

Agricultural, Natural, and Cultural Resources

For reference while drafting this section – Remove before publication

A compilation of objectives, policies, goals, maps and programs for the conservation, and promotion of the effective management, of natural resources such as groundwater, forests, productive agricultural areas, environmentally sensitive areas, threatened and endangered species, stream corridors, surface water, floodplains, wetlands, wildlife habitat, metallic and nonmetallic mineral resources consistent with zoning limitations under s. 295.20 (2), parks, open spaces, historical and cultural resources, community design, recreational resources and other natural resources.

Overview

Agricultural, natural, and cultural resources help to define a community's character, quality of life, and economic activities. Agricultural is central to life in the Town of Nepeuskun, providing fuel for the local economy and scenic vistas around town. Rush Lake has shaped the town's past, and continues to be important features in the landscape. The historic and cultural resources found in the town and surrounding communities lend pride to our past and current agrarian heritage. These resources are the backbones to our community. As Nepeuskun grows and prospers we must plan for the continued presence of these resources in and around our community.

This chapter highlights the key agricultural, natural, and cultural resources found in Nepeuskun, and sets goals, objectives, and policies for protecting and enhancing these resources.

Agriculture Resources

County and Local Agricultural Trends

According to the Winnebago County Comprehensive Plan, in the last twenty years, agriculture in Winnebago County has transitioned from predominately dairy to predominately cash grain production. The percentage of dairy sales in total cash receipts from farm markets has dropped from 60% in 1987 to about 45% in 1998. Conversely, cash grain receipts have risen sharply in the same period. According to the WDATCP Agriculture Statistics Reports, the following changes have impacted agriculture in the county during the past 20 years (1980-2000):

- There are 340 fewer farms (27% decrease);
- Land in farms has decreased by approximately 29,000 acres (14% decrease);
- The average size of farms has increased from 161 acres to 197 acres (18% increase);
- Cash crop acres decreased 16% from 115,000 acres to 96,900 acres;
- Alfalfa and hay land decreased by 23,400 acres (48% decrease);
- Total cattle (all cattle) numbers decreased 11,900 (25% decrease); and
- Total dairy cow numbers decreased by 7,500 (31% decrease).

It is expected that the number of farms in the county will steadily decline, while the size of the remaining farms will increase. Overall cattle numbers will decline as well; however, the size of the remaining herds is expected to increase substantially. These changes pose a challenge to all stakeholders in terms of the planning for and sustaining of agricultural economic stability, diversifying farming operations, and protecting natural resources.

As farmers are getting out of milking, there has been an increase in row crops. This has resulted in increased soil erosion and water quality issues (Winnebago County Soil and Water Conservation Department).

Trends Noted by Local Farmers

In August 2008, Crispell-Snyder (the town's consultant) met with about a dozen local farmers to discuss farming in the Town. During this meeting, the farmers noted several trends they've seen over time:

- Farms in Nepeuskun used to be more diversified and smaller. Many of the farmers remember milking a dozen or so cows and also having sheep, grain, and other diverse crops.
- Larger, successful dairies are getting bigger.
- There are fewer farmers, but probably about the same amount of livestock. Seems like this trend will continue into the future.
- Older farmers are going to get out. Not sure how many young farmers are will come in, although this is a nice area for dairying.

Local and Regional Markets

Changes in farm size and diversity influence the types of markets that local farmers sell to. Conversely, the types of marketing opportunities available to farmers can influence farm size and the types of crops that farmers grow.

Larger farms often look to regional and international markets for their products, although they do rely on the local grain mill. Smaller farms, on the other hand, are generally more reliant on local markets for their products. Direct marketing to consumers provides opportunities for increased profits and makes smaller farms more financially viable than they might otherwise be.

The Green Bay Farmers Market is the major nearby direct market options available to local famers. Held in downtown Green Bay, the market is open from June through October. The City has operated the Farmers' Market since 1917. This year's market features over 95 vendors.

Other smaller markets located near Nepeuskun include:

- Watson Street Farmers Market in Ripon – Tuesday and Saturday mornings, June through October.
- Berlin Community Farmers' Market – Wednesdays and Saturdays, May through October.
- Appleton Downtown Farmers Market. Saturday mornings, June-October.
- Downtown Appleton Winter Farm Market. Saturday mornings, November-March.
- Kaukauna Farmers Market. June-October
- Neenah Farmers Market. Saturdays, June-October.
- Oshkosh Farmers Market. Wednesdays and Saturdays June-October.
- Omro Farmers' Market. Saturdays, June-October.

