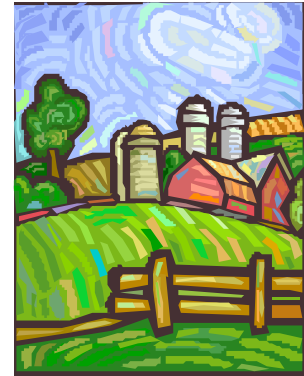


6.0 AGRICULTURAL, NATURAL & CULTURAL RESOURCES ELEMENT



Introduction

Agriculture is important to the Brillion Community. In the community survey, respondents consistently recognized farming as important for the local economy, for the preservation of rural character, and for the open, scenic vistas it provides. Nearly 90 percent of respondents indicated that farmland protection should be a high priority. However, approximately half of all farmers surveyed do not know how long they plan to continue farming, which could indicate a willingness to sell their land for development. Consequently, a significant decrease in the amount of total farmland could result.

The protection of natural resources is also an important issue to residents according to the results of the community survey. Residents overwhelmingly support the protection of woodlands, grasslands, lakes and lakeshores, rivers, streams and wetlands. Survey respondents consistently recognized natural resources as important for recreational, wildlife habitat, scenic, and environmental quality benefits.

Agricultural, Natural & Cultural Resources Vision

Although the area will experience a decrease in the number of small family farms, the increase in large corporate farming operations will help to maintain agriculture as an important economic and cultural part of the Brillion Community. Niche and family farms also remain a vital part of the local farm economy.

Community and faith-based organizations continue to provide leadership in developing educational and cultural activities for the Brillion Community.

In 2020, the protection and enhancement of natural resources will play a dominant role in growth and development decisions, so that the area's rural character and quality of life is maintained.

Agricultural Resources

The Brillion Community has a strong farming history and tradition. Over 80 percent of all land area in the Brillion Community is classified as farmland/open space. According to the 1997 Agricultural Census, the Town has between 1.5 and 2 dairy farms per section. Today, farming continues to significantly support the local economy and is the primary land use in the Town. The farm fields on the landscape create the rural character that makes the area such an attractive community.

Soils

Soil types define prime farmlands. Soils support the physical base for development and agriculture in the community. Knowledge of soil limitations is important in evaluating crop production capabilities and other land use alternatives, such as residential development. A map of productive agricultural areas based on soil types is provided on the following page. The following table identifies soil types in the Brillion Community.



Farm Field in Town of Brillion



Farm in Calumet County

TABLE 19
Soil Characteristics

Soil Type and Location	Characteristics
<p>Kewaunee-Manawa-Poygan Association Most prominent soil type.</p>	<p>Attributes</p> <ul style="list-style-type: none"> ▪ Is well to poorly drained; ▪ Has a nearly level slope; ▪ Is found on glaciated uplands; and ▪ Is composed mostly of gently sloping plains bisected by drainage ways and broad depressions. <p>Qualities and Concerns: <u>Well suited for cropland.</u> Management Concerns:</p> <ul style="list-style-type: none"> ▪ Many areas require surface draining and or subsurface drainage to produce high yields. ▪ Controlling water erosion ▪ Improving drainage ▪ Maintaining tillage and fertility <p><u>Not well suited to urban development.</u> Management Concerns:</p> <ul style="list-style-type: none"> ▪ Roads are subject to frost heavy during winter months. ▪ Percolation rates are slow and many areas are saturated with water at less than five feet below the surface during wet periods causing severe limitations for septic tank absorption fields.
<p>Houghton-Palms-Willette Association southern portion of the Town, in the area occupied by the Brillion Marsh</p>	<p>Attributes</p> <ul style="list-style-type: none"> ▪ Very poorly drained ▪ Found in nearly level organic soils. <p>Qualities and Concerns May not be well suited for cropland or community development given wet conditions and flood hazards.</p>
<p>Pella-Mundelein-Shiocton Association Small deposit located along the western boundary of the City</p>	<p>Attributes</p> <ul style="list-style-type: none"> ▪ Poorly drained. ▪ Loamy soil is nearly level ▪ Gently sloping. ▪ Some un-drained areas are used for pasture or as wildlife habitat. <p>Qualities and Concerns If drained, has good potential for cultivated crops such as corn, shell grains and hay.</p> <p>Management concerns:</p> <ul style="list-style-type: none"> ▪ Improving drainage ▪ Maintaining tilth and fertility.
<p>Wasepi-Nichols-Boyer Association located in the northeast corner of the Town</p>	<p>Attributes</p> <ul style="list-style-type: none"> ▪ Is excessively drained to somewhat poorly drained. ▪ Has a nearly level slope. ▪ Is found on moraines, terraces, and outwash plains that are dissected by large drainage ways. ▪ Used for pasture, dairying, as woodland or as wildlife habitat. <p>Qualities and Concerns Fair to poor potential for cultivated crops.</p> <p>Management Concerns:</p> <ul style="list-style-type: none"> ▪ Controlling erosion and blowing soil control ▪ improving drainage and maintained tillage ▪ fertility

Farm Ownership

The primary issue with farmland preservation is that only a small number of farmers own the majority of farmland. Faced with development pressures, retirement needs, and a worsening farm economy, farmers see the sale of their land for development as an attractive financial opportunity. In fact, between 1990 and 1997, the Brillion Community lost between 2.5 and 5 percent of its farmland acres to development.¹ In order to maintain open areas of farmland in the community, which are large enough to support either a small family farming operation or serve as rental fields, creative development options must be explored.

