

CHAPTER 2 – AGRICULTURAL, NATURAL, AND CULTURAL RESOURCES

INTRODUCTION

The purpose of this element is to provide background information on a wide variety of agricultural, natural, and cultural resources in the Town. This information will help the Town recognize and identify important resources that need to be protected and/or effectively managed. It will also identify if there is anything that may limit the development potential within the Town. This element will include a compilation of objectives, policies, goals, and maps for 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.

Agriculture in the state has long been a significant, but an increasingly smaller segment of the statewide economy. In recent years, agriculture has accounted for just over two percent of the gross state product. Farmland in Wisconsin has been under increasing pressure in the last decade, because a relatively poor agricultural economy prompted farmers to sell land and a robust non-farm economy enabled many urban dwellers to realize their dream of living in the country. From 1996 through 2000, over 313,000 acres of Wisconsin farmland have been removed from agriculture. In addition, the state's most productive soils are located in the southeastern third of the state where most population growth is occurring. The American Farmland Trust has identified southeastern Wisconsin as one of the three most threatened farmland resources in the United States. Together, these issues make planning for agriculture essential. Agriculture is the major land use in the Town of Russell.



Natural resources play an important role in the Town of Russell. It is the natural resource base which makes the Town an attractive location for residential, commercial, and tourism development. The natural resources in the Town and surrounding communities provide a great economic base as well as recreational and aesthetic value.

Cultural resources include historic buildings and structures, as well as ancient and historic archaeological sites. Preserving these areas or structures helps to establish the Town's unique history and provides a "sense of place." Having a long-term perspective that promotes preservation, history, and stability helps to create more careful decision-making.

SUMMARY AND IMPLICATIONS (HISTORY)

Summary: The major land use in the Town of Russell is agricultural land use. The majority of the Town's land that is not occupied by the Broughton Sheboygan Marsh Park is open space, and a majority of this open space is used for agricultural purposes. The large amount of agricultural

land use within the Town is important to the local economy. Agricultural lands help preserve open space which is valued by residents. Agricultural lands are part of the Town's identity. The Lake Country communities can help encourage the continued growth of agriculture in the Town of Russell by making it possible for commercial and residential growth to occur within or adjacent to the Villages and by supporting agricultural related business in Elkhart Lake, Glenbeulah, and St. Cloud, as appropriate.

Implications: In this area of the county, it is normal that there would be a large percentage of land dedicated to agriculture. The Town's residents would like to see the agricultural nature of the town continue. The residents are overwhelmingly in support of preserving the farmland in the Town. 95.5% of respondents of the Town of Russell Citizen Input Survey feel that preserving the farmland in this area is important. The Town's agricultural areas should be preserved to maintain the agricultural community and open space which is valued by the local residents within the Town and adjacent communities in the Lake Country region.

Summary: The Town of Russell's natural resources play a major role in the Town primarily due to the Sheboygan Marsh Broughton County Park and Wildlife Area. The marsh's aesthetic and recreational appeal adds to the Town's identity, providing a focal point for activities and drawing visitors to the area.

Implications: Protection of open spaces (such as underdeveloped land, woodlands, and wetlands) is important to the residents of the Town of Russell. 80.6% of the respondents agreed that protecting these areas was important in the 2004 Town of Russell Citizen Input Survey. In light of the importance of natural resources and the opinions of residents, specific efforts should be made to protect the Town's natural resources, especially in ways that stress voluntary landowner participation and that do not impose burdens on the Town taxpayers.

Summary: Cultural and historical resources are abundant compared to the small population in the Town of Russell. One of the main cultural resources is a developed Native American site. This site has been turned into a museum by its current owners. While local officials do not want to discourage cultural resource inventorying and preservation, public investments are unlikely because of limited funds.

CLIMATE

Western Sheboygan County typically experiences continental weather with some slight microclimate variations on the hilltops and in the valleys of the Kettle Moraine area.

About two-thirds of the annual precipitation falls during the growing season. It is normally adequate for vegetation, although drought is occasionally reported. The climate is most favorable for dairy farming; the primary crops are corn, small grains, hay, and vegetables.

The growing season averages 126 to 165 days. The average date of the last spring freeze varies from the first week to the last week of May, with a median date of last frost of May 11. The first autumn freeze occurs in early to mid-October, with a median date of first frost of October 6. The mean date of first snowfall of consequence, an inch or more, occurs in early November. The snow cover acts as protective insulation for grasses, autumn seeded grains, and other vegetation.

While a detailed site assessment for Town of Russell has never been done, Wisconsin Division of Energy computerized models indicate wind speeds average 10-12 miles per hour at a height of 30 meters, which is a typical height for small private wind generators (in general, winds exceeding 11 mph are required for cost-effective installations). Computerized models indicate wind speeds average 13-15 miles per hour at a height of 60 meters, which is a typical height for large commercial wind turbines (in general, winds exceeding 13 mph are required for financially feasible projects).

Figure 2.1: Average Monthly Temperature

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Annual
Max °F	25.4	30.0	40.4	53.6	66.9	76.5	81.0	78.5	70.4	58.3	43.1	30.4	54.5
Min °F	9.0	13.0	23.0	34.2	45.0	54.6	60.1	58.5	49.8	39.5	28.0	16.1	35.9
Mean °F	17.2	21.5	31.7	43.9	56.0	65.6	70.6	68.5	60.1	48.9	35.6	23.3	45.2

Figure 2.2: Average Monthly Precipitation

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Annual
Inches	1.40	1.25	2.42	3.47	3.67	3.93	3.94	4.55	4.02	2.93	2.85	1.87	36.30

Figure 2.3: Average Monthly Snowfall

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Annual
Inches	16.1	11.6	10.4	3.6	0.2	0.0	0.0	0.0	0.0	0.2	5.5	13.8	61.4

Source: Wisconsin State Climatology Office. Based on historical data from the weather station at Plymouth, Wis., latitude 43°44' N, longitude 87°58' W, elevation 834 ft.

GEOLOGY

Two different types of geologic settings, Quaternary (Glacial) geology and bedrock geology, characterize Sheboygan County. Quaternary geology refers primarily to the effects that continental glaciations have had on the region within the last 20,000 years and to a lesser extent, the surface effects of more recent erosion and deposition. Bedrock geology refers to the much older, solid rock layers that lie beneath Quaternary sediments.

Bedrock Geology

The bedrock units underlying Sheboygan County range in age from Precambrian at depth, to Silurian at the surface. The oldest are impermeable crystalline rock of the Precambrian age at depths that average more than 1,500 feet below the land surface.

Silurian dolomite, often referred to as Niagara, is the uppermost bedrock in Sheboygan County and reaches thicknesses up to 580 feet. Rocks underlying the Niagara dolomite are not visible in the County. Below the Niagara dolomite is a shale formation known as Maquoketa. It reaches a maximum thickness of 450 feet. The Maquoketa shale overlies a dolomite formation, termed Platteville-Galena, which is approximately 500 feet in thickness. This rock formation, in turn, overlies Cambrian sandstones, which are 450 feet thick. All of these sedimentary rock formations overlie Precambrian igneous rocks.

Quaternary Glacial Geology

The last glacial ice of Quaternary glaciations, which left the planning area approximately 10,000 years ago, modified the bedrock surface by scouring highlands and depositing material in lowlands created by pre-glacial erosion. Four types of Quaternary deposits are recognized within the region, including till, glaciofluvial sediments, shoreline deposits and organic deposits.

Till or unstratified drift is a mixture of unsorted, angular to round-shaped sediments ranging in size from clay to boulders. Tills are ice-contact deposits originating directly from glacial ice. Unlike till, glaciofluvial sediments are sorted by particle size that delineates the stratification. Glaciofluvial sediments were deposited in a fluvio-glacial environment involving glacial meltwater flow. Each individual layer of glaciofluvial sediments are characterized by a given grain size, ranging from pebbles and cobbles to sand or finer.

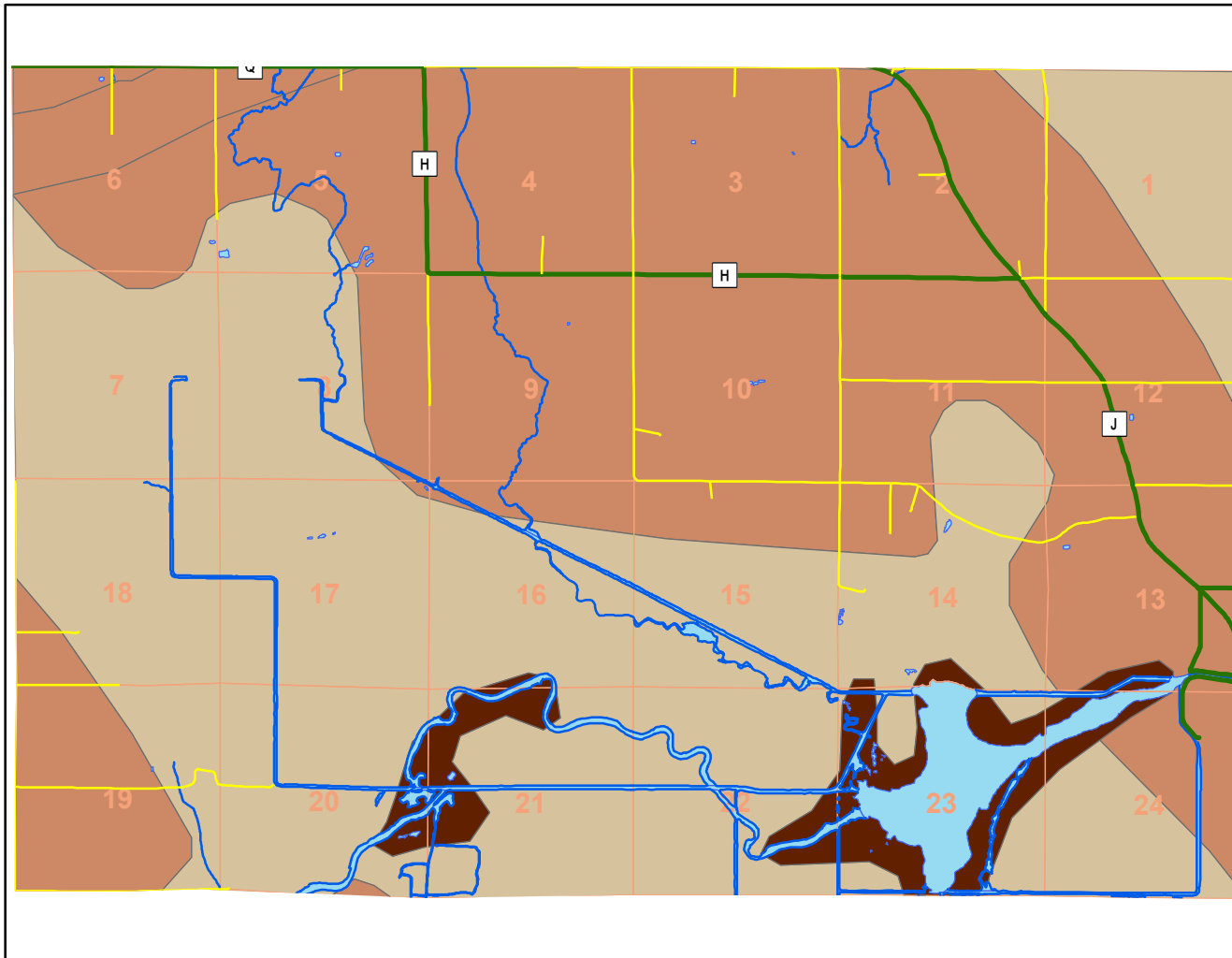
Ground and end moraines are two types of topographic landforms found in the region that consist primarily of till. A ground moraine is an irregular surface of till deposited by a receding glacier. The steeper slope points in the direction from which the glacier advanced. An end moraine is an accumulation of earth, stones, and other debris deposited at a glacier's end stage.

At least one type of topographic landform consisting of glaciofluvial sediments occurs in some areas of the planning region. This type of topographic feature is an outwash plain, which is an apron of well-sorted, stratified sand and gravel deposited by glacial meltwater. Glaciofluvial deposits, which contained large ice blocks that eventually melted, were pitted with depressions known as kettles. Glaciofluvial deposits of sand and gravel surround many drumlins, but these are often covered with a thin silt cap. Figure 2.4 shows the Pleistocene Geology in the Town of Russell. It is shown that the Town of Russell has three main types of geology one being the sandy loam till, another being the lake, and the last being the outwash sand and gravel.

SOILS

Soil is composed of varying proportions of sand, gravel, silt, clay, and organic material. The composition of a soil affects the specific properties of that soil. The properties must be evaluated prior to any development.

