Chapter 3 Agriculture, Natural, & Cultural Resources

Introduction

This chapter outlines the agricultural, natural, and cultural resources that are found within and around the Town of Saukville. The conservation and wise use of agricultural and natural resources and the preservation of cultural resources are fundamental to achieving strong and stable physical and economic development as well as maintaining community identity.

The natural environment of the Town of Saukville contributes greatly to the residents' quality of life. A variety of natural resources described below are present throughout the Town. These important resources are depicted on a variety of maps in this chapter. Preservation of historic and cultural resources is also important to the vitality of any community. It fosters a sense of pride and provides an important context for social and cultural continuity between the past, present, and future. Agriculture is a significant part of the culture in the Town of Saukville. The preservation of agricultural lands and the sustainability of the local farming operations is critical to the Town's future.

Summary

This chapter provides information on existing agricultural, natural, and cultural resources in the Town of Saukville. Information regarding soil types, existing farmland, farming operations, topography and geology, nonmetallic mining resources, water resources, forest resources, natural areas and critical species habitat sites, environmental corridors, park and open space sites, historical resources, and archeological resources is included in this chapter. The planning recommendations set forth in this chapter are directly related to the inventory information provided.

Citizen Opinion Survey Results

According to the Citizen Opinion survey results, the majority of respondents (82.9%) strongly agree or agree that the Town should increase efforts to protect sensitive natural resource areas such as wetlands, floodplains, woodlands, stream corridors, and critical wildlife habitat. Only 4.5% of respondents disagreed or strongly disagreed with that statement. Additionally, the majority of respondents (80.6%) strongly agree or agree that the Town should continue to be aggressive in protecting agricultural uses by limiting non-agricultural related development in certain areas. Only 8% of respondents disagreed or strongly disagreed with that statement.

Strengths (not in any type of priority order):

- o Rural
- o Beautiful area
- Natural resources
- Small town/community feel
- o Friendly / Caring / Neighborly
- o Agriculture/farmland



o Parks

Improvements (not in any type of priority order):

- o Roads (fix and maintain)
- o Paint lines on the road
- Broadband access
- Snow removal
- Communication
- Light pollution
- o Trees overhanging the roads
- o Better hours for recycling center
- o Garbage collection

General Comments:

- Stay rural
- o Keep what we have
- Limit development

SWOT Results (In order of importance)

Strengths

- Open space Rural Bog/Riveredge
- o Good water resource Groundwater
- o Good mix of Farmland/Housing
- o Agriculture
- o Trees/Forestland
- Neighborly culture

Weaknesses

- o Lack of a clear land use plan
- o Some areas with weak aquifer recharge

Opportunities

- Keep it rural
- Preserve natural resources
- o Current want for rural life post-pandemic
- Selected park development trails

Threats

- Solar energy demand on the land out of local control
- o Feasibility of new start up farming operations lack of succession for existing farms
- Annexation/development pressure
- o CAFOs
- Energy policy
- Emerald Ash Borer
- o Groundwater/natural resource protection



o Pollutants/PFAS

Agricultural Resources

The results of public input gathered during the comprehensive planning process indicate that residents have placed a high priority on ensuring that farming in the Town remains viable in the future. A sufficient amount of land must remain in agricultural use to ensure that farming remains viable in the Town. There are many programs and techniques for protecting farmland and associated rural lands available to the Town of Saukville, and individual farm operators and owners. Several of these programs are outlined in this chapter.

Preserving soil quality and open farmland are not the only agricultural issues in Ozaukee County. Agriculture cannot remain in the County if farming is not economically viable. While the number of farms and dairy farms has decreased in the Town over the last four decades, there are still several farms in operation. Development pressure in the Town, creates additional challenges for the agricultural industry. Rising land values and nearby incompatible uses, including urbandensity residential development in rural areas, pose a threat to long-term agricultural use for some areas of the County. The Town should also study methods to market the Town's agricultural industry and educate the public about the benefits of farming.

Soils

The U.S. Department of Agricultural Soil Conservation Service, now the Natural Resources Conservation Service (NRCS), issued a soil survey for Ozaukee County in 1970. The information can be applied in managing farms and woodlands; in selecting sites for roads, buildings, and other structures; identifying mineral resources; and judging the suitability of land for agricultural, industrial, or recreational uses. The soil survey plays an important role in land use decisions. It is possible to determine which areas the Town of Saukville are suitable for agricultural use, areas vulnerable to erosion, and areas where marketable nonmetallic mineral deposits may be present, as documented later in this chapter through a variety of soil analysis methods.

The survey identifies and maps each of the various soil types found in the County. Soils have been mapped and are organized by soil association, soil series, and soil type. Soil associations are general areas with broad patterns of soils. Soil surveys should not be used as a substitute for onsite analysis. There are three soil associations in the Town of Saukville: the Manawa-Kewanee association, Nenno-Hochheim-Casco association, and Houghton association, as shown in Map 3-1.

Soil Associations

The Manawa-Kewanee association contains well-drained to somewhat poorly drained soils that have a subsoil of clay to silty clay loam formed in thin loess and silty clay loam glacial till on uplands. Most of this association is cultivated. Erosion control and tile drainage are the main concerns in managing these soils.

The Nenno-Hochheim-Casco association contains well-drained soils that have a subsoil of loam to clay loam underlain mainly by loamy till, outwash, and lake-laid deposits on uplands, terraces, and in lakebeds. Most areas suitable for cultivation have been cleared and are cultivated. This association also contains more woodlands than other associations found in the County.

The Houghton association contains very poorly drained organic soils in basins and depressions. Most areas of this association are wooded and provide habitat for wildlife. Crops grow well on areas that are adequately drained and are protected from soil blowing. Throughout most of the year the water table is high and the soils are highly compressible under heavy loads. Use of the soils for residential and industrial development and for highways is severely limited.

Farmland and Productive Agricultural Areas

American Farmland Trust's Farms Under Threat Productivity, Versatility, and Resiliency (PVR) analysis was designed to identify the agricultural lands best suited for intensive cultivation, with a focus on production of human-edible food crops. It provides relevant information about the land's PVR. American Farmland Trust developed a detailed spatial dataset representing soil productivity and capacity, land cover and use, food production for direct human consumption, production limitations, and length of growing season. The PVR model combined these datasets using weights elicited from a group of national agricultural experts. The higher the PVR value, the more productive, versatile, and resilient the land is for long-term cultivation. These values were then used to identify two important land classifications: Nationally Significant agricultural land, which is the land best-suited to long-term, intensive crop production within the contiguous United States; and each state's "best land," which is approximately the better half of all agricultural land in each state.

Map 3-2 shows land cover and use as of 2016. This map represents national land use with a special focus on agricultural land. It includes 4 distinct agricultural land classes: cropland, pastureland, rangeland, and woodland associated with farms. Federal lands used for grazing are also indicated. In addition, this layer includes a new land use class, low-density residential, in which the average housing density is above the level where agriculture is typically viable.

Map 3-3 shows where non-federal farmland and rangeland were converted to urban and highly developed (UHD) and low-density residential (LDR) land uses from 2001-2016. Farmland includes cropland, pastureland, and woodland associated with farms. Farmland and rangeland with PVR values above the state median are shown in dark green and dark yellow, respectively. Lands with PVR values below the state median are shown in lighter shades. Existing urban areas in 2001 are shown in dark gray and federal, forest, and other lands are shown in light gray. (Note: Conversion to UHD or LDR has occurred in all areas shown in red, but this does not indicate that every acre in those areas has been converted.).

Map 3-4 shows Nationally Significant agricultural land is the land best suited for long-term production of food and other crops. To identify Nationally Significant land, a team of experts calculated a minimum PVR value threshold. All agricultural land with PVR values above this threshold was classified as Nationally Significant.

Number and Size of Farms

According to the 2017 Agricultural Census, there were 316 farms in Ozaukee County in 2017. Of the 316 farms, 38 were dairy farms. In 2002, there were 533 farms in the County, 81 were



dairy farms. The total number of acres in farming was 59,299 with an average farm size 188 acres and a median farm size of 60 acres in 2017. This compared to 221 acres and 90 acres, respectively, for farms in the State. Table 3.2 shows that 132 farms in Ozaukee County, or nearly 42 percent, were between 50 acres and 499 acres in size. There were 146 farms, or about 46 percent, less than 50 acres, and 38 farms, or about 12 percent, were 500 acres or greater in size. In the State, about 55 percent of farms were between 50 and 499 acres. Over 35 percent of farms were under 50 acres, and just over 10 percent were 500 acres or greater in size. The medium size farms 50-499 acres saw the largest drop in percentage for both the County and State between 2002 and 2017.

Table 3.2: Farm Size in Ozaukee County and Wisconsin, 2002 and 2017

Table 3.2: Farm Size in Ozaukee County and Wisconsin, 2002 and 2017								
	Ozauke	e County	Ozaukee	County	State of \	Visconsin	Stat	e of
	20	002	20	17	2002		Wisconsin 2017	
Size	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Less than								
10 acres	59	11.1%	51	16.1%	4,141	5.4%	5,923	9.1%
10 to 49								
acres	164	30.8%	95	30.1%	17,152	22.2%	16,919	26.1%
50 to 179								
acres	169	31.7%	69	21.8%	29,458	38.2%	21,254	32.8%
180 to								
499 acres	118	22.1%	63	19.9%	20,021	26.0%	14,177	21.9%
500 to								
999 acres	17	3.2%	29	9.2%	4,465	5.8%	4,180	6.5%
1,000								
acres or								
more	6	1.1%	9	2.8%	1,894	2.5%	2,340	3.6%
Total	533	100.0%	316	100.0%	77,131	100.0%	64,793	100.0%
Average								
Size of								
Farm	142		188		204		221	
Median								
Size of								
Farm	79		60		140		90	

Source: Agricultural Census, 2017; U.S. Census Bureau, USDA National Agricultural Statistics Service, and SEWRPC, 2002

Farms Enrolled in State and Federal Programs

There are a number of State and Federal conservation programs that have been created to help protect farmland and related rural land. These programs include the Conservation Reserve Program (CRP) and Wisconsin Farmland Preservation Program (FPP). These programs are outlined in more detail at the end of the chapter. Table 3.3 includes a breakdown of the Conservation Reserve Programs in Ozaukee County.

Table 3.3: Lands Under Conservation Reserve Program in the Ozaukee County, 2018

Program	Total
Conservation Reserve Program	457 (acres)
Continuous Conservation Reserve Program	85 (acres)
Conservation Reserve Enhancement Program	2 properties

Source: USDA CRP Enrollment & Rental Payments by County

In the Ozaukee County Farmland Preservation Plan, it was noted that no zoning districts in the Town of Saukville were eligible to be designated under the FPP. Current FPP districts do exist in the Town of Belgium and the Town of Fredonia.

Natural Resources

Environmental corridors and natural areas add to the rural character of the Town and the County, preservation of which has been identified as a high priority in the countywide public opinion survey and the SWOT analysis. While the environmental corridor network includes sizable areas (areas of five acres or larger) of remaining natural resources, other smaller areas can also contribute to the environmental quality of the Town by providing small areas for wildlife, plant habitat, and/or open space. Such areas can include common open space in conservation subdivisions managed for natural resource protection, and, in some cases, backyards that are designed to attract birds, butterflies, and other wildlife.

Several natural resource features located in the Town of Saukville limit building site development. The characteristics of these natural resource features are important to land use, transportation, and utilities and community facilities planning. These conditions affect the construction costs of urban development such as streets, highways, and utilities, and the location of waste treatment sites.

Environmentally Sensitive Areas

Environmentally sensitive areas are defined by the Wisconsin Department of Natural Resources (WDNR) as "areas such as wetlands, steep slopes, waterways, underground water recharge areas, shores, and natural plant and animal habitats that are easily disturbed by development." The preservation of environmentally sensitive areas in essentially natural, open uses can assist in flood-flow attenuation, water pollution abatement, noise pollution abatement, and maintenance of air quality. Corridor preservation is important to the movement of wildlife and for the movement and dispersal of seeds for a variety of plant species. In addition, because of the many interacting relationships between living organisms and their environment, the destruction and deterioration of any one element of the natural resource base may lead to a chain reaction of deterioration and destruction. For example, the destruction of woodland cover may result in soil erosion and stream siltation, more rapid stormwater runoff and attendant increased flood flows and stages, as well as destruction of wildlife habitat. Although the effects of any single environmental change may not be overwhelming, the combined effects will eventually create serious environmental and developmental problems. These problems include flooding, water pollution, deterioration and destruction of wildlife habitat, loss of groundwater recharge, as well as a decline in the scenic beauty of the planning area. The importance of maintaining the

integrity of the remaining environmental corridors and isolated natural resource areas thus becomes apparent.

The following elements that make up environmentally sensitive areas are: 1) lakes, rivers, and streams; 2) shorelands and floodplains; 3) wetlands; 4) woodlands; 5) wildlife habitat areas; 6) wet, poorly drained, and organic soils; and 7) rugged terrain and high relief topography. In addition, there are certain other features which, although not a part of the natural resource base, are closely related to the natural resource base and were used to identify areas with recreational, aesthetic, ecological, and natural value. These features include existing park and open space sites, historic sites, and natural areas. These items are mapped in Map 3-5 and discussed in more detail in the following sections.

Surface Waters

Surface water resources form an important element of the natural resource base of Ozaukee County and the Town of Saukville. Lakes, rivers, streams, and associated floodplains and shorelands constitute a focal point for water-related recreational activities and greatly enhance the aesthetic quality of the environment. However, lakes, rivers, streams, and shorelines are readily susceptible to degradation through improper land development and management throughout their drainage areas. Water quality can be degraded by excessive pollutant loads, including nutrient loads, from manufacturing and improperly located onsite waste treatment systems; urban runoff, including runoff from construction sites; erosion; and careless agricultural practices. The water quality of surface waters may also be adversely affected by the excessive development of riparian areas and inappropriate filling of peripheral wetlands. This adds new sources of undesirable nutrients and sediment, while removing needed areas for trapping nutrients and sediments.

The contribution of these resources is immeasurable to the health of the areas natural resources, economic development, recreational activity, and aesthetic quality of the Town. The Town of Saukville has approximately 500 acres of surface water. Map 3-5 shows the location of the surface waters in the Town of Saukville.