Conservation Subdivisions-A Tool to Protect Farmland

From the community's perspective, conservation subdivisions provide ample opportunities for additional residential development, with minimal interference with the long-established farms of the area. Rather than allow scattered housing development to occur on 35-acre lots, homes are clustered together on smaller lots so a greater proportion of the land is protected from development. Typically, a conservation subdivision will require at least 50% of a site be protected from further development. Protection and maintenance of the conserved area is accomplished through a conservation easement with an appropriate conservation organization, neighborhood association or government body, or through deed covenants. The areas to be conserved must be designated as a natural habitat, open space, or farmland area. Walking and bicycle trail development is encouraged, particularly to provide limited access to protected natural areas.

According to the community survey, 54% of respondents the use of conservation subdivisions/cluster development options in the City and 51% of respondents support the use of conservation development in the Town.

For conservation subdivisions to be an effective tool in the Brillion Community, they should be located:

- In areas that are not considered to be primary farmlands
- Adjacent to the City as a buffer between the rural farms in the Town and the development in the City
- Adjacent to the Forest Junction sanitary district to provide a transition between the planned development in this area and the rural farms
- In areas where connection to the Friendship Trail (eventually the Lake-to-Lake Trail) is possible. However, the location of conservation subdivisions along this trail should be carefully considered to prevent loss of prime farmland and obstruction of wildlife habitat corridors.

To maintain the area's rural character and farming traditions, the Town is opposed to residential subdivision development of any type, in rural areas of the township beyond Forest Junction. Therefore, conservation subdivisions should not be located in rural farmland areas of the Town. This objective is consistent with Calumet County planning and zoning policies.

Advantages to Conservation Subdivisions

The advantage of conservation subdivision design, from a developer's perspective, is that the actual development area is decreased, so infrastructure costs (water, sewer, roads, etc.) can be significantly reduced. Evidence suggests people are willing to pay just as much, if not more, for a smaller parcel in a conservation subdivision than a larger parcel in a traditional subdivision because homeowners take comfort in knowing that land around them is permanently protected from development.

How is a Conservation Subdivision Created?

- Develop a yield plan. This plan essentially shows the number of homes that could be developed if a traditional subdivision layout were used.
- Identify primary and secondary conservation areas. Primary conservation areas include: poor soils, steep slope, wetlands, waterways and floodplains that are non conducive to development. Secondary conservation areas include other areas of local importance targeted for protection (i.e. farmland, woodlands, scenic views, etc.).
- Locate the home sites.

- Include roads, sidewalks and trails.
- Draw the lot lines. This is usually the first step in a traditional approach.

The Right to Farm

Wisconsin has a Right-to-Farm law protecting farms from nuisance lawsuits related to typical farm noise and odors. As residential development expands into farmland areas, it is inevitable that these issues will arise. Often, the issues relate to manure spreading and storage. Many who move to rural areas near farmland are not aware of these and other potential nuisances. Educational efforts are strongly recommended so potential conflicts can be avoided.

Concentrated Animal Feeding Operations (CAFOs)

CAFOs (700+ cattle), or mega farms, are increasing in number in Wisconsin. In 1985, there was one such operation in the state. By 1990, 24 operations and by 2000 there were 77 in Wisconsin. Generally, CAFOs locate in rural areas where conflicts with neighboring property owners can be minimized. The nearest CAFO to the Brillion Community is located in the Town of Rantoul. The farmland in the Town of Brillion is in close proximity to USH 10. Likewise, farm areas exist that are well buffered from the City and Forest Junction development. These rural, yet accessible areas would be the most desirable for a CAFO. At this time, there are no protective requirements in the Calumet County Zoning Ordinance that would stipulate the minimal proximity of large dairy farms to sanitary district boundaries. The County is reviewing its ordinances to determine if such guidelines should be included. City and Town officials should work with County officials and staff to establish a clear policy.

Natural Resources and Environmental Concerns²

Environmental characteristics such as geology, topography, drainage patterns, floodplains and wetlands are among the natural and environmental features that determine if an area is physically suitable for specific types of development.

Topography and Drainage

The topography of the Brillion community can best be described as nearly level. Not surprisingly, the lowest areas of the community are found in the Brillion Marsh. Generally, areas south of Harvestore Road drain to the Brillion Marsh. Areas north of Harvestore Road drain to Plum Creek.

Watersheds

Manitowoc River, North Branch

Most of the Brillion Community is in the North Branch of the Manitowoc River Watershed. This watershed includes a 77-square mile area of land in northeastern Calumet County. It includes the communities of Brillion, Forest Junction, Hilbert and Potter. The north branch of the Manitowoc River flows about 10 miles from its origin west of the Brillion Wildlife Area to its confluence with the South Branch to the main stem of the Manitowoc River. The Brillion Wildlife Area, a state-owned public hunting ground, is the largest wetland in the watershed.

Plum Creek Watershed

A portion of the Town, generally described as north of Harvestore Road, is in the Plum Creek Watershed. Water quality problems in this area include low dissolved oxygen, and high nutrient and sediment concentrations, and have been attributed primarily to non-point pollution. Poor land practices in the Plum Creek Watershed (84 square miles, 102 square kilometers),

The Plum Creek Watershed

was assessed by the WDNR in 1992 to determine the impacts of nonpoint source pollution on water quality. The watershed ranked "High" for streams. The watershed is not eligible for selection as a priority watershed under the Wisconsin Nonpoint Source Pollution Abatement Program. For more information, refer to the 1994 *Plum Creek Watershed Nonpoint Source Assessment Report* by Mary Gransberg available from the Calumet County Land & Water Conservation Department.



Additional groundwater quality and supply information is provided in Utilities and Community Facilities Chapter 5

cause non-point source pollution that degrades water quality in the upper reaches of Plum Creek.