Figure 2.4
Pleistocene Geology
Town of Russell
 Sheboygan County, WI



Legend

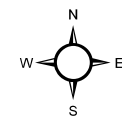
- Outwash Sand & Gravel
- Ice Contact Sand & Gravel
- Lake
- Lake Silt & Clay
- Clayey Till
- Sandy Loamy Till

Roads

- State Hwy
- County Road
- Local Road
- Private Road

Planimetric

- Bridges
- Dams
- Railroads
- Rivers, Streams
- Road / Bridge



1 " equals 4,600 '



General Soils Description

The general characteristics of soils are largely the result of various glacial depositional processes. Outwash soils were formed from glacial deposits that were derived from local bedrock formations. Organic soils developed under a forest cover consisting mainly of conifers and hardwoods in the north, in a cool and relatively moist climate. Sandy soils were formed from parent materials derived from sandstone bedrock pulverized by glacial ice.

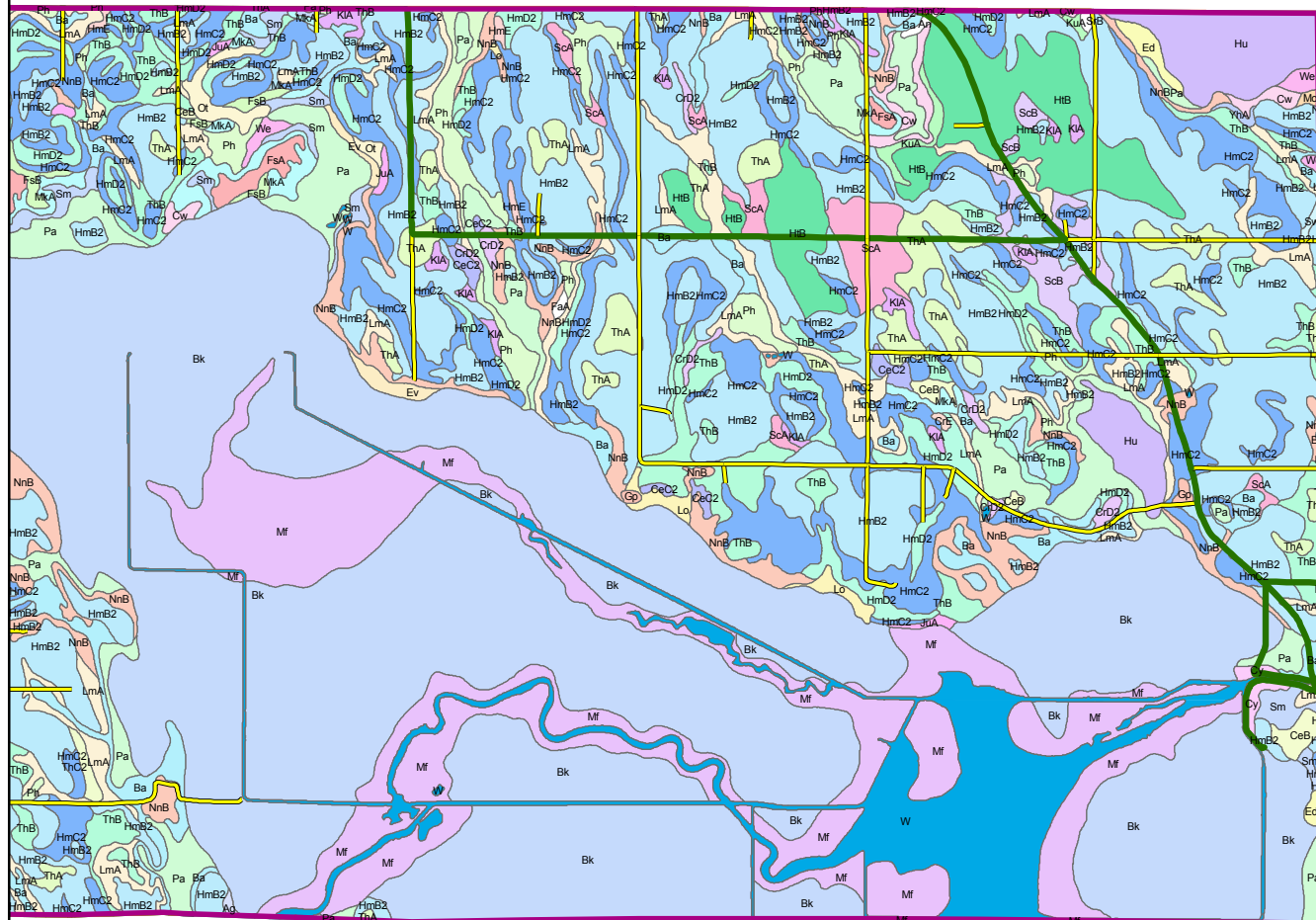
Soils, in part, determine how much rainfall or snowmelt directly flows into the rivers, lakes, and wetlands, and how much infiltrates the ground. Water that infiltrates the ground replenishes soil moisture and recharges the groundwater system. Soils are grouped into general soil associations that have similar patterns or relief and drainage. These associations typically consist of one or more major soils and some minor soils. The general soil types can be divided into three broad categories: areas dominated by soils formed in glacial till; areas dominated by soils formed in glacial outwash and till; and areas dominated by organic soils.

The soils in Sheboygan County are diverse ranging from sandy loam to loam or shallow silt loam, and from poorly drained to well drained. In some areas, lacustrine sand is found overlying clays or bedrock within only a few feet of the surface. Poorly drained sands are common in the lake plain or in depressions between dunes and beach ridges. Important soils in the County include clays, loams, sands, and gravels. The Town of Russell has mostly farmland and a Marsh. Some of the common soil associations found in the Town of Russell include Boot Muck, Hochheim, Houghton Muck, Theresa, Palms Muck, Marsh, Theresa, and St. Charles. The Boots series consists of nearly level, very poorly drained soils formed in herbaceous organic material more than 51 inches thick. These soils are in depressional areas in old glacial lake basins. The permeability of these soils is moderately rapid and the available water capacity is very high. The organic matter is also very high, but the natural fertility is low. Most of these soils are used for woodland and wildlife. The Hochheim series consists of nearly level to steep, well-drained soils that are underlain by gravelly sandy loam or gravelly loam glacial till. Permeability and available water capacity are moderate. Organic-matter content is moderately low, and natural fertility is medium. Another prominent soil in the Town is the Marsh. This is a very poorly drained mixed mineral and organic material that is covered with water most of the year. Marsh is not suited to commercial crop production, woodland, or pasture. Drainage is not economical or feasible. Marsh soils are well suited as wetland wildlife habitat. Figure 2.5a shows the soil classifications in the area, but a more detailed map and descriptions of the soils can be found in the *Sheboygan County Soil Survey*. Figure 2.5b provides a key to the symbols of each soil series.

Suitability for Dwellings with Basements

Within the *Soil Survey of Sheboygan County*, the Natural Resources Conservation Service (NRCS) provides information on the suitability and limitations of soils for a variety of natural resources and engineering uses. In particular, the soil survey provides information on the limitations of each soil for building site development, including the construction of dwellings with basements. Dwellings are considered to be structures built on shallow excavations on undisturbed soil with a load limit the same as for a single-family dwelling no higher than three stories. The ratings are based on soil properties, site features, and observed performance of the soils.

Figure 2.5a
General Soil Classifications
Town of Russell
 Sheboygan County, WI



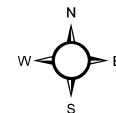
Legend

Roads

- State Hwy
- County Road
- Local Road
- Private Road

Soils

- | | | |
|---|--|---|
| ■ Ag | ■ HmB2 | ■ Ph |
| ■ Ba | ■ HmC2 | ■ ScA |
| ■ Bf | ■ HmD2 | ■ ScB |
| ■ Bk | ■ HmE | ■ Sm |
| ■ CeB | ■ HtB | ■ Sw |
| ■ CeC2 | ■ Hu | ■ ThA |
| ■ CrD2 | ■ JuA | ■ ThB |
| ■ CrE | ■ KIA | ■ ThC2 |
| ■ CrF | ■ KuA | ■ Water |
| ■ Cw | ■ LmA | ■ We |
| ■ Cy | ■ Lo | ■ YhA |
| ■ Ed | ■ Mf | |
| | ■ MkA | |



1" equals 4,400'

4,800 2,400 0 4,800 Feet

Figure 2.5b: General Soil Type Symbols & Names

Symbol	Name
Ag	Adrian muck
Ba	Barry silt loam
Bf	Bellevue fine sandy loam, sandy subsoil variant
Bk	Boots muck
CeB	Casco loam, 2 to 6 percent slopes
CeC2	Casco loam, 6 to 12 percent slopes
CrD2	Casco-Rodman complex 12 to 20 percent slopes, eroded
CrE	Casco-Rodman complex 20 to 30 percent slopes
CrF	Casco-Rodman complex 30 to 45 percent slopes
Cw	Colwood silt loam
Cy	Cut and fill land, loamy
Ed	Edwards muck
Ev	Elvers silt loam
FsA	Fox silt loam, 0 to 2 percent slopes
FsB	Fox silt loam, 2 to 6 percent slopes
Gp	Gravel pit
HeB	Hebron loam, 0 to 2 percent slopes
HmB2	Hochheim silt loam, 2 to 6 percent slopes, eroded
HmC2	Hochheim silt loam, 6 to 12 percent slopes, eroded
HmD2	Hochheim silt loam, 12 to 20 percent slopes, eroded
HmE	Hochheim silt loam, 20 to 30 percent slopes
HtB	Hochheim-Knowles silt loams, 1 to 6 percent slopes
Hu	Houghton muck
JuA	Juneau silt loam, 0 to 3 percent slopes
KIA	Kendall silt loam, 0 to 3 percent slopes
KuA	Kibbie silt loam, 0 to 3 percent slopes
LmA	Lamartine silt loam, 0 to 3 percent slopes
Lo	Loamy land, seeped
Mf	Marsh
MkA	Matherton silt loam, 0 to 3 percent slopes
Mo	Montgomery silty clay loam
NnA	Nenno silt loam, 0 to 2 percent slopes
NnB	Nenno silt loam, 0 to 2 percent slopes
Ot	Otter silt loam
Pa	Palms muck
Ph	Pella silt loam
ScA	St. Charles silt loam, 0 to 2 percent slopes
ScB	St. Charles silt loam, 2 to 6 percent slopes
Sm	Sebewa silt loam
Sw	Stony land, wet
ThA	Theresa silt loam, 0 to 2 percent slopes
ThB	Theresa silt loam, 2 to 6 percent slopes
ThC2	Theresa silt loam, 6 to 12 percent slopes
We	Willette muck
YhA	Yahara very fine sandy loam, 0 to 3 percent slopes
W	Water

According to the NRCS, *severe limitations* mean soil properties or site features are so unfavorable or so difficult to overcome that special design, significant increases in construction costs, and possibly increased maintenance are required. *Moderate limitations* mean soil properties or site features that are not favorable for the indicated use may require special planning, design, or maintenance to overcome or minimize limitation. *Slight limitations* mean soil properties and site features are generally favorable for the indicated use the limitations are minor and easily able to be overcome. Refer to the Soil Survey for additional information regarding soil limitations for building site development. Figure 2.6 shows soil suitability for dwellings with basements in the Town of Russell. Much of the Town has severe limitations because of the proximity to the Sheboygan Marsh. This map is based on generalized data and is not a substitute for on-site soil testing.

Suitability for Septic Systems

The Town relies on private sewage systems for the majority of its residents. Without consideration of the properties of soils, private sewage systems may fail and collection systems may require expensive and frequent maintenance. Factors that are considered when evaluating soils for on-site waste systems are high or fluctuating water table, bedrock, soil permeability, and flooding frequency.

