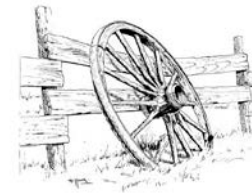
CHAPTER 2: LAND USE, NATURAL, & CULTURAL RESOURCES

The following list of agricultural infrastructure facilities and service providers are examples of the various key facilities and the services offered for Kewaunee County farmers.

- Implement/Equipment Dealerships
- Feed Mills/Storage/Fertilizer
- Farmer Co-ops
- Milk Processing
- Cheese Processing
- Milk Hauling
- Livestock Transport
- Feed Transport
- Grain Storage
- Meat Processing
- Canning
- Fuel Suppliers
- Veterinary Services
- Custom Operators (e.g., Hauling, Harvesting, Tillage, Planting, Spraying)
- Agronomy Services, (e.g., Soil Testing)
- Government Agriculture Services/Agencies (e.g., Education, Nutritional Services)
- Farm Management Services
- Genetics and Insemination
- Farmers Markets
- Grocery Stores
- Engineering and Building Consultants
- Agricultural Lender

The increase in farm size, the decrease in number of traditional agricultural operations, the increase of online purchasing opportunities, and other market factors are just some of the changes in Kewaunee County's agricultural environment over the years. These changes have had an effect on several of the agriculture support and service type businesses. Some facilities have since closed or reduced in capacity/services, whereas others relocated to areas for improved transportation access and where utilities are readily available. On the other hand, several services within the county have recently experienced expansion including the milk and cheese processing facilities, grain storage, etc. The increase in farm size has also contributed to the increase in construction services for additional agricultural structures.

For the most part, the county will experience little change in its agricultural support and service businesses in the near future. Advancements in technology, however, will likely have an impact in the long-term and should be monitored.



CHAPTER 2: LAND USE, NATURAL, & CULTURAL RESOURCES

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

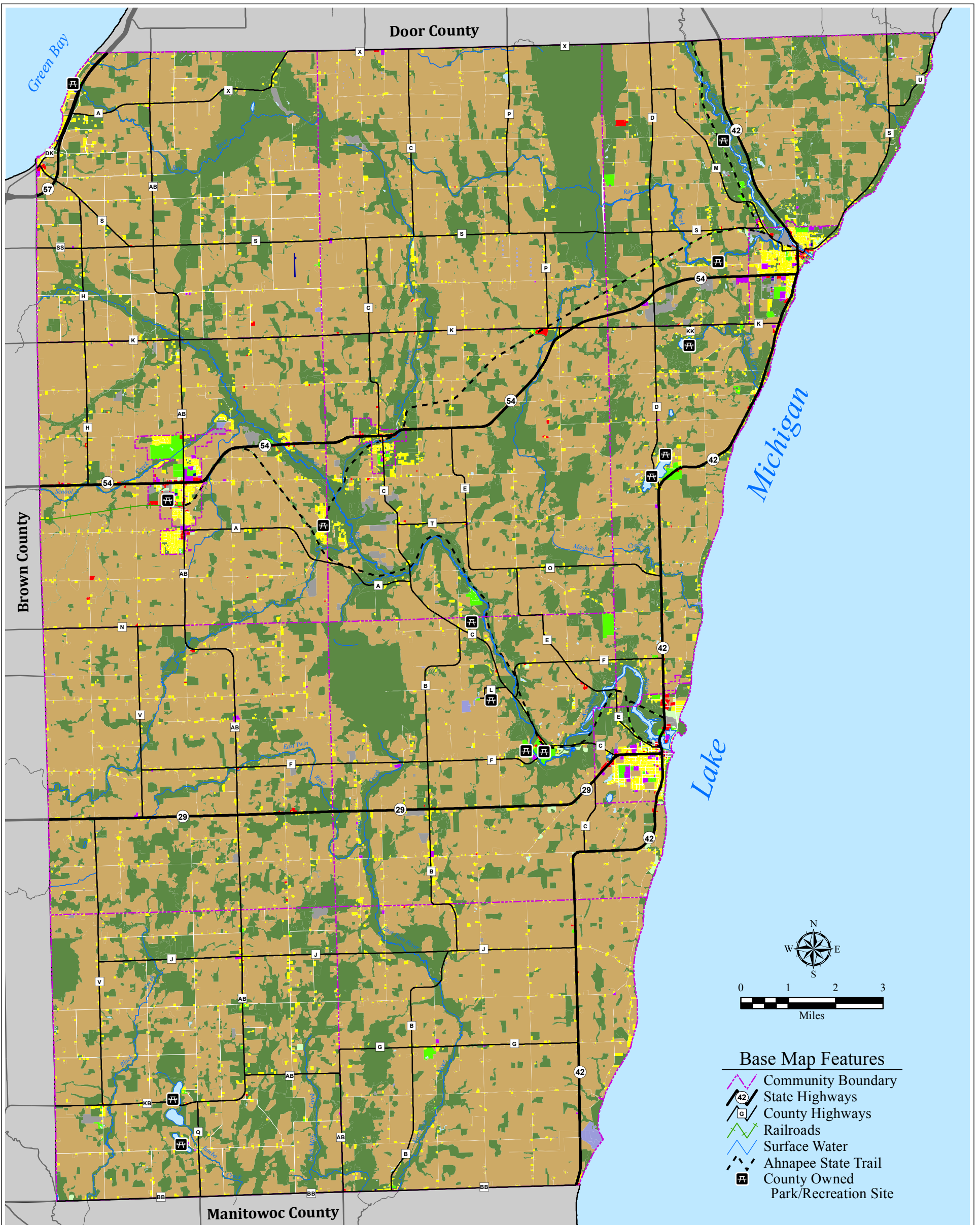
The State Historical Society of Wisconsin's Architecture and History Inventory (AHI) provides a list of numerous features of historic importance found in Kewaunee County. Please note that the AHI sites are not all eligible by the State Historical Society of Wisconsin. It is a list compiled by many individuals on the belief that these areas be considered for eligibility.

Table 2.4 is a listing of the National Register of Historic Places found in Kewaunee County according to the National Park Service.

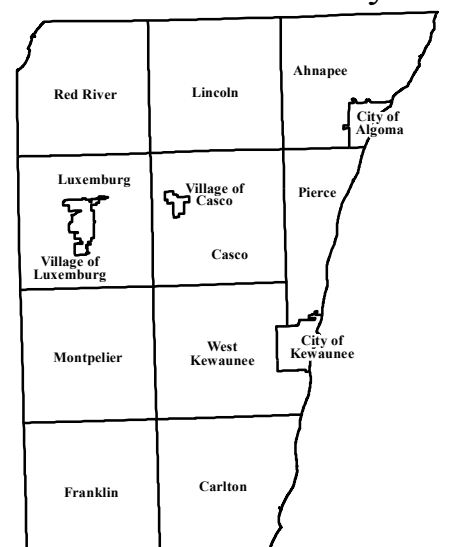
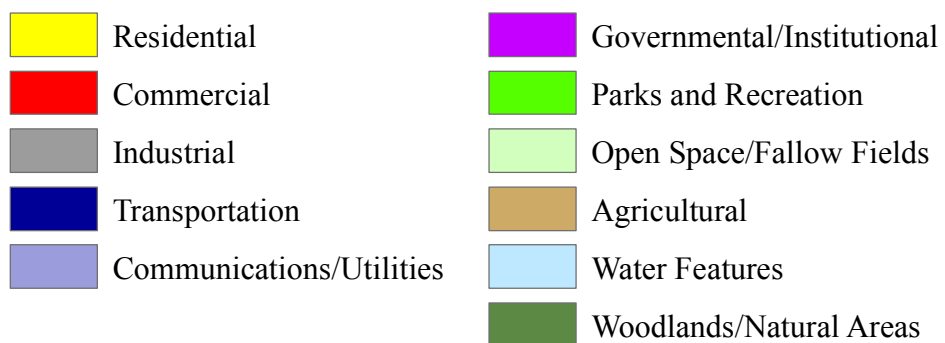
Table 2.4: National Register of Historic Places, Kewaunee County

Historic Name (known as...)	Municipality	Location
Ahnapee Brewery (Von Stiehl Winery)	City of Algoma	Navarino St.
Art Dettman Fishing Shanty	City of Algoma	Church Street at the Ahnapee River
Perry, Melvin W. and Mary, House	City of Algoma	3rd St.
Kewaunee County Sheriff's Residence and Jail (Kewaunee County Historical Society Jail Museum)	City of Kewaunee	Corner of Dodge and Vliet Streets
Kewaunee Post Office	City of Kewaunee	Ellis Street
Marquette Historic District	City of Kewaunee	bounded by Lake Michigan and Center, Juneau and Lincoln Sts.
Tug "Major Wilbur Fr. Browder" (Tug Ludington)	City of Kewaunee	Harbor Park, Kilbourn Street
George Halada Farmstead (Frank Kozlik Farmstead)	Town of Montpelier	CTH F
Pilgrim Family Farmstead	Town of West Kewaunee	Church Rd
St. Lawrence Catholic Church	Town of Franklin	CTH AB and CTH J
America Shipwreck (Canaller)	Town of Carlton - Lake Michigan	Lake Michigan (4 mi. offshore)
Daniel Lyons Shipwreck	Town of Ahnapee - Lake Michigan	E. of Stoney Creek outlet (4 mi. offshore)

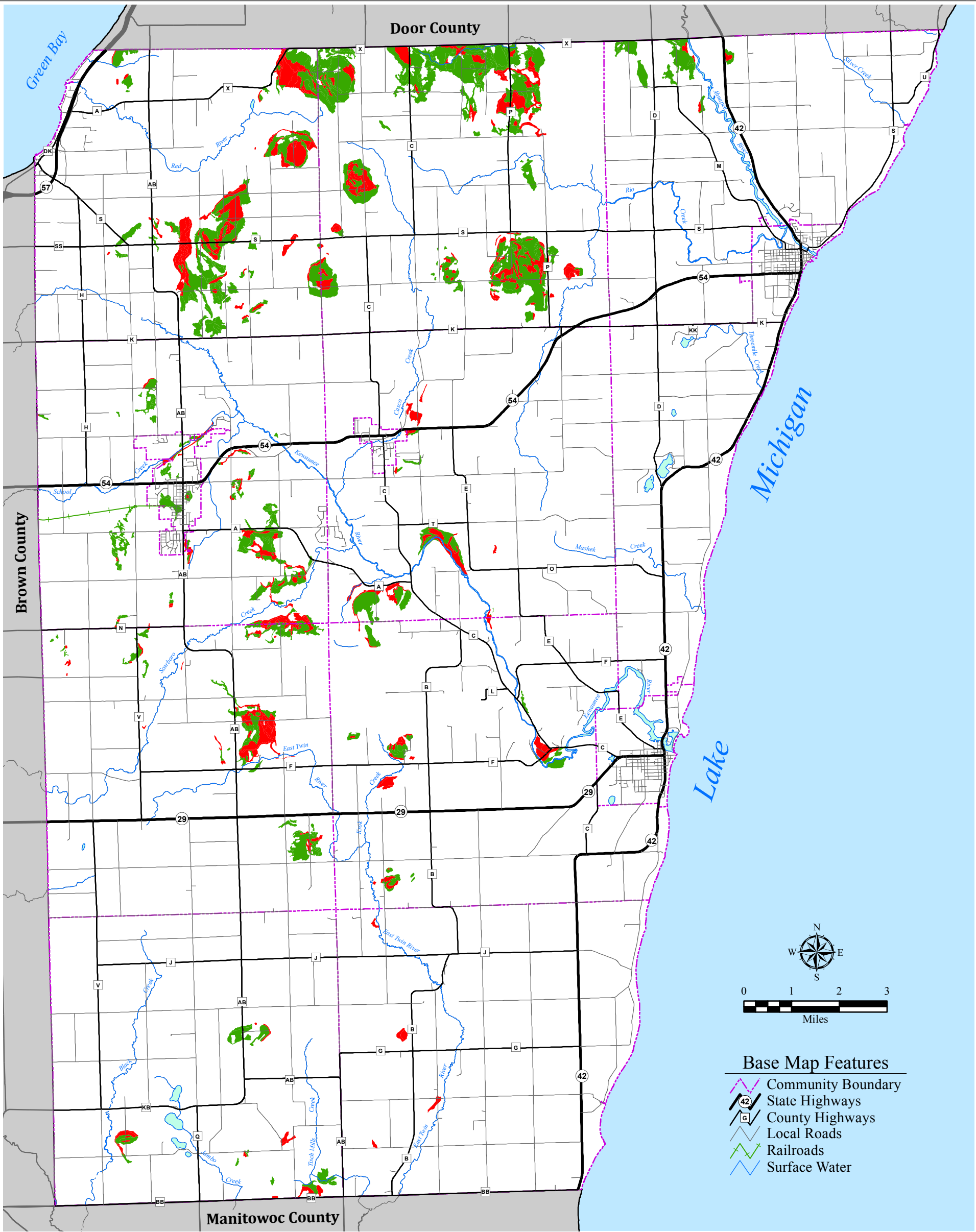
Source: National Park Service and Bay-Lake Regional Planning Commission, 2016.



Map 2.1 Land Use Inventory Kewaunee County



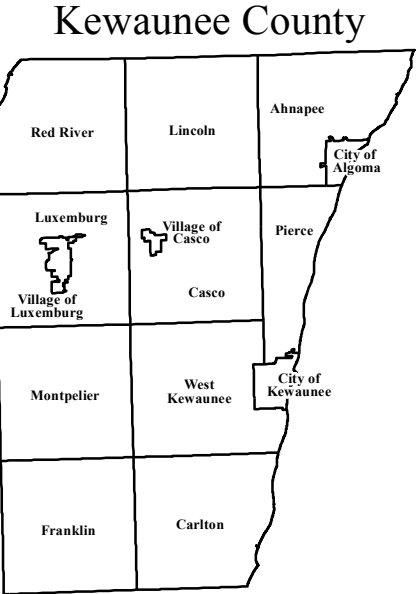
This map is neither a legally recorded map nor a survey and is not intended to be used as one. This drawing is a compilation of records, information and data used for reference purposes only. Bay-Lake RPC is not responsible for any inaccuracies herein contained.



Map 2.2
Karst* Landscape
Kewaunee County

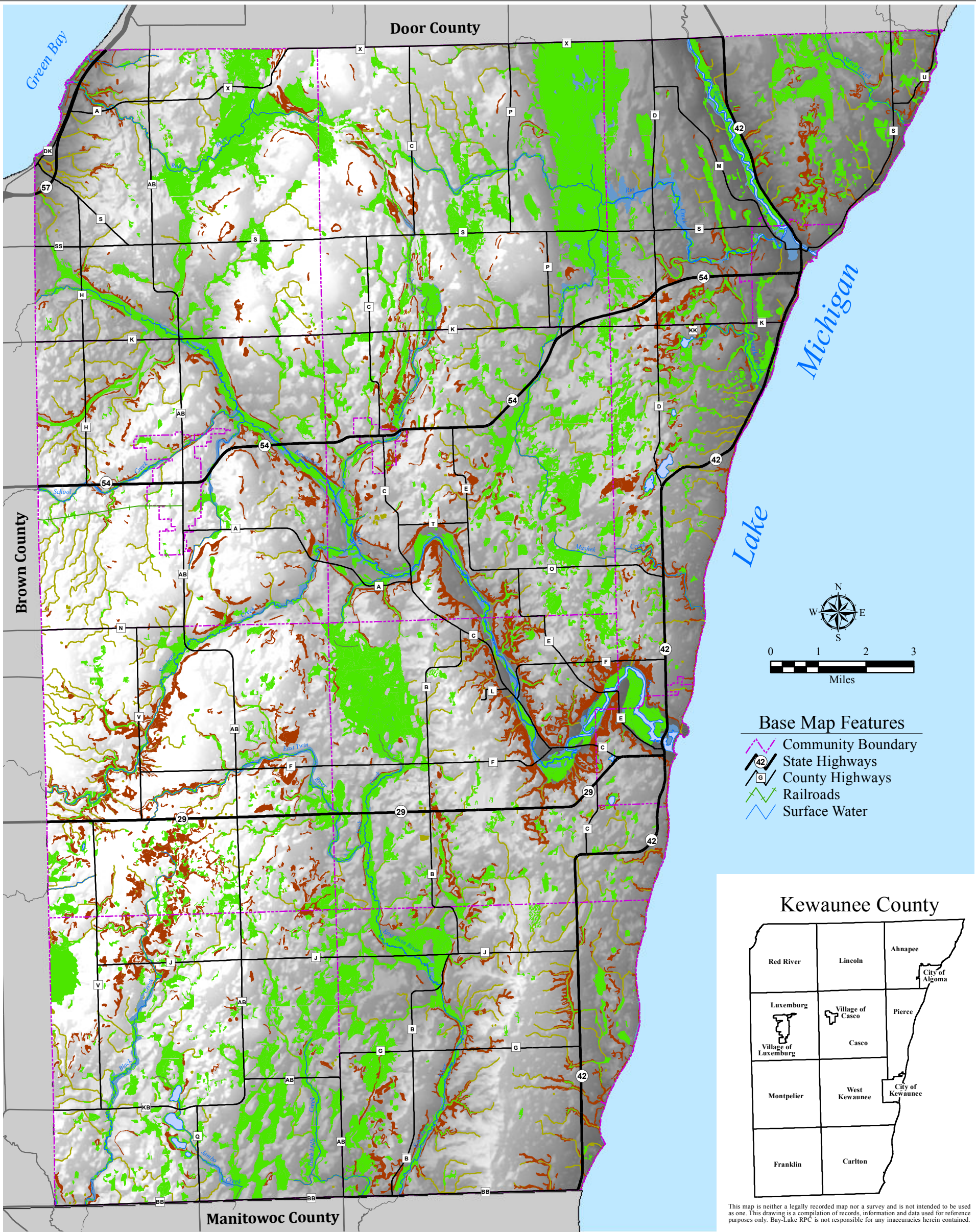
- Less than 10 inches
- 10 to 40 inches
- Greater than 40 inches

*A geologic formation shaped by the dissolution of a layer or layers of soluble bedrock, usually carbonate rock such as limestone or dolomite, producing fissures, sinkholes, underground streams, and caverns



Source: Kewaunee County, 2015, 2016; WDNR, 2013; WisDOT, 2014; Bay-Lake Regional Planning Commission, 2016.

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

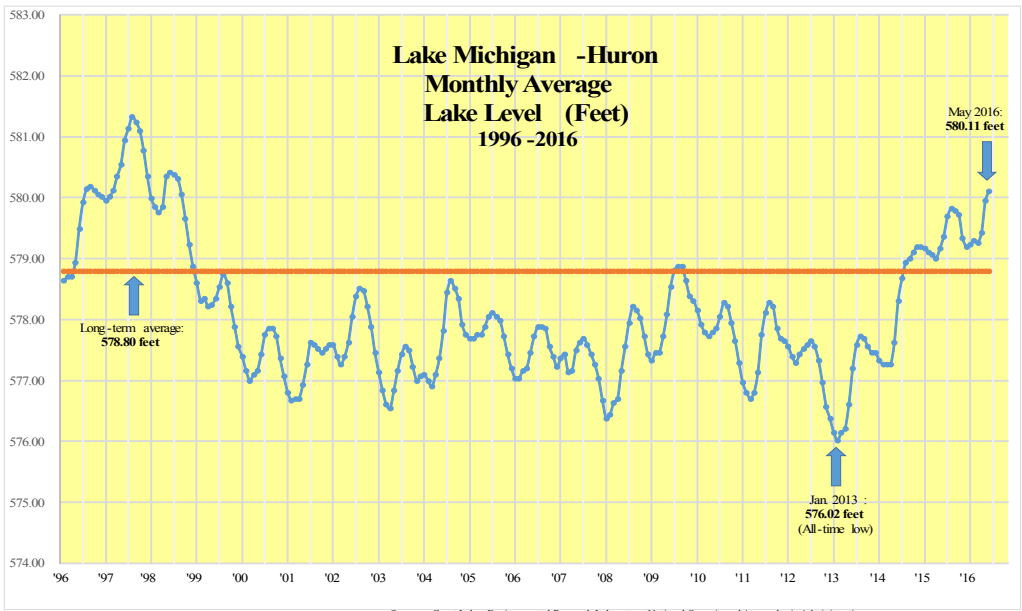


Map 2.3
Plan Determinants
Kewaunee County

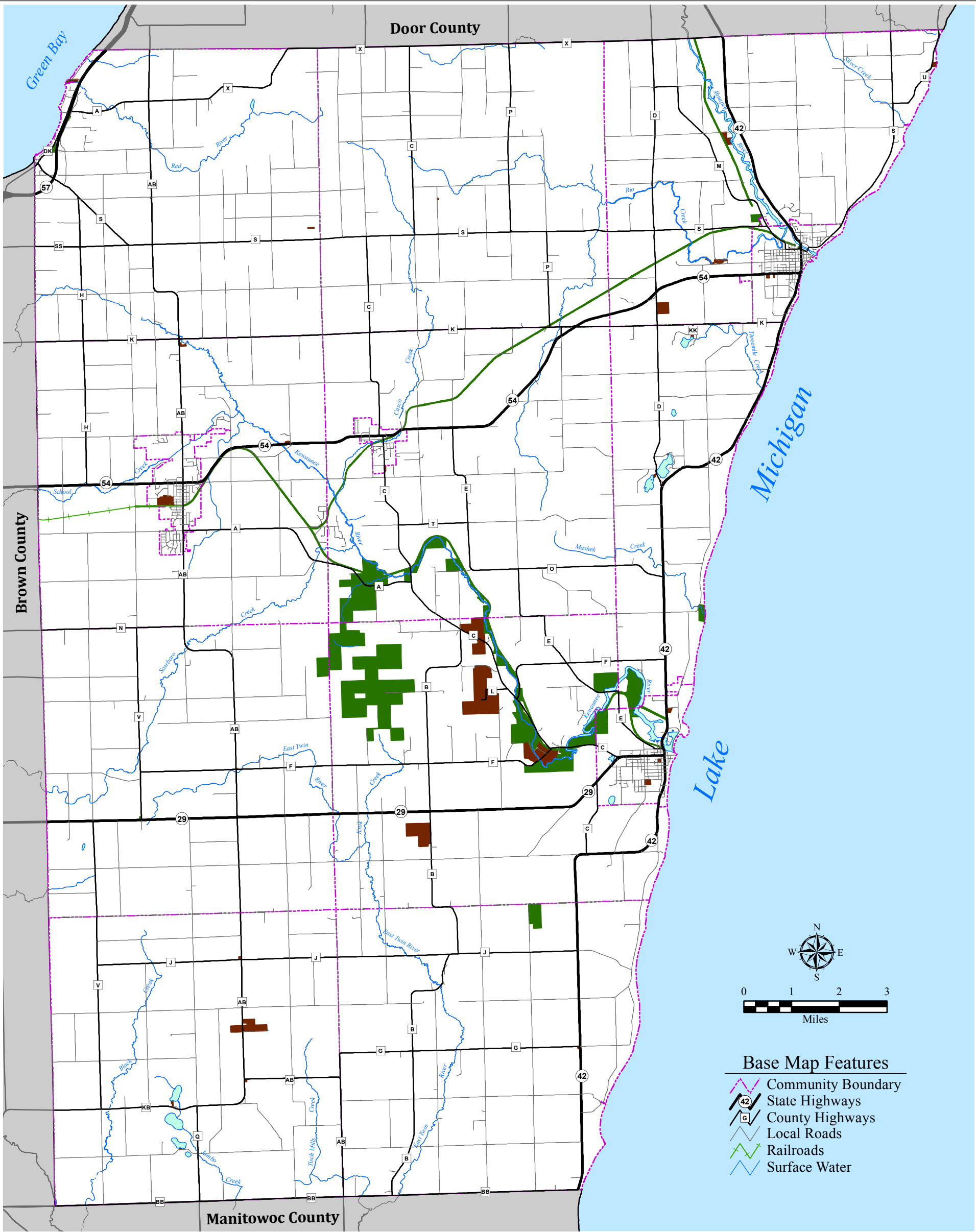
- Wetlands with 50-Foot Setback
- 100-Year Floodplains
- Steep Slope 12% or Greater
- 75-Foot Surface Water Setback





Source: WDNR, 2009, 2013; FEMA, 1980; NRCS, 2004; WisDOT, 2014; Kewaunee County, 2015, 2016; Bay-Lake Regional Planning Commission, 2013, 2016.

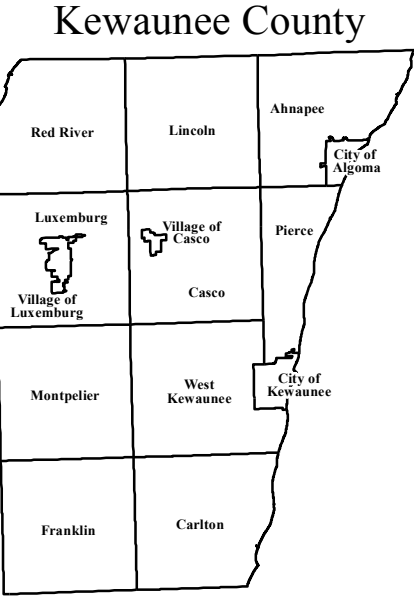


Sources: Great Lakes Environmental Research Laboratory; National Oceanic and Atmospheric Administration



Map 2.4
State and County Ownership
Kewaunee County

 State Owned Lands
 County Owned Lands





Chapter 3

POPULATION & HOUSING

INTRODUCTION

Changes in population numbers and characteristics are influential in Kewaunee County's growth trends and population projections. Population characteristics can directly influence housing demand; educational, community, and recreational facility capacities; as well as economic development opportunities.

The housing portion of this chapter includes information about the current housing stock occupancy characteristics, as well as details on future housing demand based on population projections. Housing influences the economy, transportation, infrastructure, natural features, and various other aspects of a comprehensive plan.

POPULATION CHARACTERISTICS

Population Trends

Table 3.1 details population changes for the municipalities in the county from 1980 thru 2010, whereas Figure 3.1 illustrates the population trends for Kewaunee County since 1980.