Surface Water (Navigable Waters)

In the Brillion Community, there is very little surface water beyond the Brillion Marsh - Black Creek and Spring Creek both pass through the marsh and portions of the City. Round Lake is also located in the plan area and Grass Lake, located in the Town of Rantoul, abuts the southern boundary of the Town.

Black Creek

Black Creek is an intermittent stream that seasonally flows into the Brillion Wildlife Area. It offers little or no fishery potential and limited potential for other forms of aquatic recreation. Black Creek flows past the Deer Run Golf Course that frequently uses chemicals and fertilizers and has little to no buffer zones next to the stream.

Spring Creek

Spring Creek, a hard water stream, originates north of the City and flows more than five miles southwesterly before draining into the North Branch of the Manitowoc River. This stream flows through most of the Brillion Marsh, which provides an excellent breeding ground for many wildlife species.

Round Lake

Round Lake is a landlocked lake within a 0.7 square mile drainage basin. It is located in the far southeastern corner of the Town of Brillion and extends into the Town of Rantoul. The lake covers a total of 10.0 surface acres. The maximum depth is 55 feet and the mean depth is 30 feet. The total shoreline length is 0.55 miles - 0.2 miles of the shoreline are publicly owned. Largemouth bass, pan fish, and trout are common in the lake. Toads, wood frogs and green frogs are also common.

Groundwater

Groundwater is the primary source of drinking water for the residents of the Brillion Community. The main water supply aquifers in the area are the Niagara Dolomite Aquifer and the St. Peter Sandstone Aquifer. The two aquifers can be considered somewhat distinct, since the upper Niagara Dolomite is separated from the lower St. Peter Sandstone by Maquoketa shale, which confines the lower St. Peter Sandstone. Lesser quantities of groundwater are also found in the overlying glacial drift.

Recharge to the upper Niagara aquifer percolates through the glacial drift, and then moves slowly southeasterly toward Lake Michigan. Most recharge to the St. Peter Sandstone Aquifer is by lateral movement of water from areas to the northwest, although small quantities of water move down through the overlying Maquoketa shale.

A shallow groundwater divide in the glacial drift bisects the Town in a southwest to northeast direction, and is located northwest of the City. Shallow groundwater in the glacial drift to the northwest of the divide moves toward the Fox River, while shallow groundwater to the southeast of the divide moves toward the Brillion Marsh and eventually Lake Michigan. Recharge to the shallow aquifer in the Town and City comes from local precipitation, and then moves slowly toward either the Fox River or Lake Michigan. The shallow aquifer has distinct implications for affecting groundwater quality.

Contamination risks from land use practices are the major threat to groundwater resources. Potential contaminant sources include old, unregulated landfills, nitrates from failed septic systems or farm runoff, pesticides, leaking underground storage tanks, and road salt. All of these sources are presently regulated or are being addressed through ordinances or technical assistance services by various county and state agencies.

Significant arsenic levels have not been observed in the wells screened in the St. Peter Sandstone in the Brillion area, unlike wells in Outagamie and Winnebago Counties, due to the significantly greater depth of the St. Peter formation in the Brillion area.

Over-pumping the aquifer may become an issue in the future. The Town and City are on the edge of the zones of influence of heavy municipal and industrial pumping in the Green Bay and Fox Cities areas. As groundwater usage increases in those areas and in the Brillion area, further draw down will be observed in supply wells. Limited data is available about the groundwater levels. Available data suggests a decline in the water levels in the St. Peter

Sandstone Aquifer. Monitoring information is not available about the shallower, Niagara Dolomite, aquifer. It is believed that this shallower aquifer has never had a significant yield. As more people with modern (higher) water needs have moved into the area, this aquifer has continued to deplete.

Wetlands & Floodplains

City, County and State regulations place limitations on the development and use of wetlands and shore lands. Wetlands in the City and Town are shown on the Natural Features Map. The primary area of wetlands in the Brillion Community is the Brillion Marsh (i.e. Brillion Wildlife Area). In fact, this area is the principal wetland area in Calumet County. According to WDNR, approximately 90 percent of the county's original wetland areas have been drained, making the wetlands of the Brillion Marsh even more important to the region.

The Natural Features Map also illustrates that most of the floodplain areas in the Brillion Community are located adjacent to the Brillion Marsh and ditches which flow through the area. Generally, areas susceptible to flooding are considered unsuitable for development due to potential health risks and property damage. For this reason, the Future Land Use Maps restrict development in these areas.

Woodlands & Grasslands

Several small areas of woodlands are scattered throughout the plan area. The Natural Features Map illustrates the location of these areas. Because woodlands are an important natural feature to residents, the remaining woodland areas should be protected from future encroachment through the use of conservation subdivisions, land trust activities, private stewardship and other preservation techniques. Diminished tree quality near the Brillion Marsh is also cause for resident concern.

Permanent grasslands in the Brillion Community only exist on public lands. These areas provide important wildlife habitat and travel corridors, which must be continued in the future.

Wildlife Habitats

To protect wildlife habitats from encroachment, detailed information collected by the WDNR is not available to the public.

The Brillion Wildlife Area (known locally as the Brillion Marsh) includes 5,159 acres (including areas in the Town of Rantoul). Of this amount, 4,802 acres are owned by the WDNR and 357 acres are leased by the WDNR. The principal wildlife found in the marsh include: deer, sandhill cranes, turkeys, pheasants, Hungarian partridge, waterfowl, raccoons, squirrels, amphibians (toads and salamanders), reptiles (snakes), and several rare species of insects. The Brillion Marsh hosts the Brillion Nature Center, whose purpose is to educate residents about the wildlife in the area.