The Madison Farmer's Market, one of the largest farmers markets in the country, is also within a reasonable drive of Nepeuskun. Prellwitz Produce, located in the town, frequents the Madison Farmers Market.

U-pick operations and farm stands offer another option for farmers to market their products direct to consumers. Prellwitz Produce is currently the only farm in Nepeuskun that focuses on u-pick and direct sales to consumers.

Large Agricultural Livestock Operations

Extremely large livestock operations and Concentrated Animal Feeding Operations (CAFOs) can have both environmental and quality of life impacts on a community. While farms are generally getting larger in Winnebago County and the Town of Nepeuskun, the farms in the town are still family owned and of relatively modest size. Supporting family farms while at the same time discouraging large corporate farms is critical for maintaining the agrarian character that Town residents value.

There are several characteristics of the town that have discouraged large livestock operations from locating here. Larger growers are looking for specific soils and

relatively level land. The sandy ground found throughout the Town does not lend itself to earthen storage of manure, which is needed for the larger animal farms. In addition, the mix of rolling hills, forests, and wetlands break up the farmland into smaller sections, making it unlikely for a very large operation to move into town.

Despite these physical limitations, it is possible for a large livestock operation to buy up land in town. Wisconsin Department of Natural Resources reviews and approves the specifications, including stormwater and manure management, for CAFOs. State regulations, however, do not restrict the location of CAFOs. In order to control this, the Town could adopt livestock siting regulations that restrict where new large livestock operations can be located. No towns in county have adopted these regulations, although Nepeuskun has looked into this in the past. Even if regulations are put in place, state law dictates that existing farmers can expand their livestock operations as long as they meet certain criteria.

Soils

Winnebago County and the Town of Nepeuskun have excellent soil quality. The US Department of Agriculture classifies soil based on its quality for agricultural production. Class I, II, and the best Class III soils are all considered good soils for agricultural production. Although there are no Class I soils in the Town, 67 percent of the town is made up of Class II or III soils (1,024 acres and 373 acres respectively) (see map 2). Indeed, about 60 percent of the soils in the town are classified as prime farmland or soils of statewide significance (274 acres and 533 acres respectively).

As Nepeuskun's population continues to slowly grow, careful consideration should be given to the location of high-quality soils and viable farms. One way to conserve and protect valuable farmland is to carefully plan growth so that the impact of development is minimal.

Farmland Conservation

Unfortunately, as in many parts of the state and country, prime farmland in Winnebago County

continues to be lost to scattered development, farmer retirement, and farm business failure. Nepeuskun, however, has lost relatively little farmland, with about 60 percent of the town (1,274 out of 2,147 acres) remaining in agriculture. According to the Winnebago County Soil and Water Conservation Department, Nepeuskun has done a good job of protecting its farmland. Some development is starting to creep into the town resulting in some loss of farmland. This has been relatively minor compared to other town's located closer to Fox Valley.

Existing farmland conservation opportunities are limited. Within Glacial Habitat Restoration Areas, landowners are afforded the opportunity to enroll in the Conservation Reserve Program (CRP) with a 10-15 year contract. Invitation letters were sent out to farmers in the town in 2007. Several farmers have signed up for this program, although interest has slowed.

Some farming communities in Wisconsin have begun looking at other options for helping farmers to protect their land. The Town of Dunn in Dane County, for example, has established a purchase of development rights (PDR) program to protect farmland. PDR is a voluntary farmland protection technique that compensates landowners for limiting future development on their land. PDR has been used by local and state governments on the east coast since the mid-1970s. Under a PDR program, an entity, such as a town or a private organization, purchases development rights to a piece of property. By doing so, the organization or government agency is essentially buying the landowner's right to develop that land. The land itself remains in private ownership and the landowner still retains all other rights and responsibilities associated with being a property owner. Since the Town of Dunn's program started in 1997, 23 farms totaling almost 3,000 acres have been protected.

The Federal farmland preservation program provides one potential future funding source for PDR, although to date it has not been used in Winnebago County. Another potential source of funding for land protection

is tax incentives. Significant tax incentives are currently available through the federal government for landowners who donate, rather than sell, their development rights. (These tax incentives are currently up for renewal). For agricultural land, 100 percent of the value of the development rights can be taken as an income tax deduction. This tax deduction can be spread out over a 16 year period.

Potential Conflicts with Non-Farm Neighbors

Farmers interviewed as part of the planning process suggested that non-farming people moving out to the country is by far the biggest change that they've seen over time. Unfortunately, farming and residential uses are not always compatible. Farm practices such as spraying, manure spreading, and late night (sometimes 24 hours/day) schedules are not always compatible with residential uses. Most of the farmers interviewed hadn't had too many problems so far, but they all felt this would become an increasing concern as more residential development is built in the town. People felt that it was important to notify new neighbors that this is a farming community and that normal farming practices (such as manure spreading and late night noise) is part of the "rural package".