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

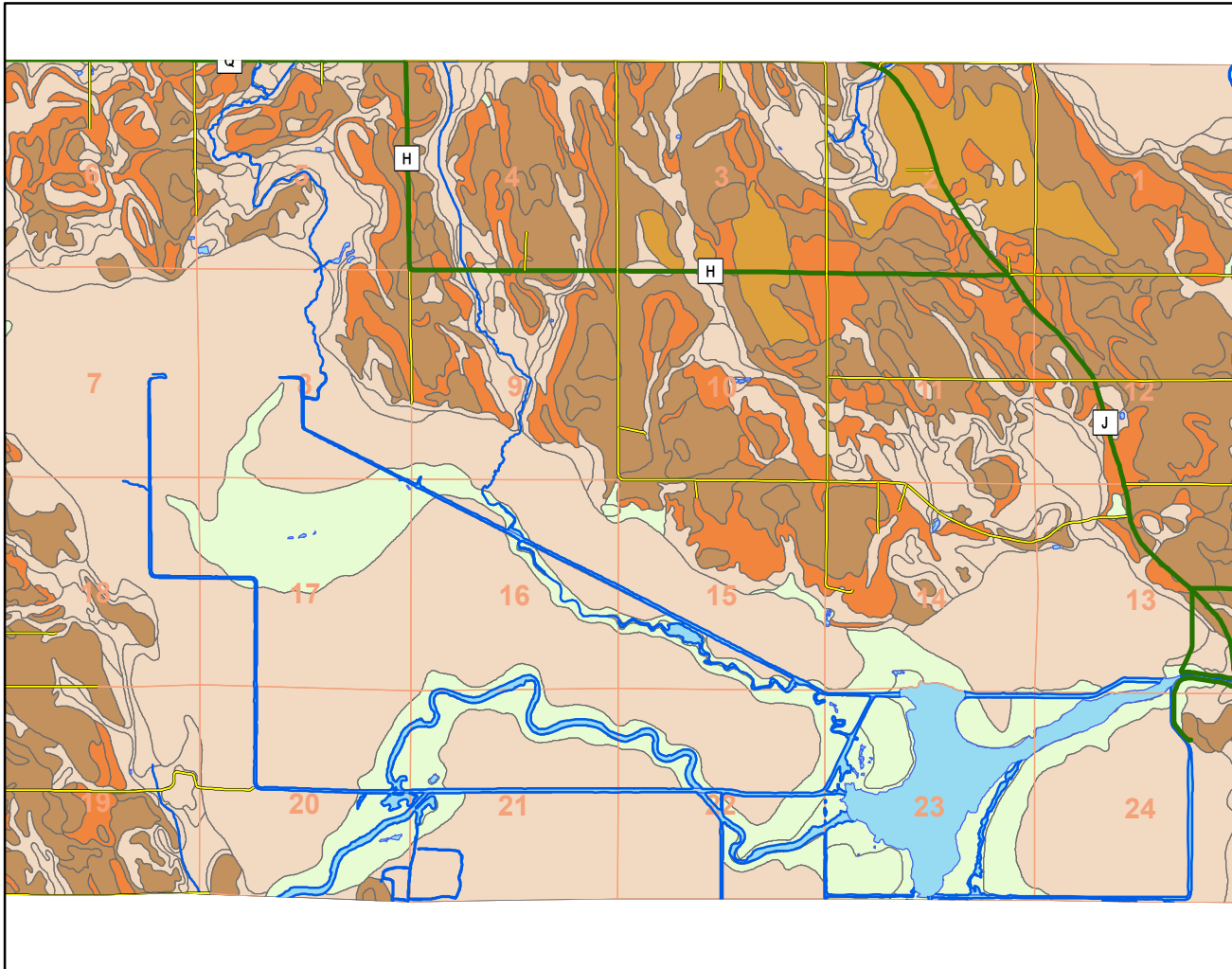
The code will allow for infill development where it was not permitted previously by the former plumbing code as interpreted by the Department of Industry, Labor and Human Relations. Housing and population density will likely increase in some areas due to the revised COMM 83 code. This in turn may increase the need for land use planning and integration of environmental corridors to address the adverse impacts related to development. Planning along with land use controls such as zoning will help achieve more efficient development patterns.

Agriculture

Agriculture creates jobs, provides a product for sale, and pays taxes. Farmland can also provide other substantial benefits to the environment, including floodplain protection, groundwater recharge areas, and wildlife habitat. There are also social benefits, including scenic views and open space.

As of 2002 there were 6,460 acres of land used for agricultural purposes such as croplands, pastures, and agricultural buildings within the Town of Russell which is about 42% of the Town's total area (the Broughton Sheboygan Marsh is about 14,000 total acres between the Town of Russell and the Town of Greenbush. About 6,400 acres of the Marsh is located in the Town. Figure 2.7 provides a representation of areas designated as prime farmland in and around the Town of Russell. The Town of Russell has five different districts dedicated to agricultural lands in their zoning ordinance. The purpose of each zoning district is listed on the following page.

Figure 2.6
Soil Limitations for
Dwellings with Basements
Town of Russell
 Sheboygan County, WI



Legend

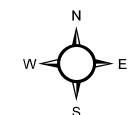
- No Values
- Moderate
- Slight
- Slight-Severe
- Severe

Roads

- State Hwy
- County Road
- Local Road
- Private Road

Planimetric

- Bridges
- Dams
- Railroads
- Rivers, Streams
- Road / Bridge



1 " equals 4,600 '

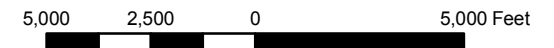
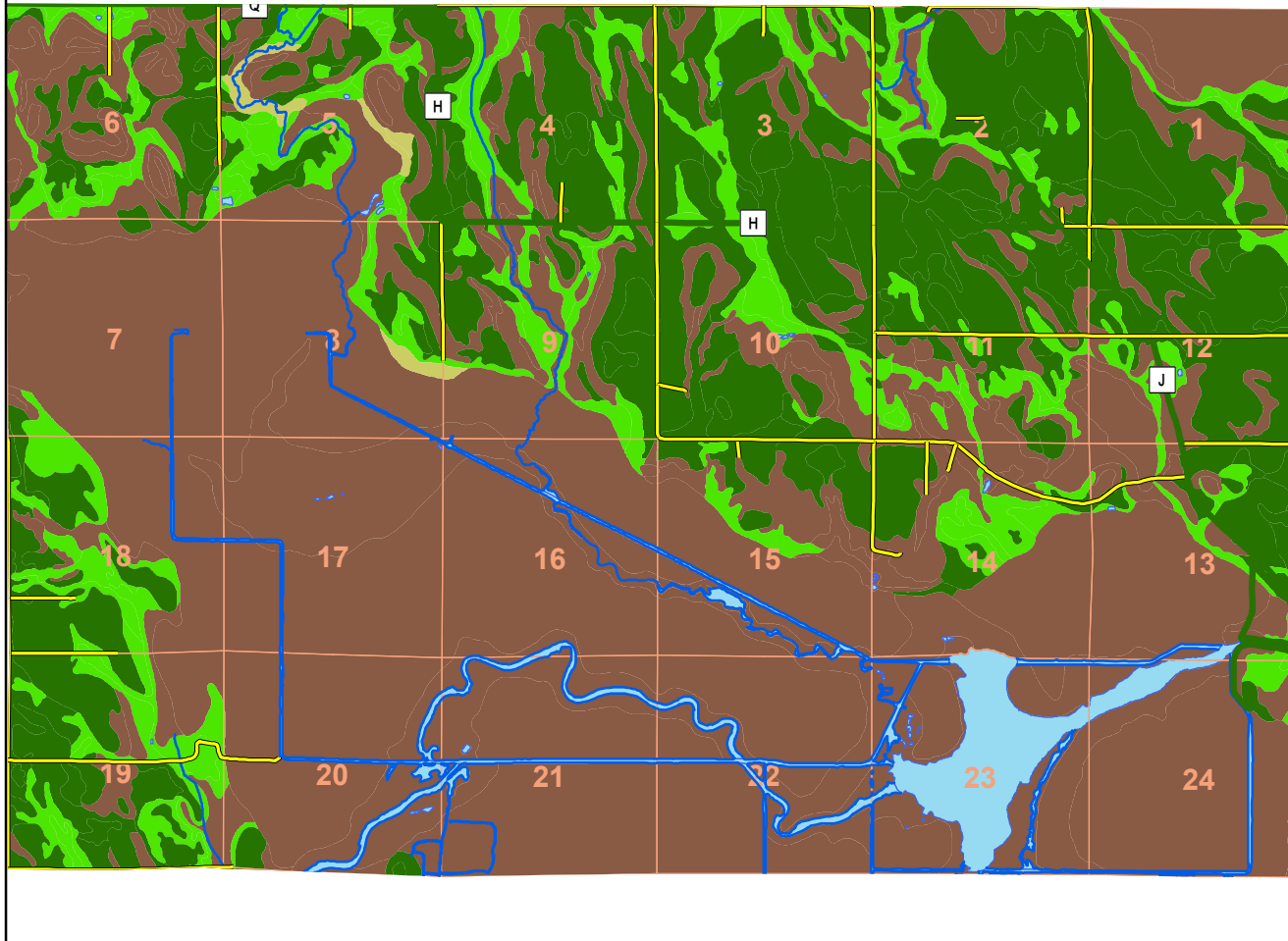


Figure 2.7
Prime Agricultural Soils
Town of Russell
 Sheboygan County, WI



Legend

Agricultural Soils

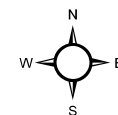
- Not Prime Agricultural Soils
- All Areas are Prime
- Prime Where Drained
- Prime Where Protected from Flooding
- Prime Where Drained & Protected from Flooding

Roads

- State Hwy
- County Road
- Local Road
- Private Road

Planimetric

- Bridges
- Dams
- Railroads
- Rivers, Streams
- Road / Bridge



1" equals 4,600'



Prepared for the Town of Russell by the
 Sheboygan County Planning Department

A-1 Agricultural Land District. To preserve larger tracts of productive agricultural land for food and fiber production, preserve productive farms by preventing land use conflicts between incompatible uses, maintain a viable agricultural base to support agricultural processing and service industries, reduce costs of providing services to scattered, non-farm uses, control and shape urban growth, help implement the provision of County, State, or Federal Agricultural Preservation Plans when adopted and periodically revised, and comply with the provisions to the Farmland Preservation Law to permit eligible landowners to receive tax credits under the Wisconsin Statutes.



A-1/PR Agricultural Parcel Remnants District. To accommodate the necessary, often unavoidable creation of parcel remnants less than 35 acres in size, yet worthy of A-1 type preservation, resulting from farm consolidations or other sales or exchanges, to preclude any residential development whatsoever on such A-1-PR zoned parcels, to otherwise achieve the purposes set forth in the A-1 District.

A-2 Agricultural Land District. To maintain, preserve, and enhance agricultural lands historically utilized for crop production, but which are not included within the A-1 District.

A-3 Agricultural Land Holding District. To provide for the orderly transition of agricultural land into other uses in areas planned for eventual urban expansion, defer urban development until the appropriate local governmental bodies determine that adequate public services and facilities can be provided at a reasonable cost, ensure that urban development is compatible with local land use plans and policies, provide periodic review to determine whether all or part of the land should be transferred to another zoning district.

A-4 Agricultural Related Manufacturing, Warehousing, and Marketing District. Provides for the proper location and regulation of manufacturing, warehousing, storage, and related industrial marketing activities that are dependent upon, or are closely allied with, the agricultural industry.

Prime Agricultural Lands

The United States Department of Agriculture (USDA), Natural Resources Conservation Service defines prime farmland as land that has the best combination of physical and chemical characteristics for production food, feed, fiber, forage, oilseed, and other agricultural crops, with minimum inputs of fuel, fertilizer, pesticides, and labor, and without intolerable soil erosion. Prime farmland



includes land that is being used currently to produce livestock and timber. It does not include land already committed to urban development or water storage.

Prime farmland has the soil quality, growing season, and moisture supply needed to economically produce sustained high yields of crops when treated and managed, including water management, according to acceptable farming methods.

In general, prime farmland in Wisconsin:

- Has an adequate and dependable water supply from precipitation or irrigation
- Has a favorable temperature or growing season
- Has acceptable acidity or alkalinity
- Has few or no rocks
- Is permeable to air and water
- Is not excessively erodible
- Is not saturated with water for long periods of time
- Does not flood frequently, or is protected from flooding

Agricultural Preservation

The Town of Russell would like to preserve their farmland. The Farmland Preservation Tax Credit may help the Town to achieve this goal. The Farmland Preservation Tax Credit was created in 1977 to preserve agricultural resources by supporting local government efforts to manage growth. Eligible farmland owners receive a state income tax credit. To participate in the program, the county must have an agricultural preservation plan that meets the standards of Chapter 91, Wisconsin Statutes, and has been certified by the state Land and Water Conservation Board (LWCB). The County plan has laid the groundwork for the Town of Russell to develop an exclusive agriculture-zoning district.

Farmers participate by signing an individual, long-term agreement. The farmland preservation program provides state income tax credits to farmers who meet the program's requirements, meet soil and water conservation standards, and use their land for agricultural use. In the past, the Farmland Preservation Credit Program and the Farmland Tax Relief Credit Program have provided at least some incentive to farmers to keep their lands in exclusive agricultural use. Today, however, the tax credits the typical farmer receives average about \$1,000 annually, which is tiny compared to the six-figure payouts farmers may be able to get for subdividing their land.

There are also other shortcomings of these programs. Seldom are farmers who develop their land forced to fully pay back the credits they received under the programs. Second, rezoning for residential uses in exclusive agricultural districts have been common in some towns, creating a patchwork of conflicting uses in many areas. Finally, in the end, tax credits do not provide long-term protection.