Lakes

Lakes have been classified by the Regional Planning Commission as being either major or minor. Major lakes have 50 acres or more of surface water area, and minor lakes have less than 50 acres of surface water area. There are three major inland lakes located entirely or partially within the Ozaukee County planning area. Mud Lake, which encompasses 148 acres, is located entirely in the Town of Saukville. The total surface area of major and minor lakes in the Town of Saukville is 348 acres.

Rivers and Streams

Rivers and streams are classified as either perennial or intermittent. Perennial streams are defined as watercourses that maintain a continuous flow throughout the year. Intermittent streams are defined as watercourses that do not maintain a continuous flow throughout the year. There are approximately 94 miles of perennial streams in Ozaukee County. Major streams in the Milwaukee River watershed, which generally includes the area in the western half of the

Ozaukee County planning area, include the Milwaukee River and Cedar Creek. The major stream located within the Town of Saukville is the Milwaukee River.

There is one dam located within the Town of Saukville. The Hawthorne Hills County Park Dam is a small, county-owned, active dam located on the Milwaukee River.

Public Access Points

Lakes, rivers, and streams provide important recreational opportunities to Ozaukee County residents and tourists who visit the County to take advantage of its surface water resources. For these reasons it is important to locate public access points to lakes, rivers, and streams. Access points can be found in County and municipal parks adjacent to lakes, rivers, and streams, which often offer improvements such as fishing piers or platforms and canoe launches. Public access is also provided by public streets where they cross rivers and streams, and at the end of the platted but undeveloped street rights-of-way that end at a river, stream, or lake. Section 236.16(3) of the Wisconsin Statutes requires that public access ways at least 60 feet wide be provided at no more than half mile intervals in new subdivisions abutting navigable streams, rivers, and lakes.

This requirement is often fulfilled by platting streets to the water line. There are 5 public water access points in the Town of Saukville:

- 1. Riveredge Nature Center
- 2. Tendick Nature Park
- 3. Ehlers County Park
- 4. Riverside Park
- 5. Hawthorne Hills Park

Floodplains and Shorelands

The floodplains of a river are the wide, gently sloping areas usually lying on both sides of a river or stream channel. The flow of a river onto its floodplain is a normal phenomenon and, in the absence of flood control works, can be expected to occur periodically. For planning and regulatory purposes, floodplains are defined as those areas subject to inundation by the 100-year recurrence interval flood event. This event has a 1 percent chance of being equaled or exceeded in any given year. Recently, these events have been occurring more frequently and flood protection is becoming a more significant issue. Floodplains are generally not well suited for urban development because of the flood hazard, the presence of high water tables, and soils poorly suited to urban uses. There are about 4,045 acres of floodplains in the Town of Saukville and are shown on Map 3-5.

Shorelands are defined by the Wisconsin Statutes as lands within the following distances from the ordinary high water mark of navigable waters: one thousand feet from a lake, pond, or flowage; and three hundred feet from a river or stream, or to the landward side of the floodplain, whichever distance is greater. In accordance with the requirements set forth in Chapters NR 115 (shoreland regulations) and NR 116 (floodplain regulations) of the Wisconsin Administrative Code, the Ozaukee County shoreland and floodplain zoning ordinances restrict uses in wetlands located in the shorelands, and limit the uses allowed in the 100-year floodplain to prevent damage to structures and property and to protect floodwater conveyance and storage capacity of floodplains. The ordinances also restrict removal of vegetation and other activities in shoreland

areas and require most structures to be set back a minimum of 75 feet from navigable waters. State law requires that counties administer shoreland and floodplain regulations in unincorporated areas. Shorelands in the Town are shown on Map 3-5.

Wetlands

Wetlands are defined as areas that are inundated or saturated by surface or groundwater at a frequency and duration that is sufficient to support a prevalence of vegetation typically adopted for life in saturated soil conditions. There are about 5,630 acres of wetlands in the Town of Saukville. As shown on Map 3-5, wetlands occur in depressions, near the bottom of slopes, along lakeshores and stream banks, and on land areas that are poorly drained. Wetlands are generally unsuited or poorly suited for most agricultural or urban development purposes. Wetlands do have important recreational and ecological values. Wetlands contribute to flood control and water quality enhancement, since such areas naturally serve to store excess runoff temporarily, thereby tending to reduce peak flows and to trap sediments, undesirable nutrients, and other water pollutants. Wetlands may also serve as groundwater recharge and discharge areas. Wetlands also provide breeding, nesting, resting, and feeding grounds for many forms of wildlife.

Soils in wetland areas are not well suited for urban or agricultural uses. Soils that are saturated with water or have high water tables, also known as hydric soils, are also poorly suited for urban development because they can cause wet basements and poorly functioning septic tank absorption fields. These soils can serve as important locations for restoration of wetlands, wildlife habitat, and stormwater detention. Saturated soils are often associated with wetlands, but may also be located outside of wetlands, particularly where tiled to drain the land for farming.

Woodlands

With sound management, woodlands can serve a variety of beneficial functions. In addition to contributing to clean air and water and regulating surface water runoff, woodlands help maintain a diversity of plant and animal life. The destruction of woodlands, particularly on hillsides, can contribute to erosion and excessive stormwater runoff, siltation of lakes and streams, and loss of wildlife habitat. As shown on Map 3-5, woodlands encompass approximately 2,848 acres, of the Town of Saukville.

The Managed Forest Law (MFL) program is a landowner incentive program that encourages sustainable forestry on private woodland and general program information is provided at the end of this chapter. There are currently no private forest lands open for public recreation under the MFL program. There are, however, 314.08 acres enrolled in the MFL program that are closed to the public, and account for over one-third of enrolled MFL land within Ozaukee county (880 acres).

Wildlife Habitat

Natural Areas

Natural areas are tracts of land or water so little modified by human activity, or sufficiently recovered from the effects of such activity, that they contain intact native plant and animal communities believed to be representative of the landscape before European settlement. Natural areas are classified into one of three categories: natural areas of statewide or greater significance (NA-1), natural areas of countywide or regional significance (NA-2), and natural areas of local significance (NA-3). Classification of an area into one of these three categories is based on consideration of the diversity of plant and animal species and community type present, the structure and integrity of the native plant or animal community, the uniqueness of the natural features, the size of the site, and the educational value.

A total of 13 natural areas encompassing approximately 3,360 acres have been identified in the Town of Saukville, as shown on Map III-24 in the Town of Saukville Comprehensive Plan 2035. Three areas are classified as NA-1 sites. These sites include the Riveredge Creek and Ephemeral Pond State Natural Area, the Cedarburg Bog Natural Area, and the Sapa Spruce Bog State Natural Area. There are 7 NA-2 and 3 NA-3 sites. All 13 natural areas are more fully described in Table 3.4.

The Cedarburg Bog is one of the largest and most outstanding wetlands remaining in southeastern Wisconsin. With over 2,000 acres, the Cedarburg Bog State Natural Area is the largest example of the least abundant type of wetland in the Milwaukee River basin. It offers an ideal location for educating literally thousands of area residents, students and visitors about the vital role that wetlands play in preserving water quality and species diversity in the Milwaukee River Watershed. There are six lakes within the bog, all with varying sizes and depths. The 148acre Mud Lake is the largest, followed by the 34-acre Long Lake. Most unusual is a string or "patterned" bog, unique here because it lies far south of its usual range in North America. It is composed of ridges of stunted cedar and tamarack that lie in an open, flat water areas comminated by sedges. A conifer-swamp hardwood forest is adjacent to the bog. There is a very diverse flora and fauna; many that are more common in northern boreal forests and that are at their southern range limit here. Cedarburg Bog is owned by the DNR and University of Wisconsin and was designated a State Natural Area in 1952.

Table 3.4: Natural Areas in the Town of Saukville

				Size	
Area Name	Classification	Location	Ownership	(acres)	Description
Cedarburg	NA-1	T11N,	WDNR	2,009	One of the largest and least disturbed
Bog State		R21E,			bogs in eastern Wisconsin, containing an
Natural Area		Sections			extensive conifer swamp forest, open
		20, 21,			bog, a shallow hard-water drainage
		29, 30,			lake, and mesic woods on isolated
		31, 32			islands. A portion of the area contains a
					string bog, characterized by noticeable
					ridges running perpendicular to water
					flow. This is the southernmost example in
					the world. The very high species diversity
					includes a large number of regionally rare
					species, many of which are northern
					relicts. A National Natural Landmark

Riveredge Creek and Ephemeral Pond State Natural Area	NA-1	T11N, R21E, Sections 7, 8	Riveredge Nature Center and other private	97	Second-order streams of exceptionally high-quality water, fed by three first-order branches, all of which are springfed. Contains a stable, well-balanced, diverse fauna. Surrounding vegetation is a complex of second-growth northern wet-mesic forest, conifer swamp, shrubcarr, alder thicket, and young maple beech and aspen woods. Contains a good population of the forked aster (Aster furcatus), a State-designated threatened species
Sapa Spruce Bog State Natural Area and Black Spruce Bog	NA-1	T11N, R21E, Section 30	University of Wisconsin	59	High-quality acid bog dominated by black spruce at one of its southernmost locations in Wisconsin. The rich, diverse flora includes at least six species of sphagnum moss
Cedarburg Beech Woods State Natural Areas	NA-2	T11N, R21E, Section 30	University of Wisconsin	134	Good-quality, mature, beech- and sugar maple dominated southern mesic forest in a moraine area of low gravelly hills and kettle holes. Disturbance, including past selective logging and grazing, appears to be minimal. Grades into lowland forest to north and northeast. Historic-ally a site of scientific research
Ducks Limited Bog	NA-2	T11N, R21E, Section 5	Ducks Limited and other private	21	Good-quality sphagnum bog on north side of a shallow lake and bordered by a deep moat. Typical acid-bog species present include leatherleaf, round-leaved sundew, snake-mouth orchid, grass-pink orchid, bog rosemary, blueberry, winterberry, pitcher plant, and cranberry. Area south of lake is more disturbed
Kinnamon Center Swamp	NA-2	T11N, R21E, Sections 18, 19	Private	382	A large wooded lowland, containing a combination of good-quality northern wet-mesic forest of white cedar and northern hardwoods swamp of black ash. Low glacial ridges within the swamp support mesic upland woods. Past disturbance appears, overall, to be minimal. The good, diverse northern understory includes a number of regionally uncommon species
Max's Bog	NA-2	T11N, R21E, Section 20	Private	30	Two small, undeveloped, shallow lakes surrounded by good-quality bog mats. The area contains a number of species with more northern affinities

Milwaukee River Mesic Woods*	NA-2	T11N, R21E, Section 3	Ozaukee County, and other private	382	Morainal deposits along a two-mile stretch of the Milwaukee River support moderate- to good-quality upland mesic woods, with lowland hardwoods in depressions. Species diversity is generally good throughout
Riveredge Mesic Woods	NA-2	T11N, R21E, Sections 6, 7	Riveredge Nature Center and other private	212	Good-quality regenerating stand of mesic woods and lowland hardwoods bordering the Milwaukee River. Trees are mediumaged. A variety of habitats supports a rich species complement, including several uncommon species. Disturbed by highway and residences in the southern portion of the woods. Area north of Milwaukee River is wetter and more disturbed. Much of woods owned by Riveredge Nature Center
South Conifer Swamp	NA-2	T11N, R21E, Section 20	Private	52	Good-quality conifer swamp containing typical northern species. One of the few sites in the Region in which black spruce is present. Small lake is bordered by a narrow cattail fringe. Contains headwaters of Cedarburg Bog
Cedar-Sauk Low Woods*	NA-3	T11N, R21E, Section 31	Private	204	Lowland hardwood forest of silver maple, green and black ash, and American elm, with evidence of abundant past disturbances, including grazing, power-line right-of-way, and two highways. Stream flows through area from Cedarburg Bog
Hansen's Lake Wetland	NA-3	T11N, R21E, Section 4	Private	16	Small but good-quality lake surrounded by cattails, shrub-carr, and lowland hardwoods, with scattered tamaracks. Lake is stocked with bluegills
Knollwood Road	NA-3	T11N, R21E, Section 19	Private	9	Small lake surrounded by a sphagnum mat, shallow marsh, and lowland hardwoods

Source: Wisconsin Department of Natural Resources and SEWRPC



^{*}Not entirely in the Town of Saukville

NA-1 Identifies Areas sites of statewide or greater significance

NA-2 Identifies Areas sites of countywide or regional significance

NA-3 Identifies Areas sites of local significance

Critical Species Habitat Including Threatened and Endangered Species

Critical species habitat sites consist of areas outside natural areas which are important for their ability to support rare, threatened, or endangered plant or animal species. Such areas constitute "critical" habitat considered to be important to the survival of a particular species or group of species of special concern. There are 5 aquatic sites supporting threatened or rare fish, herptile, or mussel species in the Town. Eight aquatic sites supporting threatened or rare fish, herptile, or mussel species have been identified in the Town of Saukville, described in Table 3.5.