- Kewaunee County experienced a 5.3 percent population increase from 1980 to 2010, an increase of 1,035 people.
- According to the 2010 U.S. Census, just under 30 percent of Kewaunee County's population resides in its two cities, while another 15 percent reside in the villages. Town's makeup the remaining 55 percent of the county's population.
- Seven (7) of Kewaunee County's 14 municipalities experienced a loss in population between the years of 2000 and 2010. Overall, Kewaunee County's population grew by 387, or 1.9 percent during this time period.
 - The Village of Luxemburg experienced the largest population growth of any municipality in the county between the years of 2000 and 2010 with an increase of 580 people, or 30 percent.
 - The City of Algoma lost the largest number of people in the county between the years of 2000 and 2010 with a decline of 190, while the Town of Pierce experienced the largest percent of population decline with a 7.1 percent decrease.

Kewaunee County Age & Gender

2010 US Census

2010 Population:
20,574



10,460



10,114

Median Age:
42.2

Age Distribution:

School Age (5-17): 17.9%

Working Age (16+): 79.4%

Voting Age (18+): 76.4%

Retirement Age (65+): 16.5%



Table 3.1: Population Trends, Kewaunee County Municipalities, 1980-2010.

Geographic Location	US Census - Population				Number Change	Percent Change
	1980	1990	2000	2010	1980 - 2010	1980 - 2010
Town of Ahnapee	948	941	977	940	-8	-0.8
Town of Carlton	1,140	1,041	1,000	1,014	-126	-11.1
Town of Casco	1,001	1,010	1,153	1,165	164	16.4
Town of Franklin	1,062	990	997	993	-69	-6.5
Town of Lincoln	967	996	957	948	-19	-2.0
Town of Luxemburg	1,468	1,387	1,402	1,469	1	0.1
Town of Montpelier	1,457	1,369	1,371	1,306	-151	-10.4
Town of Pierce	790	724	897	833	43	5.4
Town of Red River	1,431	1,407	1,476	1,393	-38	-2.7
Town of West Kewaunee	1,294	1,215	1,287	1,296	2	0.2
Village of Casco	484	544	572	583	99	20.5
Village of Luxemburg	1,040	1,151	1,935	2,515	1,475	141.8
City of Algoma	3,656	3,353	3,357	3,167	-489	-13.4
City of Kewaunee	2,801	2,750	2,806	2,952	151	5.4
Kewaunee County	19,539	18,878	20,187	20,574	1,035	5.3
Wisconsin	4,705,642	4,891,769	5,363,715	5,686,986	981,344	20.9

Source: U.S. Bureau of the Census, 1980-2010. Bay-Lake Regional Planning Commission, 2016.

Population Projections

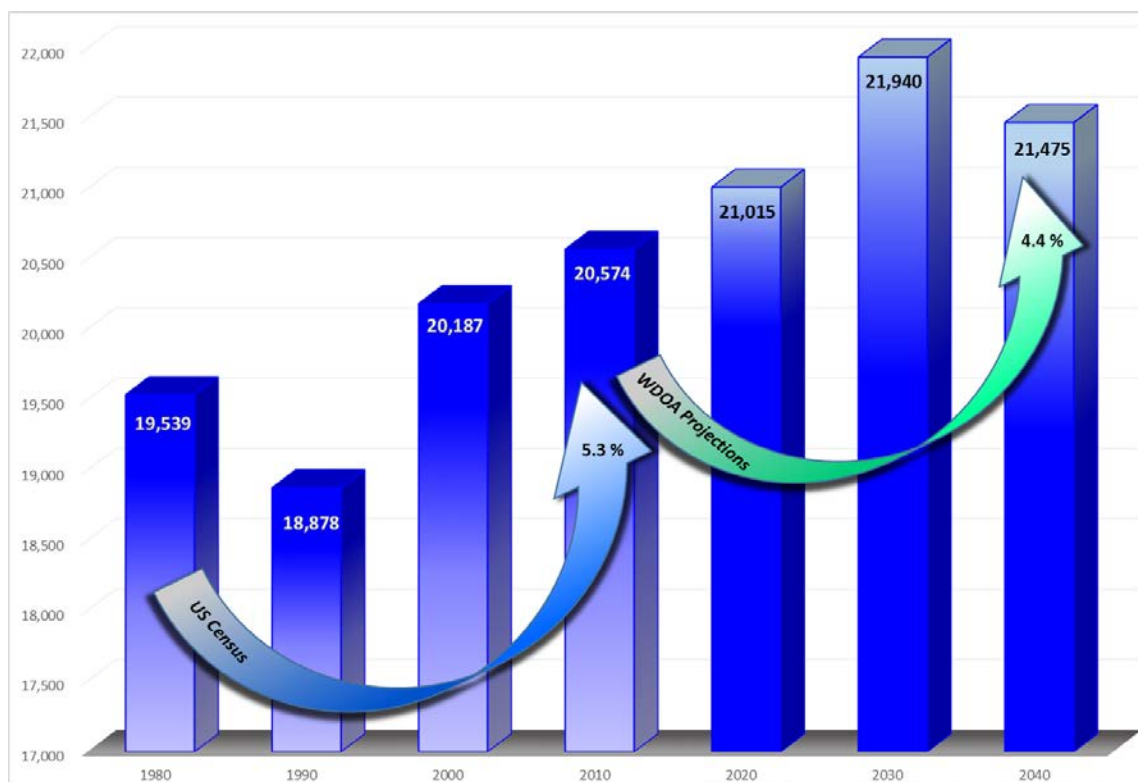
Population projections are an important factor necessary to assess the area's future need for housing, community facilities, transportation, and other population-related facilities. They can also be used to forecast the area's future expenditures, revenues, and tax receipts.

According to the Wisconsin Department of Administration's (WDOA) population projections released in 2013, Kewaunee County's population is expected to grow to 21,475 by 2040. This projection would be an increase of 901 persons from the county's 2010 Census population of 20,574 (Figure 3.1 and Table 3.2). The municipalities' 2040 population projections illustrate growth and decline at different rates with six of Kewaunee County's 14 communities expected to experience a decline in their population from 2010 Census (Table 3.2).



CHAPTER 3: POPULATION AND HOUSING

Figure 3.1: Population Trends and Projections, Kewaunee County, 1980-2040.



Source: U.S. Bureau of the Census, 1960-2010; WDOA Population Projections for Wisconsin Counties, 2010 – 2040; and Bay-Lake Regional Planning Commission, 2016.

Table 3.2: Population Projections, Kewaunee County Municipalities, 2010-2040.

Geographic Location	2010 Census	2013 WDOA Population Projections					% change 2010-2040
		2020	2025	2030	2035	2040	
Town of Ahnapee	940	935	945	945	930	900	-4.3%
Town of Carlton	1,014	1,045	1,075	1,095	1,095	1,080	6.5%
Town of Casco	1,165	1,215	1,260	1,300	1,310	1,300	11.6%
Town of Franklin	993	1,005	1,020	1,035	1,025	1,000	0.7%
Town of Lincoln	948	925	930	930	905	870	-8.2%
Town of Luxemburg	1,469	1,515	1,565	1,610	1,615	1,595	8.6%
Town of Montpelier	1,306	1,310	1,320	1,330	1,305	1,265	-3.1%
Town of Pierce	833	825	835	840	825	800	-4.0%
Town of Red River	1,393	1,395	1,410	1,415	1,395	1,350	-3.1%
Town of West Kewaunee	1,296	1,375	1,425	1,475	1,490	1,480	14.2%
Village of Casco	583	600	620	635	635	630	8.1%
Village of Luxemburg	2,515	2,760	2,930	3,090	3,185	3,230	28.4%
City of Algoma	3,167	3,140	3,150	3,150	3,080	2,960	-6.5%
City of Kewaunee	2,952	2,970	3,040	3,090	3,075	3,015	2.1%
Kewaunee County	20,574	21,015	21,525	21,940	21,870	21,475	4.4%
Wisconsin	5,686,986	6,005,080	6,203,850	6,375,910	6,476,270	6,491,635	14.1%

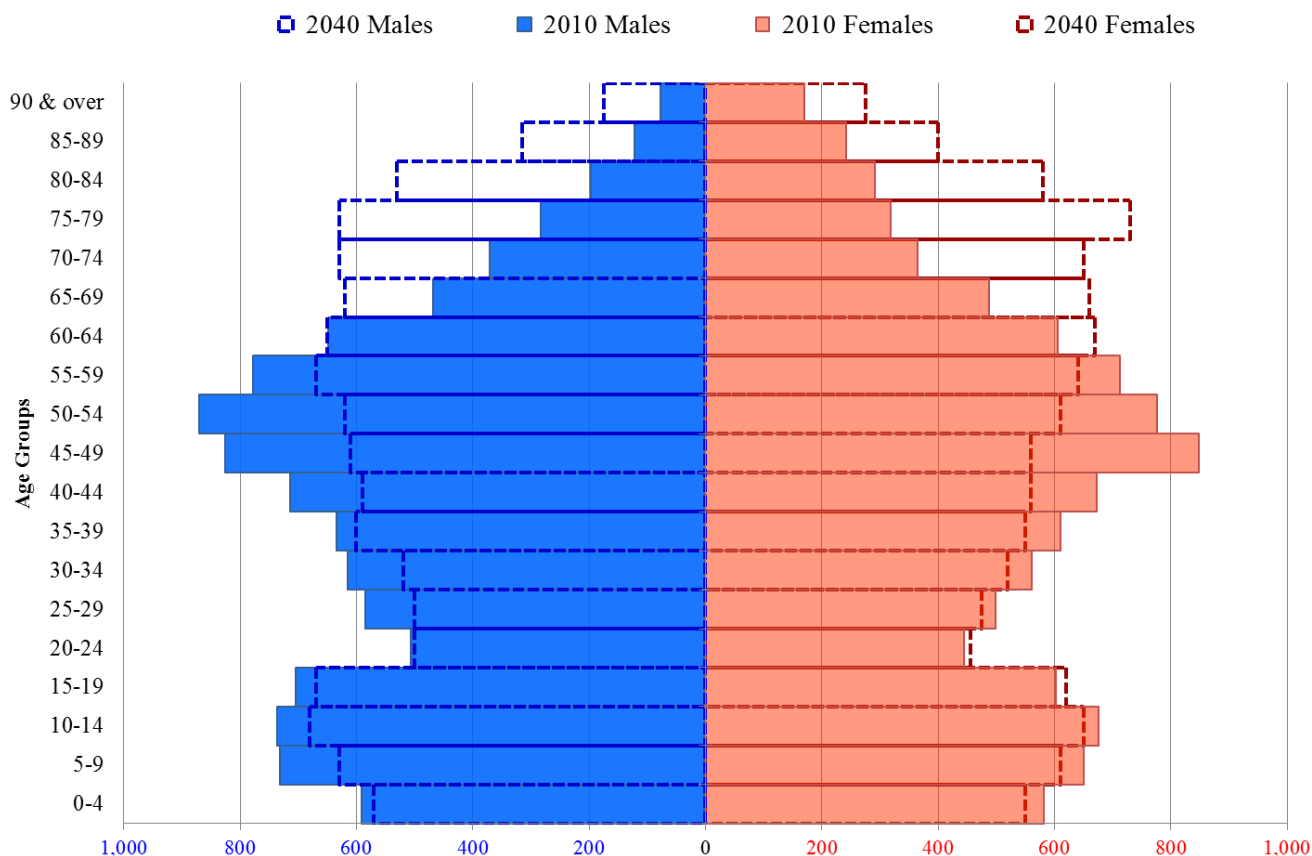
Source: U.S. Bureau of the Census, 2010; WDOA Population Projections for Wisconsin Counties, 2010–2040; and Bay-Lake Regional Planning Commission, 2016.



Age Group Projection Pyramid

Figure 3.2 details Kewaunee County's age groups by gender while also illustrating how those age groups are projected to change from 2010 to 2040.

Figure 3.2: Age Group Population Projection Pyramid, Kewaunee County 2010-2040.



Source: U.S. Bureau of the Census, 2010; WDOA Population Projections for Wisconsin Counties, 2010–2040; and Bay-Lake Regional Planning Commission, 2016.

Figure 3.2 illustrates the county's shift towards older age groups from 2010 to 2040 which will likely result in a greater demand for elderly housing, care facilities, and other services for the elderly including transportation and facilities to accommodate retirees.



HOUSING CHARACTERISTICS

Total Housing Unit Trends

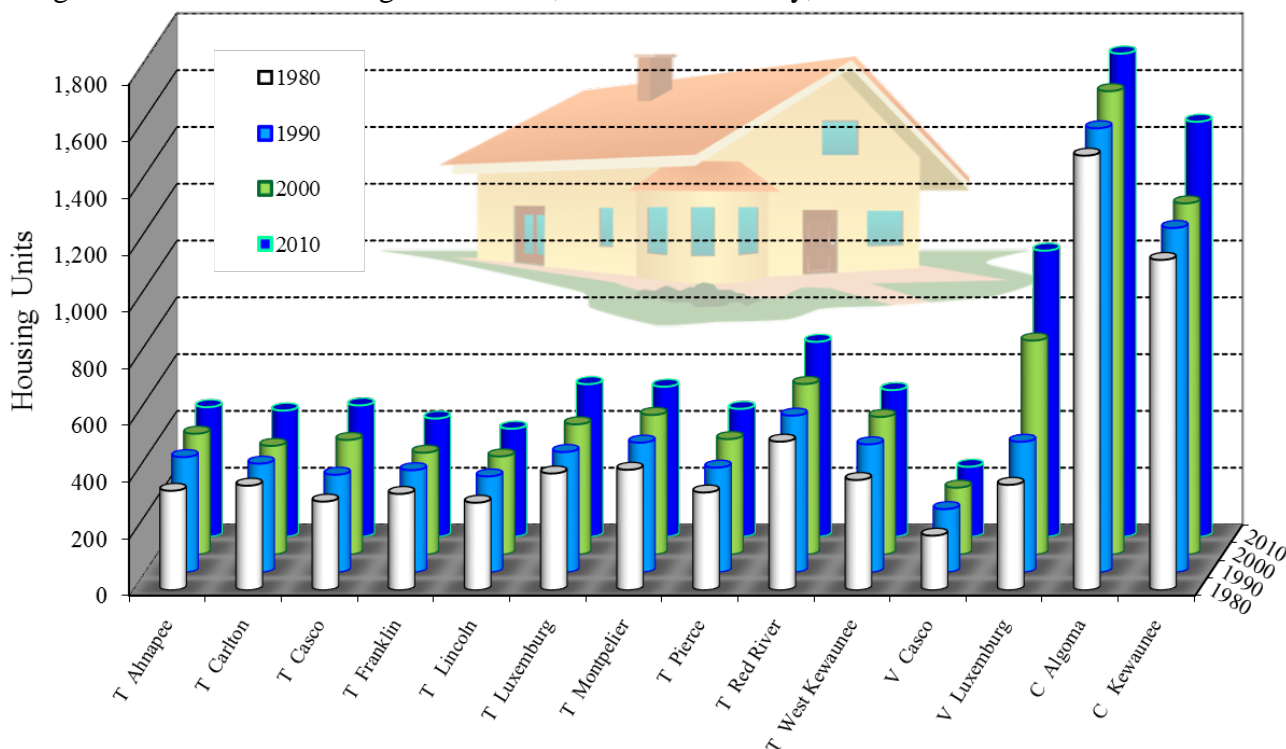
The total number of housing units within Kewaunee County has increased by 32.5 percent from 1980 to 2000 (Table 3.3). The Village of Luxemburg and the Town of Casco experienced the largest percentage increases for housing units during the same time frame. Housing unit trends for all communities within Kewaunee County from 1980 to 2000 can be found in Table 3.3 and Figure 3.3.

Table 3.3: Historic Housing Unit Levels, Kewaunee County, 1980-2010

Geographic Location	US Census - Total Housing Units				Number Change 1980 - 2010	Percent Change 1980 - 2010
	1980	1990	2000	2010		
Town of Ahnapee	350	406	426	457	107	30.6
Town of Carlton	368	383	383	445	77	20.9
Town of Casco	312	344	404	463	151	48.4
Town of Franklin	339	360	359	417	78	23.0
Town of Lincoln	308	338	346	381	73	23.7
Town of Luxemburg	411	424	459	538	127	30.9
Town of Montpelier	424	457	492	529	105	24.8
Town of Pierce	344	369	407	451	107	31.1
Town of Red River	523	552	601	687	164	31.4
Town of West Kewaunee	388	451	485	517	129	33.2
Village of Casco	192	223	236	247	55	28.6
Village of Luxemburg	371	460	754	1,008	637	171.7
City of Algoma	1,530	1,564	1,632	1,702	172	11.2
City of Kewaunee	1,163	1,213	1,237	1,462	299	25.7
Kewaunee County	7,023	7,544	8,221	9,304	2,281	32.5
Wisconsin	1,863,897	2,055,774	2,321,144	2,624,358	760,461	40.8

Source: U.S. Bureau of the Census, 1980-2010. Bay-Lake Regional Planning Commission, 2016.

Figure 3.3: Historic Housing Unit Levels, Kewaunee County, 1980-2010





Housing Costs - Rents and Mortgage

Providing affordable housing which meets the needs of future Kewaunee County residents is an important element of planning. The conventional public policy indicator of housing affordability is the percent of income spent on housing. Housing expenditures that exceed 30 percent of household income have historically been viewed as an indicator of a housing affordability problem.

Rent and Income Comparison

According to the 2010-2014 American Community Survey (ACS), 45 percent of renter-occupied housing units paid more than 30 percent of their household income in gross rent. The median gross rent for renter-occupied housing units in Kewaunee County was \$622.

Owner Costs and Income Comparison

The 2010-2014 ACS indicates that 29 percent of specified owner-occupied housing units paid more than 30 percent of their income for monthly owner costs. The median monthly owner cost in Kewaunee County for owner-occupied housing units with a mortgage was \$1,255. For owner-occupied units without a mortgage, the median monthly cost was \$502.

Subsidized and Special Needs Housing

Within the Kewaunee County area, there exists a variety of agencies which help find and develop housing for persons with various physical and mental disabilities or other special needs. The Kewaunee County Department of Human Services has information regarding the following agencies: WHEDA, Lakeshore CAP, and Housing Management Services.

Kewaunee County Housing Characteristics

Total Housing Units: 9,304

Occupied Units: 8,239

Owner Occupied: 80.5%

Renter Occupied: 19.5%

Vacant Units: 1,065

For Rent: 18.6%

For Sale Only: 15.3%

*Seasonal, Recreational, or
Occasional Use: 41.1%*

Other Vacant: 20.2%

Units in Structure:

1-unit, Detached: 82%

Mobile Homes: 5%

5-9 Units: 3%

2 Units: 2.8%

Age of Housing Stock:

Built prior to 1940: 31%

Built 1990 -2010: 26%

Occupied Housing Values:

47% of occupied housing is
valued between \$100,000 &
\$199,999

Median Value: \$145,600

Household Size:

(persons per household):

2010: 2.48

2020: 2.40

2030: 2.33

2040: 2.29

*Source: 2010 US Census;
American Fact Finder, 2010-
2014 American Community
Survey 5-Year Estimates; and
WI Dept. of Administration*



CHAPTER 3: POPULATION AND HOUSING

Household (Occupied Housing) Projections

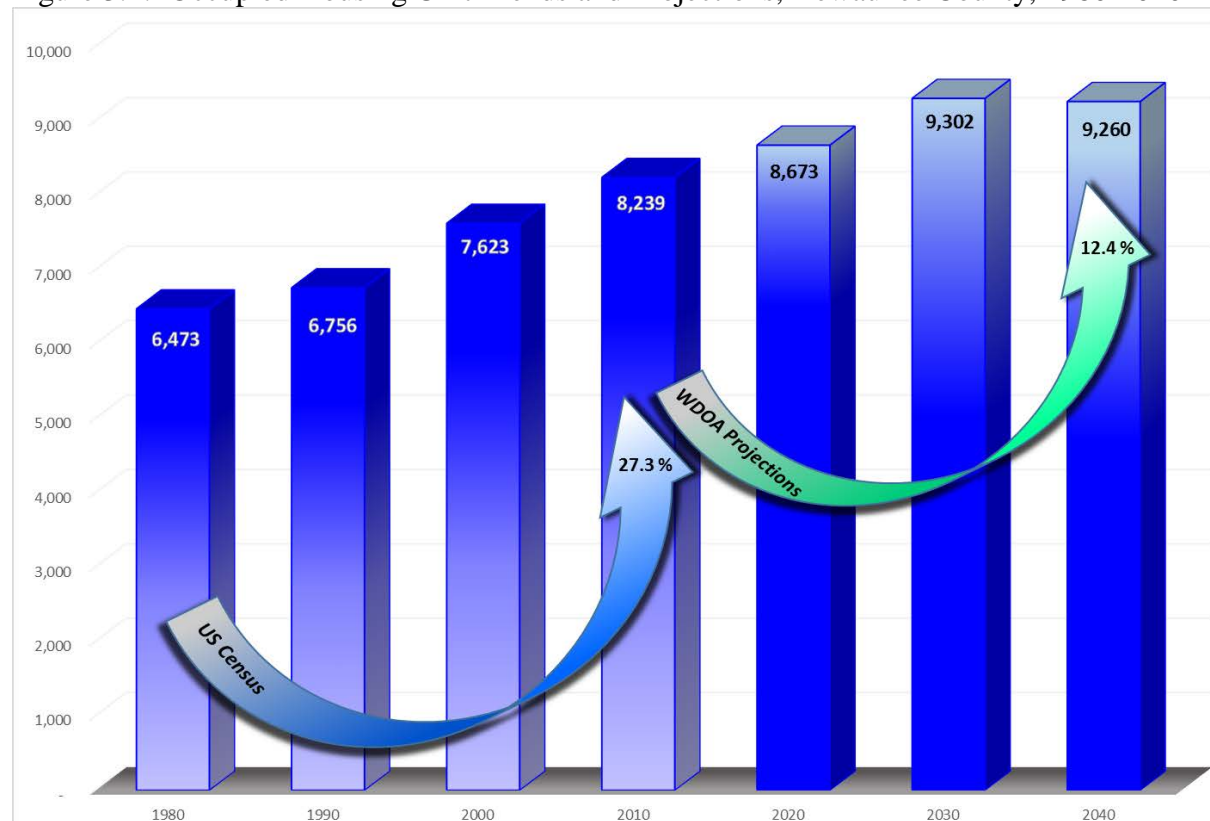
According to the WDOA, Kewaunee County's households (occupied housing units) are projected to increase by 12.4 percent from 2010 to 2040 (Table 3.4 and Figure 3.4).

Table 3.4: Occupied Housing Unit Projections, Kewaunee Municipalities, 2010-2040

Geographic Location	2010 Census Households	2013 WDOA Household Projections					
		2015	2020	2025	2030	2035	2040
Town of Ahnapee	384	385	394	404	411	409	400
Town of Carlton	406	416	432	450	466	472	470
Town of Casco	432	442	465	489	513	523	524
Town of Franklin	379	383	396	407	419	420	413
Town of Lincoln	350	348	352	359	365	359	348
Town of Luxemburg	517	528	550	576	603	612	610
Town of Montpelier	502	508	520	531	544	540	528
Town of Pierce	343	342	351	360	368	366	358
Town of Red River	562	568	581	595	607	606	592
Town of West Kewaunee	477	495	522	549	578	590	592
Village of Casco	230	235	244	256	267	270	270
Village of Luxemburg	973	1,024	1,102	1,186	1,270	1,323	1,354
City of Algoma	1,406	1,410	1,438	1,460	1,480	1,458	1,410
City of Kewaunee	1,278	1,282	1,326	1,372	1,412	1,413	1,391
Kewaunee County	8,239	8,367	8,673	8,995	9,302	9,360	9,260
Wisconsin	2,279,768	2,371,815	2,491,982	2,600,538	2,697,884	2,764,498	2,790,322

Source: U.S. Bureau of the Census; WDOA Household Projections for Wisconsin Counties, 2010 – 2040; and Bay-Lake Regional Planning Commission, 2016.

Figure 3.4: Occupied Housing Unit Trends and Projections, Kewaunee County, 1980-2040



Source: U.S. Bureau of the Census; WDOA Household Projections for Wisconsin Counties, 2010 – 2040; and Bay-Lake Regional Planning Commission, 2016.



CHAPTER 3: POPULATION AND HOUSING

The WDOA household projections in Table 3.4 can be impacted by many different factors. Changes in municipal boundaries, housing availability, and economic development can have a substantial effect on forecasted needs. These projections are important because they not only help to assess the area's future need for housing, but also community facilities, transportation, and other facilities impacted by changes in population.

Housing Development Environment

Due to the overall rural nature of the area and its four incorporated communities, Kewaunee County has a limited number of public utilities and services. However, the county is able to offer current and future residents some excellent quality of life features. The entire county provides a scenic landscape that is comprised of open space areas, quality woodlands, streams, several inland lakes and long stretches of land that overlook Lake Michigan. State Highways 29, 54, 57, and 42 provide good access to major highways and surrounding metropolitan areas. These features, in addition to the trend in which people desire more open space to live, make Kewaunee County a desirable place to reside.



Chapter 4

ECONOMIC DEVELOPMENT

INTRODUCTION

The economic development component details the general economic conditions of Kewaunee County, including workforce characteristics, economic base and opportunities, and a complete listing of economic development resources. The purpose of the economic inventory is to establish strategies for economic growth and vitality that will continually enhance the identity and quality of life in Kewaunee County. The county's economy is interrelated with all aspects of day-to-day living, therefore the economic development priorities also have an impact on strategies developed for the county's natural resources, housing, transportation, utilities and land use components.

STRENGTHS, WEAKNESSES, OPPORTUNITIES, AND THREATS

The following is an analysis of Kewaunee County's economic strengths, weaknesses, opportunities, and threats. It provides a broad overview of where Kewaunee County is presently and what its economic composition may consist of in the future. If the county is to develop and maintain a vibrant and diversified economic foundation, it needs to maximize its strengths, offset weaknesses, take advantage of opportunities, and minimize its threats.

Strengths:

- Agriculture, infrastructure (mills, procession facilities)
- Community quality of life
- Farm and agriculture recognized as a business
- Economic Development Corporation
- Natural beauty, trails

Opportunities:

- Retain existing businesses
- Recruit quality companies with quality jobs
- Untapped state resources and grants
- Add value to agricultural opportunities
- Continue to build a tourist base
- Fairgrounds property

Weaknesses:

- Lack of jobs to keep workers in the county
- Lack of "shovel-ready" sites for prospective businesses
- Shut down of nuclear power plant
- Abandoned/unused buildings
- Lack of shared agenda for resource development and conservation
- Lack of public participation

Threats:

- Surface and groundwater quality
- Air quality
- Loss of existing business
- Provision of public services to growing population
- Invasive species (aquatic and terrestrial)
- Damage to local roads due to increasing equipment size



LABOR FORCE CHARACTERISTICS

The civilian labor force is comprised of employed residents of Kewaunee County 16 years of age or older, along with those seeking employment, and excludes persons in the armed forces.