Use-Value Assessment: The changes in the structure of Wisconsin's property taxation, implementing a use-value assessment, have been generally favorable to farmland preservation. Agricultural lands are now assessed for their value in agriculture and not other potential uses. However, while this assessment policy may benefit owners of lands being used only for farming, the tax revenues lost through this reduction on farmlands must be made up by other properties

within the town. Since there is seldom an extensive tax base of industrial and commercial properties within a town to absorb the shortfall, residential properties, including the homes of farmers, are taxed at a higher rate.

The Town of Russell does agree that it does not want large farming operations taking over the Town. Concentrated animal feeding operations (CAFOs) are those operations with 1,000 or more animal units. Due to the increased number and concentration of animals, it is particularly important for these facilities to properly manage manure in order to protect water quality in Wisconsin.

A specific regulatory program for handling, storage, and utilization of manure was developed by the DNR in 1984 in Chapter NR 243 of the Wisconsin Administrative Code. The rule creates criteria and standards to be used in issuing permits to CAFOs as well as establishing procedures for investigating water quality problems caused by smaller animal feeding operations. Because of the potential water quality impacts from CAFOs, with 1,000 animal units or more, they are required to have a Wisconsin Pollutant Discharge Elimination System (WPDES) Concentrated Animal Feeding Operation permit. These permits are designed to ensure that operations choosing to expand to 1,000 animal units or more use proper planning, construction, and manure management to protect water quality from adverse impacts.

On April 13, 2004, Governor Doyle signed a new law that strikes a balance between growing animal agriculture, protecting the environment, and respecting local decision making. The new law 2003 Wisconsin Act 235, directs the Wisconsin Department of Agriculture, Trade, and Consumer Protection (ATCP) to develop a rule that provides a predictable framework for county and municipal decisions to site or expand livestock facilities. The Department of ATCP created rule ATCP 51 in which the new rules and law sets new siting standards to protect air and water, it creates a predictable siting process, including a standard application and timeliness, and a new appeals process which includes the Livestock Facility Siting Review Board. This rule allows local governments to retain their authority to approve or deny siting and expansion requests, but they must use the state standards which are spelled out in ATCP 51, which went into effect on May 1, 2006.

TOPOGRAPHY

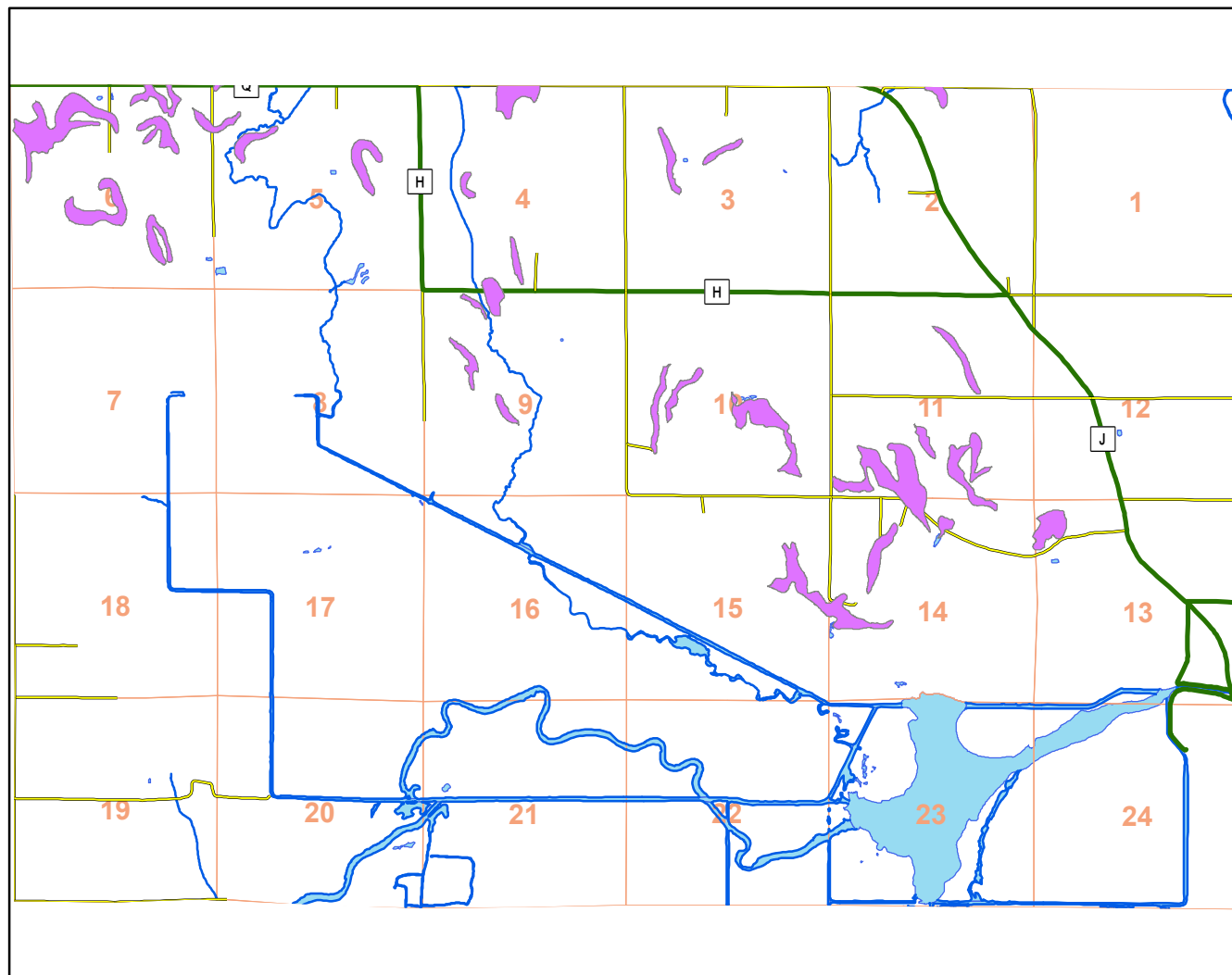
The Town of Russell is located within the Kettle Moraine and Sheboygan Marsh Area. The Broughton Sheboygan Marsh Park has relatively flat elevation at approximately 910 feet. There are very few places in the Town of Russell that have a steep slope, which means slope greater than 12%. The area with the greatest slope is located in the northwest corner of the town. Figure 2.8 shows the areas of steep slope (slope greater than 12%) based on the soil characteristics within the Town of Russell.

WATER RESOURCES

Watersheds and Sub-Watersheds

A watershed is defined as an interconnected area of land draining from surrounding ridge tops to a common point such as a lake or stream confluence with a neighboring watershed. All lands and waterways contribute drainage to one watershed or another. Each watershed is comprised of one main-stem of a river. A river basin is made up of a number of watersheds that drain into one

Figure 2.8
Steep Slope
Town of Russell
 Sheboygan County, WI



Legend

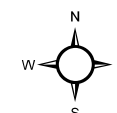
Areas of 12% or Greater Slope

Roads

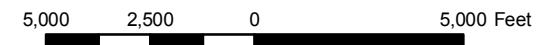
- State Hwy
- County Road
- Local Road
- Private Road

Planimetric

- Bridges
- Dams
- Railroads
- Rivers, Streams
- Road / Bridge



1" equals 4,600'



larger river. The majority of Sheboygan County lies within the Sheboygan or Milwaukee River Basins. All of the watersheds in Sheboygan County drain into the Lake Michigan Watershed either through major rivers or direct drainage into the lake. The Town of Russell lies completely within the Sheboygan River Watershed (See Figure 2.9).

Groundwater

Sheboygan County's groundwater reserves are held in two principal aquifers: the Eastern Dolomite Aquifer and the Sandstone and Dolomite Aquifer. The Eastern Dolomite Aquifer occurs from Door County to the Wisconsin-Illinois border. It consists of Niagara dolomite underlain by Maquoketa shale. In areas where fractured dolomite bedrock occurs at or near the land surface, the groundwater in shallow portions of the Western Dolomite Aquifer can easily become contaminated.

The Sandstone and Dolomite Aquifer consists of layers of sandstone and dolomite bedrock that vary greatly in their water-yielding properties. In eastern Wisconsin, this aquifer lies below the Eastern Dolomite Aquifer and the Maquoketa shale layer. In eastern Wisconsin, most users of substantial quantities of groundwater tap this deep aquifer to obtain a sufficient amount of water. An individual well, however, is recharged by the local rain and snow that does not run off but instead is able to seep into the ground and migrate through the soil to groundwater, which then flows toward the well. This recharge area typically extends no farther than 1,000 to 1,500 feet from the well itself. Since contaminants can also seep into the groundwater in this recharge area, many communities have voluntarily established wellhead protection programs to manage what occurs in the recharge area. In Wisconsin, the primary sources of groundwater contamination are agricultural activities, municipal landfills, leaky underground storage tanks, abandoned hazardous waste sites, and toxic spills. The most common groundwater contaminant is nitrate-nitrogen, which comes from fertilizers, animal waste storage sites and feedlots, municipal and industrial wastewater and sludge disposal, refuse disposal areas, and leaking septic systems. The Town of Russell has recently experienced groundwater quality issues. Some of the wells have been found to have been contaminated, and the steps that will be taken in order to address the contamination have not been fully developed. The Town will need to develop steps to ensure there is quality drinking water for its residents.

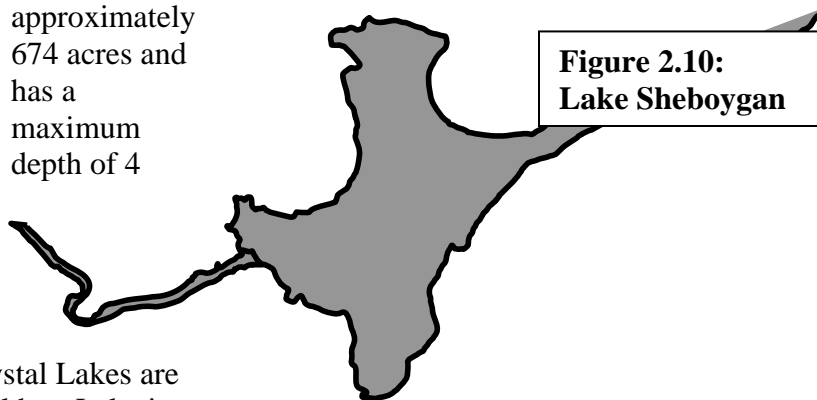
Lakes

Sheboygan Lake is almost entirely located in the Town of Russell. Sheboygan Lake is located within the Sheboygan Marsh County Park. The lake is



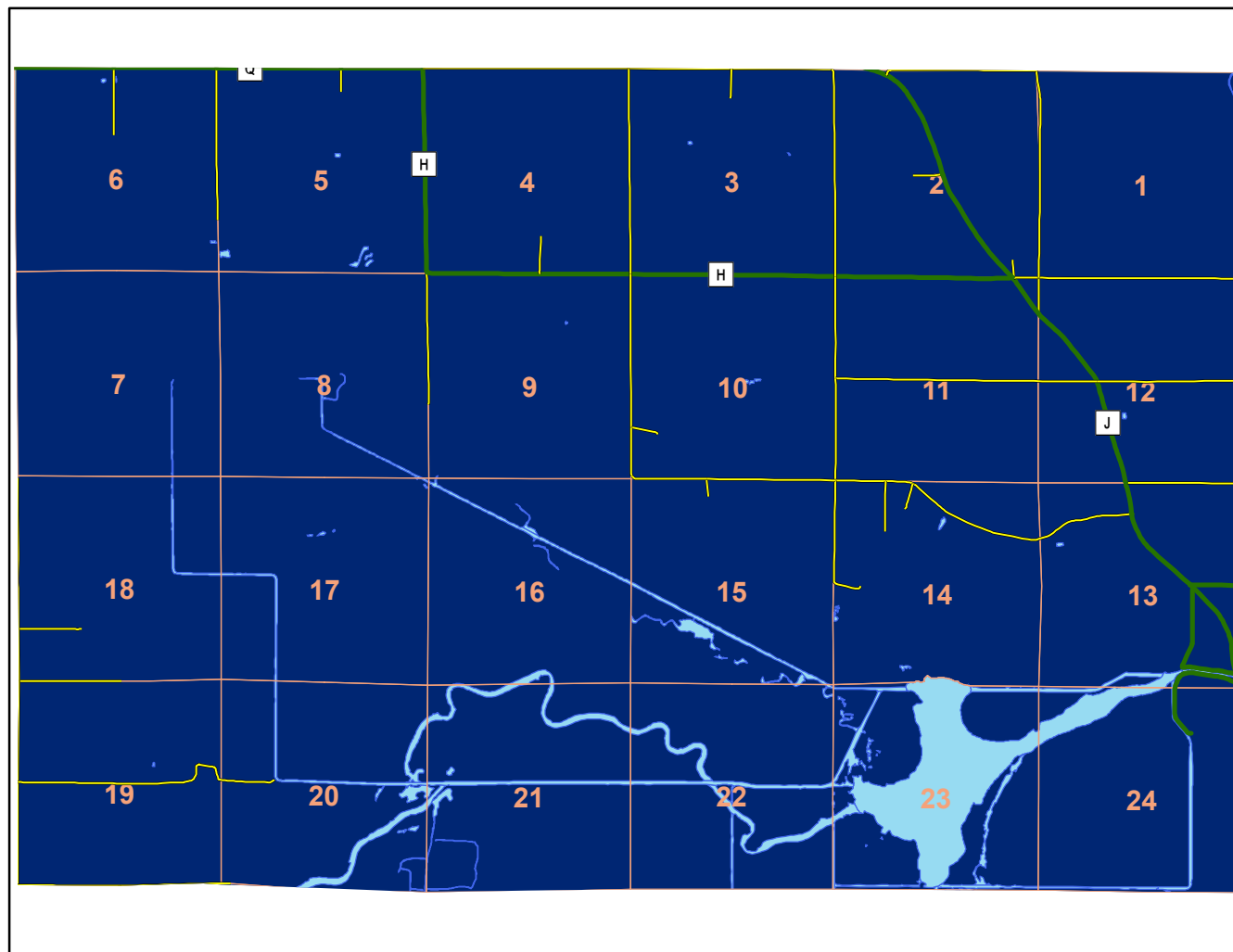
approximately 674 acres and has a maximum depth of 4 feet. Sheboygan Lake can be seen in Figure 2.10.