As described under the "surface and groundwater" subsection in this chapter, Black Creek and Round Lake are also important wildlife habitats for small mammals, frogs, toads, and fish.

Local farm fields also serve as a food source for deer, sandhill cranes, turkeys and waterfowl in the area. Farmland is also a very important local wildlife habitat that provides travel corridors between waterways, woodlands, grasslands and the Brillion Marsh. Farmland also provides cover opportunities and large contiguous open spaces needed by wildlife.

BENEFITS OF WETLANDS

Wetlands act as a natural filtering system for sediment and nutrients such as phosphorus and nitrates.

Wetlands serve as a natural buffer, protecting shorelines and stream banks from erosion.

Wetlands contribute to the storage of water.

Wetlands are also essential in providing fish & wildlife habitat, flood control, and groundwater recharge.

The WDNR Managed Forest Law

provides opportunities for conservation of contiguous woodland environments for wildlife and plants inhabiting these areas. For more information visit:

www.dnr.state.wi.us/org/land/forestry/publications/

The remaining areas of the community (i.e. residential areas, road corridors, and other developed areas) are not classified as primary wildlife habitat areas - though certainly animals do wander into these areas.

Exotic and Invasive Species

Non-native, or exotic, plant and animal species have been recognized in recent years as a major threat to the integrity of native habitats and species, as well as a potential economic threat (damage to crops, tourist economy, etc). Local invasive species include: purple loosestrife, phragmites, garlic mustard, knapweed and buckthorn. The WDNR requires that any person seeking to bring an exotic fish or wild animal for introduction in Wisconsin obtain a permit. The City and Town can help combat exotic species by educating and encouraging residents to use native plants in landscaping.

Threatened and Endangered Species and Communities

There are many threatened and endangered plant and animal species in Calumet County. Specifically, blanchard's cricket frog, northern ringneck snake, banded killfish, greater red horse, broadwinged skipper, yellow rail, prairie parsley, ram-head lady's slipper, snow trillium, and yellow gentian are found in the county. Additional threatened and endangered species include Wild Quinine, pale purple cone flower and a variety of snake species. Although a more specific list is not available for the Brillion Community, a complete, up-to-date list of endangered plant and animal species in Calumet County is available on the WDNR website.

Rare wildlife habitat areas, or communities, in Calumet County include: Snake hibernaculum, bat hibernaculum, dry cliff, emergent aquatic, floodplain forest, moist cliff, northern wet forest, open bog, shrub-car, and southern mesic forest.

Local DNR officials report that the Brillion Wildlife Area has restorations of prairie plants that are listed as state threatened, including: Wild Quinine and Pale Purple Coneflower. Several ospreys, which are also on the state threatened species list, live in the Brillion Wildlife Area. Blanding turtles, also listed on the state threatened species list, are found within the county.

Metallic and Non-Metallic Mining Resources

As part of NR 135, Wisconsin Administrative Code, adopted in December 2000, any community in Wisconsin may adopt an ordinance to establish requirements for reclamation of non-metallic mines, such as gravel pits and rock quarries. If a community does not develop its own ordinance, the county may develop an ordinance to regulate operations. Regional planning agencies can also develop ordinances for counties within their region. The ordinances must establish reclamation requirements to prevent owners and operators of quarries and gravel pits from abandoning their operations without proper reclamation of the mines.

ECWRPC, under an agreement approved in July, 2001 is the regulatory authority for administering five individual, county-adopted, Non-Metallic Mining Reclamation Ordinances for Winnebago, Calumet, Outagamie, Waupaca and Shawano Counties. This agreement transfers permit issuance and reclamation plan review/approval authority to the

WILDLIFE HABITAT FRAGMENTATION

A primary threat to wildlife is fragmentation -- the breaking up of larger habitat areas into smaller sections. Fragmentation decreases wildlife population sizes, isolates habitat areas and creates more edges -- where two dissimilar habitats meet (i.e. grassland and residential subdivisions).

To prevent further fragmentation, forested areas shown on the *Natural Features Map* should also remain largely intact to maintain their integrity.



Purple Cone Flower at the Brillion Wildlife Area

Exotic and Invasive Species

To prevent the spread of non-native and invasive species like *zebra mussels* and *Eurasian water milfoil*, recreational boat launching regulations are in effect which require boaters to diligently remove water from bilges, drain water from engines and other containers and clean boat hulls and trailers before leaving launch ramps. For more information, visit the WDNR web site at: www.dnr.state.wi.us.

ECWPRC for the program, however, the individual counties are still responsible for enforcing ordinance requirements should any problems arise with sites, operators or landowners. The ECWPRC only oversees the reclamation aspect of active sites in these counties as it relates to the NR-135 requirements. Zoning and other operational issues of sites are still administered by the counties under their existing zoning regulations.



Information about the NR 135 permits issued by the East Central Wisconsin Regional Planning Commission for the mining operations in the Brillion Community is available on-line at: www.eastcentralrpc.org.

The process of locating a mine continues to be a local matter governed by local authorities under existing zoning procedures. The new reclamation requirements through NR 135 add to the status quo but do not replace or remove current means of regulation. The requirements neither regulate active mining process nor have any effect upon local zoning decisions like those related to the approval of new mine sites.

There are two properly permitted, active non-metallic gravel mining operations in the planning area:

- **Western Lime Corporation** owns a pit operated by Michaels Materials (15 active acres and 30 acres in reserve status) in section 24, north of the City limits.
- **Kempen Excavating** operates an active pit facility in section 2 of the Township. This site includes one active acre of non-metallic mining and 7 acres in reserve.