Table 3.5: Critical Aquatic Habitat in the Town of Saukville

Table 3.5: Critical Aquatic Habitat in the Town of Saukville					
Streams	Size (stream miles)	Rank*	Description and Comments		
Milwaukee River	11.1	AQ-1	Important reservoir for critical fish species, including		
main stem upstream		(RSH)	the striped shiner, an endangered fish species, and		
from STH 33			three threatened fish species		
Riveredge Creek	3	AQ-1	A slow, cold, spring-fed stream, with excellent water		
		(RSH)	quality; contains a very diverse invertebrate		
			assemblage; a designated State Natural Area		
Milwaukee River	4.3	AQ-2	Biotic Index Rating of "Excellent" critical fish species		
main stem upstream		(RSH)	present; good assemblage of mussel species		
from STH 33					
Milwaukee River	5.6	AQ-2	Biotic Index Rating of "Excellent" critical fish species		
main stem upstream		(RSH)	present; good assemblage of mussel species		
from STH 33					
Lake	Size	Rank	Description and Comments		
	(acres)				
Lake Long Lake		AQ-1	A shallow seepage lake with an undeveloped		
	(acres)		A shallow seepage lake with an undeveloped shoreline and wilderness character within the		
	(acres)	AQ-1	A shallow seepage lake with an undeveloped shoreline and wilderness character within the Cedarburg Bog State Natural Area; a variety of plant		
	(acres)	AQ-1	A shallow seepage lake with an undeveloped shoreline and wilderness character within the Cedarburg Bog State Natural Area; a variety of plant communities surrounds the Lake; critical herptile		
Long Lake	(acres) 40	AQ-1 (RSH)	A shallow seepage lake with an undeveloped shoreline and wilderness character within the Cedarburg Bog State Natural Area; a variety of plant communities surrounds the Lake; critical herptile habitat		
	(acres)	AQ-1 (RSH)	A shallow seepage lake with an undeveloped shoreline and wilderness character within the Cedarburg Bog State Natural Area; a variety of plant communities surrounds the Lake; critical herptile habitat A shallow, undeveloped seepage lake within the		
Long Lake	(acres) 40	AQ-1 (RSH)	A shallow seepage lake with an undeveloped shoreline and wilderness character within the Cedarburg Bog State Natural Area; a variety of plant communities surrounds the Lake; critical herptile habitat A shallow, undeveloped seepage lake within the Cedarburg Bog State Natural Area; a variety of plant		
Long Lake Mud Lake	(acres) 40 148	AQ-1 (RSH) AQ-1 (RSH)	A shallow seepage lake with an undeveloped shoreline and wilderness character within the Cedarburg Bog State Natural Area; a variety of plant communities surrounds the Lake; critical herptile habitat A shallow, undeveloped seepage lake within the Cedarburg Bog State Natural Area; a variety of plant communities surrounds the lake		
Long Lake Mud Lake Big Bienborn Lake	(acres) 40	AQ-1 (RSH) AQ-1 (RSH)	A shallow seepage lake with an undeveloped shoreline and wilderness character within the Cedarburg Bog State Natural Area; a variety of plant communities surrounds the Lake; critical herptile habitat A shallow, undeveloped seepage lake within the Cedarburg Bog State Natural Area; a variety of plant communities surrounds the lake A seepage lake adjacent to the Cedarburg Bog State		
Long Lake Mud Lake Big Bienborn Lake (Horn Lake)	(acres) 40 148	AQ-1 (RSH) AQ-1 (RSH) AQ-2 (RSH)	A shallow seepage lake with an undeveloped shoreline and wilderness character within the Cedarburg Bog State Natural Area; a variety of plant communities surrounds the Lake; critical herptile habitat A shallow, undeveloped seepage lake within the Cedarburg Bog State Natural Area; a variety of plant communities surrounds the lake A seepage lake adjacent to the Cedarburg Bog State Natural Area		
Long Lake Mud Lake Big Bienborn Lake	(acres) 40 148	AQ-1 (RSH) AQ-1 (RSH)	A shallow seepage lake with an undeveloped shoreline and wilderness character within the Cedarburg Bog State Natural Area; a variety of plant communities surrounds the Lake; critical herptile habitat A shallow, undeveloped seepage lake within the Cedarburg Bog State Natural Area; a variety of plant communities surrounds the lake A seepage lake adjacent to the Cedarburg Bog State Natural Area A deep spring lake within the Cedarburg Bog State		
Long Lake Mud Lake Big Bienborn Lake (Horn Lake) Watts Lake	(acres) 40 148 10 6	AQ-1 (RSH) AQ-1 (RSH) AQ-2 (RSH) AQ-2	A shallow seepage lake with an undeveloped shoreline and wilderness character within the Cedarburg Bog State Natural Area; a variety of plant communities surrounds the Lake; critical herptile habitat A shallow, undeveloped seepage lake within the Cedarburg Bog State Natural Area; a variety of plant communities surrounds the lake A seepage lake adjacent to the Cedarburg Bog State Natural Area A deep spring lake within the Cedarburg Bog State Natural Area; an undeveloped shoreline		
Long Lake Mud Lake Big Bienborn Lake (Horn Lake)	(acres) 40 148	AQ-1 (RSH) AQ-1 (RSH) AQ-2 (RSH)	A shallow seepage lake with an undeveloped shoreline and wilderness character within the Cedarburg Bog State Natural Area; a variety of plant communities surrounds the Lake; critical herptile habitat A shallow, undeveloped seepage lake within the Cedarburg Bog State Natural Area; a variety of plant communities surrounds the lake A seepage lake adjacent to the Cedarburg Bog State Natural Area A deep spring lake within the Cedarburg Bog State		

Source: Wisconsin Department of Natural Resources and SEWRPC



^{*}AQ-1 identifies Aquatic Area sites of statewide or greater significance, AQ-2 identifies Aquatic Area sites of countywide or regional significance, and AQ-3 identifies Aquatic Area sites of local significance. RSH, or Rare Species Habitat, identifies those aquatic areas which support rare, endangered, threatened, or "special concern" species officially designated by the Wisconsin **Department of Natural Resources**

There are 24.5 stream miles and five lakes encompassing a total of 216 acres of critical aquatic habitat in the Town. Additionally, Cedar-Sauk Upland Woods in Section 33 is comprised of 44 acres of woodlands and is a critical species habitat for the American Gromwell (Lithospermum latifolium), identified as a rare species of concern.

The area in and around the Cedarburg Bog has been identified by the U.S. Fish and Wildlife Service as an important habitat area for the Hines Emerald Dragonfly.

According to the WDNR Natural Heritage Inventory, the Town of Saukville does not have any identified sensitive species. A list of Threatened and Endangered Species in the County is provided below per the US Fish and Wildlife Service:

- a. Tricolored Bat
- b. Little Brown Bat
- c. Northern Long-Eared Bat
- d. Monarch Butterfly
- e. Regal Fritillary

- f. Red Knot
- g. Rusty patched bumble bee
- h. Hine's Emerald Dragonfly
- i. Eastern Prairie Fringed Orchid

Further information on wildlife habitat and threatened and endangered species in Ozaukee County is available from the WDNR at the following web site: https://dnrx.wisconsin.gov/nhiportal/public/data/county

Poorly Drained Soils

Soils that are saturated with water or that have a water table at or near the surface, also known as hydric soils, pose significant limitations for most types of development. High water tables often cause wet basements and poorly-functioning septic tank absorption fields. The excess wetness may also restrict the growth of landscaping plants and trees. Wet soils also restrict or prevent the use of land for crops, unless the land is artificially drained. Map 3-6 depicts hydric soils in the Town of Saukville, as identified by the NRCS and the County Planning, Resources, and Land Management Department. Approximately 34 percent of the Town of Saukville is covered by hydric soils (about 7,160 acres), generally associated with stream beds and wetland areas. Although such areas are generally unsuitable for development, they may serve as important locations for restoration of wetlands, as wildlife habitat, and for stormwater detention.

Topography

Glaciation has largely determined the topography and soils of the County planning area. Generalized areas of physiographic features and generalized topographic characteristics are shown on Map 3-7. Surface elevations in the Township range from a low of 748 feet above sea level in the northeast corner of Section 25 on the east side of the Township to a high of 990 feet above sea level in the in Section 7 on the northwest portion of the Township. In general, the topography of the Town of Saukville is relatively level to gently rolling in some areas, with low lying areas associated with streams and wetlands.

There is evidence of four major stages of glaciation in the Ozaukee County planning area. The last and most influential in terms of present topography was the Wisconsin stage, which ended in



the State about 11,000 years ago. Except for a few isolated spots where dolomite bedrock is exposed at the surface, the entire planning area is covered with glacial deposits ranging from large boulders to fine grain clays such as silty clay loam till, loam to clay loam, and organic mucky peat. Glacial deposits may be economically significant because some are prime sources of limestone, which has historically been quarried in Ozaukee County.

Watersheds

Ozaukee County planning includes five major watersheds and an area that drains directly into Lake Michigan. All of the major watersheds are part of the Great Lakes-St. Lawrence River drainage system. The major watersheds include the Milwaukee River watershed, Sauk Creek watershed, Menominee River watershed, Sheboygan River watershed, and Sucker Creek watershed. The majority of Ozaukee County is located in the Milwaukee River watershed which covers 164 square miles, or 66 percent of the County planning area. For stormwater management planning purposes, all of the watersheds are further subdivided into subwatersheds and subbasins. Subwatersheds are also shown on Map 3-8. The Town of Saukville lies entirely within the Milwaukee River watershed.

A subcontinental divide that separates the Mississippi River and the Great Lakes – St. Lawrence River drainage basins crosses Washington County to the west of the Town of Saukville. All of Ozaukee County is located entirely east of the subcontinental divide, therefore, the Town is not subject to limitations on the use of Lake Michigan water that affect areas west of the divide.

Geology

Knowledge of bedrock and the surface deposits overlaying the bedrock is important to land use, transportation, and other utility and community facility planning. Bedrock conditions and the overlaying surface deposits directly affect the construction costs of urban development such as streets, highways, and utilities, particularly those that involve extensive trenching or tunneling, and also affect the location of onsite waste treatment systems. Map III-9 in the Town of Saukville Comprehensive Plan 2035 depicts the depth to bedrock found in the Ozaukee County planning area.

There is one site of geological importance located in the Town of Saukville. The Riveredge Bluff, which encompasses one acre, is classified as a site of local significance, located in Section 6, T11N, R21E.

Groundwater

An adequate supply of high-quality groundwater is essential if used for domestic consumption. Like surface water, groundwater is susceptible to depletion and deterioration. The quality of groundwater can be reduced by the loss of recharge areas, excessive or overly concentrated pumping, and changes in ground cover. In addition, groundwater quality is subject to degradation from onsite waste treatment systems, surface water pollution, improper agricultural practices, and other soil and water pollutants. Identifying sources of groundwater and areas susceptible to groundwater contamination is important in proper land use planning to prevent adversely affecting the availability and quality of groundwater.

The regional groundwater resources report prepared by Southeast Wisconsin Regional Plan Commission (SEWRPC) indicates that there is an adequate supply of ground water in the shallow aquifer for Ozaukee County and the Region as a whole. The shallow aquifer is the source of water for most wells in the County. Map III-21 in the Town of Saukville Comprehensive Plan 2035, shows the depth to the water table, which is the upper free surface of the shallow aquifer, for Ozaukee County. The water table generally replicates the land surface and is higher under topographic highs and lower, but nearer to land surface, under topographic lows.

Groundwater levels are replenished through water infiltration in surface areas called groundwater recharge areas. Groundwater recharge areas are those areas where the groundwater flow is downward. On a regional level, groundwater recharge areas tend to be in upland areas or areas of topographic highpoints from which flow paths originate and diverge. These locations are groundwater divides, across which there is no horizontal flow of groundwater. The major groundwater divide in the Region affecting Ozaukee County runs through western and central Washington County, approximately along the surface water sub-continental divide. In Ozaukee County groundwater generally flows to the east and southeast towards the Milwaukee River and Lake Michigan. Locally, the recharge potential of an area is dependent on a number of factors, including soil permeability and percolation rates, slope, the direction of groundwater flow, land use, and, the permeability of the subsurface materials above the water table. Groundwater recharge areas are identified in the regional water supply study. Groundwater recharge areas in the Region are shown on Map VII-5 in Chapter VII of the Ozaukee County Comprehensive Plan.

Another factor that is critical to maintaining a high-quality groundwater supply is determining which areas of the County are most vulnerable to groundwater contamination. Land use planning can be used to steer incompatible uses away from these areas once they have been identified. The most commonly used methods used to evaluate groundwater contamination potential are overlay methods combining several major physical factors. The system for evaluation of contamination potential used by SEWRPC in its study of groundwater resources in Southeastern Wisconsin was based on five parameters: soil characteristics, unsaturated zone thickness, permeability of vertical sequences in the unsaturated zone, recharge to groundwater, represented by soil percolation, and aquifer characteristics. SEWRPC has evaluated the contamination potential of shallow groundwater, which is shown on Map III-22 in the Town of Saukville Comprehensive Plan 2035.

PFAS

Per- and polyfluoroalkyl substances (PFAS) are a large group of human-made chemicals that are resistant to heat, water, and oil. These chemicals have been used for decades in many industrial applications and consumer products such as carpeting, waterproof clothing, upholstery, food paper wrappings, personal care products, fire-fighting foams, and metal plating. PFAS have been found at low levels both in the environment and in blood samples of the general U.S. population PFAS are found in water, air, fish, and soil at locations across the nation and the globe. Scientific studies have shown that exposure to some PFAS in the environment may be linked to harmful health effects in humans and animals. There are thousands of PFAS chemicals, and they are

found in many different consumer, commercial, and industrial products. This makes it challenging to study and assess the potential human health and environmental risks.

Locally, PFAs compounds were present in two wells in the Village of Saukville in 2022. Wisconsin Department of Health Services (DHS) recommends people limit their intake of PFAS compounds. The Village is not in violation of any federal or state drinking requirements and more research is needed to fully understand the impact of PFAS on human health.

Invasive and Exotic Species

Plants that occur outside of the area where they evolved are considered introduced, exotic, or non-native. Occasionally when an exotic plant is introduced into an area where it did not previously exist, it is able to flourish and quickly dominate its surroundings. An exotic species becomes an invasive species in these instances. Invasive plant species out-compete native plants, and may degrade fish and wildlife habitat, reduce agricultural yields, and hinder recreational opportunities. The first step towards controlling invasive plant species in Ozaukee County is to inventory species present in the County. Invasive plant species widely found in Ozaukee County include Purple Loosestrife and Reed Canary Grass. Purple Loosestrife is a perennial that grows up to five feet in height when mature and has pinkish-purple flowers that bloom from mid-July through August. This species has been used as a garden flower in the past; however, several states have banned its sale. It can germinate in moist soils and once established, survive shallow flooding.

Purple Loosestrife threatens the integrity of wetlands because the seeds germinate at such a high density that they outcompete native seedlings. The combination of prolific seed production and a lack of natural herbivores and pathogens often allows it to quickly displace diverse wetland plant communities.

Reed Canary Grass is a large, coarse, perennial grass that typically grows up to five feet in height. It prefers moist to wet open areas but is also tolerant of seasonally inundated soils. It has been used as a forage crop, particularly in moist soils, in the past. Its tall stature and rapid early growth allow it to monopolize light, water, and nutrient resources. Due to these characteristics, the grass often forms dense monocultures and greatly reduces or eliminates native plant species in wetlands. Upon colonization, it can persist and prevent natural and human assisted recolonization of native plant species.