Agriculture and Water Quality

The State of Wisconsin provides cost share money to implement improvements on farms within priority watersheds. There is some County-level funding for cost share on farms outside of priority watersheds (the Town is not in a priority watershed). The county typically funds \$100,000 per year for this program, which is fairly unique. This money goes to streambank restoration, lake shore restoration, barnyard improvements (e.g. roof gutters), etc. They have also done a lot of work with farmers on nutrient management program and soil conservation.

NRCS has indicated that it would like to see mandatory stream buffers in place in the Town of Nepeuskun. Although NRCS and the County offer cost-sharing for stream buffer installation and restoration, there are still many miles of streams needing buffers including along Meadow Brook Creek.

State Agricultural Performance Standards also regulate certain farm practices in an effort to limit the impact of agricultural operations on the environment. Compliance with these standards is required by law, although enforcement differs from town to town. Some towns require landowner to be in compliance with State Standards as part of issuance of building permit or rezoning. State Agricultural Performance Standards are really important for clean water. These standards play a significant role in reducing sediment and phosphorus loading.

Some farmland in sensitive areas has been converted to permanent grassland cover, wooded acreage, and wetland areas through restoration projects in the County. These efforts provide increased erosion control, water quality improvements, and wildlife habitat. Such contributions provide a better quality of life to Nepeuskun residents and increase the natural amenity value for recreation and economic activity.

Natural Resources

Protecting the natural resources of Nepeuskun is critical to the long term economic vitality and quality of life in Nepeuskun. The entire Winnebago County is within the Fox-Wolf River Basin, which contains 84,000 acres of surface water. This network is also known as the "Winnebago System".

Figure 6-1. Wisconsin Watershed Basins



Prior to European settlement, Nepeuskun and the western section of Winnebago County mainly consisted of sedge meadow, which grows on saturated soils, and prairie grass. The lowering of water tables through artificial drainage is suspected of causing shrub invasion in some of the remaining sedge meadows throughout the county and state.

The landscape continues to be a great mosaic of lake, stream, marsh, savannah, agricultural land, forested land, and prairie openings, supporting a wide diversity of wildlife.

Geology and Topography

The current landscape of Nepeuskun and Winnebago County reflects the most recent glacial activity. About 10,000 years ago, the glacial activity deposited clay loam in the southwestern part of the county, including Nepeuskun. The rolling uplands throughout the town are underlain by this fertile soil, which has proved to be a great agricultural resource for the people of the past and present.

The topology is nearly level but prominent slopes exist in the southwest corner of Nepeuskun (see Map 3). Other prominent features are Rush Lake and the surrounding marsh lands. The topological features are controlled by surface geology, which is mainly sandstone and limestone. The varying thickness of glacial till overlies the irregular surface of these rock formations. Glacial material over limestone tends to be thinner than over sandstones (Winnebago County Comprehensive Plan).

Forests

Trees provide multiple benefits to the residents of the town: shade in the summer, beauty year round, wind reduction, energy savings, pollution removal, carbon sequestration, and a source of income. Forests provide raw materials and a setting for the tourism industry. They also provide a venue for hunting, fishing and other recreational activities. A tree canopy softens the blow of a downpour, allowing rain to soak more slowly into the ground, minimizing runoff.

Prior to settlement, the vegetation in Nepeuskun and Winnebago County was mostly forest and oak savanna, with some areas of sedge meadow and prairie grass. Most of the forests have since been cleared for agricultural crops. In Nepeuskun, approximately 1,000 acres of forest land remains, or about 5% of the total land area. Winnebago County today has roughly 20,000 acres are still in woodland cover, or about 7% of the total land area. Species found in Nepeuskun and Winnebago County include oak-hickory, maple-beech-birch, ash aspen-cottonwood, and mixed conifers.

Although the woodland acreage of the town is relatively small it provides a considerable source of timber and related products for private use. The woodlands are also very important in terms of providing habitat for a variety of wildlife species. More importantly, from an agricultural perspective, are the soil conservation benefits from wind and water erosion reduction. Continued woodland management will be necessary in order to maintain these benefits. Programs that promote tree planting and sustained management of woodland resources help landowners accomplish this objective. These include Federal Conservation Reserve Program and the Wisconsin Managed Forest Law Program.

Rush Lake

Rush Lake occupies a shallow marshy basin between two parallel low-lying hills located in the southeast section of Nepeuskun. Along with Nepeuskun, Ripon, Pickett, Waukau, Utica and Rushford surround the lake. Rush Lake provides the town residents with food, recreation, historical value, and other natural amenities.