Elkhart, Little Elkhart, and Crystal Lakes are in the Lake Country region. Elkhart Lake is



**Figure 2.10:
Lake Sheboygan**

Figure 2.9
Watersheds
Town of Russell
 Sheboygan County, WI



Legend

Watershed Name

Sheboygan River

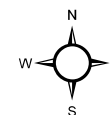
Roads

State Hwy

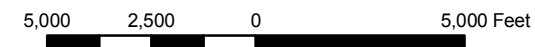
County Road

Local Road

Private Road



1 " equals 4,600 '



approximately 286 acres and has a mean depth of 46 feet and a maximum depth of 119 feet. Crystal Lake has total acreage of 152 acres and Little Elkhart Lake is one-fifth of the size of Big Elkhart Lake at 54 acres.

Use of these lakes by diverse interests, such as anglers, boaters, jet skiers, swimmers, and resorts presents significant management challenges. There is a public boat landing in the marsh, but due to the rural nature, the fact it is a county park, and the fluctuating water levels there are not residents along the lake, as one would see on the other lakes in the region.

There is a new organization called the Friends of the Marsh who are working to build a tower that would overlook the marsh and its facilities. This project is just in its beginning stages, but the group may pursue other enhancements for the marsh once this project is completed.

Rivers and Streams (Surface Waters, Streams, and Rivers)

The Sheboygan River runs through the Town of Russell. The Sheboygan River originates in east-central Fond du Lac County and flows generally southeastward into the City of Sheboygan where it enters Lake Michigan. The Sheboygan River flows into Sheboygan Lake and then continues throughout the rest of Sheboygan County.



Shoreland Corridors

Shorelands are often viewed as valuable recreational and environmental resources both in urbanized and rural areas. As a result, the State of Wisconsin requires that counties adopt shoreline/floodplain zoning ordinances to address the problems associated with development in floodplain areas. Development in shoreland areas is generally permitted, but specific design techniques must be considered. Development in these areas is strictly regulated and in some instances, is not permitted.

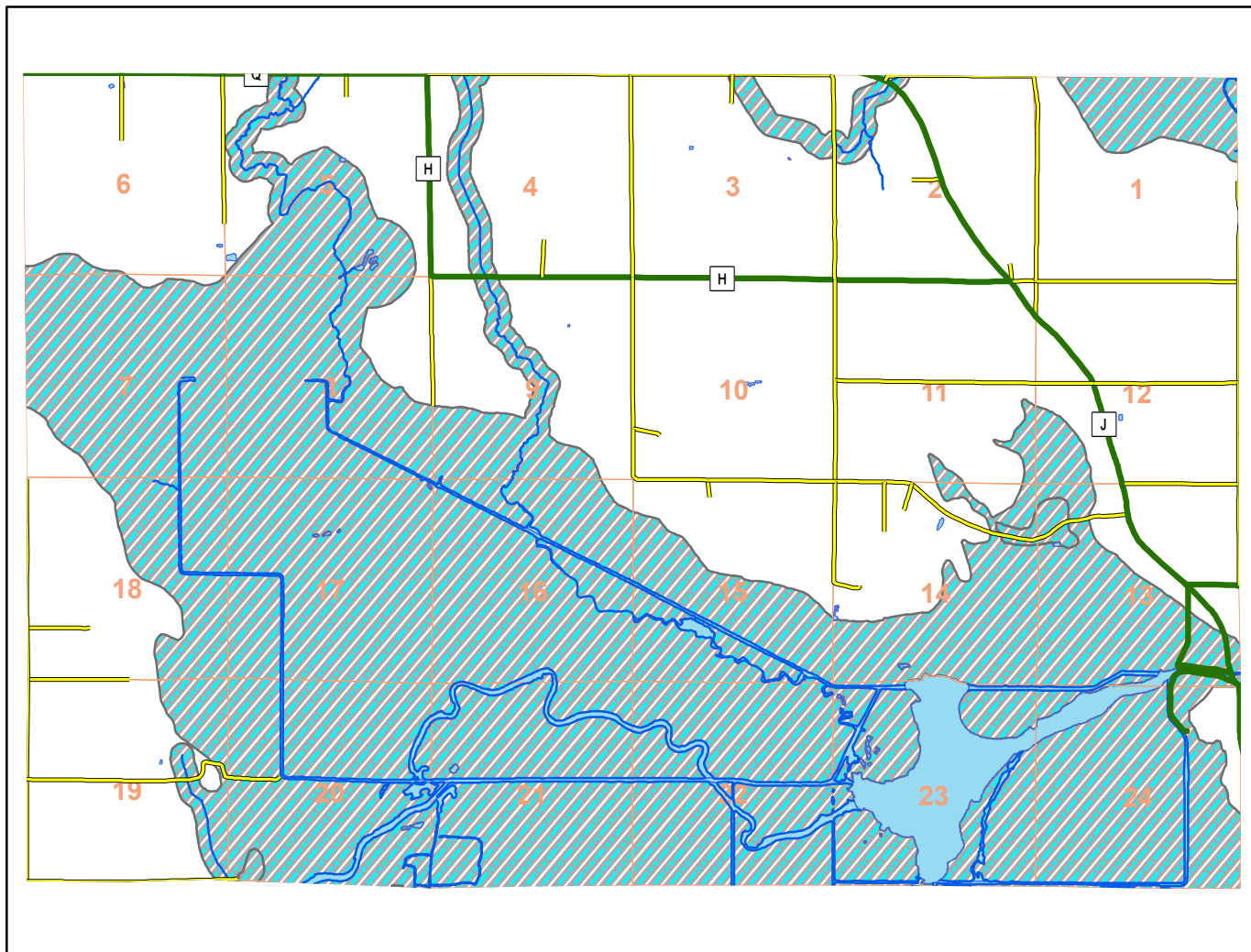
The authority to enact and enforce shoreland/floodplain and other zoning provisions is vested to cities and villages in Chapter 62.23 of the Wisconsin Statutes. Figure 2.11 shows the shoreland corridors within the Town of Russell.

Floodplains

Floodplains are often viewed as valuable recreational and environmental resources. These areas provide for stormwater retention, groundwater recharge, and habitat for various kinds of wildlife unique to the water.

Development permitted to take place in these areas is susceptible to storm damage and can have an adverse effect on water quality and wildlife habitat. In addition, it can also result in increased development and maintenance costs such as providing flood proofing, repairing damage associated with flooding and high water, increased flood insurance premiums, extensive site preparation, and repairing water-related damage to roads, sewers, and water mains. Some

Figure 2.11
Shoreland Jurisdiction
Town of Russell
 Sheboygan County, WI



Legend

Areas of County Shoreland Jurisdiction

Roads

State Hwy

County Road

Local Road

Private Road

Planimetric

Bridges

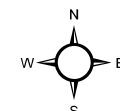
Dams

Railroads

Rivers, Streams

Road / Bridge

Section Lines



1" equals 4,600'

4,700 2,350 0 4,700 Feet

communities have special ordinances for buildings within the floodplain for remodeling and expanding. New expansions may have to be compliant to the rules of floodplain construction. As a result, the State of Wisconsin requires that counties, cities, and villages adopt floodplain zoning ordinances to address the problems associated with development in floodplain areas. Development in floodplain areas is strictly regulated and in some instances is not permitted. For planning and regulatory purposes, the floodplain is normally defined as those areas, excluding the stream channel, that are subject to inundation by the 100-year recurrence interval flood event. This event has a one percent chance of occurring in any given year. Figure 2.12 shows the floodplain areas in the Town as mapped by the Federal Emergency Management Agency (FEMA). Most of the area in the 100-year floodplain surrounds the marsh. An on-site review of the floodplain elevation is necessary to determine the most accurate location of the floodplain boundary.

Wetlands

According to the Wisconsin Department of Natural Resources, wetlands are areas where water is at, near, or above the land surface long enough to be capable of supporting aquatic or hydrophilic vegetation. Other common names for wetlands are swamps, bogs, or marshes. Wetlands serve as a valuable natural resource. They provide scenic open spaces in both urban and rural areas. Figure 2.12 shows wetlands in the Town of Russell area as mapped on the Wisconsin Wetland Inventory.

Wetlands act as natural pollution filters, making many lakes and streams cleaner and drinking water safer. They act as groundwater discharge areas and retain floodwaters. Filling or draining of wetlands is costly, destroys the productive capacity of the ecosystem and can adversely affect surface water quality and drainage. Finally, they provide valuable and irreplaceable habitat for many plants and animals.

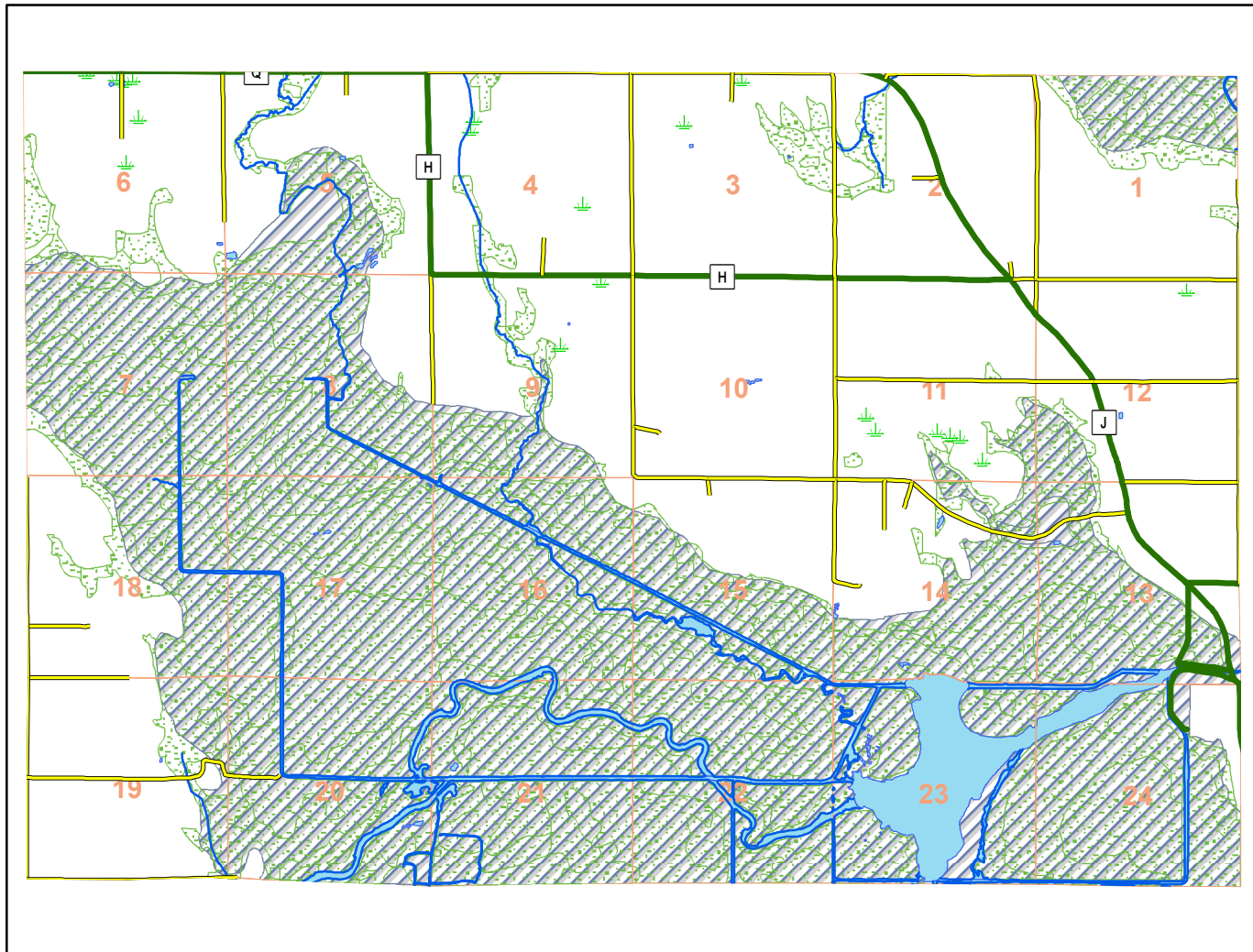
Because of their importance there are strict regulations regarding wetlands. Wisconsin Administrative Codes NR 115 and NR 117 fall under the jurisdiction of the Wisconsin Department of Natural Resources, and mandate that shoreland wetlands be protected in both the rural and urban areas of the State. In the unincorporated areas, NR 115 provides the legislation to protect wetlands of five acres or more that are within the jurisdiction of county shoreland zoning ordinances. Wetlands not in the shoreland zone are protected from development by the federal government and the WDNR through Section 404 of the Clean Water Act, and NR 103, respectively. It should be noted that all wetlands, no matter how small, are subject to WDNR and possibly federal regulations, if they meet the State definition.