Other known invasive species identified in Ozaukee County are provided in Table 3.6:

Table 3.6: Invasive Species Identified in the Town of Saukville

Туре	Species
Aquatic	Piping Plover Dwarf lake iris Eastern prairie fringed orchid Fassett's locoweed Mead's milkweed Northern wild monkshood Pitcher's thistle Prairie bush-clover Hine's emerald dragonfly Karner blue butterfly Poweshiek skipperling Rusty patched bumble bee Northern long-eared bat Eastern Massasauga
Terrestrial	Iowa Pleistocene Snail Asian Lady Beetle Buckthorn Emerald Ash Borer Garlic Mustard Gypsy Moth Spotted Knapweed
Wetland	Crown Vetch Japanese Knotweed Phragmites Australis Purple Loosestrife Reed Canary Grass Wild Parsnip

Source: Wisconsin Department of Natural Resources

Climate

Its midcontinental location gives Ozaukee County and the Town of Saukville a continental climate that spans four seasons. Summers generally occur during the months of June, July, and August. They are relatively warm, with occasional periods of hot, humid weather and sporadic periods of cool weather. Lake Michigan often has a cooling effect on the Town during the summer. Winters are cold and generally occur during the months of December, January, and February. Winter weather conditions can also be experienced during the months of November and March in some years. Autumn and spring are transitional weather periods when widely varying temperatures and long periods of precipitation are common. The median growing season, the number of days between the last freeze in the spring and the first freeze in the fall, is 170 days and can range from 150 to 192 days.

Precipitation in the Town can occur in the form of rain, sleet, hail, and snow and ranges from gentle showers to destructive thunderstorms. The more pronounced weather events, such as severe thunderstorms and tornadoes, can cause major property and crop damage, inundation of poorly drained areas, and lake and stream flooding. Table 3.7 sets forth the temperature and precipitation characteristics of Ozaukee County.

Table 3.7: Temperature and Precipitation Characteristics for the Town of Saukville Area

Climate												
Characteristics	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Monthly Mean	20.1	21.1	32.2	41.7	54.1	63.8	69.1	67.7	60.9	48.8	36.6	26.8
Ave. Temp (F°)												
Monthly Mean	27.6	29.9	41	50.9	64.3	73.7	79	77.2	70.7	58.1	45.4	33.7
Max. Temp (F°)	27.0	23.3	71	30.3	04.5	73.7	7.5	77.2	70.7	30.1	75.7	33.7
Monthly Mean	12.4	12.3	23.4	32.6	43.9	53.9	59.3	58.2	51.1	39.5	27.9	19.9
Min. Temp. (F°)	12.4	12.5	23.4	32.0	43.5	33.3	33.3	30.2	31.1	33.3	27.5	15.5
Monthly Mean												
Total Precip.	1.53	1.69	2.26	4.35	3.96	4.01	3.4	4.36	3.38	3.65	1.96	2.45
(inches)												
Ave. Snowfall	10.5	12.5	2.5	1.7	0	0	0	0	0	0.3	1 [0.1
(inches)	10.5	12.5	3.5	1.7	U	U	0	U	0	0.2	1.5	8.1

Source: National Oceanic and Atmospheric Administration for Village of Saukville WWTP location

Storm Water, Erosion and Nonpoint Source Pollution

It can be argued that, because of its many significant consequences, the management of the runoff of precipitation is the most important factor in the protection of a community's natural resources. The past philosophy of stormwater management was to move the water to some final destination as quickly as possible. In most cases, the result of this practice has been downstream flooding; the runoff of excess nutrients that pollute surface and groundwater; an excessive rate of water flow that causes streambank erosion, which subsequently causes sediment in lakes and streams; and the deterioration of aquatic habitat by decreasing water clarity, increasing water temperature, and introducing toxins.

Although agricultural runoff is a concern, the increase in impervious surfaces like roads, roofs, and parking lots that come with development are major factors in the rapid runoff of stormwater that is so damaging to water resources. Another consequence of residential development is the maintenance of lawns, which causes the runoff of pesticides, herbicides, and fertilizers, and the over-use of water for irrigation.

The most effective way to minimize the negative consequences of stormwater runoff is to mimic as much as possible the natural features of the landscape. These include the preservation and use of native landscapes and ground covers; preserving drainage corridors; land conservation, particularly wetlands; shoreland and erosion buffers; the reduction of lawn areas; and the retention of runoff on individual properties. Other techniques include nutrient best management practices required within the farmland preservation program. Conservation by design development advocates reducing the length and width of streets and concentrating home sites to maximize green space.

As development occurs and lands once used for rural activities are converted to urban uses, there also comes the need for adequate stormwater management. Without proper management,

increased stormwater runoff can cause overloading of the existing natural and/or manmade stormwater drainage system as well as increased flooding potential.

Wisconsin Department of Natural Resource's Chapter NR 216, Storm Water Discharge Permits, aids in the minimization of the discharge of pollutants carried by storm water by industrial properties, construction sites, commercial sites, and others. Storm water and erosion control plans are required during construction if the site is required by law to meet the Wisconsin Pollutant Discharge Elimination System (WPDES) requirements.

Air Quality

The Clean Air Act requires the U.S. Environmental Protection Agency (EPA) to set national ambient air quality standards (NAAQS) for six criteria pollutants (carbon monoxide, lead, nitrogen dioxide, particulate matter, ozone, and sulfur oxides) which are considered harmful to public health and the environment. Areas not meeting the NAAQS for one or more of the criteria pollutants are designated as nonattainment areas by the EPA. In areas where observed pollutant levels exceed the established NAAQS, and which are designated as "nonattainment" areas by the EPA, growth and development patterns may be constrained. Nonattainment area designation may therefore create an economic disincentive for industry with significant emission levels to locating or expanding within or near the boundaries of such an area. In order to eliminate this disincentive and relieve the potential constraint on development, it is necessary to demonstrate compliance with the NAAQS and petition the EPA for redesignation of the nonattainment areas.

The Southeastern Wisconsin Region currently meets all but the ozone NAAQS, and the EPA has designated a single six-county ozone nonattainment area within the Region which is made up of Kenosha, Milwaukee, Ozaukee, Racine, Washington, and Waukesha Counties. Ozone is formed when precursor pollutants, such as volatile organic compounds and nitrogen oxides, react in the presence of sunlight. The ozone air quality problem within the Region is a complex problem because ozone is meteorologically dependent. In addition, the ozone problem in the Region is believed to be attributable in large part to precursor emissions which are generated in the large urban areas located to the south and southeast and carried by prevailing winds into the Region. The ozone problem thus remains largely beyond the control of the Region and State and can be effectively addressed only through a multi-state abatement effort.

Over the past decade, the combination of local controls and offsets implemented within and outside the Region, along with national vehicle emissions control requirements, have resulted in a significant improvement in ambient air quality within the Region as well as nationally, and projections of future emissions indicate a continued decline in precursor emissions and a continued improvement in air quality.

Ozaukee County is an attainment area. Air quality monitoring stations nearest to the Town of Saukville are located in Grafton and Harrington Beach Park. More information on air quality is available at: https://dnr.wisconsin.gov/topic/AirEmissions

Mineral Resources

Nonmetallic minerals include, but are not limited to, sand, gravel, crushed stone, building or dimension stone, peat, and clay. Nonmetallic mines (quarries and pits) in Southeastern



Wisconsin provide sand, gravel, and crushed limestone or dolomite for structural concrete and road building; peat for gardening and horticulture; and dimension stone for use in buildings, landscaping, and monuments. Nonmetallic mineral resources are important economic resources that should be taken into careful consideration whenever land is being considered for development. Mineral resources, like other natural resources, occur where nature put them, which is not always convenient or desirable. Wise management of nonmetallic mineral resources is important to ensure an adequate supply of aggregate at a reasonable cost for new construction and for maintenance of existing infrastructure in the future.

There are 6 nonmetallic mining operations encompassing a total of 90.7 acres located in the Town of Saukville and are listed in Table 3.8. Section 295.16 (4) of the Wisconsin Statutes establishes which activities are exempt from nonmetallic mining reclamation requirements.

Table 3.8: Nonmetallic Mining Operations in the Town of Saukville Area

Section	Owner	Site Name	Total Acres
2	Hamm	Hamm Pit	18.5
10	Hamm	Historic Pit	1.7
7	Brandt	Historic Pit	5.5
	Ozaukee		
16 & 17	County	Lakeland Pit	46.6
19	Roeckl	Roeckl Pit	12
19	Bloecher	Bloecher	6.4

Source: Ozaukee County

Cultural Resources

The term cultural resource encompasses historic buildings, structures, and sites and archeological sites as well as venues and events that promote the arts and Ozaukee County's heritage. Cultural resources in the Town of Saukville and Ozaukee County have important recreational and educational value. Cultural resources help to provide the County and each of its distinct communities with a sense of heritage, identity, and civic pride. Resources such as historical and archeological sites, historic districts, museums, festivals, and cultural events can also provide economic opportunities for communities and their residents. For these reasons it is important to identify historical and archeological sites located in the Town of Saukville and Ozaukee County. It is also important to include an inventory of museums and cultural performance venues. While such venues may not be historical or archeological sites in themselves, they are cultural resources in that they may house items of historical or archeological importance, contain historical records and information, be an educational resource, be an outlet for performances of cultural significance, and enhance quality of life in the Town and County.

Historic Resources

In most cases, a historic place or district is listed on both the National Register and on the State Register. After the State Register was created in 1991, all properties that are nominated for the National Register must first go through the State Register review process. Upon approval by the State review board, a site is listed on the State Register of Historic Places and recommended to the National Park Service for review and listing on the National Register of Historic Places. The only exceptions are Federally owned properties. These properties may be nominated for the National Register directly by the National Park Service. There are no historic places in the Town of Saukville listed on the National Register of Historic Places or the State Register of Historical Places.

Sites listed on the National Register of Historic Places may be eligible for a 25 percent Federal tax credit as well as a 25% Wisconsin tax credit. Information regarding the procedure for nominating a site to the National and State Registers of Historic Places is available on the Wisconsin Historical Society website at www.wisconsinhistory.org/hp/register. In addition to both the State and National Register of Historic Places, other sites can be designated as local landmarks by local governments. The Town of Saukville has not designated any local landmarks. Like historic sites listed on the National and State registers, properties designated as local landmarks have an extra level of protection against degradation and destruction. A local government is authorized to designate local landmarks after a landmarks commission or historic preservation commission has been established by ordinance. Landmark commissions and historic preservation commissions are typically seven to nine member boards which review applications for local landmark status and may also review proposed alterations to historic properties or properties located in historic districts. Landmark and historic preservation commissions may also designate local historic districts; however, designation of districts typically requires approval from the local governing body. The Town of Saukville has not established a landmark or historic preservation commission.

The State Historical Society of Wisconsin also administers a historical marker program. Interested parties can apply for a historical marker with the State Historical Society's Division of Historic Preservation. The applicant must be able to pay for the marker, maintain the marker, and have permission from the landowners. The Division of Historic Preservation will consider applications for markers that describe any one of the following aspects of Wisconsin's history: history, architecture, culture, archaeology, ethnic associations, geology, natural history, or legends. There are currently no historical markers in the Town of Saukville.

Archaeological Resources

Preservation of archaeological resources is also important in preserving the cultural heritage of the Town of Saukville. Like historical sites and districts, significant prehistoric and historic archaeological sites provide the Town with a sense of community heritage and identity and can provide economic opportunities through tourism if properly identified and preserved. Archaeological sites found in the Town can fall under two categories: prehistoric sites and historic sites. Prehistoric sites are defined as those sites which date from before written history. Historic sites are sites established after history began to be recorded in written form (the State Historical Society defines this date as A.D. 1650). No archaeological sites in Ozaukee County are listed on the National or State Registers of Historic Places.

The State Historical Society also identifies and catalogs burial sites, including sufficient contiguous land necessary to protect the burial site form disturbance, throughout Wisconsin. There are three such catalogued burial sites located in the Town of Saukville: Immanuel Katherina Cemetery, St. Finbars Cemetery, and Sizer Cemetery. These features are shown on Maps III-40 and III-41 in the Town of Saukville Comprehensive Plan 2035.

In addition, a circular Native American mound and a group of oblong embankments are located in Section 22 in the Town of Saukville. Survey records show there were additional Native American mounds and several Native American sugar camps, villages, and trails located in the County.

Community Design

Community design as a cultural resource helps explain the origins and history of how a given community looks, feels, and functions in the present day. Components of the origin of community design include historic settlement patterns, resource use (like mining, farming, and forestry) in rural areas, the industries and businesses that influenced urban areas, transportation features and traffic flow patterns, natural features like rivers, lakes, and wetlands, and the heritage and values of the people that lived in a community in the past and that live there today. These factors might be expressed through street layout, building architecture, landscaping, preservation of natural features, development density, and other components of development design.

The Town's rural character and natural beauty were assets noted by residents as part of the plan's public engagement. To maintain and increase these qualities, the Town may want to consider design standards for commercial and industrial development. To create a distinct and attractive identity, to foster community pride, The Town of Saukville may want to consider multiple community design strategies as listed in the recommendations section.

Local Historical Societies and Museums

There are two local historical societies affiliated with the State Historical Society of Wisconsin that serve the Town of Saukville. These include the Ozaukee County Historical Society and the Saukville Area Historical Society. Each historical society contains a varying number of facilities housing items of historical or archaeological significance, historical records and information, educational facilities, or gallery and performance facilities. The Town of Saukville does not have a local historical society; however, the resources of the Ozaukee County Historical Society, itself affiliated with the State Historical Society of Wisconsin, are available to Town residents.

Most of the historical societies in the Ozaukee County planning area maintain facilities which contain items of historical or archaeological significance and historical records. The Ozaukee County Historical Society maintains several sites including a collection of pioneer buildings located in Hawthorne Hills County Park, a one-room schoolhouse, and archives of historical records pertaining to Ozaukee County.

Cultural Venues, Events, and Organizations

Performing arts and exhibits that highlight the history of the Town and Ozaukee County also provide a sense of heritage. These types of displays provide both an educational and recreational outlet for residents and visitors. While many of the cultural venues in the County are not historical resources in themselves, they provide the facilities that make performances and exhibits possible. Cultural events also provide an avenue for a wide range of performances, artistic displays, historical and informational exhibits, crafts, educational opportunities, and community gatherings. These events provide recreation for Town residents and can attract tourism to the Town and County. Operation of these cultural venues and events would not be

possible without the support of the cultural organizations present in the Town and County. These organizations provide staffing, fundraising, and promotion for the cultural venues and events that, in many cases, help to define the image of the community and its heritage.