- According to the 2010-2014 American Community Survey (ACS) 5-year estimates, Kewaunee County's civilian labor force of 10,795 was nearly 66 percent of Kewaunee County's total population.
 - Employed: 10,206
 - Unemployed: 589

Fluctuations in the number of persons in the labor force can occur based on many factors including shifts in the age and sex characteristics of the population; changes in the number of residents age 16 and over; the proportion of citizens age 16 and over working or seeking employment; and seasonal conditions.

Unemployment

- According to the WI Department of Workforce Development, Kewaunee County's unemployment rate has gone from approximately 10 percent during the peak of the 2007-2009 recession, to roughly 3.2 percent in 2016, which is its lowest point in more than a decade.

The unemployment rate in the county is the proportion of the civilian labor force that is currently unemployed. Persons not employed and not looking for work are not counted as in the labor force therefore not counted as unemployed.

Labor Participation Rate

According to the *Wisconsin Department of Workforce Development, 2015 Kewaunee County Workforce Profile*, approximately 66 percent of the county's population, 16 years of age and older, are in the labor force. This percentage 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 strength of the county's labor market than its unemployment rate. Kewaunee County's LFPR is slightly below Wisconsin's and higher than the national rate. Like the state and nation, the county's LFPR is projected to decrease over the coming decades due to an aging, retiring population and a decreasing number of younger people residing in the county. These factors point to possible labor shortages in certain industries and occupations in the future.

Kewaunee County Labor Force Characteristics

Education Attainment:

- High School Graduate: 45.6%
- Bachelor's Degree: 10.7%
- Graduate or Professional Degree: 3.7%
- High School Degree or Higher: 91.4%

2014 Median Household Income:

Kewaunee County: \$53,023
Wisconsin: \$52,738

Commuting to Work:

- Drove alone: 80.7 %
- Carpooled: 7.8%
- Walked: 4.6%
- Worked at home: 5.2%

Mean travel time to work:
22.4 minutes

Commuting Patterns:

People who live in Kewaunee Co work in...

- Kewaunee County: 53%
- Brown County: 34%
- Door County: 7%
- Manitowoc County: 2%

People who work in Kewaunee Co live in...

- Kewaunee County: 70%
- Brown County: 17%
- Door County: 5%
- Manitowoc County: 5%



CHAPTER 4: ECONOMIC DEVELOPMENT

Occupation

Table 4.1 illustrates the employed persons by occupation for Kewaunee County. The county's percentage breakdown by occupation is very similar to that of the State of Wisconsin. Statewide, however, there are a higher percentage of workers in sales and office occupations than there are working in Kewaunee County.

Table 4.1: Employed Persons by Occupation, 2014, Kewaunee County

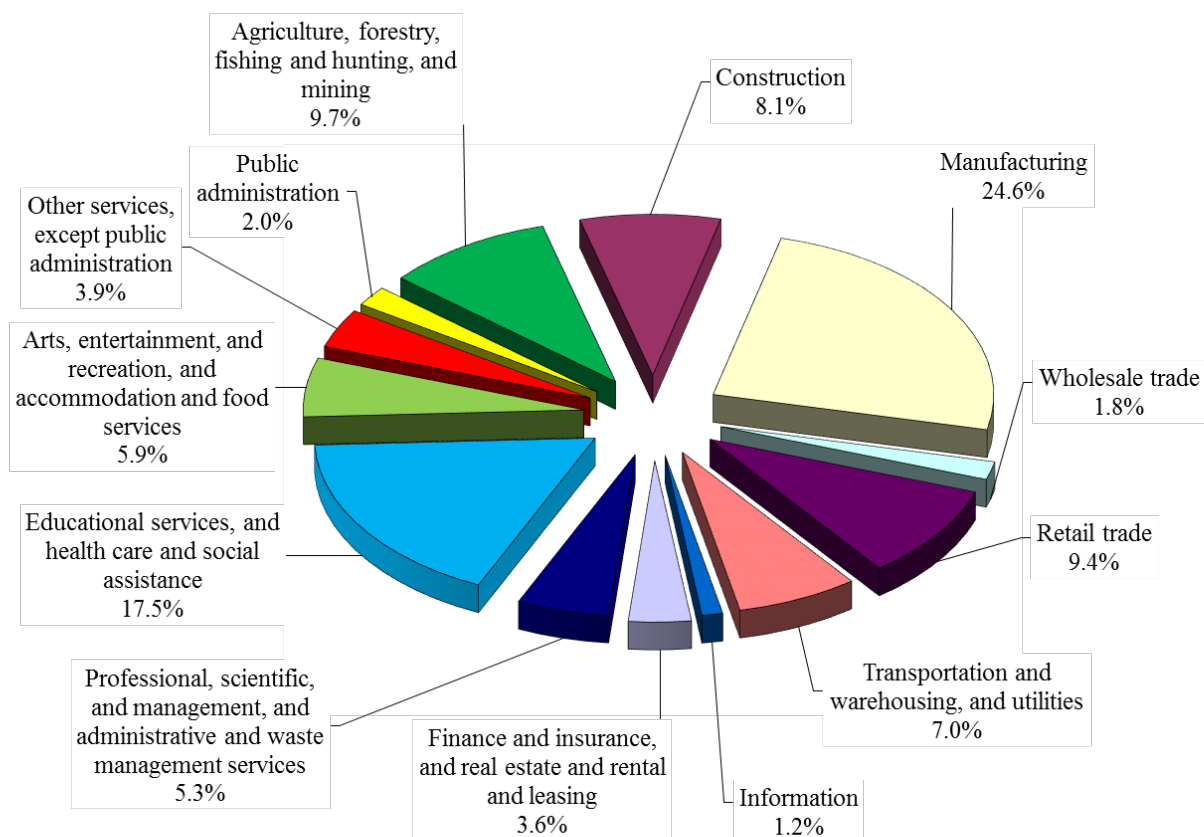
Occupation	Kewaunee County	
	Number	Percent
Management, business, science, and arts	2,954	28.9%
Service	1,412	13.8%
Sales and office	2,024	19.8%
Natural resources, construction, and maintenance	1,602	15.7%
Production, transportation, and material moving	2,214	21.7%
Civilian employed population 16 years and over	10,206	

Source: 2010-2014 American Community Survey (ACS) 5-year estimates; and Bay-Lake Regional Planning Commission, 2016.

Industry

Figure 4.1 details that the majority of employed residents of Kewaunee County worked mostly in manufacturing (24.6 percent) as well as education services, health care, and social assistance (17.5 percent) industries in 2014. The county contains a higher percentage of employed residents in the agriculture, construction, and transportation industries when compared to Wisconsin's ratio.

Figure 4.1: Percent Employment by Industry Group, 2014, Kewaunee County



Source: 2010-2014 American Community Survey (ACS) 5-year estimates; and Bay-Lake Regional Planning Commission, 2016.



ECONOMIC BASE

Tourism

Kewaunee County is strategically located adjacent to one of Wisconsin's most valuable recreational and economic assets, Lake Michigan. Therefore, tourism is an important component of Kewaunee County's local economy. According to the Wisconsin Department of Tourism, in 2015, travelers spent over \$17.4 million in Kewaunee County. A variety of businesses that cater to tourism continue to ensure that services meet the diverse needs of the thousands of people who come to Kewaunee County to take advantage of the area's water recreation, fishing, walking and biking trails, campgrounds, historic sites, various parks, and other area attractions.

Agriculture

Agriculture remains a key economic component in Kewaunee County. It includes hundreds of family-owned farms, agriculture-related businesses and industries that provide equipment, services, and other products farmers need to process, market, and deliver food to consumers. The production, sales, and processing of these farm products generates significant employment income opportunities for residents.

According to a 2014 UW-Extension Agricultural report entitled, *Kewaunee County Agriculture: Value & Economic Impact*, agriculture...

- Provides jobs for 2,058 county residents, or 20.7 percent of the county's total employment. Jobs include farm owners and managers, farm employees, veterinarians, crop and livestock consultants, feed, fuel and other crop input suppliers, farm machinery dealers, barn builders, etc.
- Accounts for nearly \$424 million in economic activity and contributes \$147 million to the county's total income.
- Accounts for over \$5.26 million in taxes collected (not including all property taxes paid to local schools).

Dairy

Dairy is a major component of Kewaunee County's agriculture activity.

- The county's milk producers and dairy industry contribute over \$296 million to the county's economy. The on-farm production and sale of milk accounts for nearly \$171 million, whereas the processing accounts for an additional \$125 million.
- Kewaunee County's on-farm milk production and dairy processing also account for 1,079 jobs.

Forestry

- Forestry is one of the top 10 employers in Kewaunee County. It produces nearly \$59 million in economic output, providing \$20.8 million in added value to the county.

Location Quotient Analysis

Location Quotients (LQs) are ratios that allow an area's distribution of employment by industry to be compared to a reference or base area's distribution. The reference area in this case is the United States. The reference, or base industry, is usually the "All" industry total. LQs are calculated by first, dividing local industry employment by the all industry total of local employment, then the



CHAPTER 4: ECONOMIC DEVELOPMENT

reference area industry employment is divided by the all industry total for the reference area. The local ratio is divided by the reference area ratio to get the LQ rates.

- If an LQ is equal to 1, then the industry has the same share of its area employment as it does in the reference area.
- An LQ greater than 1 indicates an industry with a greater share of the local area employment than is the case in the reference area and is most likely exporting products.
- An LQ lower than 1 indicates an industry with a lesser share of the local area employment than is the case in the reference area and may be lacking in supply needed for the area.

Table 4.2: Employment by Industry Group, 2015, Kewaunee County and United States, Location Quotient Analysis

Industry	Employment		Kewaunee County Location Quotient
	U.S. Total	Kewaunee County	
Base Industry: Total, all industries	118,301,597	5,766	1.00
Natural resources and mining	2,000,781	1,003	10.29
Construction	6,420,928	319	1.02
Manufacturing	12,290,293	1,950	3.26
Trade, transportation, and utilities	26,666,131	1,043	0.80
Information	2,753,844	ND	ND
Financial activities	7,827,067	181	0.47
Professional and business services	19,600,558	199	0.21
Education and health services	21,078,627	393	0.38
Leisure and hospitality	15,094,371	552	0.75
Other services	4,306,413	ND	ND
Unclassified	262,584	NC	NC

Source: U.S. Department of Labor, Bureau of Labor Statistics, 2015; and Bay-Lake Regional Planning Commission, 2016.

(ND) Not Disclosable

(NC) Not Calculable, the data does not exist or it is zero

Industry and Employment Forecast

The Wisconsin DWD has developed industry and employment projections from the period 2012 to 2022 for the 11-county Bay Area Workforce Development district which consists of Brown, Door, Florence, Kewaunee, Manitowoc, Marinette, Menominee, Oconto, Outagamie, Shawano, and Sheboygan counties.

- As seen in Table 4.3, it is anticipated that “Service-Providing Industries” (e.g., Trade, Transportation, Financial, Professional and Business, Education and Health, etc.) are projected to increase over nine percent from 2012-2022 in the district. The “Goods Producing Industries” (e.g., construction, manufacturing, and natural resources) are expected to have a four percent increase, while “Self-Employed” is forecast to increase by nearly 3 percent in the district.



CHAPTER 4: ECONOMIC DEVELOPMENT

Table 4.3: Bay Area Workforce Development Employment Projections, 2012-2022

NAICS Code	Industry Title	2012 Employment*	2022 Projected Employment	Change (2012-2022)	
				Employment	Percent
Total All Industries		323,664	348,446	24,782	7.66
Goods-Producing		86,655	90,404	3,749	4.33
	Natural Resources and Mining	8,255	8,862	607	7.35
	Construction	10,700	12,705	2,005	18.74
	Manufacturing	67,700	68,837	1,137	1.68
Services-Providing		219,185	239,718	20,533	9.37
	Trade, Transportation, and Utilities	55,602	58,517	2,915	5.24
	Information	2,879	3,084	205	7.12
	Financial Activities	16,123	17,420	1,297	8.04
	Professional and Business Services	27,659	32,241	4,582	16.57
	Education and Health Services	61,237	69,444	8,207	13.40
	Leisure and Hospitality	30,300	32,236	1,936	6.39
	Other Services (except Government)	8,197	8,691	494	6.03
	Government, excluding Post Office, Education, and Hospitals	17,188	18,085	897	5.22
	Total Self-Employed and Unpaid Family Workers	17,824	18,324	500	2.81

* Due to confidentiality, data is suppressed and so detail may not add to totals.

Source: Office of Economic Advisors, Wisconsin Department of Workforce Development, September 2015; and Bay-Lake Regional Planning Commission, 2016.

COMMUNITY FINANCES

The ability to finance community projects is measured 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 within that municipality. Table 4.4 illustrates Kewaunee County public indebtedness over a recent five year time span.

Table 4.4: Public Indebtedness, Kewaunee County, 2010-2014

Year	Full Value	Debt Limit*	Existing Debt	Debt Margin
2010	1,466,049,600	73,302,480	14,425,000	58,877,480
2011	1,470,715,400	73,535,770	13,870,000	59,665,770
2012	1,447,756,800	72,387,840	17,790,000	54,597,840
2013	1,454,689,200	72,734,460	17,050,000	55,684,460
2014	1,483,318,300	74,165,915	16,125,000	58,040,915

*Debt Limit equals five percent of the full value.

Source: Wisconsin Department of Revenue; and Bay-Lake Regional Planning Commission, 2016.

SITES FOR BUSINESS AND INDUSTRIAL DEVELOPMENT

Existing Site Inventory and Analysis

There are defined commercial locations along transportation corridors STH 29, STH 42 and STH 54 and in each of Kewaunee County's four incorporated communities. These locations offer ease of access and provide high visibility to travelers. In addition, efforts should be made to revitalize any dilapidated structures or vacant lands to bolster these valuable areas for future economic activities.

The largest portion of existing industrial land in the county is found within the industrial/business parks of the incorporated communities. Several acres of buildable land with municipal services is available in the City of Algoma and Village of Luxemburg industrial parks. The City of Kewaunee has very limited land open for development in its industrial park.



CHAPTER 4: ECONOMIC DEVELOPMENT

Evaluation of Environmentally Contaminated Areas

The Wisconsin Department of Natural Resources (WDNR) and the Federal Environmental Protection Agency (EPA) promote the remediation of contaminated areas to make them available for more productive uses. The following is a list of contaminated sites in Kewaunee County listed under the Bureau for Remediation and Redevelopment Tracking System (BRRTS) on the WDNR website.

- There are six active Environmental Repair Program (ERP) sites in the county. Examples of ERP sites may include industrial spills (or dumping) that need long term investigation, buried containers of hazardous substances, and closed landfills that have caused contamination.
- Two active spill sites exist in Kewaunee County. A spill is considered a discharge of a hazardous substance that may adversely impact, or threaten to impact public health, welfare or the environment.

Refer to the WDNR website, or contact the WDNR for a more detailed list of these open contaminated areas or to review a full list of past and present environmentally contaminated lands within Kewaunee County.

Designation of Business and Industrial Development

The future of commercial and industrial development in Kewaunee County includes an emphasis in tourism development, areas along prime transportation routes, services (social, health, educational), and the redevelopment of the downtown areas of incorporated communities.

The harbors in the cities of Algoma and Kewaunee are major focal points for tourist and tourist-related businesses. Making these areas attractive, inviting, and supported by retail opportunities will go a long way in increasing the number and frequency of visitors to these key locations in the county.

Future commercial locations must have good visibility and access, and may require additional buffering and landscaping to meet each community's desired level of aesthetics and community character. In addition, design standards may be an option to achieve the vision of the area and serve as a basis to expand and revitalize these commercial locations.

ECONOMIC DEVELOPMENT RESOURCES

Local and County

Local Chambers of Commerce

Kewaunee County Economic Development Corporation (KCEDC)

KCEDC promotes existing businesses, offers a marketing outlet for the county, and promotes events that are unique to the county that will benefit the area economically.

Regional

The Bay-Lake Regional Planning Commission

The Bay-Lake Regional Planning Commission serves as an economic development district for the US Department of Commerce-Economic Development Administration. The BLRPC also provides technical assistance to local ED organizations and offers grant writing and administration services for various state and federal funding sources.



CHAPTER 4: ECONOMIC DEVELOPMENT

New North, Inc.

This regional economic development organization's primary goal is to market this part of Wisconsin to expand economic opportunities.

Community Action Agencies (CAA)

The local CAA serving Kewaunee County is Lakeshore CAP, Inc. located in the City of Manitowoc in Manitowoc County.

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.

State

Wisconsin Economic Development Corporation (WEDC)

WEDC provides numerous assistance programs for business and community development, as well as entrepreneur and innovation; and international business development. Some programs include:

- Economic Development Tax Credit
- Brownfield Grant
- Brownfield Site Assessment Grant program
- CDBG-Economic Development (ED) program
- CDBG-Public Facilities for Economic Development (PFED)
- Community Development Block Grant - Public Facilities (CDBG-PF)
- Community Development Block Grant - Planning Grants (CDBG-PLNG)
- Downtown Development
- Technology Development Loans
- Export Technical Assistance

Other State Entities

- Wisconsin Department of Transportation
- Wisconsin Department of Agriculture, Trade, and Consumer Protection
- Wisconsin Department of Administration
- Wisconsin Department of Natural Resources
- Wisconsin Housing and Economic Development Authority (WHEDA)

Federal

- US Department of Commerce, Economic Development Administration (EDA)
- US Department of Housing and Urban Development
- US Department of Agriculture, Rural Development
- US Environmental Protection Agency
- US Department of Commerce National Oceanic and Atmospheric Administration (NOAA)



Chapter 5

TRANSPORTATION

INTRODUCTION

This element provides an inventory of the existing transportation facilities that serve Kewaunee County and the communities within. The inventory contains descriptions of the various modal elements including highways and roads; elderly and disabled transportation services; bicycle transportation; pedestrian transportation; waterborne; rail; air service; and, trucking. The description of the county highway system includes the functional classification of roads; traffic counts; vehicle crashes; etc.

In addition, this element includes an inventory and analysis of applicable transportation plans, including county functional and jurisdictional studies; transportation corridor plans; rural transportation plans; state and local airport plans; state railroad plans; state; regional and local bicycle plans; state and local pedestrian plans; state and local transit plans, as well as any other special transportation plans that are applicable to the county.

INVENTORY OF TRANSPORTATION FACILITIES

Highways and Roads

There are several basic considerations useful in assessing the existing street and highway system including functional classification and an evaluation of the system's capability to handle present and projected future traffic volumes. This information can provide an indication of the road and highway improvements that may be needed.

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.

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 roads are further categorized into either "principal" or "minor" arterial roads based on traffic volumes.

- The 62 miles of State highways (i.e., 29, 42, 54, and 57) that pass through Kewaunee County makeup the arterial facilities within the county.

Kewaunee County Transportation Stats

Total Road Miles: 828

- State Highways: 62 miles
- County Highways: 219 miles
- Local Highways: 547 miles

Functional Classification:

- Arterial Facilities: 62 miles
- Collector Facilities: 187 miles
- Local Facilities: 579 miles

Source: WI Dept. of Transportation



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 traffic from the local road and highways and provide relatively fast and efficient routes to farm markets, agricultural service centers and larger urban areas.

- Kewaunee County contains over 187 miles of collector facilities with 181 of these miles being under county jurisdiction (Table 5.1). Several examples of the main collector facilities in Kewaunee County include County Highways A, AB, BB, C, DK, S, X, N, and KB.

Local Facilities

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

The highway and road system functional classification for Kewaunee County is shown on Map 5.1.

Table 5.1: Miles of Highways, Streets and Roads by Jurisdiction, Kewaunee County, 2016

Municipality Name	Gross Miles	County Miles	Municipal Miles	County Jurisdiction			Municipal Jurisdiction		
				Arterial	Collector	Local	Arterial	Collector	Local
Town of Ahnapee	70.61	22.31	48.30		18.25	4.06			48.30
Town of Carlton	73.05	20.96	52.09		20.96				52.09
Town of Casco	65.31	19.64	45.67		15.97	3.67			45.67
Town of Franklin	77.07	26.00	51.07		25.50	0.50			51.07
Town of Lincoln	74.55	24.00	50.55		18.03	5.97			50.55
Town of Luxemburg	71.97	14.27	57.70		11.25	3.02			57.70
Town of Montpelier	69.00	21.41	47.59		14.38	7.03			47.59
Town of Pierce	36.42	7.74	28.68		5.41	2.33			28.68
Town of Red River	89.06	29.63	59.43		23.52	6.11			59.43
Town of West Kewaunee	66.07	23.99	42.08		19.17	4.82			42.08
Village of Casco	5.56	0.95	4.61		0.95				4.61
Village of Luxemburg	19.96	2.66	17.30		2.66			0.25	17.05
City of Algoma	26.09	3.25	22.84		2.72	0.53		2.70	20.14
City of Kewaunee	21.92	2.25	19.67		2.25			3.54	16.13
Total Miles	766.64	219.06	547.58		181.02	38.04		6.49	541.09

Source: Wisconsin Department of Transportation, Wisconsin Information System for Local Roads, 2016.

Note: State Highway miles are not included

Traffic Counts

An analysis of past and present traffic volumes can be useful in determining traffic conditions in the county and its communities. Traffic volumes are usually presented as an Annual Average Daily Traffic (AADT) figure, and are calculated for a particular intersection or stretch of roadway.

For Kewaunee County, traffic volumes were last counted in 2015 and were also taken in 2012 and 2009.



Traffic Crashes

Vehicle crash reports filed with the Kewaunee County Sheriff's Department and the Wisconsin Department of Transportation provide the details of the time, location, type and severity of the crash that has occurred. These reports can sometimes indicate problems with road alignments, roadway construction, visibility at intersections, and geometric design of the road. The number, location and severity of accidents can often indicate traffic safety issues which may be alleviated through a variety of measures. Alterations in the road geometry, enlargement of the intersection turning radii, and 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.

Transportation for Seniors and Individuals with Disabilities

Given Kewaunee County's rural nature, it does not contain a public transit system. As a result, coordinated efforts have been made between the Kewaunee County Department of Human Services and East Shore Industries, Inc. to provide transportation programs to the residents of the county. These programs coordinate transportation rides, utilize volunteer drivers, and work with the specialized transit programs.

Participants who are 55 years of age and older who have no other means of transportation are eligible for services through the Kewaunee County Transportation Program. Service priorities are given to medical and nutrition related activities.

Bicycle Transportation System

Ahnapee State Trail

Built on the abandoned railroad right-of-way, the Ahnapee State Trail is a 48-mile multi-purpose state recreational facility that is located in both Kewaunee County and Door County. The trail begins with a segment that extends from the Village of Luxemburg to Casco Junction (near Sunset Road in the Town of Casco). The trail then splits in Casco Junction with one segment extending southeast to the City of Kewaunee and another segment navigating northeast to the City of Algoma, ultimately traveling north into Door County and to the City of Sturgeon Bay.

There are no other specific bicycle facilities (including signed routes on existing streets) located within Kewaunee County.

Rail Service

In Kewaunee County, rail service is provided by the Canadian National (CN) railroad. The county's only line originates in the City of Green Bay and travels eastward through the Town of Luxemburg and into the Village of Luxemburg.

Air Service

The primary commercial-passenger and air freight service for residents of Kewaunee County is provided by Green Bay Austin Straubel International Airport. The Door County Cherryland Airport located in Sturgeon Bay and the Manitowoc County Airport in Manitowoc are nearby facilities that can serve and accommodate corporate jets, small passenger and cargo jet aircraft.

There are also several privately owned airstrips located within Kewaunee 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.



Harbors

Kewaunee Harbor

The inner harbor which contains all of the existing dock and mooring facilities, is bounded on the east by a peninsula, on the west by STH 42, and by business developments on the north and south. The outer harbor is formed by two projecting breakwater walls, one extending from the south side of the river at the river's mouth, and the other extending from the base of the peninsula which separates the inner and outer harbors.

The inner harbor is used for recreational boating and a commercial fishing fleet.

Algoma Harbor

The Algoma Harbor is comprised of a north pier and a south breakwater. Harbor related activities extend upstream to the STH 42 bridge. Direct highway access to the harbor is provided by STH 42 and local streets. The harbor is used exclusively by fishing charters and recreational craft.

Trucking

The trucking industry provides efficient and safe transportation services and is an important part of the Kewaunee County economy.

- The Wisconsin Department of Transportation has identified all state trunk highways in Kewaunee County as Long Truck Routes. These highways are designated for operation of vehicles such as tractor-semitrailer combination, a double bottom, or an automobile haul away where there are no overall length limitations.

INVENTORY AND ANALYSIS OF APPLICABLE TRANSPORTATION PLANS AND PROGRAMS

The following section of this chapter presents information on existing state, regional, county, and local transportation related plans that may apply within Kewaunee County.

Connections 2030

Connections 2030 is WisDOT's long-range transportation plan for the state. This plan addresses all forms of transportation over a 20-year planning horizon: highways, local roads, air, water, rail, bicycle, pedestrian, and transit. WisDOT officially adopted *Connections 2030* in 2009.

State Highway Investment Plan

WisDOT is currently preparing to develop a State Highway Investment Plan (SHIP). The Plan will articulate the state's transportation infrastructure needs and communicate WisDOT's stewardship approach for managing the roadway system. The SHIP will also discuss transportation funding needs, challenges, and opportunities over the 20-year planning horizon. Department priorities, including safety, mobility, reliability and economic development, will provide the basis for analysis throughout the Plan. The SHIP is scheduled to be completed in 2018.

Wisconsin State Highway Plan

The Wisconsin State Highway Plan 2020 is a 21-year strategic plan, developed by WisDOT and its stakeholders, which considers the highway system's current condition, analyses 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.



Six-Year Highway Improvement Program

The *Six-Year Highway Improvement Program* addresses the 11,766-mile state highway system which is administered and maintained by WisDOT. The projects listed in the program reflect the department's intent to improve the state highway system based on assumptions about available revenue, inflation and legislative decisions. As these assumptions change, so does the program.