In addition to these active quarry sites, there is a closed quarry located in section 2 of the Town owned by Jannette Trucking and Excavating. An application by Hilltop Trucking and Excavating is pending for the approval of a new gravel quarry in section 12. This site is not presently considered active.

There are no other NR-135 permitted quarries in the Brillion Community. The ECWRPC is currently inspecting a site in section 19 that was formerly used as a clay borrow pit for a landfill. If the site is still considered active, it would be considered a non-metallic mining operation and will require a permit.

The location of all active and closed quarry sites is provided on the Existing Zoning and Existing Land Use Maps provided in Chapter 8.0. This information was provided by the Calumet County Planning Department and appears on the Town of Brillion Zoning Map.

Air Quality

The following is from the Wisconsin Department of Natural Resources:

“A few common air pollutants are found all over the United States. These pollutants can injure health, harm the environment and cause property damage. EPA calls these pollutants criteria air pollutants because the agency has regulated them by first developing health-based criteria (science-based guidelines) as the basis for setting permissible levels. One set of limits (primary standard) protects health; another set of limits (secondary standard) is intended to prevent environmental and property damage. A geographic area that meets or does better than the primary standard is called an attainment area; areas that don't meet the primary standard are called non-attainment areas.”

Calumet County is an attainment area. This situation is not expected to change in the future. County, state and federal air quality protection standards are in place to maintain and improve the local air quality. The nearest air quality monitoring stations are located in the cities of Manitowoc, Fond du Lac and Appleton.

Historical and Cultural Resources

Cultural resources, like natural resources, are valuable assets, which should be preserved. They provide a community with a sense of history, and support a sense of community and togetherness, which makes a community

like Brillion a friendly place to live. As part of the community survey effort, respondents were asked to identify areas of cultural or historic significance in the City and Town. Some of the most popular areas identified include:

- The Brillion Nature Center
- Brillion History House
- Haese Memorial Village, Forest Junction
- Horn Park, City of Brillion
- Neumeyer House, City of Brillion
- Brillion High School, off USH 10
- Brillion Marsh
- Forest Assembly Grounds, Forest Junction

Endries Center for the Performing Arts

Thanks to a generous donation from Bob and Pat Endries, the new Brillion High School offers a performing arts center for school and community use. In the short time since the facility has been operating, it has been used for several community and school productions. The Coordinated Plan Committee consistently identified this facility as an important local entertainment venue.

Churches

There are several churches in the Brillion Community. These institutions are an integral part of the community and provide opportunities for faith and fellowship.



Zion United Methodist Church,
Forest Junction

Area Churches

- Brillion Methodist Church, W908 Rusch Road, Brillion
- Community Assembly of God, 821 Fairway Drive, Brillion
- Faith United Methodist Church, 204 Horn Street, Brillion
- Holy Family Parish, 1100 West Ryan Street, Brillion
- Peace United Church of Christ, 489 S. Glenview Ave., Brillion
- St. Bartholomew Lutheran Church, 105 Horn Street, Brillion
- Trinity Evangelical Lutheran Church, 601 E. National Avenue, Brillion
- Zion United Methodist Church, N8893 Church Street, Forest Junction

Museums

There are two museums located in the Brillion Community. The Haese Memorial Museum is on the east side of Forest Junction off Randolph Street. This complex consists of 12 buildings, including a:

- Grocery (w/living area)
- Furniture store
- Hardware store
- Farm implement store

- Lumber store
- Feed store

The living quarters include all of the original furnishings of the Haese family, and several antiques are also found in the grocery store. Since 1962, the Haese Memorial Museum has been under private ownership. While the property is very unique, it is not eligible for state or county funds to help maintain it. As a result, it is not open to the public at this time.

The other museum in the Brillion Community is the Brillion History House and Museum, located at 110 N. Francis Street in Brillion, houses a unique collection of Brillion artifacts, including an extensive photo collection. The Brillion Historical Society maintains the facility through volunteer support. There are no regular hours of operation, but is open by appointment.

Buildings/Districts

There are several historic properties in the Brillion Community. The table located in *Appendix E* provides available information related to the historic properties and districts in the area. The information was obtained from the Architecture and History Inventory (AHI). The AHI is comprised of written text and photographs of each property, which document the property’s architecture and history. Most of the properties became part of the AHI as a result of systematic architectural and historical surveys. Inclusion in the AHI conveys no special status or advantage; it is merely a record of the property. The AHI inventory, located in the appendix, is housed at the State Historical Society of Wisconsin in Madison and is maintained by the Society’s Division of Historic Preservation. For more information, visit www.wisconsinhistory.org/ahi.

Current Policies, Trends and Programs

Zoning

The Calumet County Zoning Ordinance regulates the Town of Brillion. Land uses within the Town, including agricultural and natural areas, must adhere to the zoning requirements (height, density, etc.) stipulated in the Calumet County Zoning Ordinance (Refer to the Existing Zoning Maps provided in Chapter 8).

The Calumet County Zoning Ordinance seeks to protect farming operations through the use of the Exclusive Agricultural Zoning classification. In addition, the ordinance includes a Conservancy District as well as a Surface Water Drainage way Overlay District. Conservation or cluster subdivision developments are permissible under the R-4 zoning district. To allow these developments, the Town will need to coordinate with the county to assess locations that would be appropriate.

The Town does have the ability to adopt its own subdivision ordinance. In order for a Town subdivision ordinance to be enforced it must be as restrictive as the county’s.