The only identified cultural venue in the Town is Cedarburg Bog. The Town of Saukville also hosts several events each year. The Ozaukee County Pioneer Village is open to the public in May and October. The Pioneer Village Artist and Artisan Show and the Milwaukee Amateur Radio Field Days at Pioneer Village are held in June; Antique Tractor & Machinery Show at Pioneer Village and Old Time Fiddler's Contest in July; French & Indian War Event and Pioneer Village Art & Quilt Show in August; and a Revolutionary War Reenactment in September.

Parks, Recreation, and Open Space

Parks significantly contribute to the Town of Saukville quality of life. They provide intensive and non-intensive recreational activities as well as opportunities for public gatherings, festivals, and other social occasions. They also contribute to the physical health and well-being of the Town's residents. Taking these factors into consideration, maintaining and expanding parks will be a critical part of the future development of the Town and Ozaukee County.

Map 3-9 shows the Parks and Open Spaces in the Town. The inventory also included privately owned outdoor recreation sites such as golf courses, campgrounds, boating access sites, hunting clubs, group camps, and special use outdoor recreation sites. Sites owned by nonprofit conservation organizations, such the Ozaukee Washington Land Trust, were also identified.

Information on park and open space sites in the Town of Saukville is provided in the following sections and listed in Table 3.9.





Туре	Ownership	Site Name	Location
		Hawthorne Hills County Park /	
Public	County	Pioneer Village	T11N, R21E, Section 3
Public	County	Tendick Nature Park	T11N, R21E, Section 14
Public	County	Guenther Farmstead	T11N, R21E, Section 17
Public	County	Ehlers County Park	T11N, R21E, Section 24
			T11N, R21E, Sections 20,
Public	WDNR	Cedarburg Bog Area	21, 28, 29, 31, 32, & 33
Public	County	Cedarburg Bog State Natural Area	T11N, R21E, Section 32
	U.S. Fish and Wildlife		
Public	Service	U.S. Fish and Wildlife Service	T11N, R21E, Section 13
Private	Organizational	Ducks Unlimited	T11N, R21E, Section 5
Private	Organizational	Saukville Rifle and Pistol Club	T11N, R21E, Section 8
			T11N, R21E, Sections 11 &
Private	Organizational	Blue Heron Wildlife Sanctuary, Inc.	14
Private	Organizational	Tamarack Retreat, Inc.	
Private	Private	Deerfield Subdivision Dedication	T11N, R21E, Section 15
			T11N, R21E, Sections 21 &
Private	Private	The Bog Golf Course	28
Private -			
Resource	Divonadas		T11N D21E Costions C 7
Protection Site	Riveredge Nature Center	Riveredge Nature Center	T11N, R21E, Sections 6, 7, & 8
Private -	Nature Center	Mivereage wature center	
Resource	Nature		
Protection	Conservancy		
Site	Site	Nature Conservancy Site	
	Town of		
Public	Saukville	Payne and Dolan Property	T11N, R21E, Section 16

Source: Ozaukee County Parks and Open Space Plan, 2010

Park and Open Space Sites Owned by Ozaukee County

There are four County parks encompassing a total of 634 acres located in the Town of Saukville. Those parks were: Hawthorne Hills County Park/Pioneer Village; Tendick Nature Park; Guenther Farmstead; and Ehlers County Park.

Park and Open Space Sites Owned by Other Entities

The Wisconsin Department of Natural Resources (WDNR) has acquired large areas of park and open space lands in the planning area for a variety of resource protection and recreational purposes. Sites acquired for natural resource preservation and limited recreational purposes include the Cedarburg Bog State Natural Area. There are two WDNR sites located in the Town of Saukville encompassing a total of 1,684 acres. The University of Wisconsin also owns a site, the Cedarburg Bog UWM Field Station. There is one U.S. Fish and Wildlife Service site located in the Town of Saukville.



Park and Open Space Sites Owned by Local Governments and Public School Districts

The Town owns the 40-acre parcel across from the Town Hall on Lakeland Road. The parcel is undeveloped and includes a 16-acre minor lake.

Private and Public Interest Resource Oriented Park and Open Space Sites

There are 6 privately-owned parks and open space sites located in the Town of Saukville. Four of these were organization sites which encompassed a total of 302 acres. The organizational sites included the Ducks Unlimited Site, Saukville Rifle and Pistol Club, Polish National Picnic Grounds, and the Tamarack Retreat, Inc. site. There were 2 private sites encompassing a total of 312 acres. The private sites included the Deerfield Subdivision Dedication site and The Bog Golf Course.

Lands under Protective Easements

Several open space and environmentally sensitive sites in the Ozaukee County planning area are protected under conservation easements. These easements are typically voluntary contracts between a private landowner and a land trust or governmental body that limit, or in some cases prohibit, future development of the parcel. With the establishment of a conservation easement, the property owner sells or donates the development rights for the property to a land trust or governmental agency but retains ownership. The owner is not prohibited from selling the property, but future owners must also abide by the terms of the conservation easement. The purchaser of the easement is responsible for monitoring and enforcing the easement agreement for the property. Conservation easements do not require public access to the property, although public access is generally required if Wisconsin stewardship funds or other DNR grant funds are used to acquire the property.

In 2018, there were 15 conservation easements located in the Town of Saukville as shown in Table 3.10. Five of these easements encompassing a total of 294 acres were held by the Ozaukee Washington Land Trust. Ten easements encompassing a total of 65 acres were held by the Wisconsin Department of Natural Resources.

Table 3.10: Conservation Easements in the Town of Saukville Area



Holder of Easement	Location	Size (acres)
Ozaukee Washington Land Trust	T11N, R21E, Section 3	14
Ozaukee Washington Land Trust	T11N, R21E, Section 4	121
Ozaukee Washington Land Trust	T11N, R21E, Section 18	111
Ozaukee Washington Land Trust	T11N, R21E, Section 20	36
Ozaukee Washington Land Trust	T11N, R21E, Section 36	12
WDNR Easement	T11N, R21E, Section 7	1
WDNR Easement	T11N, R21E, Section 7	5
WDNR Easement	T11N, R21E, Section 14	7
WDNR Easement	T11N, R21E, Section 22	10
WDNR Easement	T11N, R21E, Section 27	5
WDNR Easement	T11N, R21E, Section 27	6
WDNR Easement	T11N, R21E, Section 27	2
WDNR Easement	T11N, R21E, Section 30	21
WDNR Easement	T11N, R21E, Section 33	1
WDNR Easement	T11N, R21E, Section 34	7

Source: SEWRPC

Programs

The following general programs are currently available to the Town to assist with implementation of the various goals, objectives, policies, and recommendations of the Agricultural, Natural, and Cultural Resources Element of the Town of Saukville Comprehensive Plan.

Ozaukee County Land and Water Management Department

The mission of the department is to protect, preserve, and enhance natural resources, local ecology and the quality of life in Ozaukee County. The department is responsible for providing education, technical, planning, and financial assistance to landowners of Ozaukee County regarding soil and water conservation practices. The department implements state and local conservation programs such as the Conservation Reserve Enhancement Program (CREP), the Land and Water Resource Management Program, Nutrient and Pest Management Program, Forestry Cost-Share Program, State Wildlife Damage Program, and the Ozaukee County Manure Storage Ordinance. The department also assists in the implementation of the Shoreland/Wetland/Floodplain Ordinance. It is the responsibility of the Land and Water Management Department to ensure that the county's natural resources are conserved. More information is available at: https://www.co.ozaukee.wi.us/295/Land-Water-Management

Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP) Programs Wisconsin Farmland Preservation Program

The purpose of the farmland preservation program is to help preserve farmland through local planning and zoning, promote soil and water conservation, and provides tax credits to participating farmers. Farmers qualify if their land is zoned or if they sign an agreement to use their land exclusively for agricultural purposes. The Village does participate in the Farmland



Preservation Program. More information is available at: https://datcp.wi.gov/Pages/Programs Services/FarmlandPreservation.aspx.

Agricultural Enterprise Area (AEA) Program

AEA's are part of Wisconsin's Working Lands Initiative. An AEA is an area where the local community has prioritized preservation of farmland and agricultural development. Once an area is officially designated as an AEA, eligible farmers owning land within the area may enter into a farmland preservation agreement with the state. This enables the landowners to receive tax credits in exchange for agreeing to keep their farm in agricultural use for at least 15 years. To date, the Village of Kekoskee has not established an Agriculture Enterprise Area. More information is available at:

https://datcp.wi.gov/Pages/Programs Services/AgriculturalEnterpriseAreas.aspx

Wisconsin Department of Natural Resources (WDNR) Programs

Wisconsin Forest Landowner Grant Program

The Wisconsin Forest Landowner Grant Program, administered by the Wisconsin Department of Natural Resources, is designed to assist private landowners in protecting and enhancing their forested lands, prairies, and waters. Landowners are required to contact their WDNR forester for guidance prior to completing the application and written approval must be obtained before beginning a practice. More information is available at:

https://dnr.wisconsin.gov/aid/ForestLandowner.html

Managed Forest Law

The Managed Forest Law, administered by the Wisconsin Department of Natural Resources, is a landowner incentive program designed to encourage sustainable forestry on private woodlands in Wisconsin. The law, through a written forest management plan, couples landowner objectives and timber harvesting, wildlife management, water quality and recreation to maintain a healthy and productive forest. Numerous changes were made to this law by the 2015 Wisconsin Act 358. More information is available at: https://dnr.wisconsin.gov/topic/forestlandowners/mfl

Surface Water Grants

Surface Water Grants include Lake Management Planning, Lake Protection & Classification, River Protection, River Planning and Aquatic Invasive Species Control are available from the WDNR. More information is available at: https://dnr.wisconsin.gov/aid/SurfaceWater.html

Urban Non-Point Source & Stormwater Management Grant Program

Funds are available to improve water quality by limiting or ending sources of urban nonpoint source (run-off) water pollution by providing financial and technical assistance to landowners, land operators, municipalities, and other governmental units. More information is available at: https://dnr.wisconsin.gov/aid/UrbanNonpoint.html

Knowles-Nelson Stewardship Local Assistance Grant Programs

The Knowles-Nelson State Stewardship Fund is a land acquisition program for the State of Wisconsin. Four Stewardship grant programs are available: Acquisition and Development of Local Parks (ADLP), Urban Green Space (UGS) grants, Urban Rivers (UR) grants, and



Acquisition of Development Rights (ADR). The program offers a 50 percent grant match to create parks, hiking trails, hunting grounds, and other facilities. The funds can also be utilized for facilities improvements such as road construction and capital acquisition projects (picnic equipment, playgrounds, etc.). More information is available at: https://dnr.wisconsin.gov/topic/Stewardship

County Conservation Aids

Funds are available to carry out program of fish or wildlife management projects as per s.23.09 (12), Wis. Stats. and NR 50, Wis. Adm. Code. Projects related to providing improved fish or wildlife habitat or projects related to hunter/angler facilities are eligible. Projects which enhance fish and wildlife habitat, or fishing and hunting facilities have priority. More information is available at: https://dnr.wisconsin.gov/aid/CountyConservation.html

U.S. Department of Agriculture (USDA) Programs

Environmental Quality Incentives Program (EQIP)

The purpose of EQIP is to provide technical and financial help to agricultural producers and nonindustrial forest managers to address natural resource concerns and deliver environmental benefits such as improved water and air quality, conserved ground and surface water, increased soil health and reduced soil erosion and sedimentation, improved or created wildlife habitat, and mitigation against drought and increasing weather volatility. More information is available at: https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/financial/eqip/

Wetlands Reserve Program (WRP)

The purpose of WRP is to restore wetlands previously altered for agricultural use. The main goal is wetland restoration and wildlife habitat establishment. More information is available at: https://www.nrcs.usda.gov/wps/portal/nrcs/detail/null/?cid=nrcs143 008419

Cultural Resource Programs

Wisconsin Historical Society

The Wisconsin Historical Society (WHS) State Historic Preservation Office (SHPO), in partnership with communities, organizations and individuals, works to identify, interpret and preserve historic places for the benefit of present and future generations. Resources and programs are available to local units of government and non-profit organizations. More information is available at: https://www.wisconsinhistory.org

Wisconsin Historic Preservation Fund Subgrants

The Wisconsin Historic Preservation Fund Sub-grants provide funds for surveys to identify and evaluate historical, architectural and archaeological resources, nominating properties to the National Register of Historic Places, and for carrying out a program of historic preservation planning and education.

Historic Homes Tax Credit Program

The Historic Homes Tax Credit Program offers a 25 percent Wisconsin income tax credit for homeowners who rehabilitate historic personal residences. The historic homeowners' tax credit is a dollar-for-dollar reduction in what you owe in Wisconsin income taxes. Applications are



through the Wisconsin Historical Society and projects must meet the Secretary of the Interior Standards for Rehabilitation.

Wisconsin Historic Preservation Tax Credit Program

This program returns 20 percent of the cost of rehabilitating historic buildings to owners as a Wisconsin income tax credit. The historic homeowners' tax credit is a dollar-for-dollar reduction in what you owe in Wisconsin income taxes. Applications are through the Wisconsin Historical Society and projects must meet the Secretary of the Interior Standards for Rehabilitation.

Federal Historic Preservation Tax Credit

This program returns 20 percent of the cost of rehabilitating historic buildings to owners as a direct reduction in the federal income taxes. To qualify, buildings must be income producing historic buildings, must be listed on the National Register of Historic Places, or contribute to the character of a National Register Historic District. The historic homeowners' tax credit is a dollar-for-dollar reduction in what you owe in Wisconsin income taxes. Applications are through the Wisconsin Historical Society and projects must meet the Secretary of the Interior Standards for Rehabilitation.

Goals, Objectives, Recommendations, and Policies

Goals and objectives identify what the plan should accomplish. Goals are statements that describe a desired future condition, often in general terms. Objectives are statements that describe a specific future condition to be attained, to reach the established goals.

Policies are a set of ideas for what to do in certain situations and that the Town agrees is the right approach. Recommendations identify the action necessary to achieve goals and objectives. For this reason, recommendations should be actionable, attainable, and specific. Not all recommendations can be achieved in the short-term, so they should be specific enough so that any individual or group wishing to achieve a stated goal can take action.

The following goals, objectives, policies, and recommendations were jointly developed by the Town of Saukville Plan Commission and its consultants.

Goal 1: Protect farms and farming and preserve a sufficient amount of agricultural land to ensure farming remains viable in the Town of Saukville for the next 20 years.