The Broughton Sheboygan Marsh Park & Wildlife Area lies in northwestern Sheboygan County, just west and north of Elkhart Lake; it encompasses over half of the Town of Russell and a significant portion of the Town of Greenbush. It includes about 14,000 acres of land and surface water; 8,166 acres are publicly owned, of which 7,414 acres are owned by Sheboygan County and 752 acres by the State of Wisconsin.



The Wildlife Area is an ecologically diverse system comprised of expansive cedar and tamarack swamps, shrub marshes, lowland hardwoods, and large areas of marshes and open water. The Marsh

Figure 2.12
Floodplains & Wetlands
Town of Russell
 Sheboygan County, WI



Legend

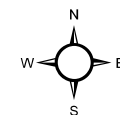
- DNR Wetlands < 2 Ac
- DNR Wetlands
- Approximate 100 Year Floodplain

Roads

- State Hwy
- County Road
- Local Road
- Private Road

Planimetric

- Bridges
- Dams
- Railroads
- Rivers, Streams
- Road / Bridge
- Section Lines



1" equals 4,600'



is bisected by the Sheboygan River, which is impounded by a dam at the northeast corner of the property. The open waters and adjoining wetlands are a restored flowage of the Sheboygan River. The Sheboygan Marsh lies in a 133 square mile watershed.

The Sheboygan Marsh is particularly popular during the hunting and fishing seasons. Prime habitat exists for migratory waterfowl, small and big game animals, fish, furbearers, and various species of non-game animals. As such, it is especially attractive to hunters, fishers, and nature observers alike, for all seasons. The Marsh adjoins the Ice Age National Scientific Reserve.

Part of the Kiel Marsh Wildlife Area is located within the northeast corner of the town. The Kiel Marsh was formed during the Ice Age. In 1963, the Conservation Commission approved the State acquisition of the property that consists of 822 acres of land. The Department of Natural Resources would like to see a total of 1072 acres for the marsh in the future. The fish population is full of variety, as well as the fur-bearing mammals, a variety of birds, and a home to the Osprey, which are endangered or threatened species.

ENVIRONMENTAL CORRIDORS

Environmental corridors serve many purposes. They protect local water quality and wildlife habitat through identification and preservation of environmentally sensitive areas. They can be used as a means of controlling, moderating, and storing floodwaters, while providing nutrient and sediment filtration. Environmental corridors can provide fish and wildlife habitat, recreational opportunities and serve as buffers between land uses, while improving the aesthetics of the community. The environmental corridor process is also used as a part of the planning process for making planning and zoning decisions at the local level.

Environmental corridors receive some measure of protection in the Conservancy District of the Town's zoning, Section .21. The purpose of the Lowland Conservancy District is to "preserve, protect, and enhance the lakes, streams, swamps, marshes, bogs, and other wetlands in the Town of Russell." The purpose of the Upland Conservancy District is to "preserve, protect, enhance, and restore all significant woodlands, related scenic areas, submarginal farm lands and abandoned mineral extraction lands with the Town of Russell."

The concept of a corridor is based on the delineation of environmental features adjacent to waterways and water-related resources. The Bay-Lake Regional Planning Commission has defined environmental corridors to include the following set of uniformly available information: Wisconsin Department of Natural Resources wetlands; Federal Emergency Management Agency's 100-year floodplains; areas with slopes greater than or equal to 12 percent; lakes, rivers, streams and ponds; a 75-foot lake and river setback; and, a 25-foot buffer of wetlands. Many of the Commission's planning activities require delineation of environmental corridors (comprehensive plans, watershed plans, sewer service area plans, etc.).

Other features that are considered as part of the environmental corridor definition on an area-by-area basis include: designated scientific and natural areas, unique and isolated woodland areas, scenic viewsheds, historic and archaeological sites, unique geology, wetland mitigation sites, isolated wooded areas, unique wildlife habitats, parks and recreation areas, and other locally identified features. The Commission has defined environmental corridors for Sheboygan County

to help identify areas that have the greatest need for protection. These corridors were delineated using Geographic Information System (GIS) to overlay a variety of features. Figure 2.13 shows these corridors. The Sheboygan Marsh is once again the area where the majority of the environmental corridors are located.

WOODLANDS

Woodlands throughout Sheboygan County are comprised primarily of sugar maple, yellow birch, beech, basswood, red oak, white oak, black oak, red pine, hemlock, paper birch, aspen and white cedar, and small stands of the northern hardwood species. Approximately 6,390 acres of woodlands are found in the Town as mapped by the Bay-Lake Regional Planning Commission. Woodlands are displayed in Figure 2.14.

A program that some property owners may take advantage of is the Managed Forest Law (MFL). The MFL program can ease the property tax burden for Wisconsin forestland owners who wish to manage their woodlands. The MFL program is intended to foster timber production on private forests, while recognizing other values. MFL participants pay property taxes at a reduced rate. A portion of the foregone taxes is recouped by the state at the time the timber is harvested. The Wisconsin Department of Revenue estimates MFL program participants can reduce their property tax an average of 80% after paying harvest taxes. The MFL program is open to all private landowners with at least 10 acres of forestland, provided that 80% of the land is productive forestland capable of producing wood products (can grow at least 20 cubic feet of wood per acre per year) and the minimum average width of the enrolled land is no less than 120 feet. Participation in the MFL program requires an approved, written forest management plan and the landowner must allow public access to get the lowest annual property tax rate. Access on these “open” lands is only for hunting, fishing, hiking, sightseeing, and cross-country skiing.

AIR QUALITY ISSUES

Facilities wishing to move into the Town of Russell may be subject to additional requirements because Sheboygan County is a designated maintenance area. Sheboygan County is in attainment for the one-hour ozone air quality standard, but is subject to a Wisconsin Department of Natural Resources maintenance plan. Sheboygan County is designated as a non-attainment area for the 8-hour ozone air quality standard. It is designated as a non-attainment area because it does not meet the minimum standards for air quality (NAAQS) set by the Environmental Protection Agency (EPA). Figure 2.15 shows the non-attainment counties for 8-hour ozone air quality. In the case of Sheboygan County, industries located in other cities may be contributing to the problem of the ground-level ozone. According to the EPA, it was recently found that ozone formed in one area can drift on air currents to add to air quality problems elsewhere. Research shows that this “transported ozone” contributes significantly to high ozone levels in Wisconsin.

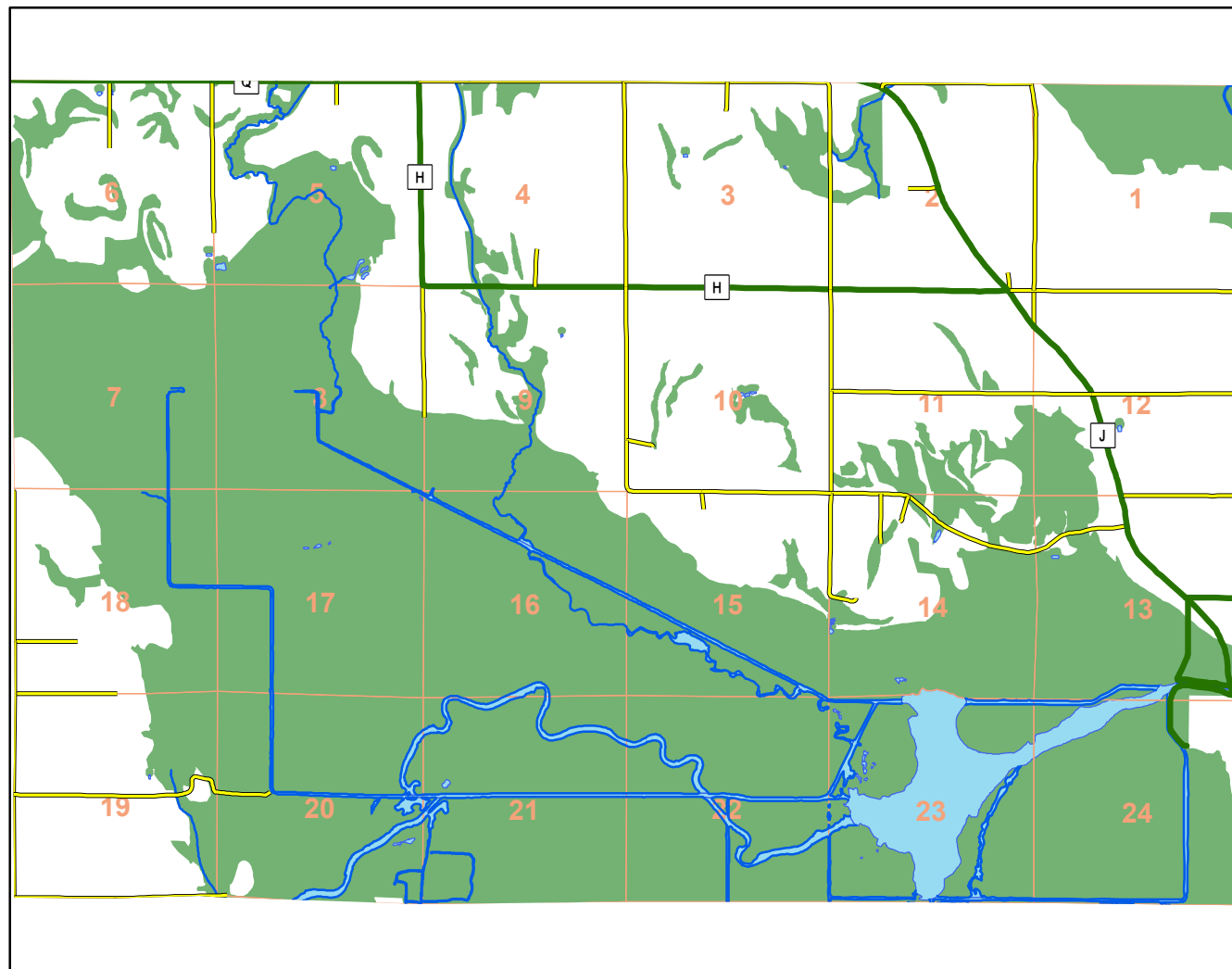
There are no areas within Sheboygan County that exceed the limits of the NAAQS for nitrogen dioxide, sulfur dioxide, lead, particulates, or carbon monoxide.