State Rail Plan

Wisconsin Rail Plan 2030 is the statewide long-range rail transportation plan. It provides a vision for freight rail, intercity passenger rail and commuter rail, and identifies priorities and strategies that will serve as a basis for Wisconsin rail investments over the next 20 years. WisDOT adopted the *Wisconsin Rail Plan 2030* in 2014.

State Airport Plan

Wisconsin State Airport System Plan 2030 and its accompanying System-Plan Environmental Evaluation (SEE) is the statewide long-range airport transportation plan. The 20-year plan builds off the policies and issues identified in the aforementioned *Connections 2030*. The plan includes a statewide vision for aviation, an overview and analysis of the state's system of airports, a SEE, and an environmental justice analysis. WisDOT adopted the *Wisconsin State Airport System Plan 2030* in 2015.

State Freight Plan

WisDOT is in the process of developing the *Wisconsin State Freight Plan* that will provide a vision for multimodal freight transportation and position the state to be competitive in the global marketplace by ensuring that critical connections to national freight systems remain or become, efficient. The *Wisconsin State Freight Plan* is scheduled to be completed in 2018.

State, Regional and Local Bicycle Plans

State Bicycle Plan

The *Wisconsin Bicycle Transportation Plan 2020* has two primary goals: 1) 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 2) reduce crashes involving bicyclists and motor vehicles by at least 10 percent by the year 2010 (with additional increases achieved by 2020). Refer to the *Wisconsin Bicycle Transportation Plan 2020* for a set of maps that identified bicycle conditions on major routes and roads within Kewaunee County.

Regional Bicycle Plan

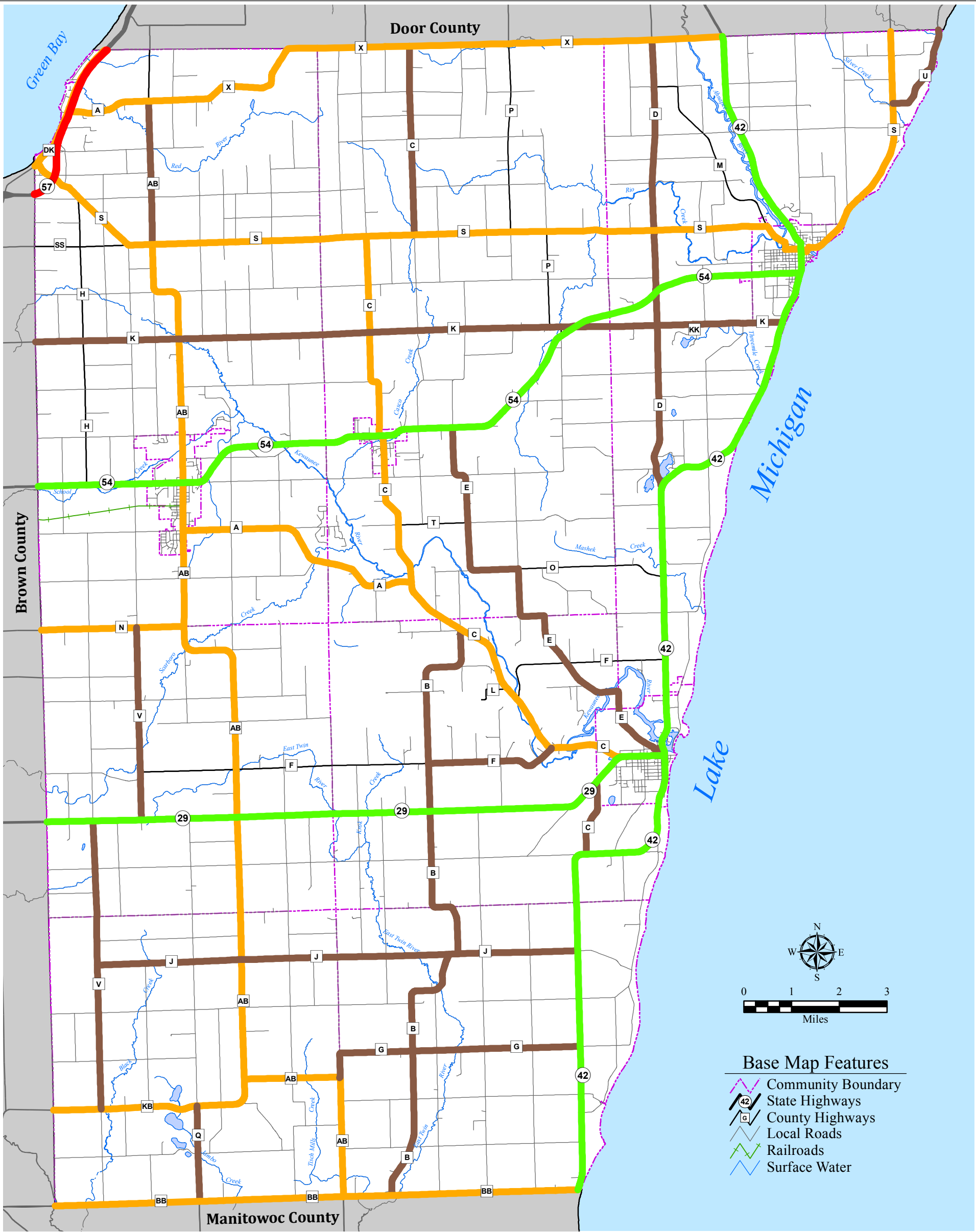
An update of the *Bicycle Facility Transportation Plan for the Bay-Lake Region* will occur in 2018. The plan will identify a system of connecting routes and needed improvements to connect all municipalities and major destination points throughout the Bay-Lake Regional Planning Commission's eight-county region, including Kewaunee County.

State Pedestrian Plan

WisDOT developed the *Wisconsin Pedestrian Policy Plan 2020 (adopted 2002)* to provide a long-range vision addressing Wisconsin pedestrian needs. The Pedestrian Plan provides a basic description of existing and emerging pedestrian needs through 2020, along with a set of recommendations to meet those needs.



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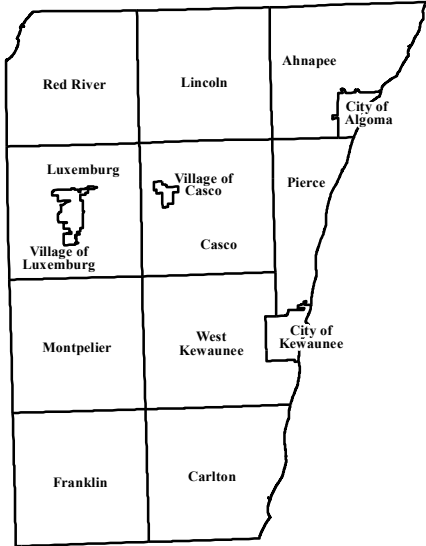


Map 5.1
Functional Classification of Roads
Kewaunee County

Road Categories

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

Kewaunee County





Chapter 6

UTILITIES & COMMUNITY FACILITIES

INTRODUCTION

Utilities and community facilities are important components to promoting a healthy, safe environment for individuals to live, work and recreate. The level of services ranging from emergency services, to healthcare, to educational opportunities are all contributing factors to the attractiveness of a community and surrounding area.

This element of the comprehensive plan inventories the location, use, and capacity of the existing utilities and community facilities that serve the communities of Kewaunee County. The existing conditions of these facilities are evaluated to determine deficiencies and ensure their adequacy to meet the present and future development needs.

UTILITIES INVENTORY AND ANALYSIS

Electric Service

Wisconsin Public Service (WPS) supplies electric service to Kewaunee County and nearly all of its communities. Electricity is generated by the Green Bay area's power plants including the Pulliam Power Plant in Green Bay and Fox Energy Center near Wrightstown. Electric power for the county is transmitted along high voltage electric transmission lines owned and operated by the American Transmission Company (ATC). These overhead transmission lines consist of 345 kV, 138 kV, and numerous 69 kV lines that traverse throughout Kewaunee County. The existing electric service to the communities is considered adequate.

The City of Algoma purchases its electric necessities from Wisconsin Public Power Inc. (WPPI). Algoma Utilities distributes the power to customers in the city and portions of the Town of Ahnapee.

Natural Gas

Wisconsin Public Service (WPS) also provides natural gas service throughout the county via a feeder line that originates in the Village of Denmark in Brown County. The natural gas pipeline enters the county in the Town of Franklin and travels northeast into the City of Kewaunee. The line then continues northeast to City of Algoma before continuing into Door County. Smaller distribution pipelines serve the villages of Casco and Luxemburg, in addition to several of the county's unincorporated communities.

Alternative Energy

- Kewaunee County contains two wind farms: the Lincoln Wind Energy Facility (contains 14 units) and the Rosiere Wind Farm (contains 17 units).
- Kewaunee County is home to several anaerobic digesters. The digesters process and ultimately produce energy from livestock manure. The utilization of farm based anaerobic digesters has the potential to generate compressed natural gas (CNG) while reducing environmental impacts.



Communication Facilities

Local, long distance, and cellular telephone services are offered through a variety of providers. Telecommunication towers can be found in several locations in Kewaunee County.

Internet service may be accessed through a telephone or cable company, while some of the satellite companies are providing high-speed internet access to subscribers. In addition, internet is available at many commercial/businesses through WiFi, or via mobile broadband which have become a prominent fixture in our world through cellular phones, laptops, tablet computers, etc.

Water Supply

Municipal water systems serve three communities within Kewaunee County. All three public water systems are supplied from groundwater through community wells. Water supply, however, for the 10 towns within the county, along with the Village of Casco, is provided through individual or shared wells that are owned and maintained by the property owner(s).

Protecting the groundwater aquifer for future use is a concern for all communities. Long-term drinking water supply and quality become more of an issue as aquifer levels lessen and additional land use activities increase the potential for contaminants. Potential ways to protect water quality include wellhead protection programs, erosion controls, and best management practices for farming.

Green Bay Water Pipeline

Two raw water pipelines presently cross through the central portion of Kewaunee County to supply potable water to the City of Green Bay and several of its suburbs (see Map 6.1).

Wastewater Treatment

Kewaunee County has four municipal wastewater treatment systems that are permitted through the Wisconsin Pollutant Discharge Elimination System (WPDES) permit program.

Private Onsite Wastewater Treatment Systems

The most common private onsite wastewater treatment systems (POWTS), also known as “septic systems”, in Kewaunee County are conventional seepage trenches; mound systems; and at-grade systems. Holding tanks are also regulated as a POWTS.

- **SPS 383** safety and professional services code gives property owners not being served by municipal sewer, or within a sanitary district, the opportunity and flexibility to meet environmental performance standards with several private sewage treatment technologies. For detailed information about SPS 383 refer to the Wisconsin Administrative Code, Chapter SPS 383.

The present public wastewater systems are considered adequate; however some areas may have to either expand or improve their respective system’s capabilities to meet future demands.

Kewaunee County Municipal Utilities

Public Water Systems:

- City of Kewaunee
- City of Algoma
- Village of Luxemburg

Municipal Wastewater Treatment Systems:

- City of Kewaunee
- City of Algoma
- Village of Casco
- Village of Luxemburg

Dyckesville Sanitary Sewer District:

Serves a portion of the Town of Red River and extends into parts of the Town of Green Bay in Brown County.



Sanitary Sewer Service

Sanitary District

A sanitary district is an independent special district which provides wastewater collection, treatment, and disposal services to residents and businesses in a pre-determined geographic area.

Sewer Service Area

The Sewer Service Area (SSA) is delineated using the 20-year population projection, an acceptable residential population density, and a forecast of non-residential development (e.g. commercial and industrial growth) which would result in acreage demand and allocation. Delineating a service boundary is critical in designing sewage collection and treatment facilities to serve existing and future residents of the SSA in the most cost effective and environmentally sound manner.

- The Village of Luxemburg is currently the only community with a Sewer Service Area (SSA) Plan in the county.

Storm Sewer

The storm sewer systems found in the county consist of curbed streets, gutters and a variety of storm pipeline in the urbanized areas, whereas the stormwater primarily drains through a series of ditches and culverts in virtually all rural areas of the county. The primary purpose of the storm sewer system is to drain excess rainfall, prevent flooding, and provide drainage for roads and adjacent properties.

Overall, although storm sewer systems are efficient at dispersing water to avoid flooding, traditionally they have not included treatment of the water. From a regional standpoint, stormwater management in the Lake Michigan Basin has gained more attention with regards to water quality issues as more development creates greater runoff and increased susceptibility to water pollution.

COMMUNITY FACILITIES AND SERVICES

Many of the county's departments and facilities are located within the City of Kewaunee including the County Administration Center (housing the Administrator, Clerk, Treasurer, Register of Deeds, Information Services, Human Services, Tourism, University of Wisconsin Extension, Veteran Services, Zoning, etc.), the County Courthouse, and the Sheriff's Department.

Other Facilities

Facilities throughout Kewaunee County house the following county offices:

- The county's Promotion and Recreation Department and Highway Department are located in the Footbridge County Highway Shop (Town of West Kewaunee).
- Land & Water Conservation and Emergency Management offices are found at the Kewaunee County Fairgrounds (Village of Luxemburg).

Solid Waste Disposal & Recycling Facilities

The collection and disposal of solid waste varies between the individual communities in the county. The majority of communities have either curb side pickup or maintain drop-off sites. Waste is collected and disposed of either by public works departments, through private haulers, or residents transport the garbage themselves. The waste is taken to the Kewaunee County Landfill located in the Town of West Kewaunee.



The individual municipalities within Kewaunee County are the responsible units for implementing their recycling programs. Several communities in the county have curb side pickup, while the majority of the towns maintain drop-off sites to provide residents a nearby facility to dispose of their recyclables. The recyclables are then taken to the nearest recycling center by private haulers or by the communities' public works department.

Services are adequate and continue to be monitored for satisfaction and cost effectiveness.

Road and Other Maintenance

The Kewaunee County Highway Department maintains the majority of the roads and other county-owned public facilities. The county owns and maintains the necessary machinery, including snowplows, graders, dump trucks, paving equipment, as well as mowing equipment and chippers, to do road and public facility maintenance.

Some of the individual communities also have their own equipment, or contract with businesses, to perform services such as grass cutting, seal coating, gravel and other maintenance on their community facilities.

Protective and Emergency Services

Law Enforcement and Protection

The Kewaunee County Sheriff's Department, located in the City of Kewaunee, provides law enforcement services to a majority of the communities of the county. There are two marked patrol squads scheduled 24 hours a day for normal county patrol. Kewaunee County is divided into two zones; North Patrol and South Patrol. One squad covers each patrol zone. The sheriff's department also provides services and assistance to the county's fire departments, rescue squads, Kewaunee and Algoma City Police Departments, and the Luxemburg Village Police Department. These police departments work together to provide law enforcement services to the entire county.

Currently, law enforcement is considered adequate throughout the county. Future needs of police protection will depend on continued growth of the county.

Fire Station/Protection

Fire protection for Kewaunee County communities is provided by seven fire departments (see inset). Beyond the general equipment used to fight fires, special services are also provided by a number of the departments including ice/cold water rescue, extrication, etc.

Mutual aid agreements exist between the members of the Door-Kewaunee Fire Association and by other fire departments located in surrounding counties.

Kewaunee County Protective & Emergency Service Providers

Law Enforcement:

- Kewaunee County Sheriff's Department
- City of Algoma PD
- City of Kewaunee PD
- Luxemburg Village PD

Fire Protection:

- Algoma FD
- Kewaunee FD
- Luxemburg Community FD
- Casco FD
- Carlton Town FD
- Tisch Mills Volunteer FD
- Denmark Volunteer FD

EMS/Ambulance:

- Algoma Fire and Rescue
- Kewaunee Area Ambulance Service
- Luxemburg Emergency and Rescue
- Casco-Lincoln Area EMS
- Carlton First Responders
- Franklin First Responders
- Montpelier First Responders
- West Kewaunee First Responders



Overall, the fire protection services are considered adequate. Potential improvement plans for the future include improved communications and continued upgrades to equipment

EMS/Ambulance

Kewaunee County is covered by several municipal based EMS/ambulance service providers in, or adjacent to, Kewaunee County (see inset).

Overall, the emergency services are adequate throughout the county. However, communities should continue to work together to provide effective and efficient service to citizens and fill service gaps that may exist.

Kewaunee County Emergency Management

Kewaunee County Emergency Management supports response agencies and departments within Kewaunee County in the event of a disaster or emergency. Emergency Management comprises 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

Kewaunee County is serviced by four public school districts (see inset), with three of the districts maintaining facilities within Kewaunee County. In addition, there are also nine private school facilities found within Kewaunee County that also provide education opportunities to residents.

Information detailing each school district's enrollment, facilities, curriculum, strategic planning, etc. is available through the websites of the individual school districts.

Several children in the county are also home schooled or are utilizing the open enrollment program to attend education facilities in districts located outside of Kewaunee County.

There are a number of four-year universities and two-year technical colleges in the surrounding area including: UW-Green Bay, St. Norbert College, University of Wisconsin centers, etc. The Northeast Wisconsin Technical College (NWTC) main campus is located in Green Bay, while a NWTC Community & Regional Learning Center is located in the Village of Luxemburg.

Health Care

Hospitals

Kewaunee County does not contain any hospital facilities. Residents of the county are able to utilize nearby hospitals in the surrounding communities including Green Bay, Two Rivers, Manitowoc, and Sturgeon Bay.

Education Facilities Serving Kewaunee County

Public Schools:

- Algoma School District
 - Algoma High School
 - Algoma Elementary School
- Kewaunee School District
 - Kewaunee High School
 - Kewaunee Grade School
 - Lakeshore Alternative School
- Luxemburg-Casco (L-C) School District
 - L-C High School
 - L-C Middle School
 - L-C Intermediate School
 - L-C Primary School
- Denmark School District
 - Denmark High School
 - Denmark Middle School
 - Denmark Elementary School
 - Denmark Early Childhood Center
 - Denmark Community School

Healthcare centers, however, are available within the county's incorporated communities. Several chiropractic, dental, and vision practitioners are also found within the county.

With the lack of a hospital facility in Kewaunee County, the healthcare system in the county is not considered satisfactory. This is due to the fact that emergency healthcare for lakeshore communities is not immediately accessible.

Child Care Facilities

As of September 2016, Kewaunee County contains 15 licensed childcare facilities. Eight of the facilities are classified as family (up to 8 enrolled) and seven are classified as group (9 or more enrolled). Information detailing each childcare facility's classification, hours, days of operation and capacity is available through the Wisconsin Department of Children and Families. Residents also utilize in-home/private unlicensed childcare facilities located throughout the county and surrounding areas.

Adult Care Facilities

Kewaunee County contains many adult care facilities including nursing homes, Adult Family Homes (AFH), Community Based Residential Facilities (CBRF), Adult Day Care (ADC) centers, assisted living rental housing, etc.

- AFH's 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.
- CBRF's 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.
- ADC's is a day program that provides the elderly and other adults with services when their caregivers are at work or need relief.
- 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.

A September 2016 Wisconsin Department of Health Services inventory indicated Kewaunee County contained eight AFH's, nine CBRFs, two ADC centers, and two nursing homes.

Kewaunee County has experienced an increase in the median age of its residents resulting in adjustments in planning for housing stock, health care, etc. The demand for elderly housing/adult care facilities has become more important in the county over time.

Cemeteries

Approximately 36 cemeteries are found within Kewaunee County communities. Some smaller family cemeteries can be difficult to identify and may not be included in this inventory.



Recreation

Kewaunee County owned outdoor park/recreational sites (see inset and Map 2.1) offer a variety of recreational opportunities for residents and visitors. A detailed description of the county park sites can be found in the *Kewaunee County Park and Outdoor Recreation Plan* and the county's Promotion & Recreation website.

Other Recreation Facilities

Local Parks

The incorporated communities of Algoma, Kewaunee, Luxemburg, and Casco each operate their own park and recreation systems. In addition, several of the town's have a number of recreational facilities. With over 50 parks located in these communities, residents have access to a wealth of recreational sites. These sites include passive parks, baseball/softball fields, beaches, campgrounds, RV parks, etc.

For detailed community park descriptions located within the county along with their future recreation strategies, refer to each community's outdoor recreation plan or local website.

Marinas

Kewaunee County contains two publicly-owned marinas:

- *Algoma Marina* is located at the east end of Steele Street at the Algoma Harbor and a short distance from downtown Algoma.
- *Kewaunee Marina* is located on the Kewaunee River in downtown Kewaunee.

There are several private marinas located in the cities of Algoma and Kewaunee that are utilized.

Golf Courses

- *Alaskan Golf Club* is located on STH 42 in the Town of Pierce offering nine holes of golf.
- *Northbrook Country Club* is an 18-hole public golf course located in the north end of the Village of Luxemburg adjacent to CTH A.

Ahnapee State Trail

The Ahnapee State Trail was previously a rail line that was converted to a state recreational trail. The trail currently provides for activities including hiking, horseback riding, bicycling, backpacking, cross country skiing, and snowmobiling.

The Ahnapee State Trail extends from the Village of Luxemburg to Casco Junction. The trail then splits into segments that extend southeast to the City of Kewaunee, and northeast to the City of Algoma, ultimately navigating north from Algoma into the City of Sturgeon Bay in Door County (see Map 2.1).

Kewaunee County Recreational Facilities

County Parks:

- Blahnik Heritage Park
- Bruemmer Park and Zoo
- Bruemerville Park
- Dana Farm/Winter Park Recreation Area
- Reckelberg Park
- Red River Park
- Riverview ATV and Mountain Bike Park
- Ryan Park

County Fairgrounds:

- Luxemburg Speedway

County Lakes:

- East Alaska Lake
- Heidemann Lake
- Krohn's Lake
- Shea's Lake
- West Alaska Lake



Ice Age National Scenic Trail

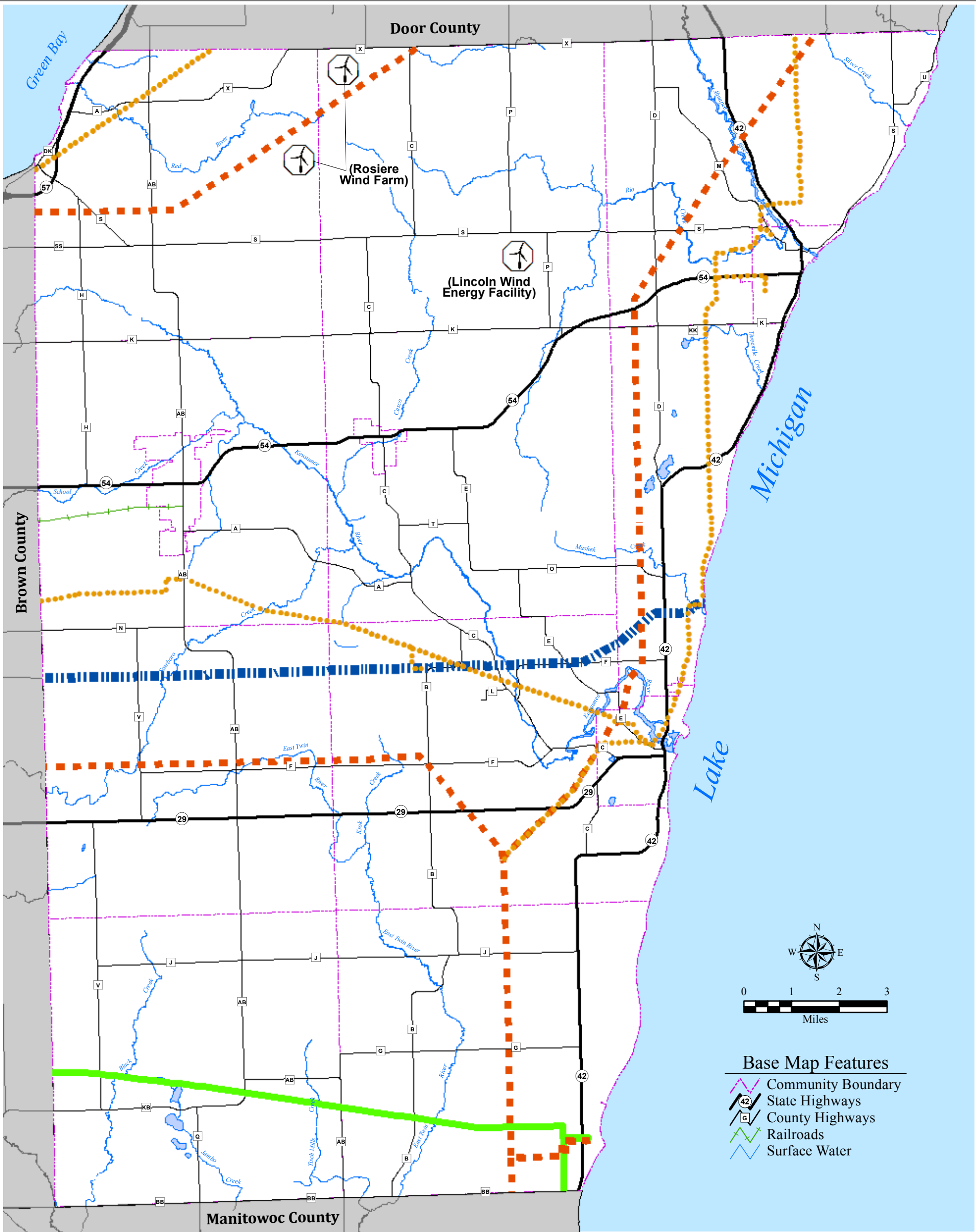
The Ice Age Trail is a National and State scenic trail which passes through Kewaunee County and incorporates portions of the Ahnapee State Trail. The purpose of the trail is to tell the story of the Ice Age and continental glaciation along a scenic footpath.



Kewaunee County Snowmobile Trail System

During the winter months, the snowmobile trail system provides designated snowmobile routes through Kewaunee County. The exact location of the trail may vary from year-to-year depending on new developments.

For detailed information regarding the county's snowmobile trails, contact the county's Promotion & Recreation Department or one of the snowmobile clubs found throughout the county.