Objectives

- 1. Protect the most productive agricultural lands in the Town areas for long-term agricultural use.
- 2. Preserve the economic viability of agricultural activities in Ozaukee County.
- 3. Retain existing farm operations outside planned sewer service areas in Ozaukee County to the extent possible.
- 4. Retain existing agri-business in Ozaukee County to the extent possible.
- 5. Encourage agricultural activity on lands identified for agricultural use on the Future Land Use map.
- 6. Encourage soil conservation practices to reduce farmland erosion and sustain and



- increase farmland productivity in the Town.
- 7. Encourage the use of Best Management Practices (BMPs) by farmers.
- 8. Identify larger scale farming operations and their land use needs when developing the future land use map.

Recommendations and Policies:

- 1. Discourage land divisions on high priority farmland protection parcels and in large contiguous areas of agricultural use.
- 2. Discourage incompatible uses near farms and large contiguous areas of agricultural
- 3. Consider developing boundary agreements with adjacent local governments, such as the Village of Saukville, and the Towns of Fredonia, Port Washington, and Cedarburg, to limit conversion of farmland to urban uses.
- 4. The Town Zoning Ordinance should be reviewed and revised, if necessary, to be consistent with the Future Land Use map.
- 5. Consider updating the Town land division ordinance to help protect agricultural
- 6. Continue to administer and enforce the Town Zoning and Land Division Ordinances.
- 7. Work with the Ozaukee Washington Land Trust (OWLT), the Land Conservation Partnership of Ozaukee County, and other NGOs to protect agricultural parcels identified as high priority through agricultural conservation easements and/or land purchases.
- 8. Protect agricultural infrastructure in Ozaukee County to support farm operations.
- 9. Encourage niche farming operations in Ozaukee County, such as organic farms and orchards.
- 10. Encourage farming by younger age groups in Ozaukee County.
- 11. Encourage retiring farmers to pass farms on to heirs or to sell farms to other farmers.
- 12. Discourage urban land uses in areas identified as environmentally sensitive on Map 3-5.
- 13. Study the use and implementation of techniques that promote land use patterns that are sensitive to natural resource conservation, such as overlay zoning, incentive zoning, planned unit development (PUD), conservation subdivisions, and transfer of development rights (TDR) programs in the Town.
- 14. Review and consider incorporating desired language from the County model zoning ordinance for local government use that provides for protection of natural resource areas into the Town Zoning Ordinance if appropriate.
- 15. Continue to enforce the Town's Nonmetallic Mining Reclamation Ordinance.
- 16. Utilize the County dispute resolution mechanism for nonmetallic mining proposed to occur on agricultural lands. Ideally, nonmetallic mines should be located on agricultural parcels that scored less than 6.4 in the LESA analysis.
- 17. Consider incorporating the invasive plant species control and management requirements in the County Shoreland and Floodplain Zoning Ordinance into the Town Zoning Ordinance.

Goal 2: Preserve natural resources, critical species habitat sites, and critical aquatic sites areas in the Town of Saukville.

Objectives

- 1. Support efforts for permanent protection of environmentally sensitive areas, natural areas, and critical habitat and aquatic sites.
- 2. Preserve rural character and vistas.
- 3. Encourage the preservation of open spaces as part of future development proposals in the Town.
- 4. Guide urban land uses to land that can sustain urban development.
- 5. Incorporate the preservation of open spaces as part of future development proposals in the Town.
- 6. Control and reduce the spread of invasive species, including both land and aquatic species.

Recommendations and Policies:

- 1. Discourage incompatible land uses in environmental corridors, natural areas, and critical species habitat sites in the Town.
- 2. Discourage urban land uses in areas identified as environmentally sensitive on Map 3-
- 3. Encourage the protection of environmental corridors, natural areas, and critical habitat sites through public and NGOs fee simple purchase and conservation easements.
- 4. Encourage the preservation of natural resources outside the environmental corridor network by following state law.
- 5. Encourage Town residents to follow the National Wildlife Federation's (NWF) guidelines for creating "Backyard Wildlife Habitats." The NWF and U.S. Fish and Wildlife Service both offer guidelines for providing food, water, and cover for wildlife on residential lots.
- 6. Review the Town Land Division Ordinance and revise, if necessary, to ensure consistency with the Future Land Use map and this plan.
- 7. Continue to administer and enforce the Town Zoning and Land Division Ordinances.
- 8. Study the use and implementation of techniques that promote land use patterns that are sensitive to natural resource conservation, such as overlay zoning, incentive zoning, planned unit development (PUD), conservation subdivisions, and transfer of development rights (TDR) programs in the Town.
- 9. Review and consider incorporating desired language from the County model zoning ordinance for local government use that provides for protection of natural resource areas into the Town Zoning Ordinance if appropriate.
- 10. Continue to enforce the Town's Nonmetallic Mining Reclamation Ordinance.
- 11. Utilize the County dispute resolution mechanism for nonmetallic mining proposed to occur on agricultural lands. Ideally, nonmetallic mines should be located on agricultural parcels that scored less than 6.4 in the LESA analysis.

Goal 3: Protect and enhance surface and ground water quality in the Town of Saukville and protect floodplains and wetlands from incompatible land uses.

Objectives

- 1. Encourage land use best management practices.
- 2. Reduce sedimentation, pollution, and eutrophication of lakes, rivers, and streams in the Town.
- 3. Protect groundwater quality in the Town from the loss of recharge areas, excessive or overly concentrated pumping, inappropriate onsite waste treatment systems, surface water pollution, and careless agricultural practices.
- 4. Reduce reliance on groundwater resources for water supply in the Town.
- 5. Protect wetlands from pollution and degradation and guide development away from floodplains and wetlands.

Recommendations and Policies:

- 1. Support the development of land use patterns and water quality programs, including non-point pollution controls, to effectively meet the wastewater disposal and stormwater runoff control needs of the Town.
- 2. Incorporate a lowland (floodplains, shorelands, and wetlands) conservancy zoning district that provides for natural resource protection into the Town Zoning Ordinance and Map.
- 3. Review and revise the Town zoning ordinance as necessary to ensure it is consistent with the Town comprehensive plan.
- 4. Continue to administer and enforce the Town's Construction Site Erosion Control Ordinance and support the County and DNR's effort to enforce stormwater management requirements.
- 5. Ensure applicable agricultural and non-agricultural runoff management standards required by Chapter NR 151 of the Wisconsin Administrative Code are enforced in the Town.
- 6. Ensure Town residents and project applicants are aware of the Ozaukee County Code of Ordinances, which includes regulation of private onsite waste treatment systems (POWTS).
- 7. Support the development of land use patterns, water supply infrastructure, including operational improvements, and water consumption methods to effectively meet the water supply needs of the Town.
- 8. Continue to monitor the PFAS situation and work with county, regional, and federal agencies to inform the public about how to limit PFAS in the environment and maintain safe drinking water.

Goal 4: Support the existing the system of parks, trails, and open space within the Town of Saukville.

Objectives

1. Provide an integrated system of public parks, trails, and related open space areas that will provide Town residents with adequate opportunity to participate in a wide range of outdoor recreation activities.

Recommendations and Policies:

- 1. Consider future recreational needs, including trails, during the Town plat review process and support the parkland that already exists in the Town.
- 2. Consider requiring land to be dedicated for parks, a fee-in-lieu of dedication for parks when land is subdivided for development.
- 3. Encourage the protection of high-quality open space lands through public and NGO fee simple purchase and conservation easements.

Goal 5: Support community design strategies that preserve and enhance the rural, small-town character and historical resources of the Town of Saukville.

Objectives

- 1. Encourage preservation of historic and cultural structures and archaeological sites in the Town.
- 2. Encourage new development and redevelopment that is compatible with existing neighborhoods in the Town.
- 3. Capitalize on tourism amenities.
- 4. Promote preservation of historic structures and sites in the Town.
- 5. Promote preservation of historical resources that attract tourists to the Town.

Recommendations and Policies:

- 1. Preserve historic structures and sites that have been listed on the State and National Register of Historic Places.
- 2. Encourage the preservation of historical resources that contribute to the heritage and economy of Town, but have not been recognized or designated by Federal or State government agencies.
- 3. Encourage the preservation of local landmarks.
- 4. Consider adopting a historic preservation ordinance for towns under the provisions of Section 60.04 of the Wisconsin Statutes.
- 5. Preserve and maintain structures with significant historical value owned by the Town.
- 6. Review and revise the Town Zoning Ordinance as necessary to be consistent with historic preservation goals and objectives stated in the Town comprehensive plan.

Goal 6: Preserve archaeological resources that contribute to the heritage of the Town of Saukville and promote cultural resource and heritage related tourism in the Town.

Objectives

1. Preserve known archaeological sites in the Town.

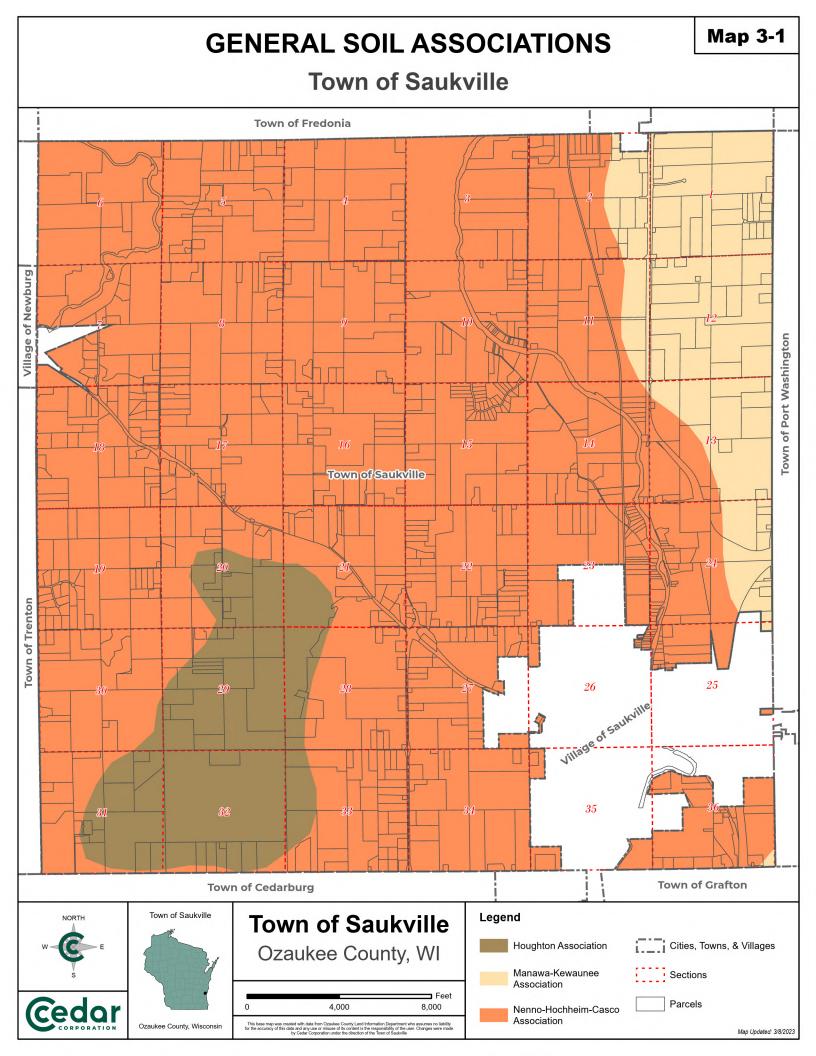
Recommendations and Policies:

- 1. Support efforts to preserve indigenous nations cultural resources.
- 2. Preserve archaeological sites inventoried or identified through various surveys, studies, and reports prepared for areas within the Town.
- 3. Encourage land use and development patterns that conserve land where archaeological features are located.
- 4. Review and revise the Town Zoning Ordinance and Land Division Ordinance as necessary to ensure they are consistent with archaeological resource goals and



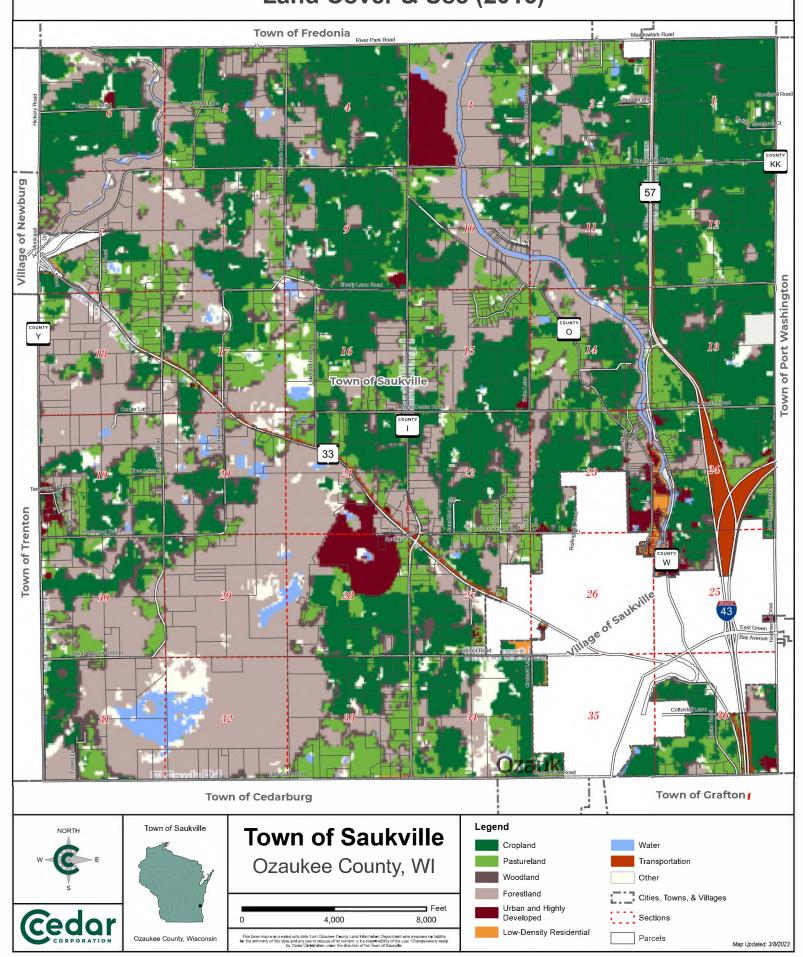
- objectives set forth by the Town comprehensive plan. Examples of provisions that can allow for land use design flexibility include planned unit developments (PUD), conservation subdivisions, and density bonuses.
- 5. Preserve and maintain sites with significant archaeological value in Town ownership.