WILDLIFE HABITAT

Wildlife habitat can be defined as areas that provide enough food, cover, and water to sustain a species. The fauna that live



Figure 2.13
Environmental Corridors
Town of Russell
 Sheboygan County, WI




Legend

 Environmental Corridors

Roads


 State Hwy

 County Road

 Local Road

 Private Road

Planimetric

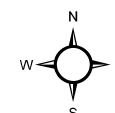
 Bridges

 Dams

 Railroads

 Rivers, Streams

 Road / Bridge



1 " equals 4,600 '

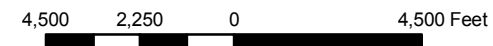
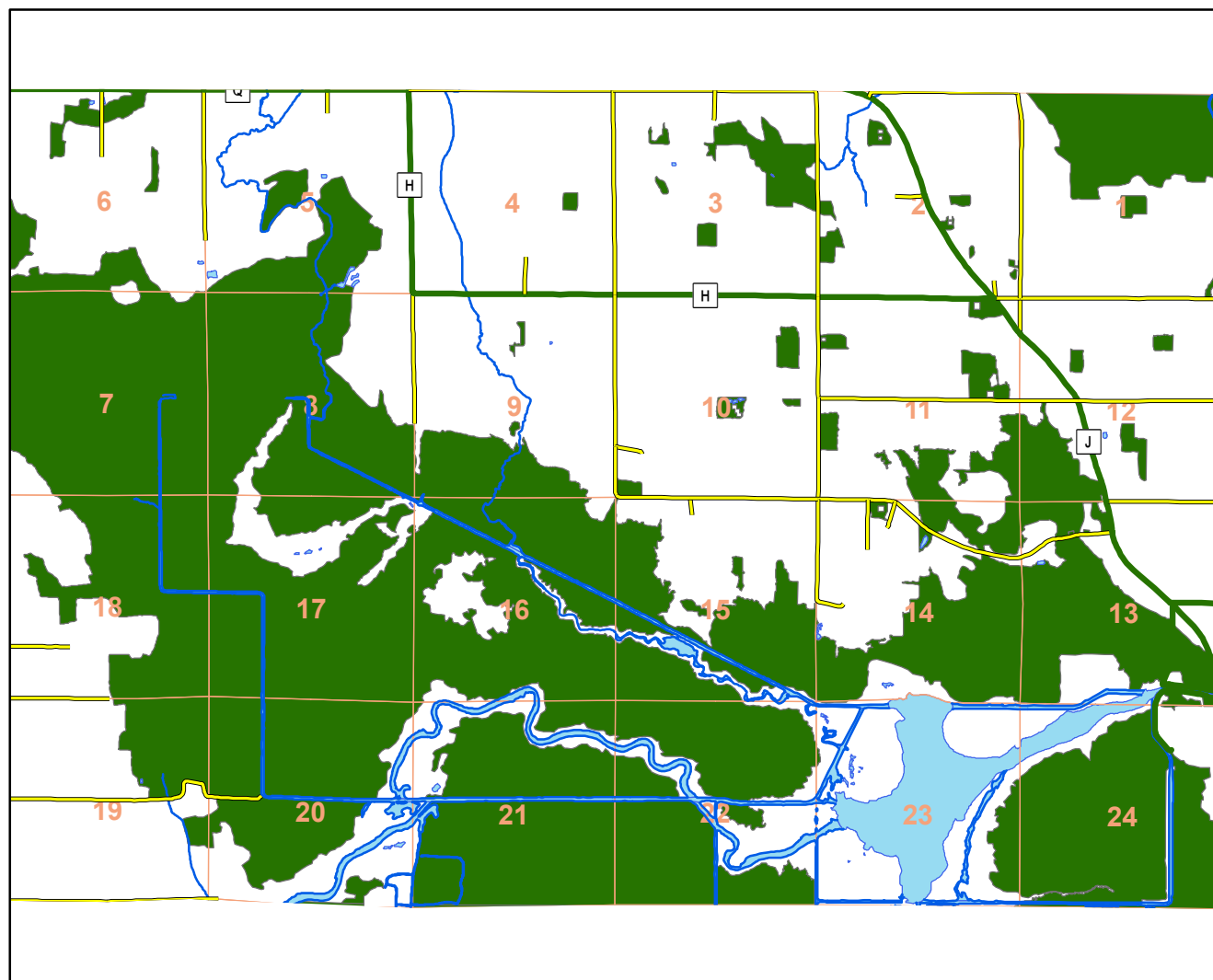


Figure 2.14
Woodlands
Town of Russell
 Sheboygan County, WI



Legend

Woodlands

Roads

State Hwy

County Road

Local Road

Private Road

Planimetric

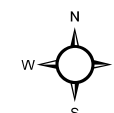
Bridges

Dams

Railroads

Rivers, Streams

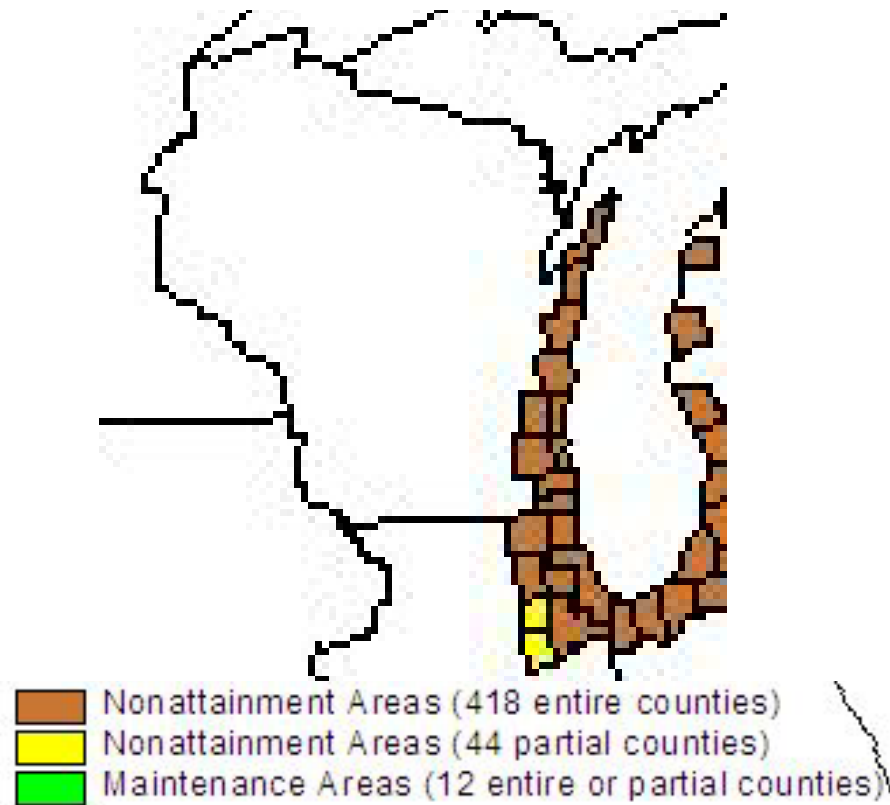
Road / Bridge



1" equals 4,600'

5,100 2,550 0 5,100 Feet

**Figure 2.15 Nonattainment and Maintenance Areas
in Wisconsin
8-hour Ozone Standard**



Source: U.S. Environmental Protection Agency

within the planning region are quite diverse. Habitat for many species of wildlife is provided by the woodlands, floodplains, wetlands, and surface waters. Some of the well-known species that are known to have habitats in the Town of Russell and its surrounding communities are the white-tailed deer, squirrels, wild turkey, coyote, red and gray fox, pheasant, muskrat, mink, raccoon, opossum, geese, many other varieties of birds, a multitude of fish and other aquatic species.

THREATENED AND ENDANGERED RESOURCES

Many rare, threatened, and endangered species are found within Sheboygan County. Potential impacts should be discussed before development occurs so as not to disturb potential habitats for these flora and fauna. On page 40 of the *Sheboygan County Natural Areas and Critical Resources Plan* (2004) there is a list of the known rare species and natural communities within the County as recorded in the Wisconsin Natural Heritage Inventory.



PARKS AND OPEN SPACES

The Town of Russell has the Broughton Sheboygan Marsh Park within its borders. This park provides recreational and educational opportunities, but the residents are also able to use the parks and recreational facilities in the nearby communities, such as the Villages of Elkhart Lake and Glenbeulah. Parks will be discussed in Chapter 6 – Utilities & Community Facilities. Some of the open space in the Town is publicly owned. The publicly owned land can be seen in Figure 2.16.

SCIENTIFIC AND NATURAL AREAS

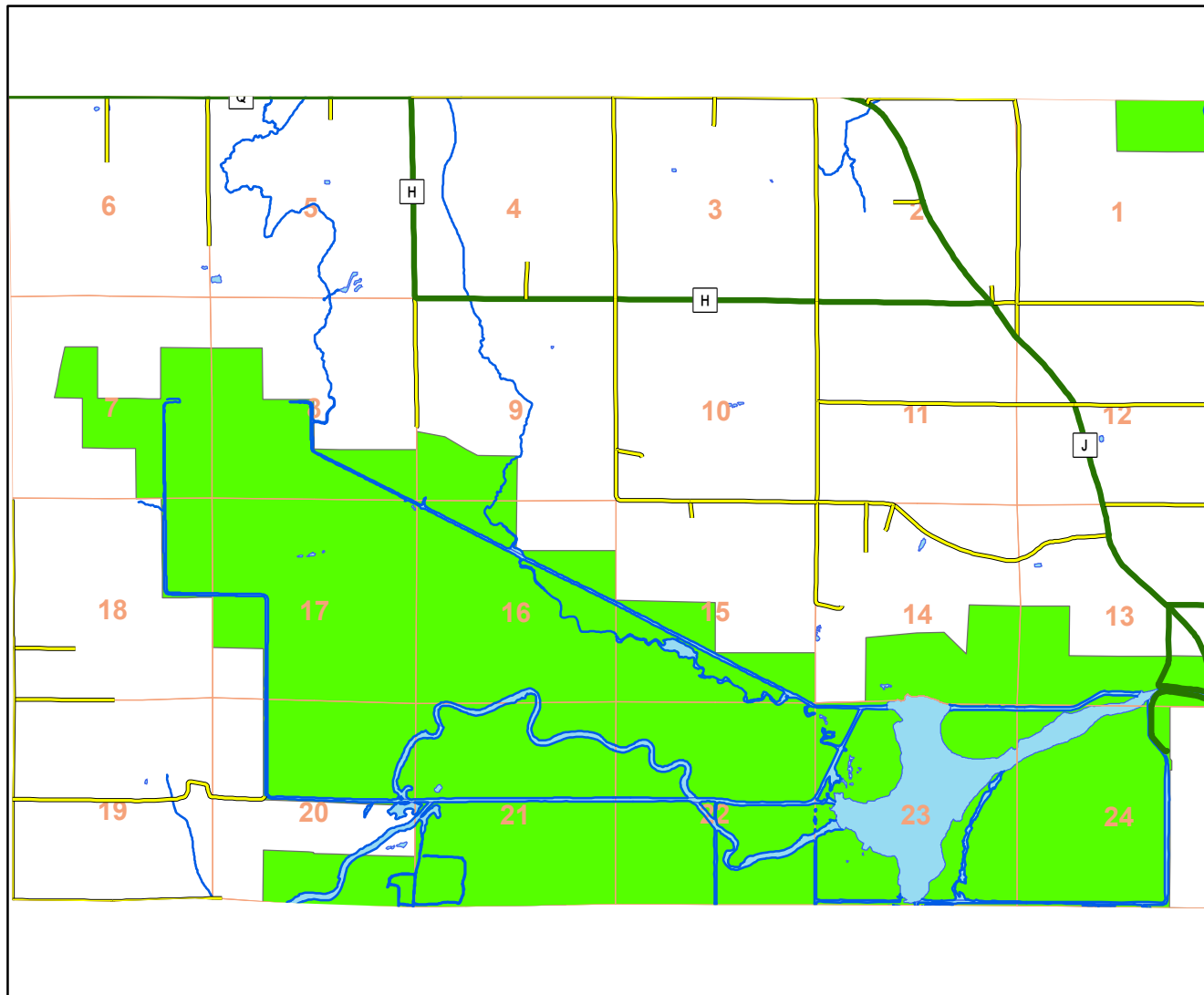
As of the date of this planning process, areas within or abutting the Town of Russell have not been designated as State Scientific or Natural Areas. The Wisconsin State Natural Area program was established to formally designate sites in natural or near natural condition for scientific research, the teaching of conservation biology, and most of all, preservation of their natural values and genetic diversity for the future. These areas are not intended for intensive recreation use, but rather to serve the mission of the Natural Area Program, to locate and preserve a system of State Natural Areas harboring all types of biotic communities, rare species, and other significant natural features native to Wisconsin. The Wisconsin State Natural Area program was established to formally designate sites in natural or near natural values and genetic diversity for the future. These areas are not intended for intensive recreation use, but rather to serve the mission of the Natural Areas Program, to locate and preserve a system of State Natural Areas harboring all types of biotic communities, rare species, and other significant natural features native to Wisconsin.