Map 6.1
Power Generation & Transmission Facilities
Kewaunee County

Generation Facility

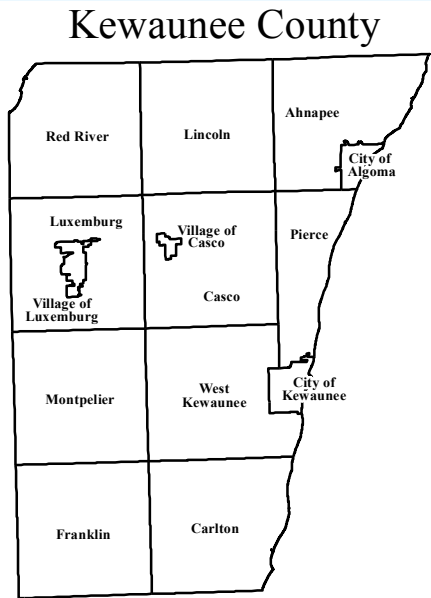
Wind Generation Facilities

Power Transmission Lines

345 kV
 138 kV
 69 kV

Water Transmission Lines

Green Bay Water Pipeline





Chapter 7

FARMLAND PRESERVATION PLANNING

INTRODUCTION

Purpose

The *Kewaunee County Farmland Preservation Plan* portion of this comprehensive plan details Kewaunee County's continuing effort to participate in the State's Farmland Preservation Program and establishes a policy for continued support of farmland preservation, agricultural development, and the encouragement of a healthy agricultural economy into the future. This update of the county's *2007 Farmland Preservation Plan*, together with the *Kewaunee County 20-Year Comprehensive Plan Update* (per s. 91.10 (2), Wis. Stats.), detail goals, objectives, and programs that can assist with well planned growth that also maintains a strong agricultural tradition, preserves valuable natural resources, and minimizes conflicts between farm and non-farm land uses in the county.

Working Lands Initiative

This farmland preservation planning component meets the farmland preservation requirements of the Wisconsin "Working Lands Initiative," adopted in the State's 2009-2011 biennial budget. Pursuant to s. 91.10, Wis. Stats, adoption and state certification of a Farmland Preservation Plan, as defined in s. 91.01(17) Wis. Stats, will enable farmers within the certified farmland preservation areas to claim state farmland preservation tax credits, as well as qualify owners of farmland for other state-funded programs and opportunities. The Working Lands legislation also enables farmers to form "agricultural enterprise areas" (AEA) and enter into farmland preservation agreements with the Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP). Kewaunee County must monitor each farm for which an owner claims farmland preservation tax credits for compliance with Wisconsin's land and water conservation standards (ATCP 50, Wis. Admin. Code).

FARMLAND PRESERVATION MAPPING

Kewaunee County Farmland Preservation mapping is the result of a cooperative effort between Kewaunee County staff and town officials. In order to collect valuable input during the planning process, town officials were asked to review and update farmland preservation maps for their communities. Staff from the Kewaunee County Land and Water Conservation, Kewaunee County Land Information, and the Bay-Lake Regional Planning Commission provided support, as requested, through a variety of informational meetings.

The Kewaunee County Farmland Preservation Plan mapping was developed for the entire county; however, the county's map is displayed as individual town maps to illustrate the details for each town (Maps 7.1 to 7.10).



CHAPTER 7: FARMLAND PRESERVATION PLANNING

FARMLAND PRESERVATION AREAS

The following criteria were established by the Kewaunee County Land and Water Conservation Committee to determine the “Farmland Preservation Areas” on the Kewaunee County Farmland Preservation Plan mapping (Maps 7.1 thru 7.10).

- Land that has historically been used for agricultural use or agriculture-related use.
- Land containing soils are suitable for agricultural production; including prime soils, soils of statewide significance, or soils of local significance as illustrated in the *Soil Survey of Kewaunee County, Wisconsin* by the Natural Resources Conservation Service (NRCS).
- Significant environmental features including floodplains, wetlands, and woodlands for their natural aesthetics, as well as their environmental attributes.
- Lands identified as “Agricultural/Rural Development” and “Woodlands/Open Space” on the Future Land Use Plan map (Map 8.1) of this *Kewaunee County 20-Year Comprehensive Plan (2016)*, as well as locally adopted comprehensive plan maps.

NON-FARMLAND PRESERVATION AREAS

Areas categorized as “Non-Farmland Preservation Areas” are considered lands unsuitable for agricultural activity and match the following criteria:

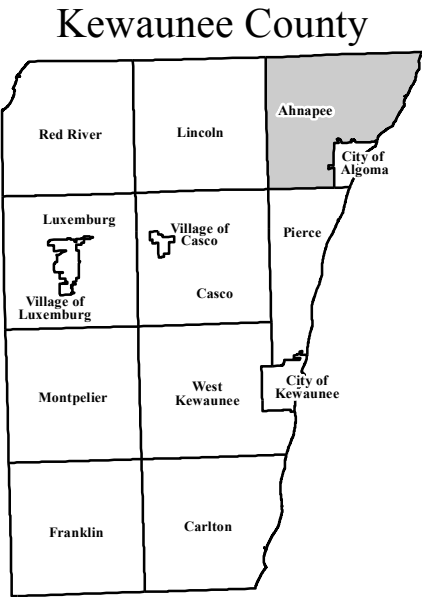
- All incorporated areas (i.e., cities and villages) of Kewaunee County.
- Lands on the Future Land Use Plan maps identified as developed or planned for future non-farm development including residential, business, and industrial developments; subdivisions; and areas presently receiving and planned for water and sewer service.
- Natural areas and recreation land owned by the state or county government.
- Communication and utilities uses including wind energy systems and wireless communication facilities.
- Transportation facilities including major highways, airports, and railroads.
- Additional parcels containing churches, non-profit entities, cemeteries, golf courses, landfills, and mineral extraction sites.

Map 7.1 Farmland Preservation Plan Town of Ahnapee Kewaunee County, WI

- Farmland Preservation*
- Non-Farmland Preservation

Note: In the event of any conflicts between the language or interpretation of a future land use plan map of a local comprehensive plan and the county's farmland preservation plan map, the local plan commission, or other assigned entity, shall resolve any conflicts that may arise in the language or interpretation of the maps.

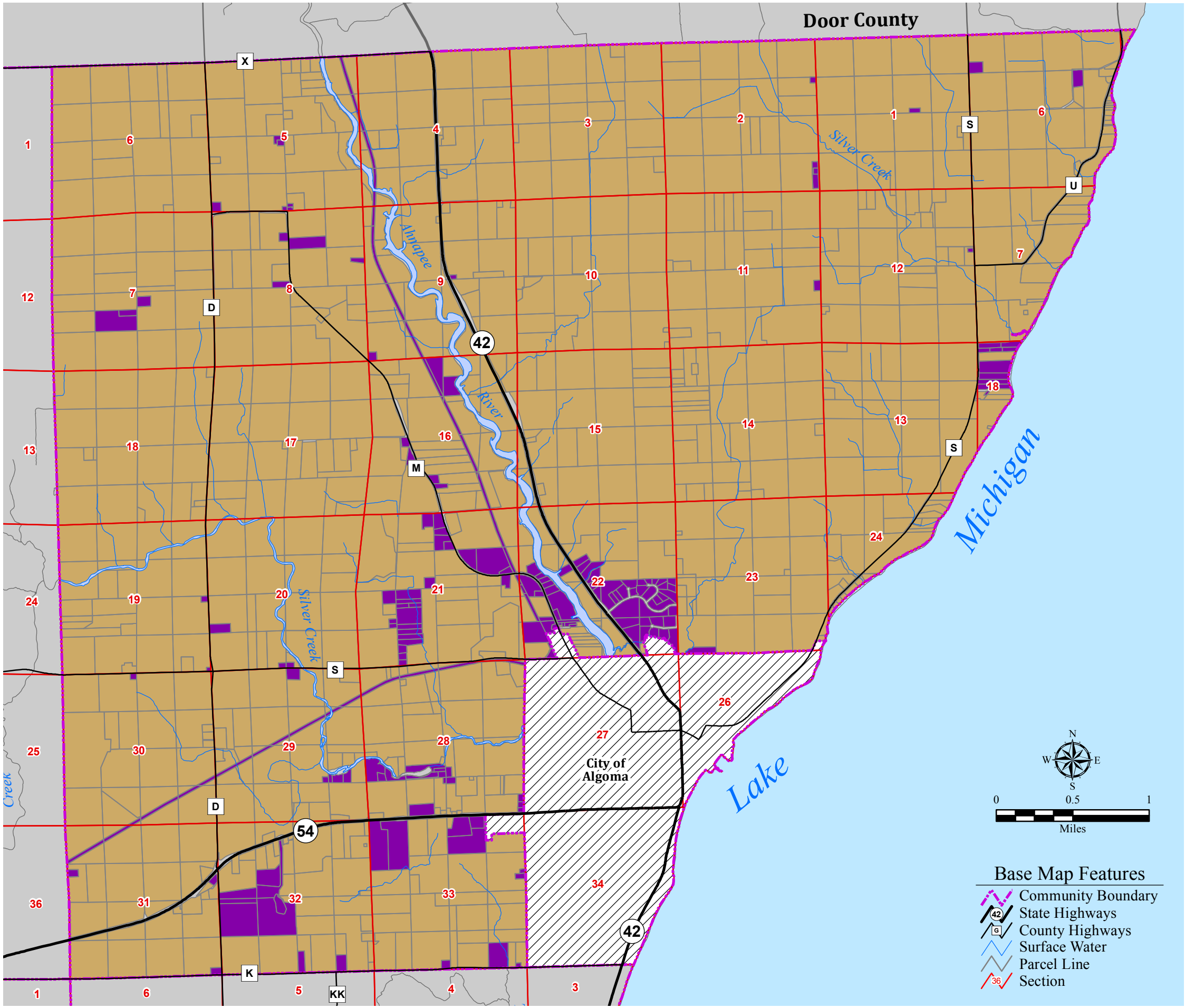
* Note: This classification to be certified as farmland preservation plan areas under chapter 91, Wis. Stats.



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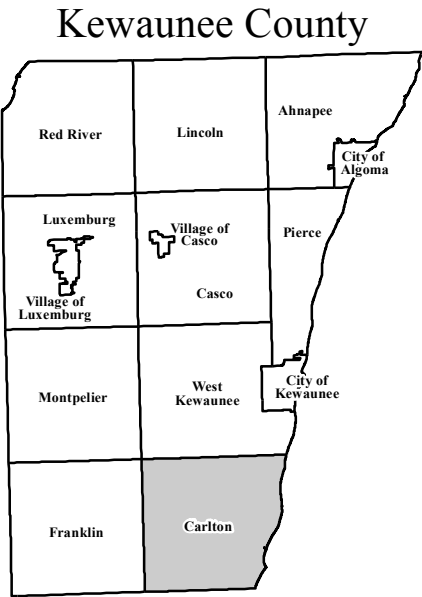
Source: WDNR, 2013; WisDOT, 2014; Kewaunee County, 2015, 2016; Bay-Lake Regional Planning Commission, 2016.



Map 7.2
Farmland Preservation Plan
Town of Carlton
Kewaunee County, WI

- Farmland Preservation*
- Non-Farmland Preservation

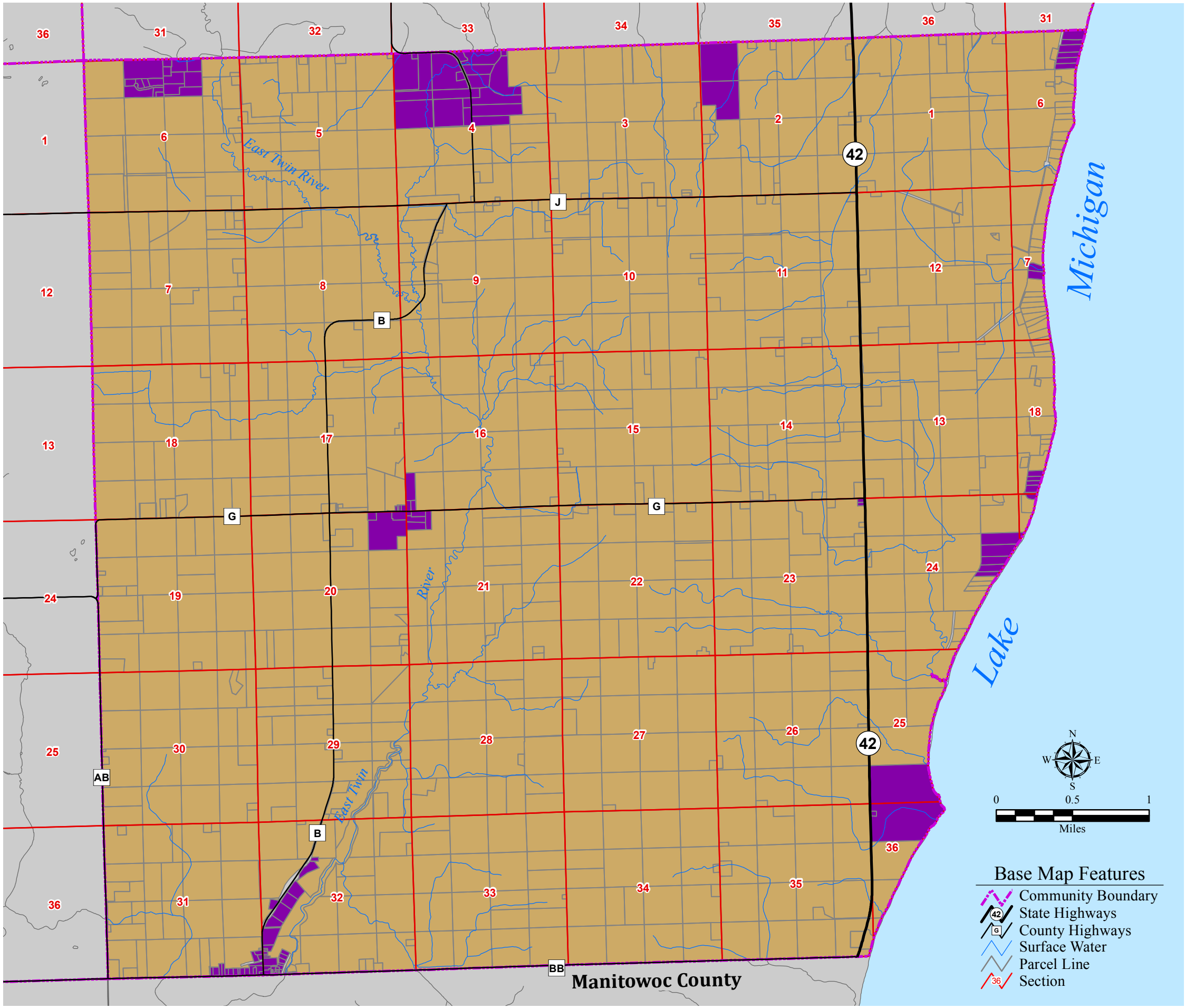
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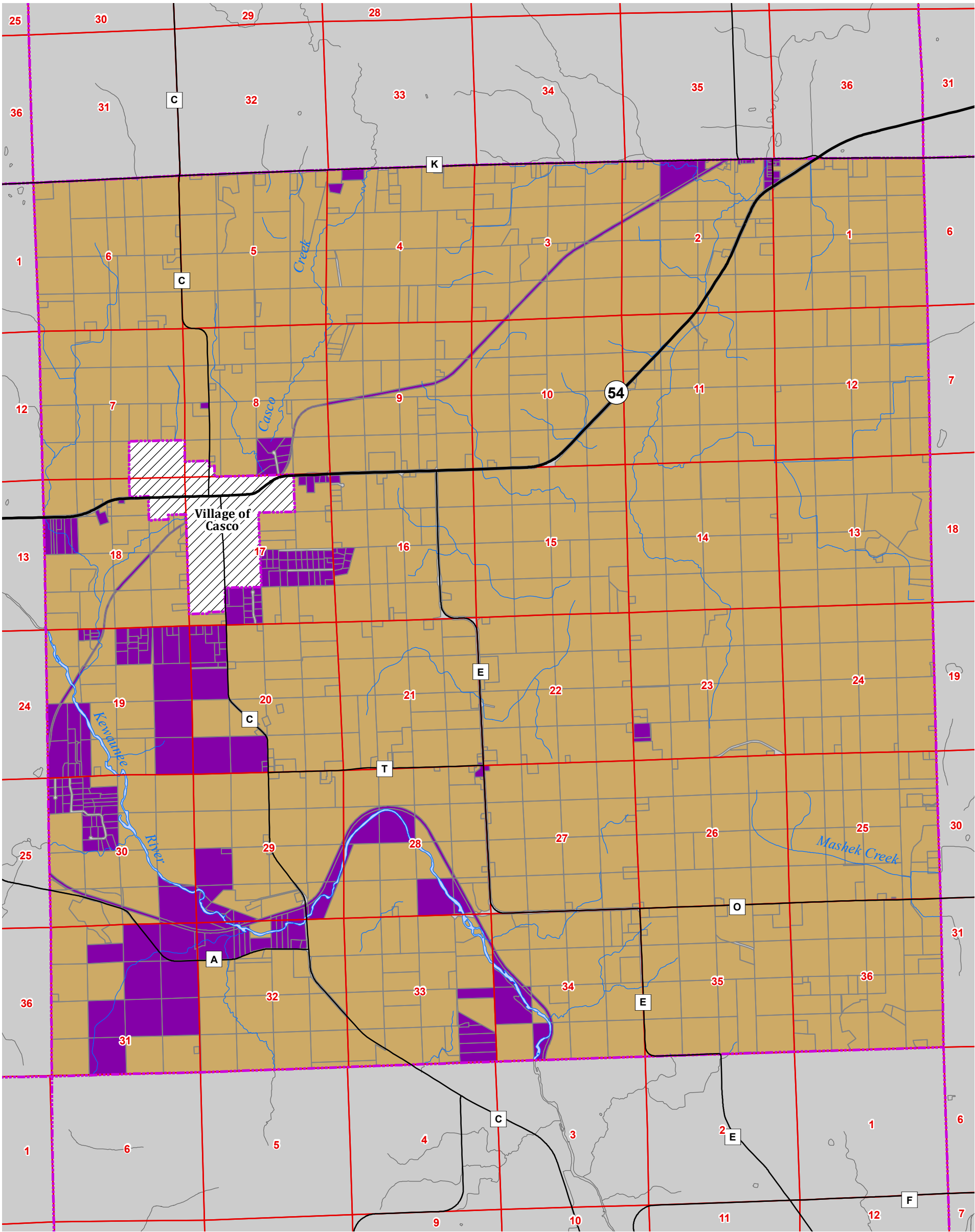


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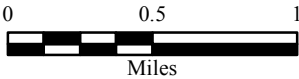
Source: WDNR, 2013; WisDOT, 2014; Kewaunee County, 2015, 2016; Bay-Lake Regional Planning Commission, 2016.





Base Map Features

- Community Boundary
- State Highways
- County Highways
- Surface Water
- Parcel Line
- Section



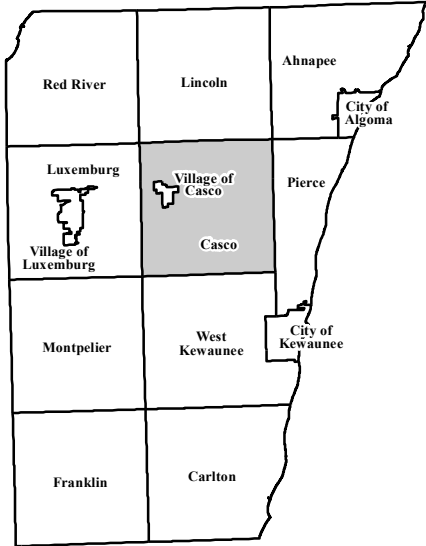
Source: WDNR, 2013; WisDOT, 2014; Kewaunee County, 2015, 2016; Bay-Lake Regional Planning Commission, 2016.

Map 7.3
Farmland Preservation Plan
Town of Casco
Kewaunee County, WI

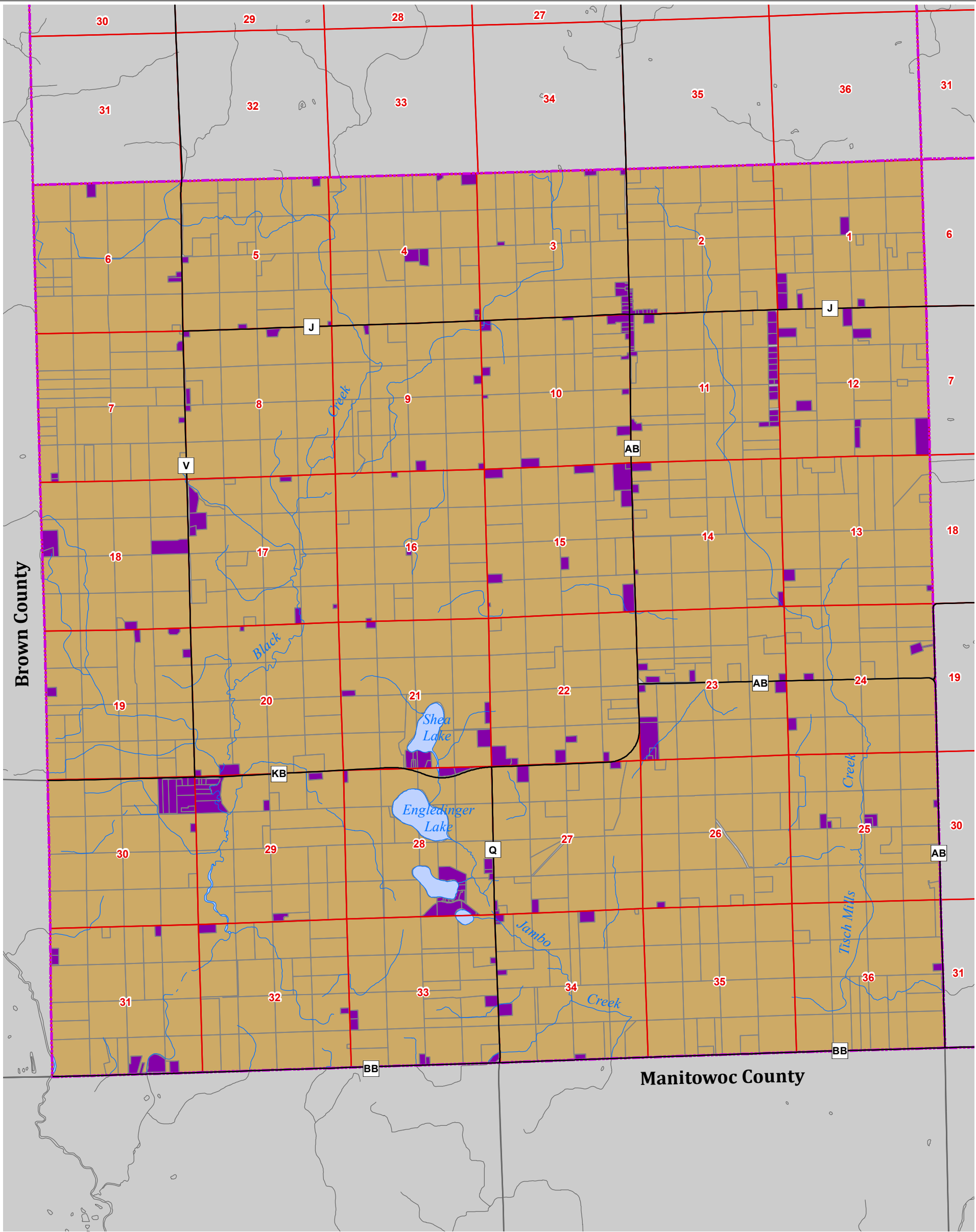
- Farmland Preservation*
- Non-Farmland Preservation

Note: In the event of any conflicts between the language or interpretation of a future land use plan map of a local comprehensive plan and the county's farmland preservation plan map, the local plan commission, or other assigned entity, shall resolve any conflicts that may arise in the language or interpretation of the maps.
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Kewaunee County

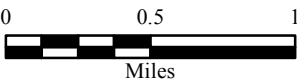


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Base Map Features

- Community Boundary
- State Highways
- County Highways
- Surface Water
- Parcel Line
- Section



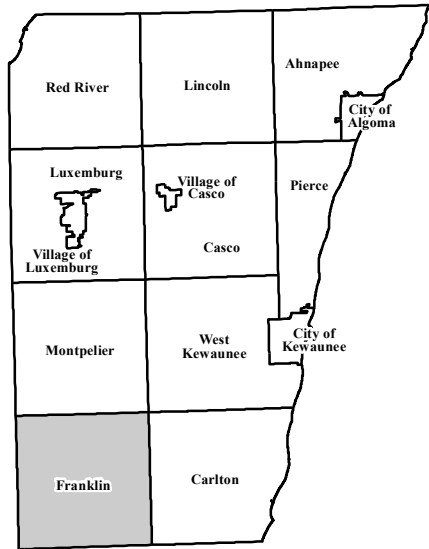
Source: WDNR, 2013; WisDOT, 2014; Kewaunee County, 2015, 2016; Bay-Lake Regional Planning Commission, 2016.

Map 7.4
Farmland Preservation Plan
Town of Franklin
Kewaunee County, WI

- Farmland Preservation*
- Non-Farmland Preservation

Note: In the event of any conflicts between the language or interpretation of a future land use plan map of a local comprehensive plan and the county's farmland preservation plan map, the local plan commission, or other assigned entity, shall resolve any conflicts that may arise in the language or interpretation of the maps.
* Note: This classification is to be certified as farmland preservation plan areas under chapter 91, Wis. Stats.

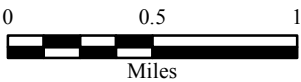
Kewaunee County



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- Base Map Features**
- Community Boundary
 - State Highways
 - County Highways
 - Surface Water
 - Parcel Line
 - Section



Source: WDNR, 2013; WisDOT, 2014; Kewaunee County, 2015, 2016; Bay-Lake Regional Planning Commission, 2016.