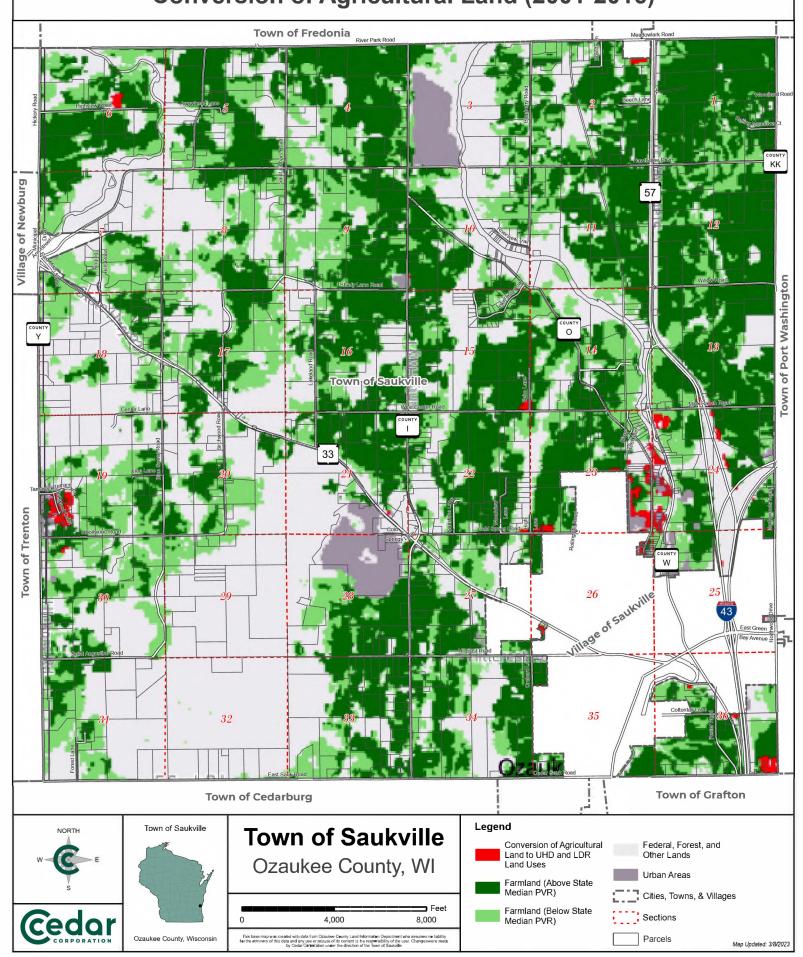
AMERICAN FARMLAND TRUST

Land Cover & Use (2016)



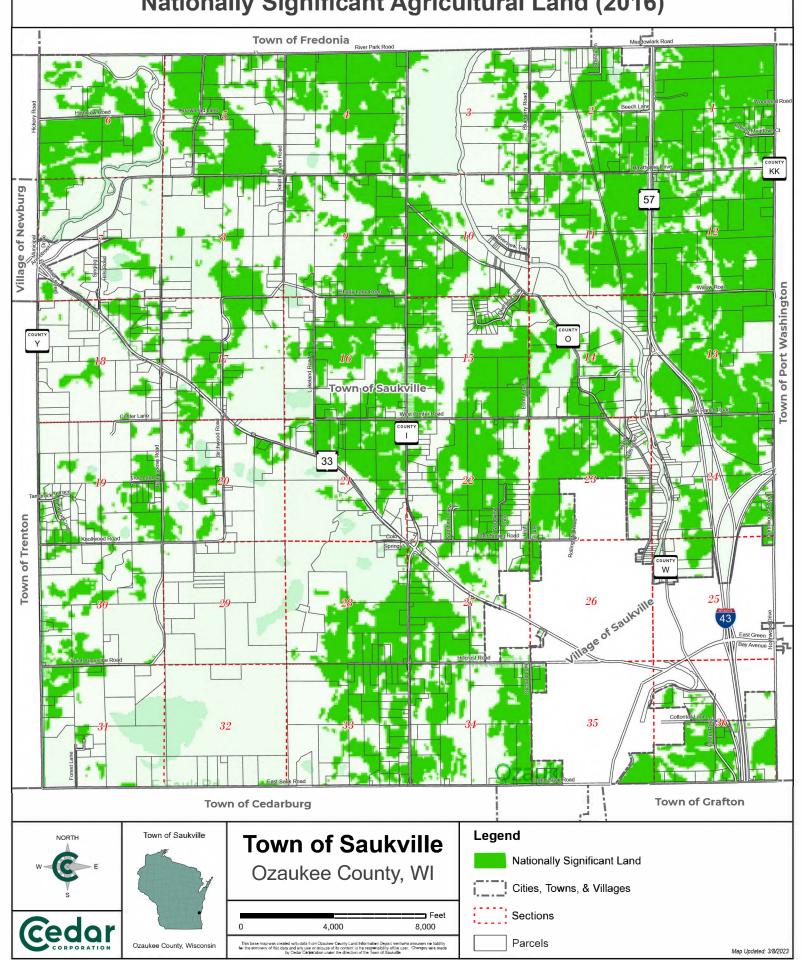
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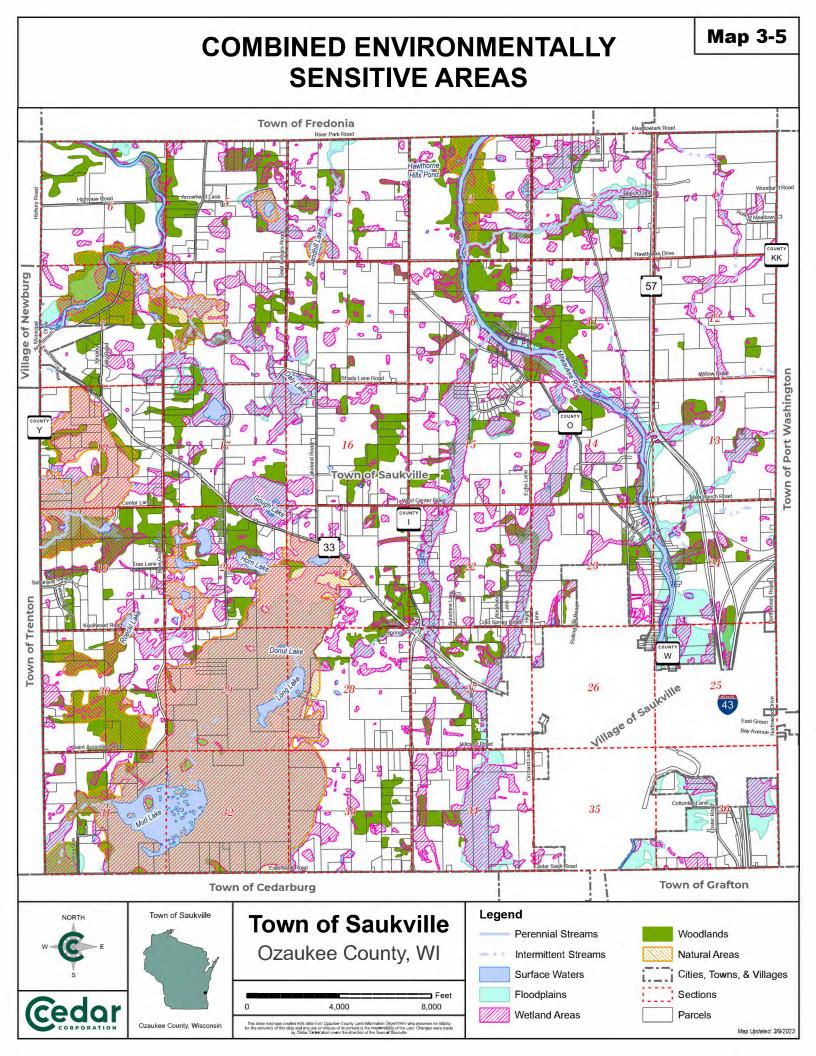
Conversion of Agricultural Land (2001-2016)

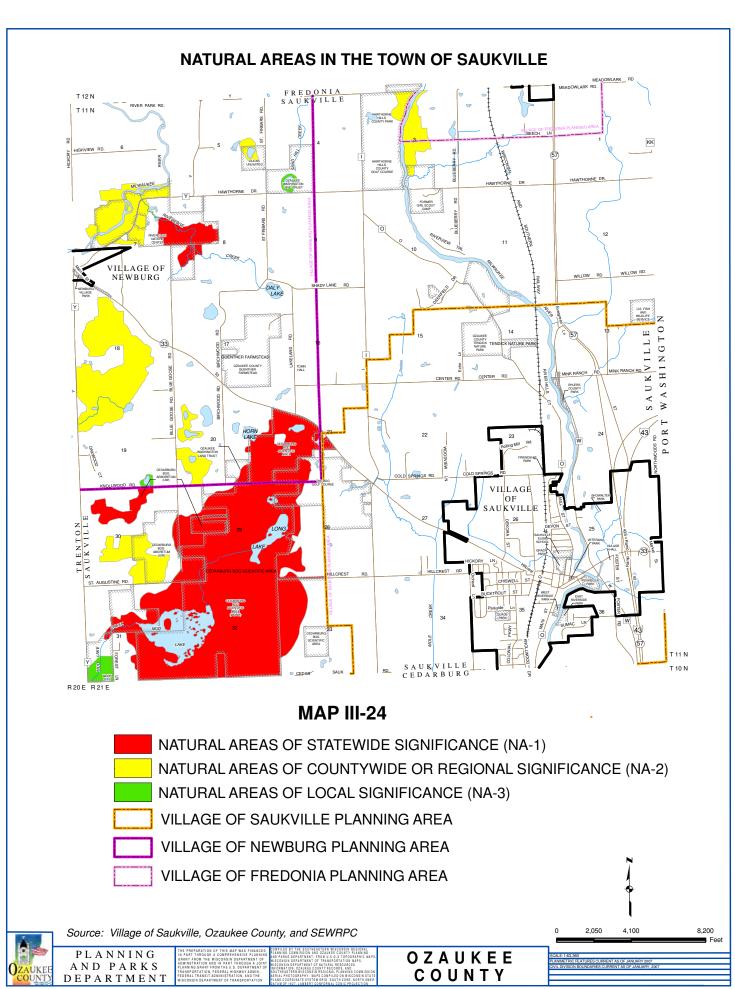


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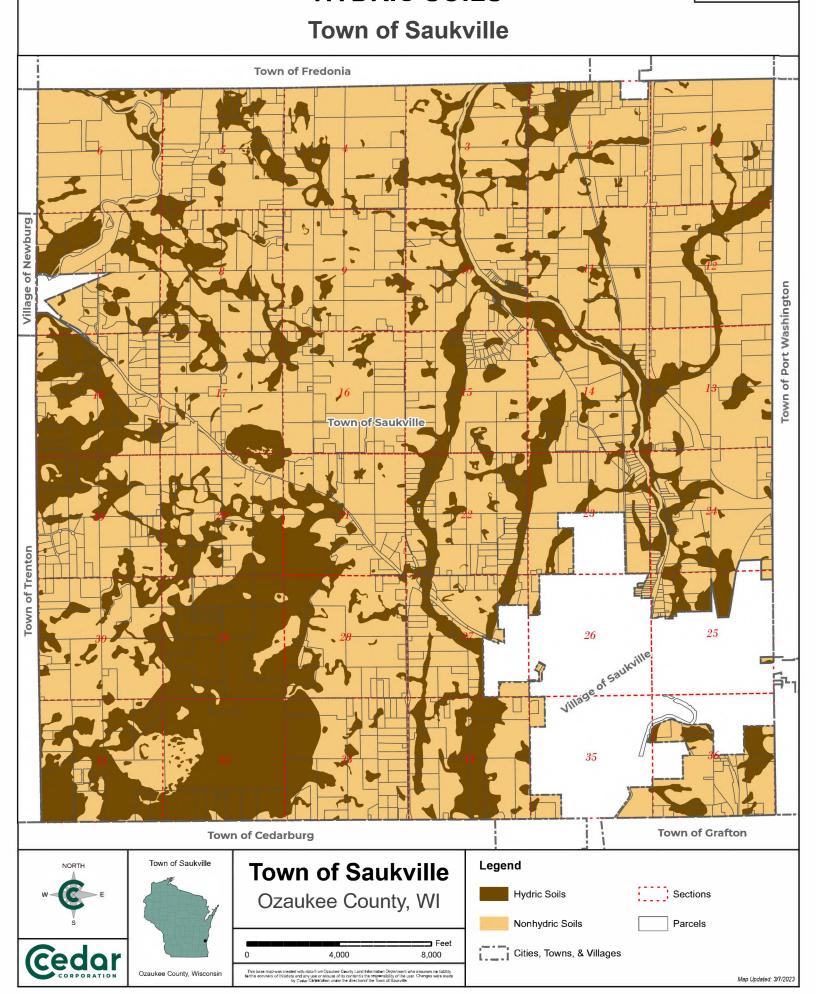
Nationally Significant Agricultural Land (2016)