The City of Brillion has its own zoning ordinances and other policies to regulate and protect agricultural and natural areas within the City limits. Specifically, the City has an A-1 Agricultural Zoning District which provides for “the continuation of general farming and related uses in those areas of the City that are not yet committed to urban development” (Sec 106-90). Additional information about the City of Brillion Zoning Code is provided in Chapter 8.



The Calumet County Planning Department maintains a web site with general zoning information at www.co.calumet.wi.us.



The City's official Zoning Map is available on line at www.ci.brillion.wi.us.

To obtain a copy of the *Calumet County Land and Water Resource Management Plan*, contact the County Planner at (920) 849-2361.

Shoreland/Floodplain Zoning

Shore lands and floodplains are often viewed as valuable recreational and environmental resources. These areas provide for storm water retention and habitat for various type of wildlife. The State of Wisconsin requires that counties adopt shore land/floodplain zoning ordinances to address the problem associated with development in these areas. Development in shore land areas is generally permitted, but specific design techniques must be utilized. Development in floodplain areas is strictly regulated and in some instances, not permitted. The authority to enact and enforce these types of zoning provisions is set forth in Chapter 59.97 of the Wisconsin Statutes and Wisconsin Administrative Codes NR115.116 and 117, and is established in the Calumet County Zoning Ordinance.

The Shore Land Ordinance adopted by Calumet County in 1993 regulates shore land uses and development in unincorporated areas of Calumet County within 1,000 feet from the ordinary high water mark of a lake, pond or flowage, and within 300 feet from the ordinary high water mark of a river or stream.

The Calumet County Floodplain Zoning Ordinance (1987) regulates all areas within the unincorporated limits of Calumet County that would be covered by a 100-year flood event. The ordinance restricts any development in the floodplain that will cause an obstruction to flow or cause an increase in regional flood height due to floodplain storage area lost. The ordinance prohibits the development of a dwelling designed for human habitation in the floodplain or floodway. Dwellings may be constructed in the Flood Fringe, provided the elevation of the lowest floor (excluding the basement or crawlway) is above the flood protection elevation and measures are taken to flood proof the basement and crawlspace.

The City of Brillion has its own detailed Floodplain District Ordinance and Shoreland-Wetland District Zoning Ordinance. These ordinances offer similar protection as the Calumet County Ordinance.

Calumet County Land and Water Resource Management Plan

Chapter 92.10, Wisconsin Statutes, requires each county to prepare a Land and Water Resource Management (LWRM) plan as a condition of state grants through the Department of Agriculture, Trade and Consumer Protection (DATCP). This planning process was adopted in October 1997. It is intended to be more comprehensive by including local citizen input into the County's local resource management policies.

The Calumet County Land and Water Resource Management Plan was adopted in March 1999. This document provides an inventory of natural resources in the area. Many portions of this chapter were based on information available in the plan. In addition, the Calumet County Land and Water Resource Management Plan provides specific recommendations related to groundwater recharge protection, repair and maintenance of grassed waterways, nutrient runoff management and construction site erosion control. The plan establishes minimum standards to protect the quality of local surface and groundwater resources.

Public participation initiatives for the Calumet County Land and Water Resource Management Plan, included a meeting was held on March 2, 1999 in the City to obtain input from residents on perceived natural resources management needs. At that meeting, the following items were identified as critical local issues that the plan has since attempted to address through policies and additional research:

- Construction site erosion control on single-family homes
- Cropland erosion
- Drainage control
- Nutrient runoff management
- Low cost conservation measures
- The need for more farm ponds
- Keeping drinking water sources, surface and groundwater, clean
- Getting youth involved in conservation

- Mound systems on bedrock
- Need for more trees
- Need to address manure on roads
- Issues associated with farming in the road right of way – direct sedimentation into road ditches
- Better education and/or incentives on reduced tillage
- Buffers along streams
- Fertilizer and herbicide applications on lawns

Farmland Preservation Plan/Exclusive Agricultural Zoning

Maintaining productive land for agricultural uses has been a long-time goal in Wisconsin. To achieve this goal, the state has enacted several types of legislation that provide monetary incentives to eligible landowners to keep their land in a productive state.

Calumet County has adopted an Agricultural Preservation Plan so it can issue tax credits to local farmers through the Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP) Farmland Preservation Program.



Town of Brillion Farm

The county also has an exclusive agricultural zoning classification to delineate agricultural lands. The exclusive agricultural areas of the Town are seen on the Zoning Maps provided in the Land Use Chapter.

Brillion Wildlife Area History and Management

In late 1975, the WDNR completed an Environmental Impact Statement (EIS)³ for the proposed acquisition, development and management of the Brillion Marsh Wildlife Area. Management activities outlined in the EIS included:

- Creation of a 2,620 acre flowage (i.e. flood area)
- Construction of a dam (Potter Dam) and 1,200 foot channel of the North Branch of the Manitowoc River
- Construction of 3 runoff ponds
- Clearing a channel for Spring Creek by removal of old culverts, debris, and cattail vegetation and development of a series of small potholes. (Dredging was not proposed).
- Establishment of 2 scenic overlooks
- Establishment of 4 small parking lots
- Construction of a nature center
- Establishment of hiking trails

In 1973, during development of the EIS, the Calumet County Board of Supervisors adopted a resolution opposing construction of a dam (Potter Dam) for impounding water on the Brillion Marsh. The resolution stated that the proposed impoundment would kill trees and other vegetation, flood existing lowlands, and raise the water level on area farms. The County Board passed a second resolution in 1974 petitioning the Department of Natural Resources to dredge a channel for Spring Creek from the western Brillion City limits to the junction with the North Branch of the Manitowoc River to relieve flooding problems in Brillion. The City passed a similar resolution in 1975, which was included in the WDNR EIS.