Map 7.5

Farmland Preservation Plan

Town of Lincoln

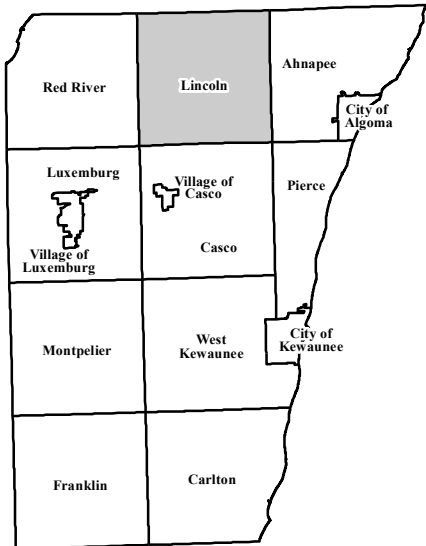
Kewaunee County, WI

- Farmland Preservation*
- Non-Farmland Preservation

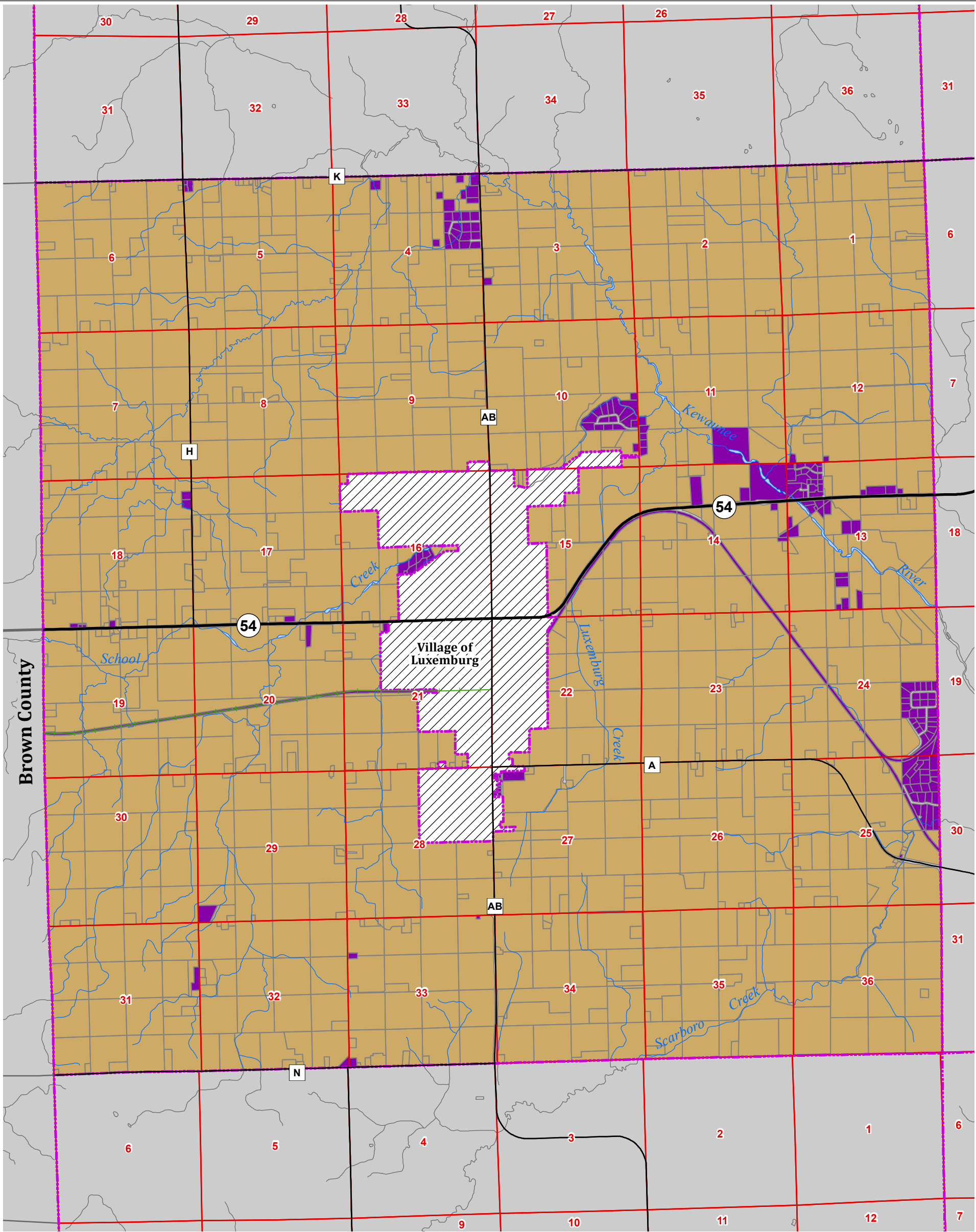
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Kewaunee County

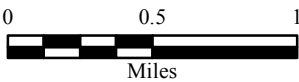


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Base Map Features

- Community Boundary
- State Highways
- County Highways
- Railroads
- Surface Water
- Parcel Line
- Section



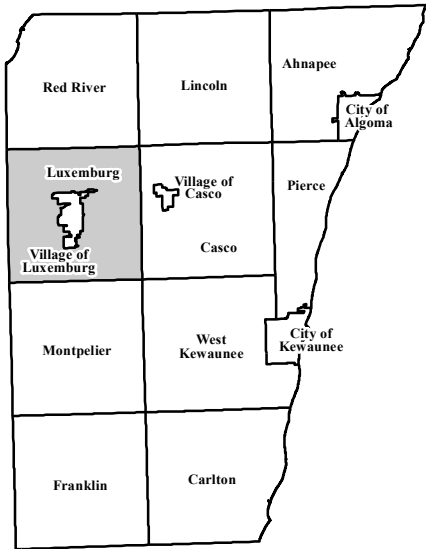
Source: WDNr, 2013; WisDOT, 2014; Kewaunee County, 2015, 2017; Bay-Lake Regional Planning Commission, 2017.

Map 7.6
Farmland Preservation Plan
Town of Luxemburg
Kewaunee County, WI

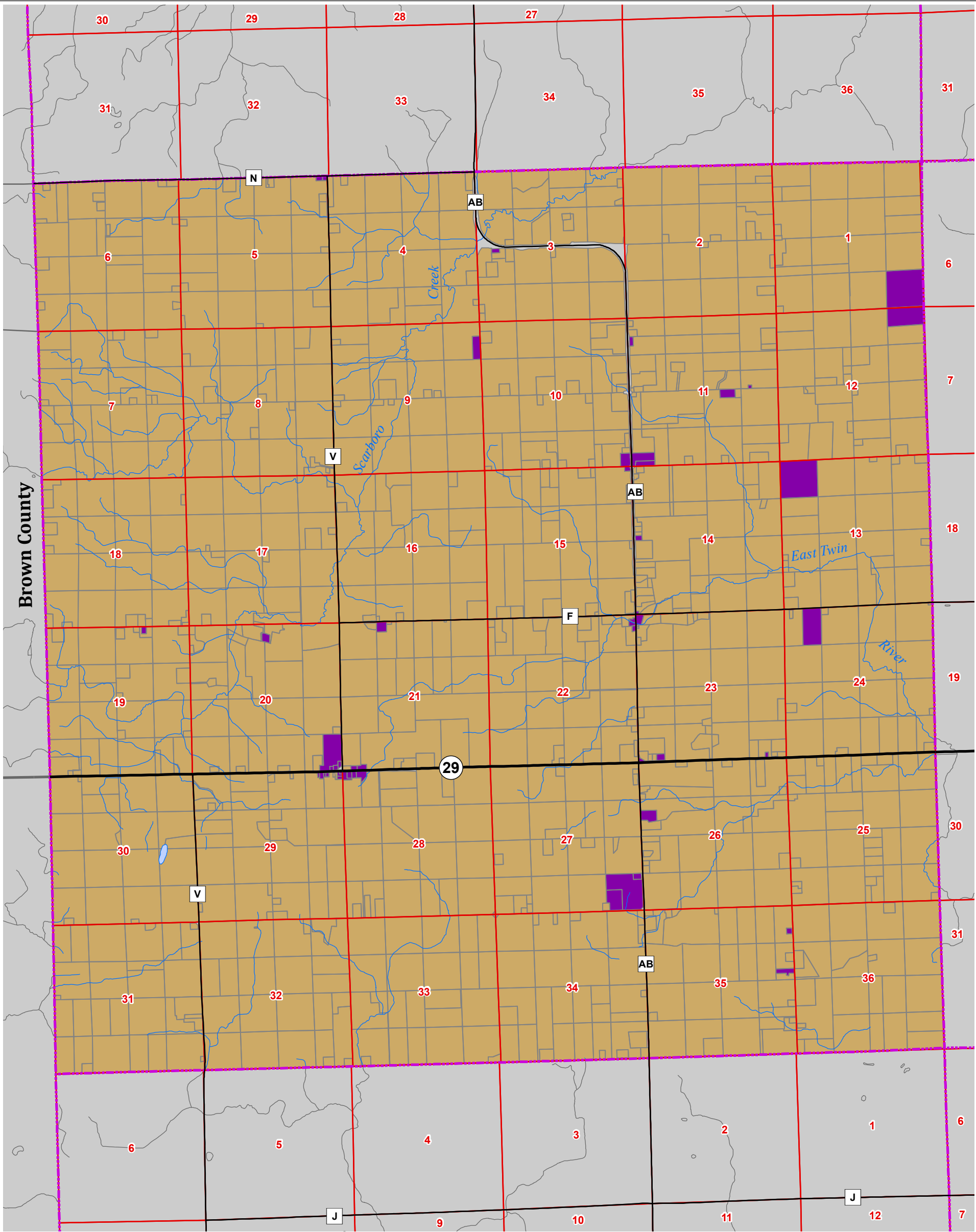
- Farmland Preservation*
- Non-Farmland Preservation

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Kewaunee County

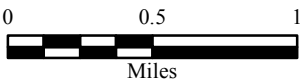


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Base Map Features

- Community Boundary
- State Highways
- County Highways
- Surface Water
- Parcel Line
- Section



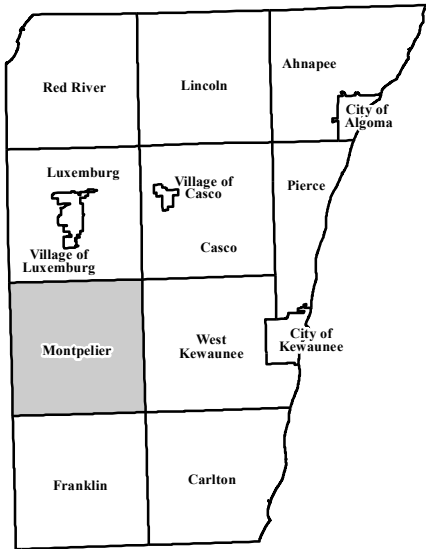
Source: WDNR, 2013; WisDOT, 2014; Kewaunee County, 2015, 2016; Bay-Lake Regional Planning Commission, 2016.

Map 7.7
Farmland Preservation Plan
Town of Montpelier
Kewaunee County, WI

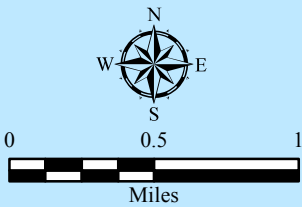
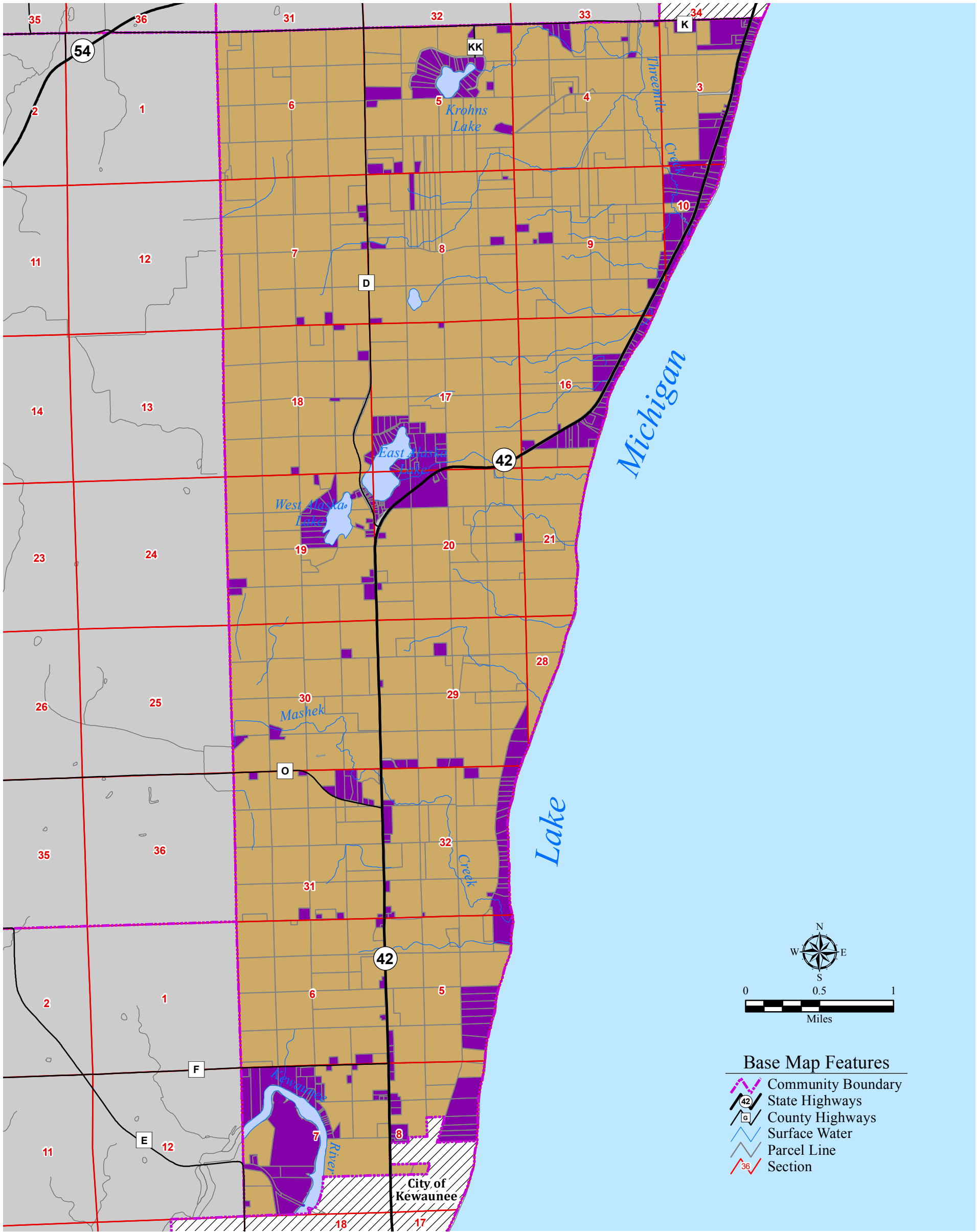
- Farmland Preservation*
- Non-Farmland Preservation

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Kewaunee County



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Base Map Features

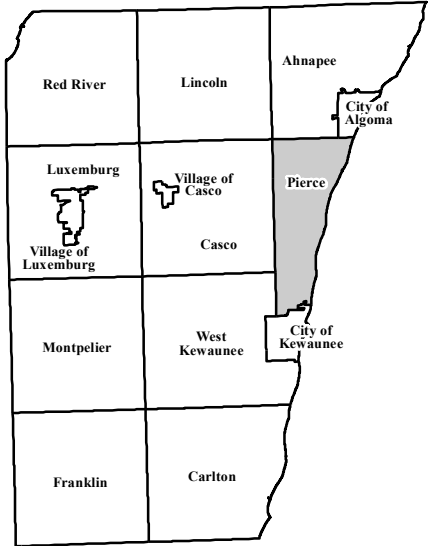
- Community Boundary
- State Highways
- County Highways
- Surface Water
- Parcel Line
- Section

Map 7.8
Farmland Preservation Plan
Town of Pierce
Kewaunee County, WI

- Farmland Preservation*
- Non-Farmland Preservation

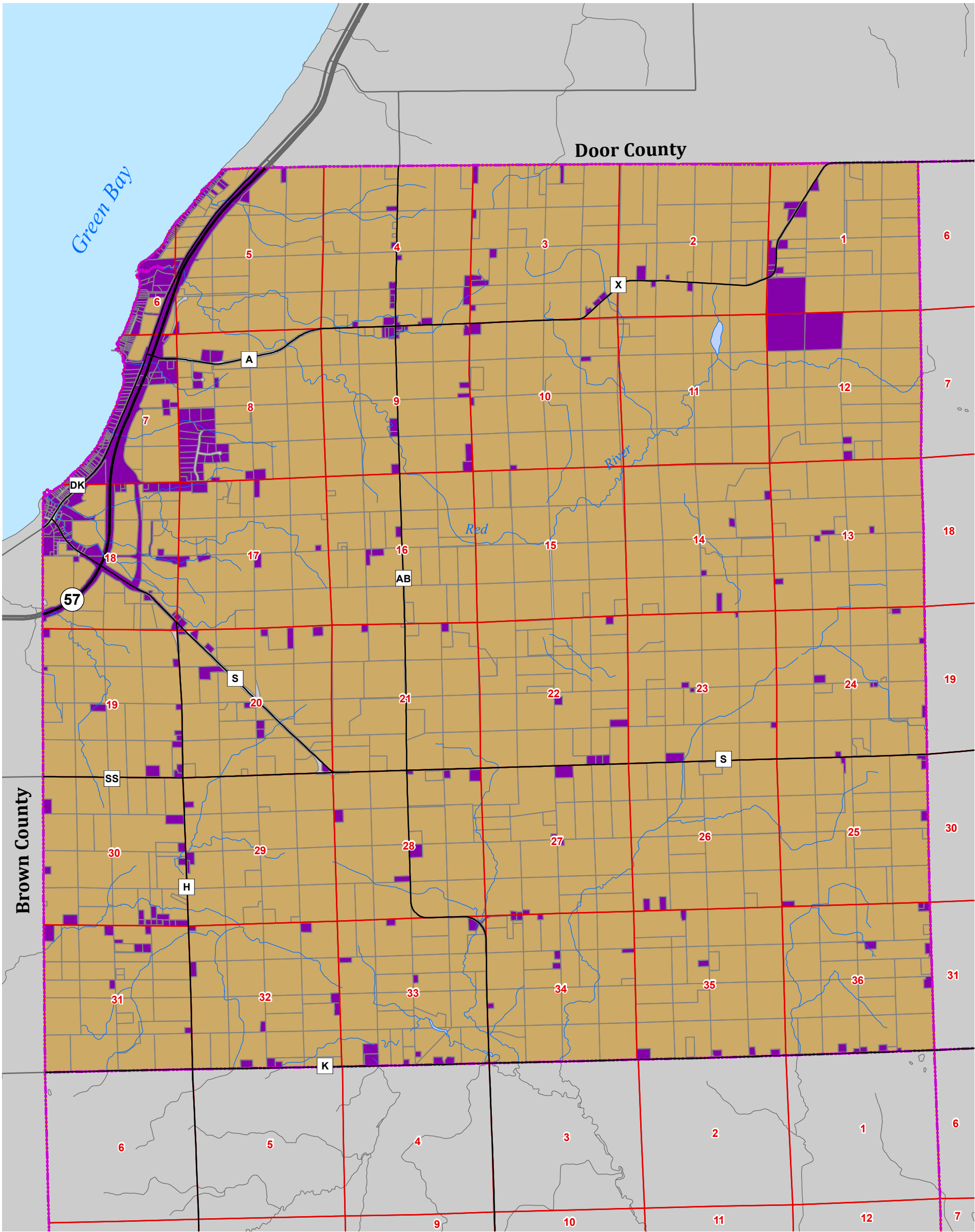
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Kewaunee County



Source: WDNr, 2013; WisDOT, 2014; Kewaunee County, 2015, 2016; Bay-Lake Regional Planning Commission, 2016.

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- Base Map Features**
- Community Boundary
 - State Highways
 - County Highways
 - Surface Water
 - Parcel Line
 - Section



Source: WDNR, 2013; WisDOT, 2014; Kewaunee County, 2015, 2016; Bay-Lake Regional Planning Commission, 2016.

Map 7.9

Farmland Preservation Plan

Town of Red River

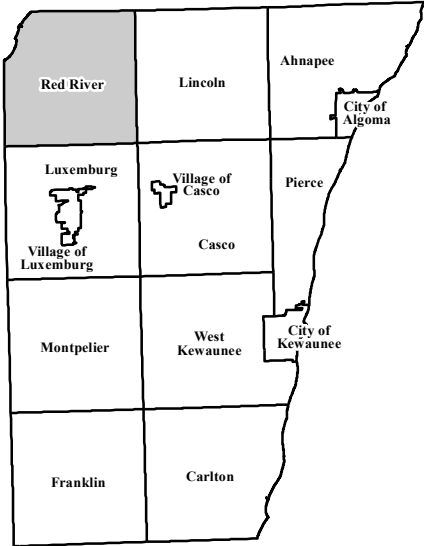
Kewaunee County, WI

- Farmland Preservation*
- Non-Farmland Preservation

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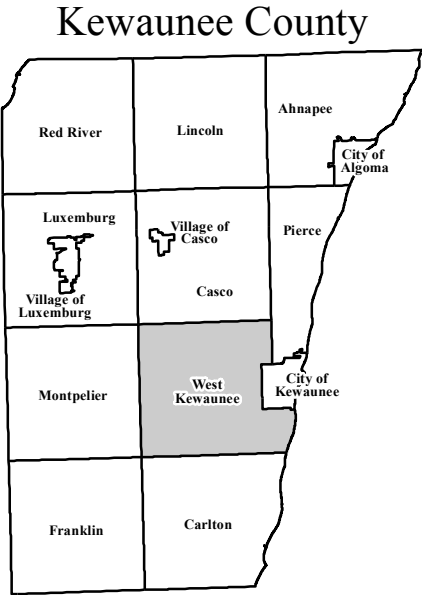
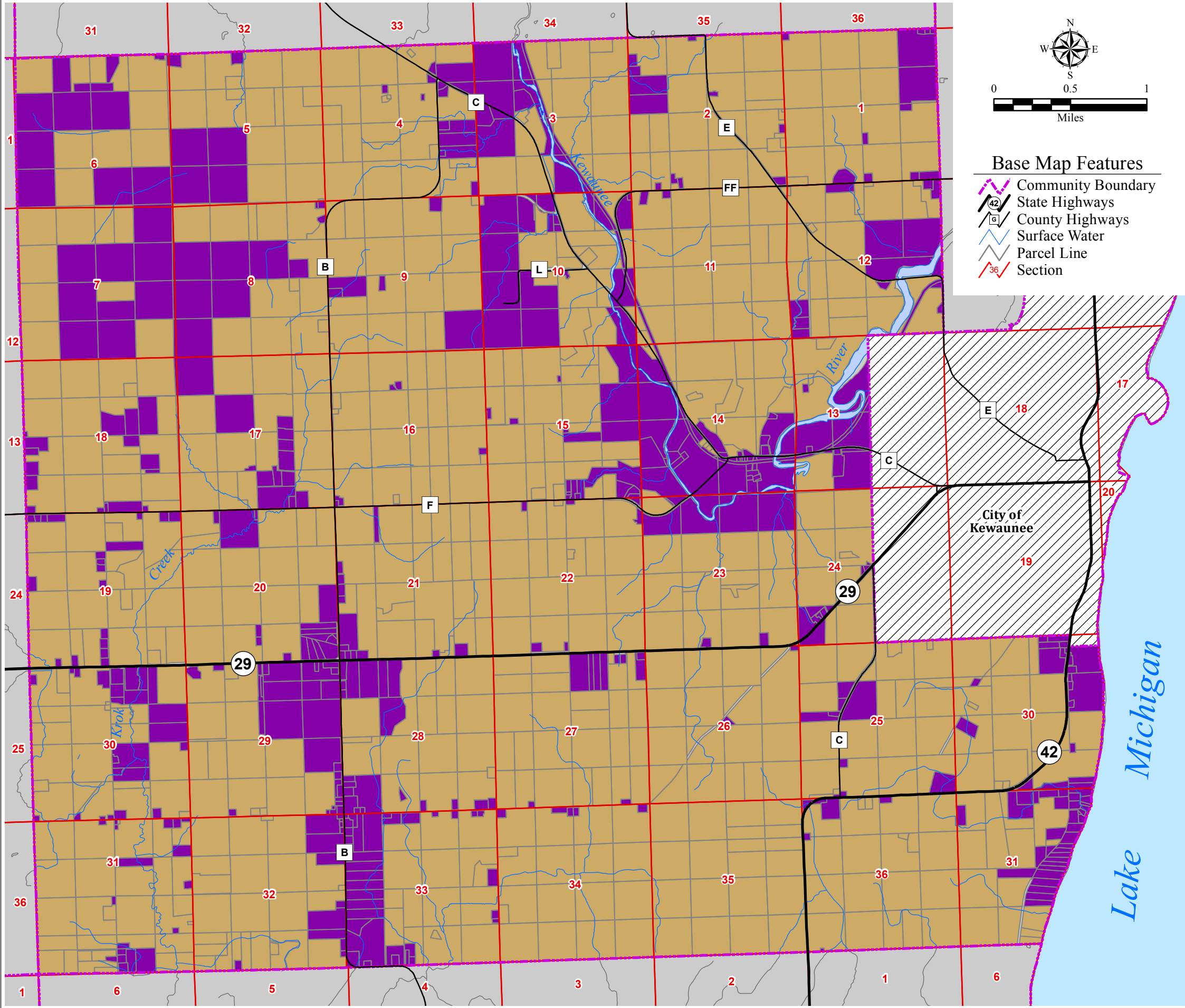
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Kewaunee County



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Map 7.10 Farmland Preservation Plan Town of West Kewaunee Kewaunee County, WI



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Source: WDNR, 2013; WisDOT, 2014; Kewaunee County, 2015, 2016; Bay-Lake Regional Planning Commission, 2016.



FARMLAND PRESERVATION PLAN IMPLEMENTATION

Key Agricultural Land Use Issues and Strategies

The following is a list of current land use issues and strategies related to preserving farmland and to promoting agricultural development in Kewaunee County.

- Development pressure and fragmentation of important agricultural areas when planning for nonfarm development.
- Preserve agricultural lands by encouraging towns to follow through on their “Future Land Use” plans.
- Preserve natural resources and public lands.
- Protect groundwater and surface water resources.
- Preserve, restore, and improve surface water quality (wetlands, lakes, rivers, and streams) through education, erosion control, buffer strips, easements, land use controls, flood controls, and nutrient/sediment reductions.
- Consider the key geologic features (e.g., sinkholes, karst, etc.) when conducting farming activities.
- Encourage the preservation of environmental corridors and other sensitive areas.