METALLIC AND NON METALLIC MINING RESOURCES

Mining has economic value to multi-regional areas, but also has the ability to degrade natural resources. Any new mines need to have a permit granted by the WDNR, which includes a reclamation plan. Wisconsin State Administrative Code 135 gave authority of mining to the counties. Sheboygan County has enacted a non-metallic mining reclamation program within the guidelines of Chapter NR 135. Nevertheless, this program will not improve sites that have discontinued mining operations prior to December 1, 2000.

Figure 2.16
Publicly Owned Lands
Town of Russell

Sheboygan County, WI



Legend

Publicly Owned Lands

Roads

State Hwy

County Road

Local Road

Private Road

Planimetric

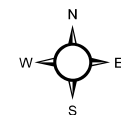
Bridges

Dams

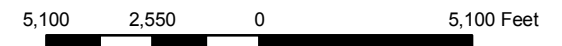
Railroads

Rivers, Streams

Road / Bridge



1 " equals 4,600 '



The reclamation plan is a detailed technical document designed to meet the goals that will lead to successful reclamation and will help reduce the negative effects to the environment once the mine is abandoned. The plan has minimum standards that must be met before acceptance. The WDNR defines successful reclamation as “the restoration of all areas disturbed by mining activities including aspects of the mine itself, waste disposal areas, buildings, roads and utility corridors.” Restoration is defined as “returning of the site to a condition that minimizes erosion and sedimentation, supports productive and diverse plant and animal communities and allows for the desired post-mining land use.” Currently there is no metallic mining occurring in Sheboygan County. However, sand, gravel, and crushed stone (non-metallic resources) are nonrenewable resources that are mined in this region. Figure 2.17 shows the potential gravel source areas in the Town of Russell. As is shown in the figure, there is not much land that is adequate for mining in the Town of Russell.

Sand, gravel, and crushed stone are needed for sub-base materials for road construction as well as a major component in concrete for foundations, basement walls, sidewalks, etc. As the region undergoes further growth and development, there will be greater demands for sand, gravel, and crushed stone. Even though sand, gravel, and crushed stone are ubiquitous, some deposits are of far better quality than other deposits. Gravel and crushed stone deposits with low chert content are best suited for concrete. Gravel deposits with low percentages of foliated metamorphic rock, gabbro, and basalt fragments are best suited for sub-base material and concrete. Outwash plains, kames, eskers, dunes, point bars, and stream channels are the best sources for better quality sand and gravel.

HISTORIC AND ARCHAEOLOGICAL RESOURCES

When the first European settlers came to the area, there were approximately 1,000 Native Americans living in the county, composed mainly of the Pottawatomi, Chippewa, Ottawa, Winnebago and Menominee tribes. Their villages and camps were clustered on the bank or shore of practically every lake or stream, with the largest villages situated along the shore of Lake Michigan. They left behind archaeological resources that we have uncovered. The state historical society, and other organizations interested in preservation have created inventories for these places and sites.

Archaeological investigations have classified “Sheboygan Marsh” as an “archaeological treasure” of national significance; it remains a candidate for nomination to the National Register of Historic Places.

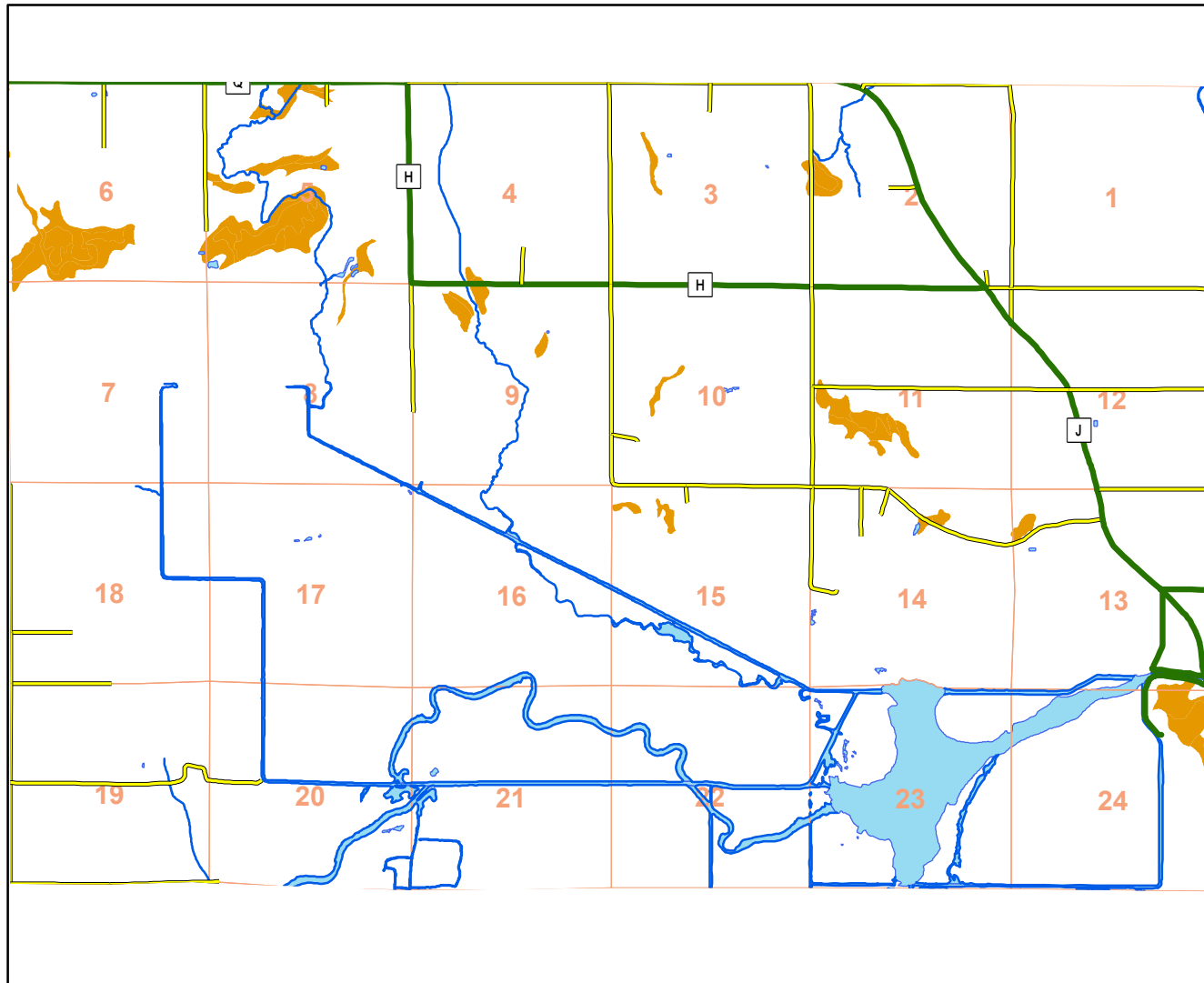
CULTURAL RESOURCES

Other historic features include the following:

Historical Markers

- Marsh Park Marker, Town of Russell

Figure 2.17
Quarries & Potential
Gravel Sources
Town of Russell
 Sheboygan County, WI



Legend

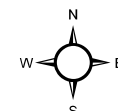
- Probable
- Improbable - Probable
- Improbable

Roads

- State Hwy
- County Road
- Local Road
- Private Road

Planimetric

- Bridges
- Dams
- Railroads
- Rivers, Streams
- Road / Bridge
- Section Lines



1" equals 4,600'



Museums

- Henschel's Indian Museum, N8661 Holstein Road, Town of Russell Native American settlement with artifacts dating back to 10,000 years ago.

Native Sites

- Henschel Farm, Town of Russell

County Parks

- Broughton Marsh Park, W7039 County Road SR, Town of Russell



COMMUNITY DESIGN

Community design addresses the “look” and “feel” of a community. A variety of features contribute to community design, and these are identified below.

Signage

This includes signs that identify businesses; billboards and similar advertising signs; municipal signs; and yard signs. Currently there are no regulations on signs in the Town of Russell.

Public Landscaping

Parks, median, and areas around public buildings often contain landscaping that can set a particular tone for a community.

Landmarks

Landmarks are well-known reference points, prominent features, or meaningful locations within an area. Care should be taken to preserve landmarks, or enhance them, as necessary, if public opinion is supportive and funds are available. The landmarks that exist in the Town of Russell are:

- The Broughton Sheboygan Marsh Park and Wildlife Area
- Sheboygan Lake
- Henschel's Indian Museum



Highway Entryways

Also known as “front doors” to a community, these are often the first view visitors and residents have of a community upon arrival. Many communities dress up these entryways with special signage, lighting, and landscaping in order to create a favorable impression. The primary entryways are:

1. County Road J
2. County Road H

The Town may want to investigate options for enhancing its entryways. Currently there is no indication that one is entering or leaving the Town.

Districts

Districts encompass easily delineated areas within a community, such as a historic district or a central business district. Special regulations may apply in such districts. The Town of Russell currently does not have any officially delineated districts.

RESOURCES STRATEGY

The following goals, objectives, and policies will help guide the town in protecting and utilizing the natural resources within the town. The following statements are a compilation of broad and specific statements reflecting many popular attitudes and beliefs of Town residents, communities adjacent to the Town, and government agencies.

Agricultural, Natural, and Cultural Resource Goals, Policies, and Programs

The Town of Russell residents would like to see the Town maintain the rural character by maintaining the agricultural resources, while at the same time, making sure the farming operations do not become too large.

1) To preserve farmland and farm resources, maintaining farming economy and quality of life values.

- a. *Policy/Program:* Identify the Town's prime farmland for preservation.
- b. *Policy/Program:* Continue to use the Agricultural zoning districts to preserve the productive farmlands in the Town while allowing limited growth on less productive soils.
- c. *Policy/Program:* Consider adopting zoning language regarding small agricultural businesses.
- d. *Policy/Program:* The Town will explore/investigate the adoption of the state's large-scale farming operation siting laws and its own regulations for large-scale farming operations.
- e. *Policy/Program:* Work with the county and state agencies to promote innovative programs which ensure the protection of farmlands-such as Purchase of Development Rights (PDR).

2) Continue to support the state's "Right to Farm" law.

- a. *Policy/Program:* Consider informing farmers that in order to be protected by the "Right to Farm" law they must use best management practices such as nutrient management plans, soil erosion plans, or any other state or federal conservation or nonpoint laws, which will in turn lower the number of possible nuisance complaints in regards to agricultural lands.
 - a. Consider the use of vegetative buffers of at least 35 feet along all streams and creeks. Financial incentives are currently available through CREP and may be available in the future through the Sheboygan County Lake & Water Conservation Department's Vegetated Buffer Strip Program.

3) To protect natural resources, woodlands, wetlands and open/green spaces.

- a. *Policy/Program:* Identify critical natural resource, woodland, and wetland areas to protect during future development.
- b. *Policy/Program:* Uphold the current shoreland, wetland, and floodplain ordinances and review ordinances every few years to make sure they are up-to-date.

- c. *Policy/Program:* Use conservancy zoning districts to protect the woodlands important to the Town of Russell.
- d. *Policy/Program:* Partner with Land Preservation Organizations that work with private property owners to protect natural resources and preserve open spaces-such as land trusts and conservancy organizations.
- e. *Policy/Program:* Continue to work with Sheboygan County in submitting appropriate materials for the County's five-year updates to its *Outdoor Recreation and Open Space Plan*.

4) Maintain a safe water supply, a rural country atmosphere and the environmental quality of the area.

- a. *Policy/Program:* Identify the recharge areas for wells to know the areas that need to be protected.
- b. *Policy/Program:* Enforce protective zoning ordinances to ensure a safe water supply, such as by the recharge areas.
- c. *Policy/Program:* Identify the potential contaminant sources within the recharge areas for wells in order to identify the threats to the water.
- d. *Policy/Program:* Coordinate with surrounding areas to ensure their ordinances are protecting the quality and quantity of groundwater.
- e. *Policy/Program:* Continue to work with Sheboygan County ensuring that all septic systems are in good working order and giving citations to residents that are not complying.
- f. *Policy/Program:* Develop ordinances restricting placement of onsite systems to overcome the limitations on development that were removed with the passage of COMM83's revisions.

5) The Town of Russell will encourage cooperation with other communities to protect its natural resources and other communities natural resources for environmental health and recreation.

- a. *Policy/Program:* The Town will encourage cooperation with other communities and other government entities in protecting the Broughton County Marsh Park, the areas lakes, rivers, and streams.
- b. *Policy/Program:* The Town will work with local communities to help promote local natural and cultural resources within its jurisdiction and within neighboring communities.
 - a. The Town may provide an opportunity for local area attractions to have brochures and other local attracts, or the Town may look at having local natural or cultural resource areas join together to have an admission fee that covers both sites.