Rush Lake is approximately 4 miles long and 2 miles wide, covering about 3,070 acres, making it the largest prairie pothole east of the Mississippi River. Although it covers a large area, Rush Lake is quite shallow with an average depth of 1 to 1.5 feet and maximum depth of about 5 feet. The bottom is mostly muck, a combination of accumulated fine grain sediments and organic detritus. The depth of this muck can be in excess of 20 feet. About one percent of the bottom is composed of cobbles, sand, and gravel. The lake is

about 60-70% spring-fed with Henderson Creek as the largest contributor.

In 1846, a “log and brush” dam was placed on Waukau Creek at the location of the present dam on the northeast side of the lake. Through the years, water levels were at the source of much controversy and dams were constructed often resulting in flooding. The 1963 dam replacement was able to prevent water levels from fluctuating, a historical problem in the surrounding communities. It was also able to improve the lake as a fishery and improved lake access but unfortunately accelerated erosion and sediment depositing. However, it also contributed to a change in the lakes vegetation, resulting in a decline of bulrush (of which it is named after) and an increase in cattail beds.

Originally, Rush Lake was covered with dense stands of bulrush and other aquatic plants. This vegetative community was a product of fluctuating water levels and periodic drought. During the last few decades, native aquatic vegetation has become increasingly sparse, decreasing wildlife in the lake, such as the red-necked grebe and Forster’s tern (waterfowl species unique to Wisconsin). Unfortunately, carp and other rough fish more tolerant of low oxygen levels were able to survive the winters and overtook the lake. Carp are known for degrading habitat and water quality while uprooting vegetation.

Problems with runoff from surrounding farms and lead contamination that has found its way into the food chain from decades of heavy waterfowl hunting are also issues that hinder the full potential of the Lake.

A steering committee of WNDR, County, US Fish and Wildlife Service, and Township representatives has begun meeting to work on development of a management plan for the Rush Lake Basin (WisDNR).

Many residents have been concerned with lead poisoning of birds. The lead poisoning in the lake is from the concentrated hunting of mainly waterfowl. There have been a number of different efforts to mitigate this problem throughout the years. It is important for our community to continue addressing

the presence of lead pellets. The Rush Lake Watershed Restoration committee has tried to bring back the long-stem bulrushes which have very dense root mats that prevent ducks from digging through it and reaching the lead pellets.

If the bulrushes are able to regenerate, the efforts of using a pontoon boat and jetting system to drive the lead pellets down two feet or more could be reduced. This can be maintained by keeping the water levels low. Drawing down the water in the lake, which was accomplished by installing a new dam and dredging the outlet channel (to allow more flow of water leaving the marsh) in 2005, would regenerate bulrush seeds in the sediment. Significantly reducing the amount of water in the marsh would also provide a natural water to reduce the carp population.

There are additional improvements by the DNR for lake restoration and quality maintenance since the lake has been abused for years. There are now strict limits on duck blind placement and has issued a series of fines for littering, ranging from \$186 to \$753.

The vegetation in the lake is coming back, along with the migratory birds, once again showing signs of the becoming the hunter’s paradise it once was. Efforts to restore the lake to it’s natural state, balancing hunting and water/wildlife quality, and eradicating the carp population are all efforts which will result in a healthy lake and wildlife habitat, while providing our community with the recreational site it’s always relied on.

Nepeuskun residents have expressed a strong desire to protect surface water resources. In the recent community survey, 60 percent of respondents indicated that the Town should regulate activities that adversely impact surface water quality. Seventy-six percent of respondents specifically felt that the Town should enact an ordinance addressing surface water runoff issues.

Waukau Creek

Waukau Creek is a tributary to the Fox River and also drains Rush Lake. This stream has a very low rate of

flow and sometimes dries up during drought periods. Silt, gravel, and rubble are the major bottom materials. Northern pike, walleye, and carp migrate up the creek to Rush Lake in the spring to spawn. Average soil loss in the Waukau Creek/Eightmile Creek drainage area is in excess of 5.2 tons/acre/year. In addition to a high sediment delivery rate, runoff from animal lots is also a significant problem within the watershed.

Floodplains

A 100-year floodplain, according to the Flood Insurance Rate Maps (FIRM), surrounds most of Rush lake, the surrounding marsh lands, and upwards along the Waukau Creek and Herderson Creek to the south (see Map 3).

There is also a 100 year floodplain established in the northern part of the town, which extends from Fox River to the north between Wall Street and County Highway E.