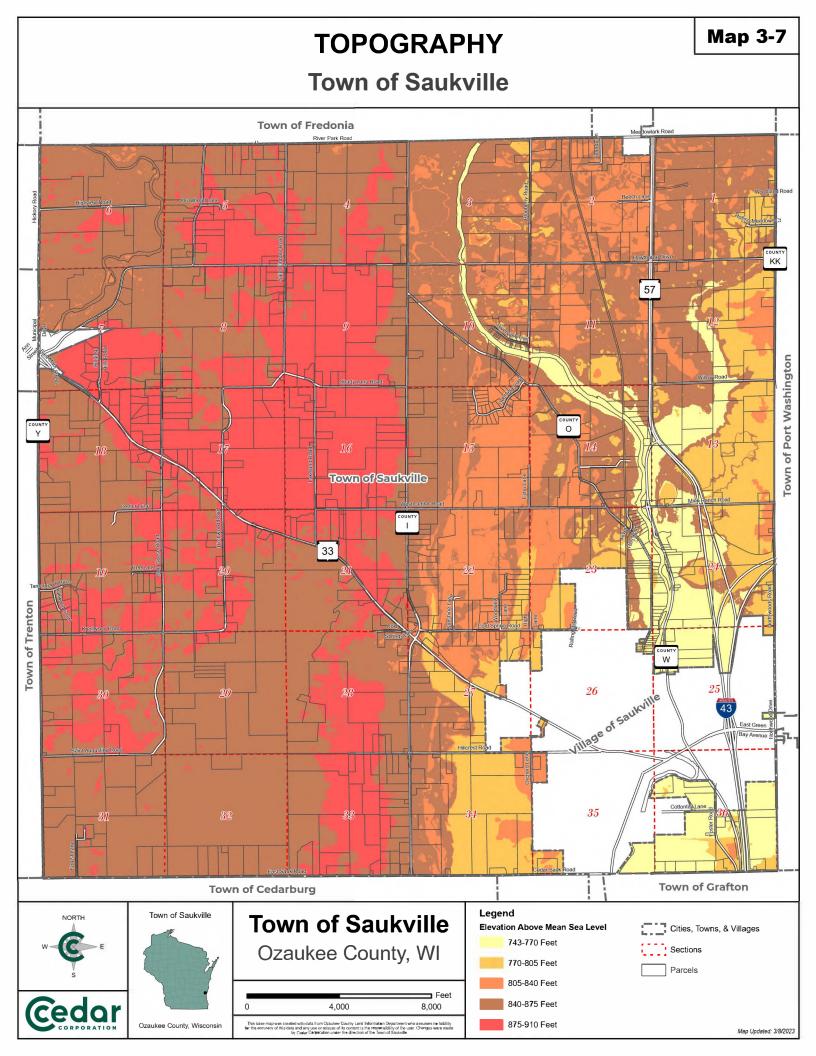


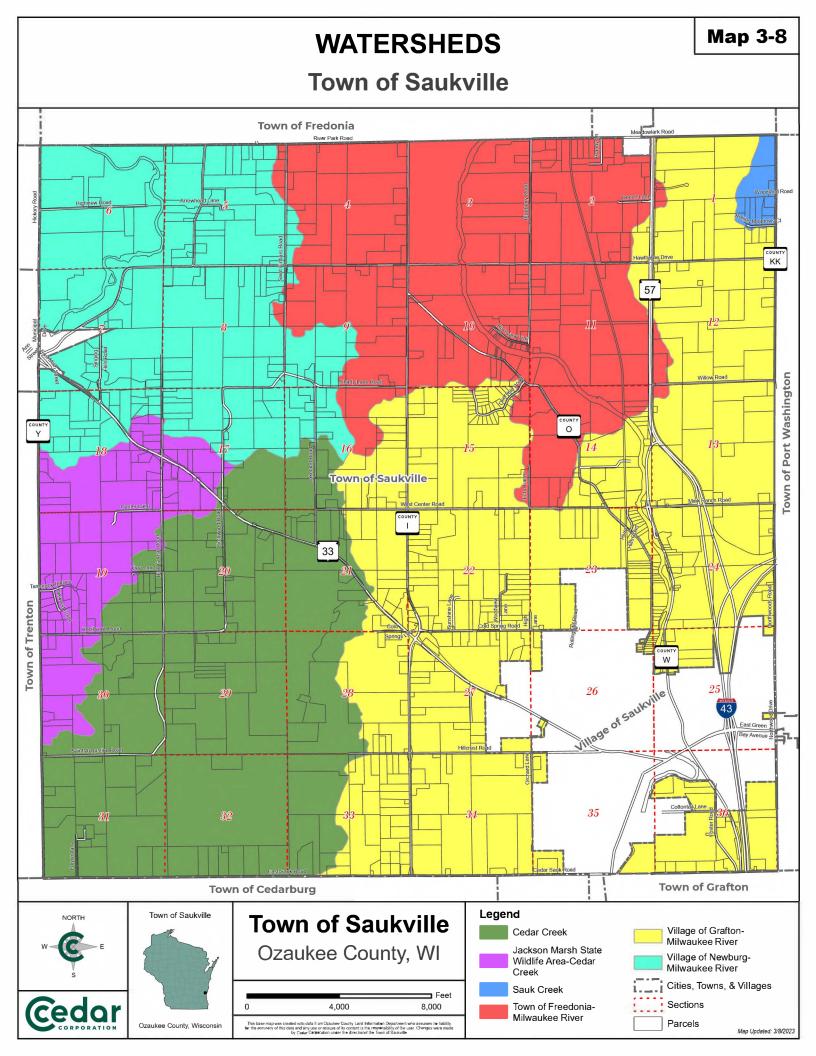




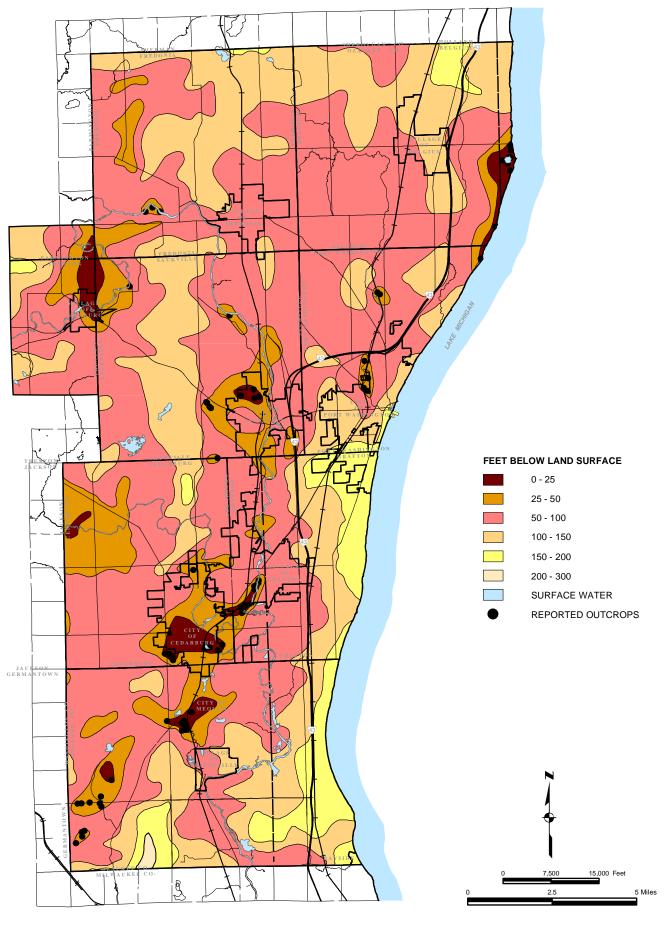
HYDRIC SOILS





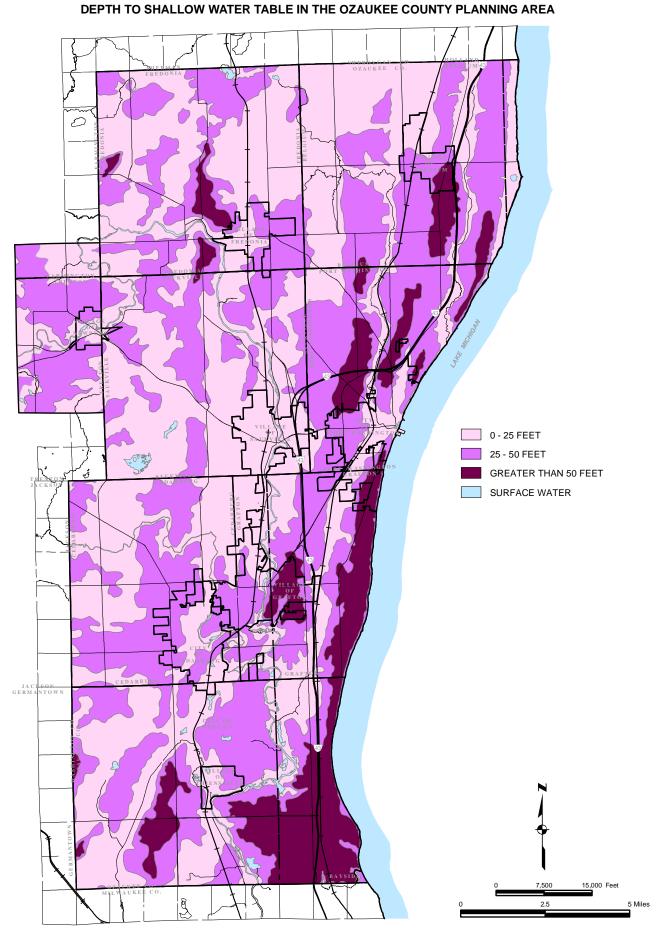


Map III-9
GENERALIZED DEPTH TO BEDROCK IN THE OZAUKEE COUNTY PLANNING AREA



Source: University of Wisconsin - Extension, Wisconsin Geological and Natural History Survey and SEWRPC.

Map III-21



Source: Wisconsin Geological and Natural History Survey and SEWRPC.

CATEGORIES OF WATER RECHARGE POTENTIAL IN THE TOWN OF SAUKVILLE: 2008 T 12 N R20 E R21 E **MAP VII-5** LOW PRIMARY ENVIRONMENTAL CORRIDOR **MODERATE** VILLAGE OF SAUKVILLE PLANNING AREA HIGH VILLAGE OF NEWBURG PLANNING AREA **VERY HIGH** VILLAGE OF FREDONIA PLANNING AREA **UNDETERMINED** 4.100 2.050 8.200 Source: Wisconsin Geological and Natural History Survey and SEWRPC.

Ozaukei Count

PLANNING AND PARKS DEPARTMENT THE PREPARATION OF THIS MAP WAS FINAN IN PART THROUGH A COMPREHENSIVE PLAC GRANT FROM THE WISCONSIN DEPARTMENT ADMINISTRATION AND IN PART THROUGH A PLANNING GRANT FROM THE U.S. DEPARTMENT TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION, AND THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

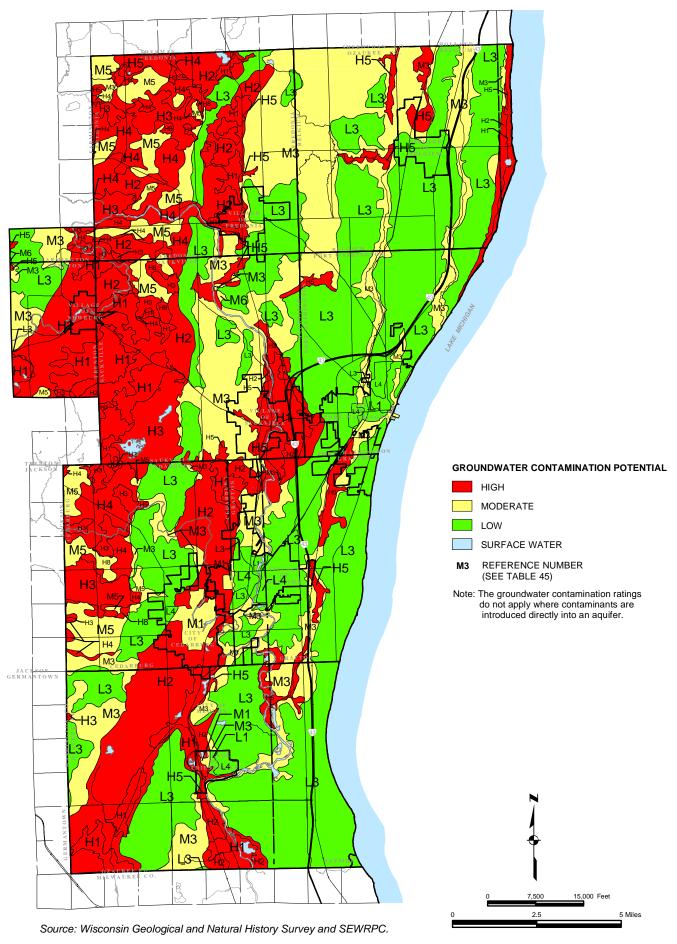
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AUMAETRO: FEATURES CUPRENT AS OF JANUARY 2007

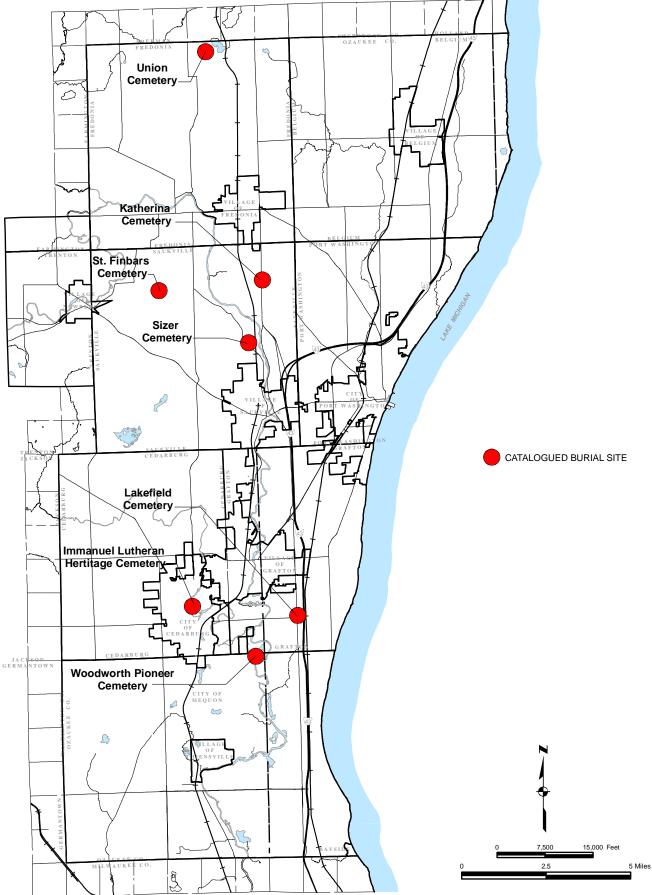
VIL DYISSON EOLADARIES CUPRENT AS OF JANUARY, 2007

POTENTIAL FOR GROUNDWATER CONTAMINATION IN THE OZAUKEE COUNTY PLANNING AREA



Map III-40

CATALOGUED BURIAL SITES IN THE OZAUKEE COUNTY PLANNING AREA: 2007



Map III-41

NATIVE AMERICAN FEATURES IN THE OZAUKEE COUNTY PLANNING AREA IDENTIFIED FROM THE U.S. PUBLIC LAND SURVEY: 1834-1836