The Town of Brillion, in a letter dated June 4, 1975, also opposed the building of the Potter Dam and flooding of the marsh for waterfowl habitat. The Town was concerned that the marsh would support a large goose population that would have an adverse impact on farming operations. Likewise, residents were concerned about flooding of farmland in the area.

In response to these objections, WDNR considered the impacts on agricultural uses in the area as well as dredging Spring Creek. The EIS acknowledges (pg 49 of EIS) that the Spring Creek area was subject to annual flooding as a result of snowmelt runoff and rainfall. Likewise, lack of drainage and water logged soils were an obstacle to agricultural production in parts of the Brillion Watershed. The WDNR indicated in the EIS that the proposal to remove the debris and cattails blocking Spring Creek to increase the velocity of water going through the channel would be sufficient to handle stream flow most of the year. Furthermore, the proposed dam could relieve flooding downstream during annual flood events (pg 51 of EIS). The EIS goes on to say that establishment of the Brillion Marsh flowage would have no effect on flooding problems above the Glenview Bridge located on Spring Creek, west of the City (pg 57 of EIS). However, the EIS indicates in the same section that flood relief is expected to be minimal (pg. 58 of EIS).

The EIS also states that fluctuation of the water table due to development of the flowage area was not expected to substantially alter agricultural capabilities of adjacent farmlands (pg. 62 of EIS).

Specifically in response to the dredging of Spring Creek, the EIS indicates that the dredging could not significantly reduce flooding within Brillion because the bridges and culverts in Brillion act as the control for Spring Creek rather than the undefined channel in the upper marsh. Furthermore, the EIS indicates the effects of dredging the creek would create the potential for drying the marsh in the summer (pg. 68).

After considering these objections against the benefits the marsh and associated environs would provide for wildlife, the WDNR proceeded with the projects outlined in the EIS. Today, most of the objectives in the original EIS have been completed; however flooding remains an issue for residents in the City and Town of Brillion.

NATURAL RESOURCES BOARD POLICIES ON WILDLIFE MANAGEMENT

The policies that govern the management of the State Wildlife Areas, including the Brillion Wildlife Area, are outlined in NR 1.015, NR 1.11, NR 1.41, NR 1.44, NR 1.445 and NR 1.60.

These policies provide direction for land management, acquisition (including cooperation with neighboring governments related to land acquisition) and master planning. According to the policies, the primary goal of wildlife management is to provide healthy life systems necessary to sustain Wisconsin's wildlife for their biological, recreational, cultural and economic values.

The complete text of these policies is available on the internet at www.wisconsin.gov.

BURNING IN THE MARSH

The DNR uses prescribed burning as a tool to maintain grassland, wetland and timber vegetation in the Brillion Wildlife Area. The DNR makes every effort to prevent impacts from burning (and other maintenance measures) on adjacent properties. The City and Town support the measures the DNR takes to control vegetation growth along roadways and around other developed areas.

SUMMARY OF MAJOR MANAGEMENT ACTIVITIES FOR THE BRILLION WILDLIFE AREA 1979 – 2002 *

1979 – Present. Acquire additional property

1980 – 2002. Buffered property to reduce silt accumulation

1983 – Present. Assist with establishment of privately run nature center

1984 – 1993. Broke up several roads in marsh to restore flow to channel

1984 – 1997. Helicopter spraying of cattails

1990s. Assisted Town with efforts to rebuild Conservation Road

1993-2002. Established several small parking areas and ponds

2002. Completed Conservation Road Flowage on 51 acres to enhance and restore wetland

** Summary information obtained from Dick Nikolaj, Wildlife Biologist, Brown, Calumet & Outagamie Counties.*

In 1979, the WDNR completed and adopted the Brillion Wildlife Area Master Plan to address the long-term management of the newly acquired Brillion Wildlife Area. The primary goal established in the plan is to:

Develop and manage the Brillion Marsh Wildlife Area for waterfowl production and broad spectrum of hunting recreation; and to provide opportunities for educational and compatible non-hunting recreational objectives.

This goal has a history of conflicting with the land management objectives of neighboring landowners in the City and Town. Management objectives included in the plan relate to the following:

- Produce ducklings annually by developing and managing wetlands and upland cover.
- Provide participant days in relationship of hunting of game species, dog training and dog trialing.
- Provide adequate food and cover base to maintain a wintering deer herd.
- Protect one scenic area, one historic area and an archeological area.

The Brillion Wildlife Area Master Plan is dated. The City and Town strongly support updating the plan to address current concerns. Despite the age of the plan, the present-day WDNR Wildlife Management mission compliments the goal of the Brillion Wildlife Area Master Plan:

Protect and manage Wisconsin wildlife population and their habitats, and, to promote wildlife enjoyment and appreciation for the benefit of current and future generations.

The WDNR continues to follow the goals and objectives of the 1979 plan, as well as current goals, to:

- Promote land stewardship practices favorable to wildlife in terrestrial and aquatic systems,
- Share responsibility for wildlife resources,
- Provide a wide range of wildlife recreational opportunities,
- Improve people's knowledge and appreciation of wildlife,
- Strengthen the wildlife database, and
- Be a leader in professional wildlife management.

In accordance with these goals, the WDNR discourages residential, commercial and industrial development adjacent to the marsh.

Annexation and Development Trends

Beyond the external threats to farming associated with the poor agricultural economy and a decreasing supply of farm workers, farming faces additional threats in Brillion. First, as growth has occurred in the City, annexation of land has become a perceived threat to farms adjacent to the City. Historically, property owners have initiated annexations to develop their property and utilize City services. Though not anticipated, if the City were to decide to become more aggressive in its annexation efforts, the threat to farmland would increase.