Wetlands

Wetlands are nature's filters and sponges. They temporarily store floodwaters, filter pollutants from surface waters, control erosion and sediment, supply surface water flow and recharge groundwater supplies, and provide habitat for wildlife. The loss of these key areas represents a dramatic change in the environment – one that has repercussions throughout the watershed and region.

Nepeuskun is proud to be home of one of the largest wetland areas in Winnebago County (see Map 3). The County has approximately 51,400 acres of wetland still in existence. Although vast wetland areas surround the lake, pollutants have direct access through a series of old drainage ditches that drain large, historic wetlands (Winnebago County Land and Water Management Plan, 1998).

In addition to providing habitat for fish, waterfowl, and other wildlife species, the remaining wetlands are important for the recharge of aquifers and the protection of groundwater quality. They are extremely efficient at trapping and filtering out nutrients and

sediments contained in runoff and they provide highly effective flood storage areas. It is critical that the remaining wetland resources in Winnebago County be protected from further destruction.

Groundwater

All of the groundwater in Winnebago County originates from local precipitation that infiltrates through the soil into recharge area of the aquifers. Contamination risks from land use practices are the greatest threat to groundwater resources. The potential sources of contaminants are from old unregulated landfills, underground storage tanks, on-site waste disposal systems, livestock manure handling and storage, and septic disposal. All of these sources are presently regulated or are being addressed through ordinances and/or technical assistance service by various county and state agencies.

To protect the groundwater and surface water resources, Winnebago County has adopted an animal waste management ordinance that applies to all unincorporated areas of the county, including the Town of Nepeuskun. This ordinance addresses:

- Animal waste storage facilities;
- New and expanding feedlots;
- Nutrient management;
- Overflow of manure storage structures;
- Unconfined manure stacking or piling within areas adjacent to stream banks, lakeshores, and in drainage canals;
- Direct runoff from feedlots or stored manure to waters of the state; and
- Livestock access to waters of the state where high concentrations of animals prevent adequate sod cover maintenance.

According to the Wisconsin Groundwater Management Plan Report done by the WisDNR, Nepeuskun is located in an area of moderate to high susceptibility to groundwater contamination. Factors that influence groundwater contamination susceptibility include depth to bedrock, type of bedrock, soil characteristics, depth to water table and characteristics of surficial deposits.

The WisDNR has reported that nitrate-nitrogen is the most widespread groundwater contaminant in the state, and this problem is increasing in extent and severity. Nitrate inputs originate from manure spreading, agricultural fertilizers, and legume cropping systems. On-site wastewater systems (septic tanks) can also be a significant nitrate source. Of the private wells sampled throughout the county by the WisDNR in 2004, the ones in or near the Town of Nepeuskun ranged from the lowest (less than 2 milligrams per liter) to the second highest (10 to 20 milligrams per liter) levels of nitrate concentration.

Pesticides contamination is also a concern in Nepeuskun. A 2002 study estimated that about a third of private drinking water wells in the central region of Wisconsin where Nepeuskun is located contained a detectable level of an herbicide or herbicide metabolite.

Local residents have expressed a strong interest in protecting groundwater resources. In the 2008 community survey, 60 percent of respondents indicated that the town should regulate activities that adversely affect groundwater resources.

Threatened and Endangered Species

Three species of endangered plants and three species of threatened plants have emerged in Winnebago County. Four endangered aquatic bird species have emerged in the county, three breed here annually. Other species of concern include two threatened fish, one endangered fish, one threatened mussel, and two threatened turtles that have been documented to occur in the county (Winnebago County Comprehensive Plan).

Based on information contained in Wisconsin's Natural Heritage Inventory there are 3 plants, 8 birds and 5 ecological communities the Town of Nepeuskun that are threatened, endangered, or a species of special concern.

Birds

- *Aechmophorus occidentalis* (Western Grebe)
Species of Special Concern: Vulnerable to disturbance of nesting colonies. Destruction of

marshes has greatly reduced the extent of suitable habitat (NatureServe).