Anticipated Changes in Agricultural Production, Processing, Supply, and Distribution

Changes in population and housing and advances in technology are just a few issues that will continue to alter Kewaunee County’s agricultural industry. Therefore, an important piece of the development process for the county’s Farmland Preservation Plan was anticipating changes in Kewaunee County’s agriculture industry. Below is a list of potential changes that could impact the agriculture industry for Kewaunee County.

- Non-farm development pressures and advances in technology will continue to increase in the rural areas of the county. As a result, farmers and all property owners are forced to contend with conflicts such as increased traffic and complaints by neighbors related to slow moving vehicles on roadways, noise, dust, odors, and late hours of operation.
- Large farming operations (corporate, partnerships, etc.) will continue to be the trend, while individual family farms will continue to decline, especially in the dairy industry.
- Dairy farming will continue to be the major agriculture industry in Kewaunee County. Even though the number of farms is decreasing, the number of dairy cows is increasing.
- As the average age of farmers increases, the possibility exists that they sell their farmland for residential, commercial, or other developed land use as they retire.
- The continued consolidation of smaller farming operations into large operations may pose both an economic opportunity, as well as environmental challenges.
- Kewaunee County contains a quality transportation network and support infrastructure that allows for product to move in and out of the county easily and efficiently. However, communities and farmers will continue to encounter infrastructure challenges such as road



CHAPTER 7: FARMLAND PRESERVATION PLANNING

deficiencies and deterioration as farm equipment increases in size and weight.

- The proper regulation of noise and odor will enhance or promote farming activities by reducing conflicts.
- Many advances in technology, including robotic milking and feeding systems, will continue to make agriculture less labor intensive.
- Demands in services and infrastructure will continue to change as feedlots and animal confinements have different needs than most agricultural operations had in the past.
- Agricultural processing will continue to be a significant part of the local economy.
- Interest in cash cropping and specialty farming will continue to increase.
- Land values will continue to increase due to the global demands for food both in volume and quality.
- The effects of climate change may need to be considered along with other evolving factors that affect agricultural production, such as changes in farming practices and technology.

Agriculture Strategy

To address Kewaunee County's current and anticipated agriculture issues, a variety of goals and objectives have been developed by the county. Several planning and implementation documents are in place at the county and town level to address agriculture-related issues.

Farmland Preservation Goals and Objectives

"Agricultural Resources" goals and objectives have been detailed under the "Development/Preservation Goals & Objectives" within Chapter 1 of this comprehensive plan. The agricultural goals and objectives established within this Kewaunee County comprehensive plan, along with those developed within the comprehensive plans of the towns, will help ensure the continued preservation and promotion of agriculture in Kewaunee County.

Housing Density Goals and Objectives

Wisconsin Statutes 91.10 (c)(7m) requires a statement of policies, goals, strategies, and proposed actions to increase housing density in areas that are not identified as farmland preservation areas per Wisconsin Statutes 91.10(d).

As detailed in Chapter 3 of this comprehensive plan, housing projections indicate the possibility of over 1,400 additional households in Kewaunee County by the year 2040. In an effort to accommodate future housing needs, the county has developed housing development strategies in this comprehensive plan. Refer to the "Future Land Use Plan" (Chapter 8) and "Issues & Opportunities" (Chapter 1) components of this comprehensive plan for a listing of housing development strategies and housing density goals and objectives that encourage sensible housing development while preserving the county's agricultural, woodland, and natural areas.

Comprehensive Plan Consistency

To ensure consistency between the *Kewaunee County 20-Year Comprehensive Plan* and the *Farmland Preservation Plan*, the county has adopted this *Kewaunee County Farmland*



CHAPTER 7: FARMLAND PRESERVATION PLANNING

Preservation Plan as a component within the comprehensive plan per s. 91.10(2), Wis. Stats. This consistency is evident through the established goals, objectives, and strategies, referenced tables and data, in addition to mapping that is found within this *Kewaunee County 20-Year Comprehensive Plan Update*. The result is consistent data that is necessary to determine trends and needs of agriculture in the county.

The primary indicator of consistency between the county's farmland preservation plan update and the *Kewaunee County 20-Year Comprehensive Plan Update* was utilizing the future land use maps of the county and town comprehensive plans as the foundation for the development of the county farmland preservation plan map. Town officials utilized the local adopted comprehensive plan maps as the basis during the review of each town farmland preservation plan map in an effort to encourage consistency between the two maps. The county's farmland preservation plan map depicts commitment to agricultural production, and agriculture-related uses, in addition to natural resource protection.

***** In the event of any conflicts between the language or interpretation of the County's 20-Year Land Use Plan Map and the County's Farmland Preservation Plan Map, the County's Farmland Preservation Plan Map shall take precedence over other future land use classifications on the County's Comprehensive Plan map.***

Kewaunee County and Local Plans and Controls to Preserve Agriculture

In addition to the Kewaunee County and local comprehensive plans, this section of the chapter provides a list of additional land use plans and controls at the county and local levels that can have a positive impact on the preservation of agricultural land.

Local Zoning Ordinances

Each of the county's 10 towns have adopted individual town zoning ordinances pursuant to Section 60.74, 60.75, 61.35, and 62.23 of the Wisconsin Statutes. Each town maintains and administers their general zoning ordinance to regulate and restrict the locations, construction and use of buildings, structures, and the use of land in the town. The local ordinances provide for the public health, safety and general welfare of the towns. Each town in the county has an adopted Exclusive Agricultural zoning district.

Soil and Water Conservation Standards

Participants in the Farmland Preservation Program are required to implement soil and water conservation standards according to a schedule of compliance approved by the Kewaunee County



CHAPTER 7: FARMLAND PRESERVATION PLANNING

Land and Water Conservation Department. The standards to be implemented are those required under *ATCP 50 Wis. Adm. Code*.

Kewaunee County Plans, Reports, and Ordinances

The Kewaunee County Zoning Department and Kewaunee County Land and Water Conservation Department maintain and administer the majority of the following land use plans, reports, and ordinances that help ensure farmland and natural resources are preserved.

- *Kewaunee County 20-Year Comprehensive Plan*
- *Kewaunee County Subdivision Ordinance*
- *Kewaunee County Shoreland Ordinance*
- *Kewaunee County Floodplain Ordinance*
- *Kewaunee County Private Sewage System Ordinance*
- *Kewaunee County Comprehensive Solid Waste Management Plan*
- *The Kewaunee County Park and Outdoor Recreation Plan*
- *The Twin, Door, Kewaunee Drainage Basin Report*
- *Kewaunee County Soil and Water Conservation District Resource Conservation Plan*
- *Kewaunee County Coastal Hazard Management Plan*
- *Kewaunee County Hazard Mitigation Plan*
- *Kewaunee County Animal Waste Storage Facility Ordinance*
- *Kewaunee County Public Health and Groundwater Protection Ordinance*

Farmland Management Programs

Many farmland preservation and rural land preservation programs are available on county, state, and federal levels in an effort to implement agricultural conservation practices and natural resource protection. Below is a listing of a variety of these programs, some of which are currently being utilized in Kewaunee County.

Landowners can get additional program information from local towns/assessors and plan commissions, the Kewaunee County Land and Water Conservation Department, the Kewaunee County Zoning Department, the Kewaunee County Land Information Department, UW-Extension, Natural Resource Conservation Service (NRCS), USDA Farm Service Agency, and the Wisconsin Department of Natural Resources (WDNR).

County Programs

Farmland Preservation Program

The purpose of this program is to preserve agricultural land and open spaces by promoting orderly land use planning and development and by promoting soil and water conservation. Landowners



CHAPTER 7: FARMLAND PRESERVATION PLANNING

are eligible for state tax credits under the Farmland Preservation Program if land is located in a certified farmland preservation zoning district or in a designated agricultural enterprise area.

Under the revisions to the farmland preservation program, a credit can be claimed under the old Schedule FPC law if, among other considerations, the claimant remains subject to a farmland preservation agreement that was entered into prior to July 1, 2009. Alternatively, a credit can be claimed on the Schedule FPC-A form by a person who owns a farm that is covered by a farmland preservation agreement entered into on or after July 1, 2009, or owns a farm located in an area designated in a certified exclusive agricultural use zoning or farmland preservation zoning ordinance.

- According to the Wisconsin Department of Revenue, 79 claims accounting for 11,414 acres were made under the old Schedule FPC law, while 428 claims accounting for 69,196 acres were made on the Schedule FPC-A form for the 2013 tax year in Kewaunee County.

Farmland Preservation Zoning

Local governments may choose to adopt and have certified a farmland preservation zoning ordinance to ensure that landowners covered by the ordinance are eligible to claim farmland preservation tax credits (ch. 91, Wis. Stats.).

Comprehensive Land Use Planning

The county and towns use their comprehensive land use plans as the basis for farmland preservation zoning ordinances that identify areas to protect and preserve for agricultural use and areas where growth will be recommended.

Land & Water Resource Management Plan Implementation

The purpose of this program is to control soil erosion and reduce nonpoint source water pollution. The program provides a cost share and technical assistance to landowners to install soil and water conservation practices. The following agricultural conservation practices may be utilized: grass waterways, diversions, critical area stabilization, terraces, grade stabilization structure, sediment basins, barnyard runoff control practices, rural well abandonment, manure storage abandonment and roof runoff system.

Nutrient Management Planning

This program provides technical and educational assistance to landowners for the preparation and implementation of a nutrient management plan. The plan details a strategy for obtaining the maximum return from on and off farm fertilizer resources in a manner that protects environmentally sensitive areas and the quality of nearby water resources. Cost share/incentive funding is available for program participation.

Wisconsin Nonpoint Runoff Rule Implementation

This program provides technical and financial assistance to landowners that do not meet nonpoint pollution control rules. Farms are evaluated to determine if they are compliant with the rules. If they are found to be out of compliance, technical and financial assistance may be available.



CHAPTER 7: FARMLAND PRESERVATION PLANNING

State and Federal Conservation Programs

Agricultural Enterprise Area (AEA)

The Agricultural Enterprise Area (AEA) concept was established in 2009 as part of the state's Working Lands Initiative. The designation of an AEA is voluntary and can be initiated by landowners or local governments by filing a petition with the State of Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP). Petitions filed with DATCP must meet minimum criteria, but additional evaluation criteria may be used to review competing petitions. At a minimum, the land subject of the petition must be identified as being in a farmland preservation area in the county's farmland preservation plan, be a contiguous land area, and primarily be used for agriculture.

Tax credits available to farmers in an AEA are:

- \$5.00 per acre for land that is covered by a farmland preservation agreement, or
- \$10.00 per acre for land that is covered by a farmland preservation agreement and located in a certified farmland preservation zoning district.

Purchase of Agricultural Conservation Easements (PACE)

The PACE program provides state funding for the purchase of agricultural conservation easements. An agricultural conservation easement allows a landowner to be compensated for limiting development on his or her farmland. Easements are permanent and are carried over to subsequent landowners if the property is sold. The Department of Agriculture, Trade and Consumer protection (DATCP) will provide funding to cooperating local entities (local governments or non-profit organizations) for the purchase of easements from willing landowners. Local entities purchase the easements and may be reimbursed for up to 50 percent of the easement cost by the PACE program. The state and local entities will then be co-holders of the easement. PACE funded easements are intended to strengthen areas that have been planned and designated as local farmland preservation areas in a certified county farmland preservation plan.

USDA Farm Service Agency (FSA) – Loan Program

The United States Department of Agriculture (USDA) Farm Service Agency offers numerous loan opportunities from direct farm operating loans, direct operating loans, emergency loans, beginning farmers and rancher loans, and socially disadvantaged farmers, ranchers and youth loans.

USDA Conservation Programs

The USDA's conservation programs help people reduce soil erosion, enhance water supplies, improve water quality, increase wildlife habitat, and reduce damages caused by floods and other natural disasters. Public benefits include enhanced natural resources that help sustain agricultural productivity and environmental quality while supporting continued economic development, recreation and scenic beauty. Programs include conservation technical assistance, environmental improvement, stewardship, water resources, easements, community assistance, and technical processes.



CHAPTER 7: FARMLAND PRESERVATION PLANNING

Conservation Stewardship Program (CSP)

The USDA's Natural Resources Conservation Service (NRCS) Conservation Stewardship Program (CSP) helps agricultural producers maintain and improve their existing conservation systems and adopt additional conservation activities to address priority resources concerns. Participants earn CSP payments for conservation performance - the higher the performance, the higher the payment.

Conservation Reserve Program (CRP)

The USDA's Farm Service Agency (FSA) Conservation Reserve Program (CRP) pays a yearly rental payment in exchange for farmers removing environmentally sensitive land from agricultural production and planting species that will improve environmental quality.

Conservation Reserve Enhancement Program (CREP)

The Conservation Reserve Enhancement Program, an offshoot of the aforementioned CRP, targets high-priority conservation issues identified by government and non-governmental organizations. Farm land that falls under these conservation issues is removed from production in exchange for annual rental payments.



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FARMLAND PRESERVATION PLAN - DATCP CERTIFICATION MATERIALS



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State of Wisconsin
Governor Scott Walker

Department of Agriculture, Trade and Consumer Protection
Ben Brancel, Secretary

November 28, 2016

Davina Bonness,
Kewaunee County Land & Water Conservation Director
625 Third Street
Luxemburg, WI 54217

Dear Davina:

Re: Certification of the Kewaunee County Farmland Preservation Plan

Attached is a department order certifying Kewaunee County's Farmland Preservation Plan under s. 91.16, Wis. Stats. Please send proof of the plan's adoption by the county board as soon as it becomes available.

We look forward to working with you in the future on farmland preservation in Kewaunee County. If you have any questions, feel free to contact me.

Sincerely,

Alison Volk

Alison Volk
Land Management Section
608-224-4634

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**STATE OF WISCONSIN
DEPARTMENT OF AGRICULTURE, TRADE AND CONSUMER PROTECTION**

KEWAUNEE COUNTY FARMLAND PRESERVATION PLAN	DATCP DOCKET NO. 16-F-48-31-PCA DARM DOCKET NO. 061-00000-P-16 F-1116 ORDER CERTIFYING PLAN THROUGH DECEMBER 31, 2026.
---	---

INTRODUCTION

Kewaunee County has asked the Department of Agriculture, Trade and Consumer Protection (“DATCP”) to certify a proposed comprehensively revised county farmland preservation plan pursuant to s. 91.16, Wis. Stats. DATCP has considered the request and adopts the following decision:

FINDINGS OF FACT

- (1) DATCP is an agency of the State of Wisconsin, and is responsible for administering Wisconsin’s farmland preservation law under ch. 91, Wis. Stats., as repealed and recreated by 2009 Wis. Act 28.
- (2) Kewaunee County is a county of the State of Wisconsin.
- (3) In order for a county and its residents to participate in the farmland preservation program, a county must have a state-certified farmland preservation plan. Among other things, the certified plan must clearly designate farmland preservation areas that the county plans to preserve for agricultural use.
- (4) Kewaunee County has a state-certified farmland preservation plan that expires on December 31, 2017.
- (5) Under s. 91.16(8), Wis. Stats., the certification of a farmland preservation plan does not cover any subsequent plan revision (adopted after July 1, 2009) unless DATCP certifies that plan revision.
- (6) On November 4, 2016, DATCP received from Kewaunee County a request to certify a comprehensively revised county farmland preservation plan under s. 91.16, Wis. Stats. The county submitted the application in the form required under s. 91.20, Wis. Stats. The application included the certifications required under s. 91.20(3), Wis. Stats.
- (7) Under s. 91.16(3)(a), Wis. Stats., DATCP may certify a county plan based on the county’s certification under s. 91.20(3), Wis. Stats., that the plan meets applicable certification standards under s. 91.18, Wis. Stats.
- (8) DATCP may certify a farmland preservation plan if the plan meets applicable statutory standards under s. 91.18, Wis. Stats. DATCP may certify based on the representations contained in the county’s application, but may conduct its own review and verification as it deems appropriate.
- (9) Under s. 91.10(2), Wis. Stats., the farmland preservation plan must be consistent with the Kewaunee County Comprehensive Plan, and the County must include the farmland preservation plan in the County Comprehensive Plan.

(10) Under s. 91.16(2)(a), Wis. Stats., DATCP may certify a county farmland preservation plan for a specified period of up to 10 years. Under s. 91.16(6), Wis. Stats., DATCP may make its certification contingent upon the county adoption of the certified plan text and maps, in the form certified.

(11) Under s. 91.16(9), Wis. Stats., DATCP may withdraw its certification at any time if DATCP finds that the certified plan materially fails to meet applicable certification standards under s. 91.18, Wis. Stats.

CONCLUSIONS OF LAW

(1) Based on Kewaunee County's certification that the attached county farmland preservation plan meets applicable certification requirements under s. 91.18, Wis. Stats., DATCP may certify that plan for up to 10 years.

(2) DATCP may make its certification contingent upon the county adoption of the certified plan text and maps, in the form certified, and contingent upon its adoption as part of the County comprehensive plan.

(3) Certification does not apply to plan amendments made after the certification date, unless DATCP certifies those amendments.

(4) DATCP may withdraw its certification at any time if DATCP finds that the certified plan text and maps materially fail to meet applicable certification standards under s. 91.18, Wis. Stats.

ORDER

NOW, THEREFORE, IT IS ORDERED THAT:

(1) The attached Kewaunee County Farmland Preservation Plan text (November, 2016) and maps (November 8, 2016) are hereby certified under s. 91.16., contingent upon county adoption of the plan, included as part of the County comprehensive plan, in the form submitted, before June 30, 2017.


(2) The certified farmland preservation plan area for Kewaunee County is titled "Farmland Preservation Areas."

(3) This certification takes effect on the date on which the certification order is signed.

(4) This certification expires at the end of the day on December 31, 2026.

Dated this 16th day of November, 2016.

STATE OF WISCONSIN,
DEPARTMENT OF AGRICULTURE,
TRADE AND CONSUMER PROTECTION

By 
Ben Brancel, Secretary

Parties for Purposes of Review Under s. 227.53, Wis. Stats.:

Davina Bonness, Kewaunee County Land & Water Conservation Director
625 Third Street
Luxemburg, WI 54217



RESOLUTION NO. 32-12-2016

**A RESOLUTION ADOPTING THE KEWAUNEE COUNTY 20-YEAR
COMPREHENSIVE PLAN UPDATE**

TO THE HONORABLE KEWAUNEE COUNTY BOARD OF SUPERVISORS:

1 **WHEREAS**, on November 27, 2007, Kewaunee County adopted the *Kewaunee County 20-Year*
2 *Comprehensive Plan* for the general purpose of accomplishing coordinated, adjusted, and
3 harmonious development/preservation of the County and to meet the comprehensive planning
4 requirements of Wisconsin's Smart Growth Law, Wis. Stats. §66.1001; and
5

6 **WHEREAS**, Wisconsin's Smart Growth Law requires that comprehensive plans be periodically
7 updated; and
8

9 **WHEREAS**, Kewaunee County has requested and received the assistance of the Bay-Lake
10 Regional Planning Commission to update the County's comprehensive plan update; and
11

12 **WHEREAS**, the comprehensive plan update also includes a component that amends the
13 Kewaunee County Farmland Preservation Plan for the County to satisfy the requirements of
14 Chapter 91 of the Wisconsin Statutes, Farmland Preservation; and
15

16 **WHEREAS**, input to update the County's comprehensive plan was obtained from various county
17 committees, county staff, local communities, and interested residents of the County; and
18

19 **WHEREAS**, the *Kewaunee County 20-Year Comprehensive Plan Update*, 2016 was prepared,
20 which addresses and updates, the nine elements identified in Wisconsin's Smart Growth Law,
21 as well as Wisconsin's Farmland Preservation Program; and
22

23 **WHEREAS**, copies of said comprehensive plan update were made available to residents and
24 other interested individuals at the County Administration Building in the City of Kewaunee, the
25 Land and Water Conservation Department in the Village of Luxemburg, the Algoma Public
26 Library in the City of Algoma, and on the website of the Bay-Lake Regional Plan Commission;
27 and
28

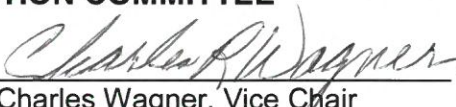
29 **WHEREAS**, a public hearing concerning the County's comprehensive plan update (preceded by
30 a Class 1 notice published at least 30 days prior to the hearing) was held by the County Land
31 and Water Conservation Committee on this date, as required by Wis. Stats. §66.1001(4)(d).

1 **WHEREAS**, the Kewaunee County Land and Water Conservation Committee hereby
 2 recommends that the Kewaunee County Board adopt the *Kewaunee County 20-Year*
 3 *Comprehensive Plan Update*, 2016, pursuant to Wis. Stats. §§59.69 and 66.1001(4).
 4
 5 **NOW, THEREFORE, BE IT RESOLVED**, by the Kewaunee County Board of Supervisors, duly
 6 assembled this 20th day of December 2016, that the Board adopts the *Kewaunee County 20-*
 7 *Year Comprehensive Plan Update*, 2016, pursuant to Wis. Stats. §§59.69 and 66.1001(4).

Respectfully Submitted,

LAND AND WATER CONSERVATION COMMITTEE


 John T. Pagel, Chair


 Charles Wagner, Vice Chair



 Lee Luft, Secretary


 Ron Paider

Clark Reimer

APPROVED AS TO FORM

Jeffrey R. Wisnicky
 Corporation Counsel

FISCAL IMPACT STATEMENT:


	Y E S	N O	A B S E N T	A B S T A I N
Benes, P	✓			
Cravillion, D.	✓			
Dobbins, M.	✓			
Doell, D.	✓			
Haske, V.	✓			
Jahnke, S.	✓			
Kirchman, L.	✓			
Luft, L.	✓			
Mastalir, J.	✓			
Paape, G.	✓			
Pagel, J.	✓			
Paider, R.	✓			
Rasmussen, C.			✓	
Romdenne, T.	✓			
Shillin, K.	✓			
Sinkula, L.	✓			
Teske, L.	✓			
Thomas, D.	✓			
Wagner, C.	✓			
Weidner, R.	✓			
TOTALS	19	0	1	0



State of Wisconsin
Governor Scott Walker

Department of Agriculture, Trade and Consumer Protection
Ben Brancel, Secretary

December 21, 2016

Davina Bonness
Kewaunee County Land & Water Conservation Director
625 Third Street
Luxemburg, WI 54217

Dear Davina:

Thank you for sending a copy of the ordinance adopting the Kewaunee County's Farmland Preservation Plan. This completes certification of the County's plan. Certification of the Farmland Preservation Plan expires on December 31, 2026.

We look forward to continuing to work with you on farmland preservation in Kewaunee County. Please call if you have any questions or concerns.

Sincerely,

Scott Karel
Land Management Section
608-224-4604

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Chapter 8

FUTURE LAND USE

INTRODUCTION

This element of the comprehensive plan provides the Future Land Use Plan map for Kewaunee County detailing land use needs, along with a recommended strategy and physical plan to guide the location, density, and intensity of land development. The background information and countywide demographic projections within this plan, along with the farmland preservation maps and comprehensive plans developed by each of the county's municipalities, were major building blocks in the development of this Future Land Use component.

Vision Statement

Kewaunee County's 20-Year vision regarding development and preservation is based on a compilation of responses from workshops conducted by various county departments/committees, prior visioning workshops, and the adopted community vision statements.

Kewaunee County 20-Year Vision Statement:

"Kewaunee County is an area that is recognized as an exceptional place in which to live, work, play and raise families while preparing for the needs of future generations. Kewaunee County values the unique mix of rural and urban interests and is committed to preserving the agricultural heritage and natural beauty through responsible growth management. Building on Kewaunee County's rich history, our vision includes a strong and diverse economy that takes responsible advantage of our valuable resources. We envision all communities of the county working cooperatively to maintain and build a high quality of life for all of its current and future residents."





FUTURE LAND USE PROJECTIONS

Wisconsin Statutes require comprehensive plans to include projections in five-year increments for future residential, commercial, industrial and agricultural land uses over the 20-year planning period. Table 8.1 details the potential amount of acreage needed for future development within Kewaunee County through 2040.

Table 8.1: Five-Year Incremental Land Use Projections, 2020-2040, Kewaunee County

RESIDENTIAL*						
Year	Towns		Cities/Villages		County Total	
	Acres	Total	Acres	Total	Acres	Total
2020	555.0	555.0	66.2	66.2	621.2	621.2
2025	706.5	1,261.5	82.0	148.2	788.5	1,409.7
2030	808.5	2,070.0	90.4	238.7	898.9	2,308.7
2035	138.0	2,208.0	23.3	262.0	161.3	2,470.0
2040	(418.5)	1,789.5	(29.2)	232.7	(447.7)	2,022.2
COMMERCIAL						
Year	Towns		Cities/Villages		County Total	
	Acres	Total	Acres	Total	Acres	Total
2020	26.4	26.4	11.6	11.6	38.1	38.1
2025	33.6	60.1	14.4	26.0	48.0	86.1
2030	38.5	98.6	15.9	41.9	54.4	140.4
2035	6.6	105.1	4.1	46.0	10.7	151.1
2040	(19.9)	85.2	(5.1)	40.8	(25.1)	126.0
INDUSTRIAL						
Year	Towns		Cities/Villages		County Total	
	Acres	Total	Acres	Total	Acres	Total
2020	16.1	16.1	10.5	10.5	26.6	26.6
2025	20.5	36.7	13.0	23.5	33.6	60.2
2030	23.5	60.2	14.4	37.9	37.9	98.1
2035	4.0	64.2	3.7	41.6	7.7	105.8
2040	(12.2)	52.0	(4.6)	36.9	(16.8)	89.0

Source: Bay-Lake Regional Planning Commission, 2016.

**Note: As identified in the household forecast table of the “Housing” section of this plan, Kewaunee County is projected to experience a decline of 100 households between the years of 2035 and 2040. This decline is reflected in Table 8.1 above with a loss of acreage for 2040. As a result, refer to the 2035 acreage “Total” to determine the greatest amount of land potentially needed for each use over the 20-year planning period.*

Residential Projections

Future residential development was projected utilizing 2013 WDOA Household Projections for each of the county’s municipalities. An average lot size per dwelling unit was calculated based on the housing density recommendations of the municipalities’ adopted comprehensive plans. The projections are for single family homes and do not account for multiple family and apartment complexes which have greater residential densities.



CHAPTER 8: FUTURE LAND USE

- Cities/Villages - an average lot size of 1/3 acre per dwelling unit.
- Towns - an average lot size of three acres per dwelling unit.