Farm Outside Forest Junction

Of more immediate concern, is the influx of residents, who have moved to the area seeking rural housing opportunities. These individuals acquire large areas of farmland for limited residential development (i.e. 1 house on 30 acres or more). This situation consumes vast areas of productive farmland.

The Brillion Marsh is not suitable for development and is therefore protected from development pressure. However, people want to live near the marsh because of the quiet setting it offers. It will be important to establish buffers to protect the marsh and minimize conflicts between marsh management and adjacent development.

Other natural resources like Black Creek, Round Lake, and the scattered woodlands are relatively unprotected from development pressure. As people seek to develop in the area, efforts must be made to protect these areas by enforcing the provisions of the County and City zoning ordinances and the guidelines recommended in the Calumet County Land and Water Resource Management Plan.

Agricultural, Natural & Cultural Resources Issues & Concerns

Groundwater Table Issue

Well sampling data from the Brillion Community is very limited. In fact, only 3 residents from the area have participated in nitrate and bacteria testing available through Calumet County. During the planning process some concerns were raised about drawdown from local quarry operations. This situation should be monitored in the future to determine the extent of impact, if any.

Brillion Marsh Management

As is indicated previously in this chapter, the City and Town have conflicted with the WDNR management of the Brillion Wildlife Area. Some of this conflict is due to the age of the 20 year old Brillion Wildlife Area Master Plan. To more effectively address these concerns as they relate to management of the marsh, the City and Town of Brillion would like to see the plan updated.

Updating the Brillion Wildlife Area Master Plan, would involve a new feasibility study (similar in nature of the EIS completed in 1975). Furthermore, the process to update the goals, objectives and policies of the master plan would provide for public involvement. Given budgetary constraints, it is possible that any update of the Brillion Wildlife Area Master Plan may occur in conjunction with other area wildlife master plans.

Coordination with Other Comprehensive Plan Elements

The development of the Agricultural, Natural and Cultural Resources Element required coordination with all of the required plan elements, and is critical to the success of the plan.

Transportation

Transportation improvements may support additional development. Likewise, additional development may require new or upgraded roads. These improvements may lead to impacts on wildlife habitat areas as residential development increases. To minimize the impact on wildlife and natural areas, the City and Town should monitor developmental impacts closely and consider development techniques that offer greater environmental protection (i.e. conservation subdivisions, easements, mixed use development, etc.). These types of development seek to offset the impact of dispersed development patterns that force people to make more automobile trips each day.

Land Use

Brillion Community residents clearly indicated that the preservation of agricultural operations and the protection of natural resources is a priority. The Future Land Use Maps were developed with special consideration to these priorities. The implementation element will guide protection efforts through the enforcement of desired planning and zoning requirements.

Housing

Housing, if not carefully located and planned for, can have a severe impact on natural resources and farming operations. The Brillion Community desires a rural development pattern that protects natural resources and farmlands, while still accommodating some residential and economic development. To achieve this, development is encouraged in the City limits and Forest Junction, where services are available. This housing strategy is reflected on the Future Land Use Maps.

Goals and Objectives

It is the vision of the City and Town that the community will retain its rural character by continuing to enjoy a mix of scenic areas and farming operations through 2020. Natural resources will be protected and serve as an environmental, recreational, and economic asset. Residential and commercial development will be in harmony with the area's natural environment.

The City and Town will support the continued efforts of neighboring communities, school districts, Calumet County and the State of Wisconsin, to provide cultural and historic resources that can be used by local residents. The City and Town will also work, in accordance with the Intergovernmental Coordination Element of the Wisconsin "Smart Growth" Law, with neighboring communities, Calumet County, the ECWRPC and the State of Wisconsin to ensure that natural resources are adequately protected for future generations. Chapter 11 – Implementation – provides the list of Goals and Objectives for the Brillion Community.

Agricultural, Natural and Cultural Resources Policy Statements

As is discussed in the Introduction Chapter, rather than establish a series of policy statements, this plan includes a vision for each of the nine required plan elements. However, given the over-riding importance of the Agricultural, Natural & Cultural Resources Element and its far-reaching impact on the other eight elements, it is necessary to define some specific policy statements here:

It is the policy of the City and Town of Brillion to:

- Direct new residential and commercial/industrial development to areas within the Forest Junction Sanitary District and the City of Brillion in order to maximize available infrastructure and protect rural farmland areas, wildlife habitat areas and corridors, woodlands, grasslands, and the Brillion Marsh.
- Encourage Concentrated Animal Feeding Operations to locate outside the limits of the Sanitary District Planning Areas, as defined by the East Central Wisconsin Regional Plan Commission and illustrated on the Future Land Use Maps so as to minimize the potential for conflict with residential development.
- For areas designated "agricultural" on the Brillion Community Future Land Use Maps located within 3-miles of a sanitary sewer service area, only permit agricultural development consistent with the Calumet County Zoning Ordinance Transitional Agricultural District (A-2).

¹ Data available on-line from the Program on Agricultural Studies – a division of the UW-Extension at <http://www.pats.wisc.edu/landuse/rpcmaps.htm>

² Information used to develop this section was obtained from:
Soil Survey of Calumet County, United States Department of Agriculture Soil Conservation Service, 1980
Calumet County Land and Water Resource Management Plan, Calumet County Land and Water Conservation Department and NRCS Staff, March 1999.

³ Page references are provided in this section from the *Environmental Impact Statement for Proposed Acquisition, Development and Management of the Brillion Marsh Wildlife Area*, Calumet County, WI as approved by the WDNR in 1975.