- *Chlidonias niger* (Black Tern) Species of Special Concern: Destruction of marshes, sloughs, and rivers has greatly reduced the extent of suitable habitat. Reliant on bulrush and cattails for nesting (NatureServe).
- *Gallinula chloropus* (Common Moorhen) Species of Special Concern: Decline in vegetation and grassy borders surrounding wetlands and shallow waters are possible factors contributing to their decline (NatureServe).
- *Ixobrychus exilis* (Least Bittern) Species of Special Concern: Improvement of wetland habitats, particularly large (greater than five ha), shallow wetlands with dense growths of robust, emergent vegetation, is the most urgent management need (NatureServe).
- *Nycticorax nycticorax* (Black-crowned Night Heron) Species of Special Concern: Has declined in some areas due to disturbance, degradation, and/or destruction of nesting and foraging areas (swamps and marshes) (NatureServe).
- *Podiceps grisegena* (Red-necked Grebe) Wisconsin Endangered Species: Habitat degradation has occurred in the breeding range as a result of development near and drainage of wetlands and potholes (NatureServe).
- *Sterna caspia* (Caspian Tern) Wisconsin Endangered Species: Disturbance and development of nesting habitat, sandy or gravelly beaches, are major threats (NatureServe).
- *Sterna forsteri* (Forster's Tern) Wisconsin Endangered Species: Threats include human disturbance and development of nesting areas (floating mass of marsh plants), loss of nests to natural flooding, and possibly predation by laughing gulls (NatureServe).

Plants

- *Cypripedium candidum* (Small White Lady's-slipper) Threatened Species: Habitat destruction (mesic blacksoil and wet blacksoil prairie, glacial till hill prairie, and sedge meadow), collection by

wildflower hunters, herbicide application, and loss of pollinators has been known to lead to their decline (NatureServe).

- *Galium brevipes* (Swamp Bedstraw)
Species of Special Concern: The primary threat is loss of habitat (mainly in exsiccated alkaline soils of mud flats, loamy river banks, sandy lakeshores, and mossy swales) to development (NatureServe).
- *Poa paludigena* (Bog Bluegrass)
Threatened Species: Drainage or inundation would damage or destroy the wetland. Fluctuations in water flow and agricultural run-off may upset the water chemistry (NatureServe).

Ecological Communities

- *Emergent marsh* (Emergent Marsh)
Threats can come from motorized boats, weed removal and pesticide use, near-by development, sedimentation and pollution, invasive species, and dams (WDNR)
- *Mesic prairie* (Mesic Prairie)
The present rarity is due to its high productivity for agricultural uses (WDNR).
- *Oak opening* (Oak Opening)
Absence of fire, fragmentation due to rural housing, unsustainable forest practices, invasive plants, soil loss and sedimentation, high deer density, as well as potential damage from gypsy moth infestations are all threat to this community (WDNR).
- *Wet-mesic prairie* (Wet-mesic Prairie)
Historically converted to agriculture and the remaining sites are small/isolated, which are difficult to manage. Conversion of prairie to woody species and invasive species are major problems. Needs comprehensive land use planning for restoration (WDNR).

Wildlife Habitat and Sensitive Areas

The lakes, marshes, rivers and adjacent uplands in Winnebago County have provided prime waterfowl habitat for centuries. Sharp decline in duck populations throughout the U.S. during the 1970s and 80s reflected the dramatic use of the Winnebago System by hunters

and coincided with the loss of important aquatic food sources such as wild celery (Winnebago County Comprehensive Plan).

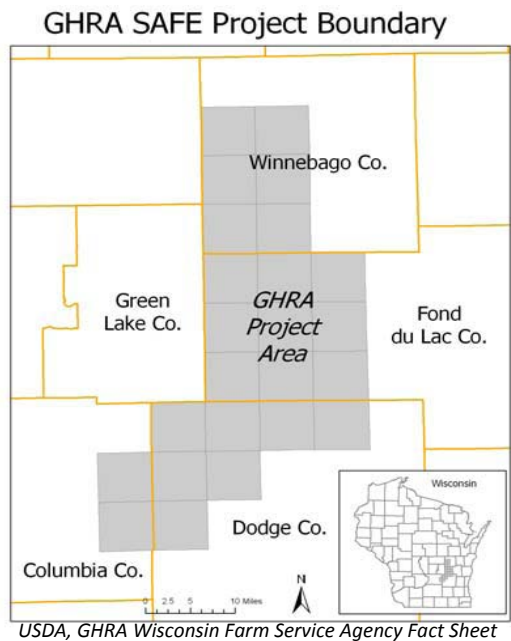
Duck populations are currently on the increase and waterfowl hunting, as always, remains an important recreational activity in the county and the town. Other important hunting activities in the county and town include bow and gun deer hunting and pheasant hunting. Wild Turkeys have been restored to the western half of the county and are now providing additional hunting opportunities.

Because Winnebago County is located in what was formerly one of the best regions of the state for duck and pheasant production, the Department of Natural Resources initiated the Glacial Habitat Restoration Area project in the southwestern part of the county. This project is designed to restore wetlands and grasslands on private land and public and to benefit mallards, blue winged teal, pheasants, and grassland songbirds. Rush Lake is the core of the Glacial Habitat Restoration Area – it anchors the whole habitat area. DNR has expressed an interest in acquiring additional land around Rush Lake if available.