Commercial Projections

- To calculate commercial land use projections, the ratio of residential acreage to commercial acreage was compared by parcel in the incorporated communities (6:1) and the towns (21:1) based on the land use inventory.

Industrial Projections

- Industrial lands are projected in the same manner as the commercial lands. By using the ratio of residential acreage to industrial acreage by parcel in the cities/villages (6:1) and the towns (34:1) based on the land use inventory.

Agricultural Projections

While future development is recommended to locate near existing growth centers where adequate facilities and services are available, the trend of more spacious living environments could dramatically change the look of the agricultural landscape of the county.

- According to the Wisconsin Agricultural Statistical Service, an average of 61 acres of land was diverted from agriculture each year from 2010-2014. As a result, from the year 2020 to 2040, nearly 1,525 acres of land could transition from agricultural to non-farm uses.

The consumption of agricultural lands may be influenced by the strategies of local comprehensive plans and zoning ordinances.

RECOMMENDED FUTURE LAND USE STRATEGY

The following land use strategy is the result of Kewaunee County and its towns making the necessary updates from the initial county plan in 2007. The updates ensure that the comprehensive plan will continue to effectively guide future land use planning efforts. The Future Land Use Plan map reveals a generalized strategy for type, location, and development for future growth and preservation in Kewaunee County over the next 20 years and best represents the recommended development strategies of the local communities. The Future Land Use Plan was developed based on the information contained in:

1. the goals and objectives, found in Chapter 1 (Issues and Opportunities);
2. the “County Resources” portions of this document; and
3. the Farmland Preservation Plan component of this document.

Note: All categories are not represented on Map 8.1; however, future development strategies for each are discussed in this section. Kewaunee County’s future land use classifications include:

- Urban Fringe Growth
- Concentrated Rural Mixed Use
- Agricultural/Rural Development
- Governmental/Institutional/Utilities
- Transportation
- Parks and Recreation
- Woodlands/Open Space
- Environmental Corridors



Urban Fringe Growth

Kewaunee County's recommended Urban Fringe Growth areas include the Urban Cores (i.e., cities of Algoma and Kewaunee, and villages of Casco and Luxemburg) along with the community of Dyckesville. These urbanized areas are characterized by concentrated residential development, mixed with accompanying commercial and industry where existing public facilities and services are available or could be provided in an efficient manner for future growth. These areas also contain a number of attributes that would foster healthy, livable communities including:

- Mix of land uses
- Pedestrian friendly
- Recreational facilities
- Proximity to STH 29, 42, 54, and 57
- Harbors
- Schools

These established growth areas will help limit the conversion of undeveloped land, which can lead to fragmentation of the county's valuable agricultural lands and environmental features.

Residential Development

- Future residential development is preferred within the Urban Cores/Urban Fringe Growth areas (i.e., adjacent to the cities, villages and the Dyckesville area) where infrastructure, facilities, and services currently exist or could be extended. Although residential densities may vary in each of these areas, new development is preferred to be orderly and include the possibility of infill developments and rehabilitation of existing structures.
- Communities identified as Urban Core/Urban Fringe Growth areas should refer to their residential development strategies within their local comprehensive plans for more detailed guidance on envisioned residential scale, densities, housing types, etc.

Commercial/Industrial

Expansion of diverse economic development opportunities and jobs while promoting well-designed commercial/industrial development is encouraged in the Urban Cores/Urban Fringe Growth areas. The intensive commercial/industrial businesses should be directed to the areas that currently have adequate infrastructure and services and limit adverse impacts on population centers and to the environment.

- Community commercial uses (e.g., grocery stores, convenience stores, personal and business services and offices) and highway commercial uses, which service the traveling public, are envisioned to be primary businesses.
- Commercial uses are encouraged to develop within the Urban Cores/Urban Fringe Growth areas along STH's 29, 42, 54, and 57 because of accessibility and visibility, whereas future industries should be steered toward established industrial parks. Many of the state highway corridors adjacent to the Urban Core communities currently identify agriculture or natural features as the preferred land use on the Future Land Use Plan map; however, if any non-agricultural growth occurs along these corridors, the developments must be based on the local community's comprehensive plan strategy.



CHAPTER 8: FUTURE LAND USE

- Identified Urban Core communities should continue efforts to revitalize their main street/downtown commercial areas.
- Work with the Kewaunee County Economic Development Corporation and local chambers to promote tourism-related businesses.
- New industries are encouraged to utilize vacant structures, whenever possible, rather than constructing new industrial facilities.
- Urban Core communities should refer to their commercial/industrial development strategies within their local comprehensive plans for more detailed guidance on future commercial and industrial development standards including building appearance, signage, landscaping, lighting, parking and access standards.

Concentrated Rural Mixed Use

Several of the county's unincorporated communities and waterfront areas contain densely developed areas and have the qualities that could foster increased growth in the future. These locations are identified as Concentrated Rural Mixed Use areas on Map 8.1.

- Any new developments in the unincorporated communities should occur in neighborhood or village-like patterns consistent with the existing character and intensity, while discouraging large lot development within or at their fringes. The compact nature of these developments should assist with the preservation of the surrounding agricultural lands and valuable natural resources.
- Existing and future developments under this classification will likely continue to rely on onsite (well) water and private onsite septic systems. As a result, more intensive developments should be guided toward the Urban Cores/Urban Fringe Growth areas which contain the adequate public services and utilities.
- Commercial uses found within the Concentrated Rural Mixed Use communities are characterized as "general store" types of operations. Many employers within these Concentrated Rural Mixed Use areas are agricultural based (e.g., feed mills, cheese factories, horticulture) or service focused (e.g., taverns, restaurants, convenience stores, auto body repair). These types of uses are likely to continue into the future.
- Several of the county's lakes along with areas along Lake Michigan have already experienced considerable development. Additional growth in these areas should be evaluated in an effort to limit the adverse impacts on the natural environment.
- As the unincorporated communities and waterfront areas grow into the future, communities are encouraged to evaluate the ability to provide services (e.g., roads, parks, fire and police protection, etc.) to an increasing number of residents and businesses.
- Future developments in the Concentrated Rural Mixed Use areas identified on the Kewaunee County Future Land Use Plan map should be consistent with the detailed future land use plan of the local jurisdictions.



Agricultural/Rural Development

These areas are recommended to continue as a mix of predominantly agricultural uses and scattered areas of very low density residential growth.

- Large tracts of land devoted to agricultural production are recommended to be preserved.
- Large-scale farming operations have become commonplace in the county. It is important for agricultural lands to continue to be under the best management practices for agricultural activities.
- Rural residential development is envisioned as single family residential growth on areas that are located along the local road network.
- Commercial/industrial developments should be discouraged, or limited in the rural portions of the county.

Governmental/Institutional/Utilities

Public Facilities/utilities are provided by the county, municipalities, special districts, or by private companies. They include: power generation, educational, religious, and public services (police, fire, ambulance, government offices and facilities, social service buildings, etc.). The availability of water, wastewater, emergency services, electricity and other utilities and services impact the safety and quality of life for residents and the economic stability of the Urban Cores and Kewaunee County.

As development pressures grow, the county and its local communities will continue to monitor the capacities of the existing utilities and services (e.g., healthcare, emergency, etc.) to ensure that the services provided are effective and efficient.

Transportation

The transportation classification identifies the network of local roads, county highways, and several state highways (29, 42, 54, and 57), along with the rail line leading into the Village of Luxemburg.

Mobility, efficiency, and safety continue to be important concerns for the county's transportation system. The county will continue to monitor the mobility needs through appropriate land use decisions and an efficient transportation system with local and regional roads.

Parks and Recreation

The intent is to maintain and promote the county recreational facilities, trails, parks, and open spaces to ensure the county's population is served with adequate park facilities, ranging from passive to active recreation.



Woodlands/Open Space

The Woodlands/Open Space classification is intended to preserve the woodlands, open spaces and other natural amenities within Kewaunee County.

- Encourage efforts to replenish the woodlands that are removed. Benefits include maintaining/improving wildlife habitat and recreation opportunities, restoration of clean water resources, erosion prevention, etc.
- Promote efforts to limit fragmentation of woodlands. Residential growth in these areas should be discouraged or developed utilizing conservation design methods. Efforts to prevent fragmentation will allow the county to enjoy contiguous woodlands and maintain wildlife habitat and migration patterns.

Environmental Corridors

Kewaunee County contains many significant natural features including wetlands, floodplains, lakes, rivers, and creeks. These features provide wildlife habitat, enhance the appearance of communities, improve natural processes such as flood control, water retention or groundwater recharge, and provide outdoor recreation opportunities. The county encourages efforts to minimize human disturbances on these lands, especially locations that may be vulnerable to future development.

The elements that make up environmental corridors (i.e., wetlands, floodplains, slopes 12% or greater, and shoreland areas) provide limitations to development and are generally regulated by either the federal, state, or county government. The environmental corridors elements are illustrated on Map 2.3 and should be utilized as a reference to aid in their protection.

Kewaunee County will work with its municipalities to emphasize that natural features within the county remain in their natural state, or be minimally modified for other uses, where suitable.

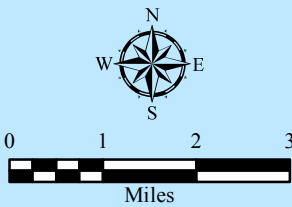
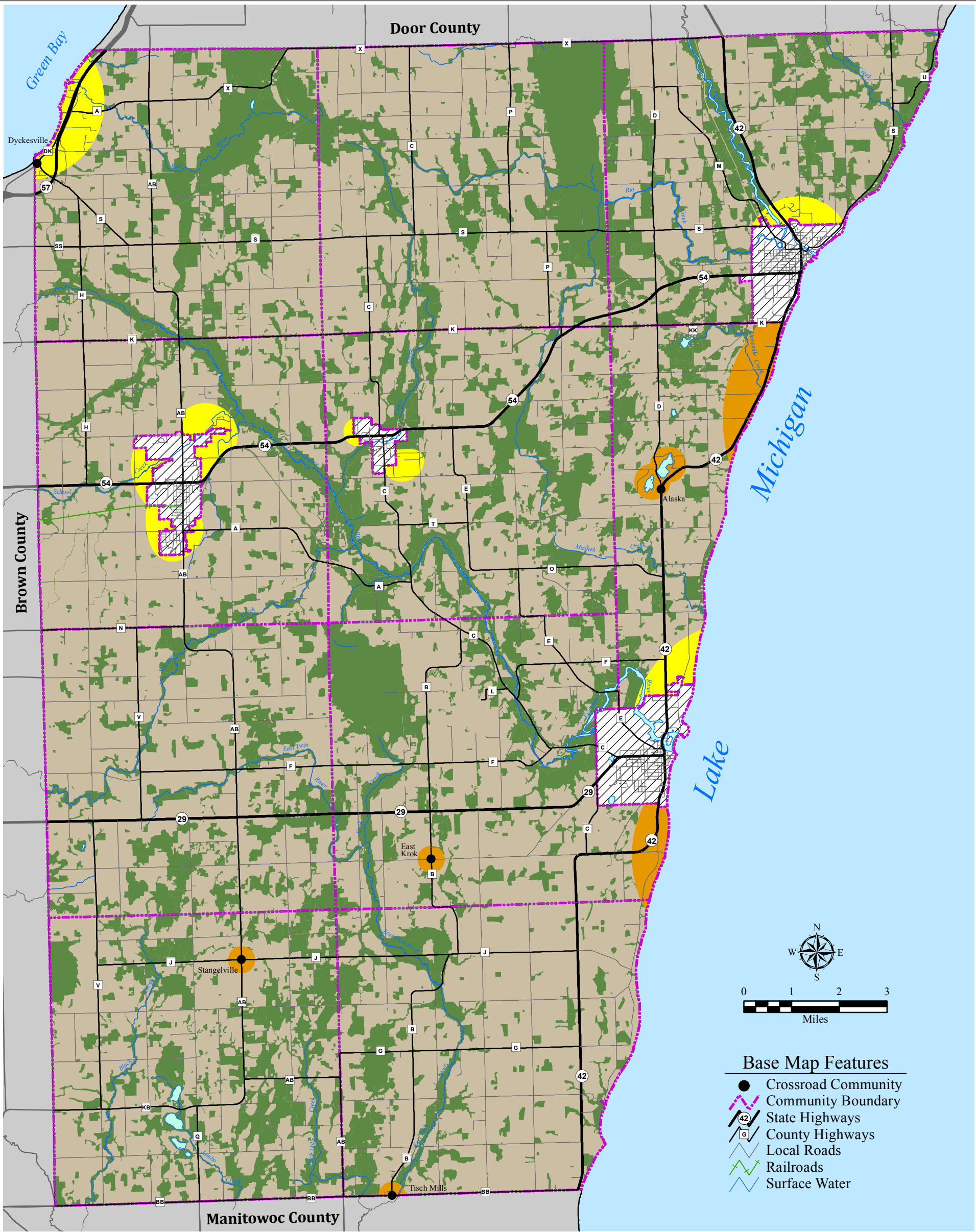
FUTURE LAND USE PLAN MAP

The Kewaunee County Future Land Use Plan map (Map 8.1) is a generalized assembly of the detailed future land use plans developed by the county's municipalities. It is important to note that uses are by general location and not by individual parcels or land uses. For more specific information about future growth in any community within Kewaunee County, refer to that community's adopted comprehensive plan.



CHAPTER 8: FUTURE LAND USE

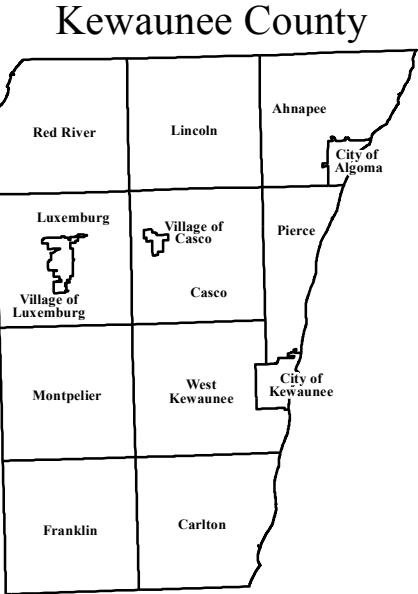
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- Base Map Features**
- Crossroad Community
 - Community Boundary
 - 42 State Highways
 - G County Highways
 - Local Roads
 - Railroads
 - Surface Water

Map 8.1 Future Land Use Plan Kewaunee County

- Urban Fringe Growth
- Concentrated Rural/Mixed
- Woodlands/Open Space
- Agricultural
- Urban Core



Source: WDNr, 2013; WisDOT, 2014; Kewaunee County, 2015, 2016; Bay-Lake Regional Planning Commission, 2016.

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

Chapter 9

IMPLEMENTATION

INTRODUCTION

This plan component discusses intergovernmental cooperation between Kewaunee County, its local jurisdictions, and other governmental entities. It also outlines a variety of actions and activities necessary to implement the general development strategies and vision of the *Kewaunee County 20-Year Comprehensive Plan Update*. In an effort to keep this plan up-to-date with changing conditions, this section also includes a process for amending/updating the comprehensive plan.

RESPONSIBILITIES OF LOCAL OFFICIALS

Elected officials and county staff need to be familiar with the plan's land use recommendations, development strategies, Future Land Use Plan, and vision statement, since much of the rationale needed to make future land use decisions will be based on this information. The county will also reference the community comprehensive plans for any changes that have occurred in the local future land use strategies.

The *Kewaunee County 20-Year Comprehensive Plan* shall be consulted before changes are made to land uses and county ordinances to ensure they are consistent with the comprehensive plan.

INTERGOVERNMENTAL COOPERATION

Intergovernmental cooperation examines the working relationships various entities and governmental units have with one another and how these relationships may impact the capability of the county and local communities to implement their comprehensive plans.

Existing Intergovernmental Activities

Kewaunee County Municipalities:

City of Algoma	Town of Franklin
City of Kewaunee	Town of Lincoln
Village of Casco	Town of Luxemburg
Village of Luxemburg	Town of Montpelier
Town of Ahnapee	Town of Pierce
Town of Carlton	Town of Red River
Town of Casco	Town of West Kewaunee

Kewaunee County is bordered by Brown, Door and Manitowoc counties.

Relationships

Overall, the county has a good working relationship with its local jurisdictions and neighboring counties. Since the towns maintain their own zoning ordinances, the county has little jurisdiction, with the exception of shoreland and floodplain zoning and issuance of sanitary permits. The County also includes the municipalities in the *Kewaunee County Park and Outdoor Recreation Plan*, as well as the county's *Farmland Preservation Plan*.



CHAPTER 9: IMPLEMENTATION

Being located on the shorelines of Lake Michigan and Green Bay, Kewaunee County can relate to the surrounding counties when addressing invasive species, shoreline preservation, and shoreland development pressures.

The county has a limited relationship with the cities and villages since most decisions are based on local zoning and the county having no jurisdiction in incorporated communities. However, the county does own property within these communities (e.g., County Fairgrounds in the Village of Luxemburg) and has input on development/redevelopment possibilities.

Kewaunee County includes its communities in the *Kewaunee County Hazard Mitigation Plan*, as well as the *Kewaunee County Farmland Preservation Plan (Chapter 7 of this comprehensive plan)*, and the *Kewaunee County Comprehensive Outdoor Recreation Plan*.

Siting Public Facilities

Most county administrative offices are located in the City of Kewaunee along with the Village of Luxemburg. The Kewaunee County Courthouse, Kewaunee County Sheriff's Department, and jail are located in the City of Kewaunee. Four County Highway Department shops scattered throughout the county perform road repairs and maintenance on county-owned public facilities. Kewaunee County also maintains county parks and boat launch facilities throughout the county. The Kewaunee County Fairgrounds are also located in the Village of Luxemburg.

Sharing Public Services

Facility sharing agreements Kewaunee County has with surrounding counties or local jurisdictions include jail facilities, human services, highway services, etc. Several communities have entered into mutual aid agreements with neighboring municipalities, as well as Kewaunee County, to provide services to their residents. Many of the mutual aid agreements involve emergency services (police, fire, and rescue) and to maintain roads and infrastructure.

School Districts

There are four public school districts serving the residents of Kewaunee County (see Chapter 6). In addition, a number of private schools provide alternative learning environments. Kewaunee County is part of the Northeast Wisconsin Technical College (NWTC) district of the Wisconsin Technical College System.

Relationship

The relationship Kewaunee County and the local communities have with the public school districts is considered positive and open. The county and the individual municipalities can provide input on school facilities, future development projects, etc.

Siting School Facilities

The siting of new school facilities, such as athletic fields, school forests, off-site classrooms, and buildings is mainly conducted by the school districts. Kewaunee County has little input on the siting of these facilities; however, local communities have been involved in those plans to avoid duplication and costs, to evaluate recreational facilities, and to promote mutual planning on future development and development trends.



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Sharing School Facilities

The county has no formal agreement with the school districts for shared use of school facilities. Some of the local communities maintain an understanding with the school district to allow school buildings and recreational facilities to be used by the general public at little or no cost.

Region

Kewaunee County is a member of the Bay-Lake Regional Planning Commission. The Commission's annual work program includes economic development, natural resources, transportation, and community planning. Through a historically positive working relationship, the Commission has facilitated the preparation of a variety of local and regional plans, reports and studies that relate directly to planning within Kewaunee County.

Kewaunee County is part of the Northeast Wisconsin Technical College (NWTC) district of the Wisconsin Technical College System. NWTC works with local communities and school districts to secure space and facilities for classes.

State

The county's relationship with the State of Wisconsin involves many topics. Ongoing relationships have been maintained with transportation (WisDOT), natural resources (WDNR), Health and Services, Emergency Management, and Department of Administration. Local communities deal most often with WisDOT and the WDNR. Their relationships with these state agencies have been mixed.

IMPLEMENTATION OF LOCAL LAND USE CONTROLS

There are several land use control tools that can be utilized to implement comprehensive plans such as general zoning, official mapping, shoreland zoning, and land division ordinances.

The municipalities of Kewaunee County maintain their own zoning ordinances giving Kewaunee County limited jurisdiction over many of the land use decisions. The county does, however, maintain jurisdiction over several areas including shorelands, floodplains and issuance of sanitary permits. As stated in Chapter 1, these land use controls need to be consistent with an adopted comprehensive plan.

Zoning

Kewaunee County does not maintain a general zoning ordinance. Rather, each city, village, and town in the county maintains their own zoning ordinance. Refer to the general zoning ordinances of the individual communities for detailed information on zoning districts, regulations, restrictions, permitted uses and, zoning maps.

- The county will continue to enforce the compliance of private onsite wastewater treatment systems in the unincorporated areas while utilizing the comprehensive plan's development/preservation strategies to assist with the protection of water resources and other environmentally sensitive areas of the county.

Official Mapping

Under §62.23(6), the City Council/Village Board/Town Board (under village powers) "...may by ordinance or resolution adopt an official map showing the streets, highways, parkways, parks and



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playgrounds laid out, adopted and established by law.” Once an area is identified on an official map, no building permit may be issued for that site, unless the map is amended.

The official map serves several important functions:

1. It helps assure that when the city/village/town acquires lands for streets, etc., it will be at a lower vacant land price;
2. It establishes future streets that subdividers must adhere to unless the map is amended; and,
3. It makes potential buyers of land aware that land has been designated for public use.

Wetland-Shoreland Ordinance

The Kewaunee County Wetland-Shoreland Ordinance regulates the shorelands of all navigable waters in the unincorporated areas which are shown either in the WDNR Surface Waters of Kewaunee County, or on USGS quadrangle maps. The ordinance regulates lands which are:

1. Within 1,000 feet of the ordinary high water mark of navigable lakes, ponds or flowages;
2. Within 300 feet of the ordinary high water mark of navigable rivers or streams, or to the landward side of a floodplain of the navigable reaches of rivers or streams, whichever distance is greater;
3. The ordinance also states there is a 75-foot setback for all structures from the ordinary high water mark of navigable inland waters and Green Bay;
4. For lots that abut on Lake Michigan, the required minimum setback for all buildings and structures shall be at least 75 feet from the ordinary highwater mark where the shore bluff height is 10 feet or less, and 125 feet from the ordinary highwater mark where the shore bluff height is greater than 10 feet.

Floodplain Ordinance

The purpose of the county’s floodplain ordinance is to regulate development in flood hazard areas to protect life, health, and property.

Subdivision Ordinance

The subdivision ordinance applies only to the shoreland areas of Kewaunee County. The general purpose of the ordinance is to provide for the safe and orderly design and development of subdivisions within the shoreland area.

Other Ordinances/Regulations

Other tools to implement the comprehensive plan may include the development/support of additional Kewaunee County regulations such as:

- Sign Regulations
- Erosion and Storm Water Control Ordinances
- Historic Preservation Ordinances
- Building/Housing Codes
- Lighting Controls/Ordinances
- Erosion and Stormwater Control



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COMPREHENSIVE PLAN INTERNAL CONSISTENCY

This plan promotes consistency between all of its elements and their respective development/preservation strategies. The Kewaunee County comprehensive plan was developed to coincide with the comprehensive plan strategies of the county's municipalities.

It is important that county officials periodically review the plan elements and development strategies for relevancy and consistency. These reviews will also ensure the plan contains the most current information available to make land use decisions. In addition, county ordinances and regulations need to be periodically reviewed for consistency with the *Kewaunee County 20-Year Comprehensive Plan*.

UPDATING THE COMPREHENSIVE PLAN

This comprehensive plan shall be amended/updated according to §66.1001, *Wis. Stats.* and the county's adopted written procedures for fostering public participation. It is recommended that the county's comprehensive plan be reviewed/updated based on the following schedule:

Annually

- Review the vision statement and future development strategies;
- Identify updates to the Wisconsin Department of Administration (WDOA) population and housing estimates, and U.S. Census data;
- Review implementation priorities and relevance of the development strategies;
- Update any changes to 20-Year Land Use Plan text or map; and
- Ensure consistency with new or revised ordinances proposed by Kewaunee County.

Five Years

- Review U.S. Census data, WDOA population and housing projections – update as needed; and
- Identify substantial changes over the past five years and any potential impacts to the county in the near future. This helps monitor outcomes of implemented development strategies and identifies any possible needs for the 10-year update.
- Be aware of updates or completion of other local, county, or regional plans.

Ten Years

Requires a comprehensive plan update per §66.1001 (2)(i), *Wis. Stats.* Amend the plan as needed based on changing conditions.

- Conduct a review of the county's vision statement, Future Land Use Plan development strategies and map, land use recommendations, and local comprehensive plans.
- Update the population, housing, and economic data, along with other relevant planning information.
- Review ordinances and other controls for consistency.

IMPLEMENTATION WORK PLAN

County officials should establish a general process and timetable for addressing the development strategies that will ultimately lead to implementing the comprehensive plan and to assist local communities in the implementation of their plans. Several possible steps in the process may include the following:



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- Any review of the comprehensive plan should also include assessment of the county's land use control tools (e.g., ordinances and regulations).
- County officials should identify key stakeholders and collaborators to assist in the implementation of the development strategies. A list of some of those entities is provided below.
- The priority objectives should be separated based on topic such as housing, economic development, transportation, parks and recreation. The separation of strategies by topic will allow for the delegation of projects to other entities like the Kewaunee County Economic Development Corporation or Promotion and Recreation Department.
- Several county tools are available for the implementation of the development/preservation strategies over the 20-year planning period. Within the appendices of this document, there are comprehensive lists of financial and technical resources to implement many of the strategies listed for the housing, economic development, and transportation elements of the plan.
- The implementation schedule should be evaluated and revised on an annual basis. County officials should monitor the inventories and trends highlighted in this plan to ensure the development strategies address the changing conditions of Kewaunee County.

Stakeholders

Landowners

County Departments

Local Chamber of Commerce

Local Cities, Villages, and Towns

Adjacent Counties and Towns

UW-Extension

Kewaunee County Sheriff's Department

Local Police Departments

Fire Departments

EMS/Ambulance providers

Civic and Recreation Clubs

Local School Districts

Lakeshore Community Action Program

Kewaunee County Economic Development Corporation

Bay-Lake Regional Planning Commission

United States Department of Agriculture, Natural Resources Conservation Service

Wisconsin Department of Administration

Wisconsin Department of Agriculture, Trade, and Consumer Protection

Wisconsin Department of Natural Resources

Wisconsin Department of Transportation

Wisconsin Housing and Economic Development Authority

United States Environmental Protection Agency

United States Department of Agriculture



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