The Town of Nepeuskun is also home to the Koro Railroad Prairie State Natural Area. From the intersection of County Highways V and E just west of Rush Lake, go west on V one mile, then north on Koro Road 1.25 miles to the Winnebago County Recreational Trail. The site starts at the road and continues east along the Winnebago County Recreation Trail for 0.4 mile.

The Koro Prairie Natural Area (3 acres) features a stretch of high-quality mesic prairie with many species of native prairie plants. Dominated by big bluestem, this site contains other common mesic prairie species such as switch grass, New Jersey tea, prairie dock, stiff goldenrod, and spiderwort. This remnant is especially noteworthy because of its location at the northeastern edge of the prairie-oak savanna region in Wisconsin. The site runs along an abandoned railroad right-of-way and frequent fires sparked by the trains helped maintain the fire-adapted prairie vegetation. Other

species include mountain mint, shooting star, false dandelion, narrow-leaved loosestrife, turk's cap lily, culver's root, and Riddell's goldenrod. Koro Prairie is owned by Winnebago County and was designated a State Natural Area in 1990 (WisDNR).



Parks and Open Space

Parks and open space are addressed in the Community Facilities Chapter of this Plan.

Metallic/Non-metallic Mineral Resources

Permits are required for all metallic and non-metallic mining sites, in accordance Winnebago County Non-Metallic Mining Reclamation Ordinance and Wisconsin Administrative Code NR 135. According to the Winnebago County Comprehensive Plan, there are three registered non-metallic mining sites in Nepeuskun: Craig Pit (Section 3), Clausen Pit (Section 36), and Stark Borrow Area (Section 6) (See Map 7).

Cultural Resources

Native American Sites

Native Americans once dominated the area and pollen evidence suggests from lake cores that large amounts of wild rice grew along the shoreline. Islands within the marshes were ideal spots for Indian Encampments. One such locality is known as Dutchmen's island on the northeast side of Rush Lake. Burial grounds and mounds were also discovered along the Lake's shoreline, as well as ceramic and lithic artifacts from Middle/Woodlands Indian cultures (Winnebago County Comprehensive Plan).

Historic Architecture

There are 48 sites identified by the Wisconsin Architecture and History Inventory database. These sites are representative of the strong agrarian history of the Town of Nepeuskun. The history is reflected in the number of historic homesteads from the Gabled Ell (16 houses), Queen Anne (6 houses), and Greek Revival (6 houses) architecture styles.

These historic house sites are mainly clustered along the following routes:

- Rush Lake Drive (3 houses)
- Meadow Brook Road (3 houses)
- Koro Road (4 houses)
- Highway V (3 houses)
- County Highway E (7 houses)

Please See Map 6 for additional locations.

There are also 7 barns identified in the inventory database. The barn types consist of basement, bank, and pole barns all encompassing the astylistic utilitarian building style. These are all located along Highway 91.

One Gabled Ell 1-6 room school houses is also preserved in the town. (Please see Map 6)

The preservation of these sites is an important way to sustain the heritage and history of the town for future generations.

to the C.J. Rodman Center of the Arts, and the Green Lake/Ripon Festival of Music, among other cultural resources.

Cultural Facilities

Although there are no cultural or social facilities in Nepeuskun, the nearby communities of Omro, Berlin, and Ripon offer facilities within close proximity of town.

The City of Omro, located about 15 minutes north of town, has a Lions Club, which organizes a 4th of July Arts and Crafts Fair with over 70 vendors. The City also has a Family Aquatic Center located one block north on Highway 21 at Lincoln Avenue.

In City of Berlin, which is about 10 minutes to the West by car, there are a number of cultural organizations serving the area:

- Berlin Lions Club
- Berlin Boat Club
- American Red Cross
- Berlin Kiwanis
- Grow Em-Show Em Garden Club
- Athena Club Berlin Boy's and Girls Club
- Berlin Youth Soccer
- American Legion
- Berlin Blue Knights
- Berlin Snowmobile Club
- Green Lake County Home and Community Education
- United Way
- Berlin Community Scholarship
- Rainbow Cloggers
- Berlin Athletic Association
- Berlin Conservation Club
- Berlin Historical Society
- Berlin Senior Center
- Berlin Cub Scouts and Boy Scout Troop 632
- Street Cruzers Car Club
- Berlin Rotary Club

To the south, town residents enjoy close proximity to the City of Ripon and the various services and activities that it has. Ripon offers historic walking tours, is home

Agricultural, Natural, and Cultural Resources 20-Year Vision

In 2030, we envision Nepeuskun as a place that continues to be characterized by its agricultural and natural resources. Good farmland throughout the Town has been protected from development and remains in active agriculture. These farms are the economic and cultural backbone of the town. Small family farms continue to prosper and have adjusted to changing conditions and challenges. The Town has worked to support and encourage these small- and mid-sized farms, while at the same time discouraging larger corporate farms. Livestock siting regulations have been put in place to restrict where new large livestock operations can locate, protecting town residents from the potential nuisances associated with these facilities.

In this future vision, Rush Lake has been successfully restored as a hunting and bird watching paradise, and provides recreation opportunities for residents and visitors alike. Bulrush and other native aquatic plants have returned to the Lake and support large populations of native waterfowl, including the red-necked grebe and Foster's tern. Carp populations have been eradicated and lead contamination issues have been resolved. Stream buffers throughout town and the greater Rush Lake Watershed have been restored and help to reduce soil erosion and nutrient run-off. Land around Rush Lake has been protected from development, and key views of the lake have been preserved so that residents and visitors can continue to enjoy the beauty of this key natural resource. Groundwater quality has also been protected from potential contamination sources.

Historic buildings throughout town help to connect the community to its agrarian culture and history. The rural character of Nepeuskun can also be seen in newer homes, which have been designed and sited to fit into the agrarian landscape of the community.

The following goals, objectives, and policies are intended to provide a comprehensive approach for achieving this vision. The order in which these goals, objectives, and policies are listed does not necessarily denote their priority.

Goals

Goals are broad, advisory statements that express general public priorities about how the Town should approach issues identified in the Comprehensive Plan.

G5.1 Protect prime farmland for agricultural production.

- G5.2** Support small- and mid-sized farm operations.
- G5.3** Discourage large corporate farms from locating in Nepeuskun, and limit the impact of these farms if they do locate in Town.
- G5.4** Reduce potential conflicts between farmers and non-farm neighbors.
- G5.5** Improve water quality in Rush Lake.
- G5.6** Reduce invasive species and restore native species populations to Rush Lake.
- G5.7** Ensure that all residents and visitors can enjoy the recreational amenities and views of Rush Lake.

- G5.8** Protect groundwater from contamination.
- G5.9** Protect historic buildings throughout town and encourage new homes to be sited in a way that is compatible with this historic aesthetic.

Objectives

Objectives suggest future directions in a way that is more specific than goals. The accomplishments of an objective contribute to the fulfillment of a goal.

- O5.1** Work with interested farmers to pursue long-term protection of good farmland.
- O5.2** Limit new residential development in areas with good farmland.
- O5.3** Restrict any new large livestock operations to specific areas where the impact of these operations would be minimized.
- O5.4** Educate new residents about agricultural practices, and promote understanding and acceptance of the potential noise and smells associated with these practices.
- O5.5** Reduce stormwater runoff and pollutants found in this runoff.
- O5.6** Establish native vegetated buffers along streams throughout Town.
- O5.7** Limit new development around Rush Lake.
- O5.8** Improve public access to Rush Lake.
- O5.9** Protect key views of Rush Lake.

Policies

Policies are rules, courses of action, or programs used to ensure Plan implementation and to accomplish the goals and objectives.

- P5.1** Evaluate options and potential funding sources for protecting good farmland in cooperation with interested farmers.
- P5.2** Locate residential zoning districts away from good farmland.
- P5.3** Modify the existing zoning ordinance to limit development in areas with good farmland, while still allowing some land divisions.

- P5.4** Establish livestock siting regulations (ATCP 51) that restrict where new livestock operations can locate.
- P5.5** Evaluate options for educating nonfarm residents about farming practices, including potentially installing “farming community” signs and/or distributing information brochures about living in an agricultural area.
- P5.6** Work with the County and the Department of Natural Resources to address agricultural runoff issues.
- P5.7** Establish a stormwater management ordinance and require new development to comprehensively address stormwater management, with a particular emphasis on “green infrastructure” (e.g. vegetated swales).
- P5.8** Establish regulations to require any new development bordering a creek or the Lake to incorporate a buffer of native plants along the shoreline.
- P5.9** Work with Winnebago County to modify shoreland zoning regulations along Rush Lake to further limit subdivision and new development.
- P5.10** Work with DNR and/or other appropriate conservation organizations to identify priority lands for long-term protection. In assessing whether or not to protect key lands, potential fiscal impacts including any reduction in the tax base should be considered.
- P5.11** Conduct a scenic resources inventory to identify priority views that should be protected.
- P5.12** Establish rural design guidelines that encourage historic patterns of development and site design.