AGRICULTURAL, NATURAL, AND CULTURAL RESOURCES

Stable economic development and a strong community identity are affected by the wise use of resources. The conservation of agricultural land, the protection of natural features, and the preservation of cultural resources are all fundamental to a healthy environment and thriving community. Examples of resources affected by the Comprehensive Plan include productive agricultural areas, undeveloped areas, stream corridors, environmentally sensitive areas, wetlands, mineral resources, open spaces, and historical buildings and areas.

The Town of Grafton Comprehensive Plan recognizes that resources in the County and Town are limited and need to be properly managed. Key to this effort is the identification of the specific characteristics and locations of agricultural, natural, and cultural resources in the County and Town. This is necessary to properly locate future development, avoid serious environmental problems, and ensure the protection of natural resources.

AGRICULTURAL RESOURCES

Managing land for agricultural uses is important to the area as it impacts the area's economy and affects development decisions. It also contributes to the rural character and provides open space.

Soil Associations

The Natural Resources Conservation Service (NRCS) issued a soil survey for Ozaukee County in 1970. The data from this survey can be applied to following endeavors: managing farms and woodlands; selecting sites for roads, buildings, and other structures; identifying mineral resources; and judging the suitability of land for agricultural, industrial, or recreational uses.

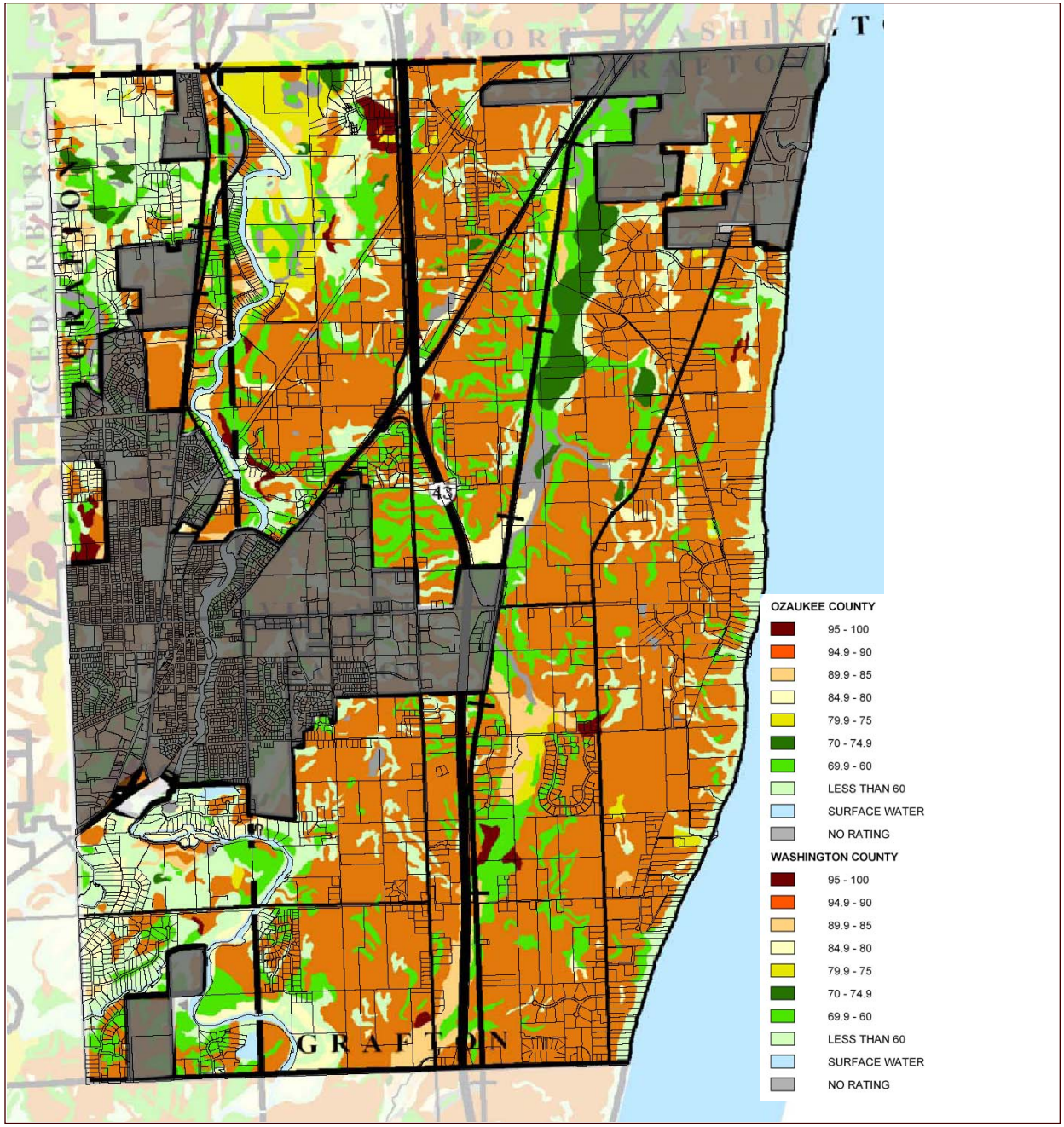

FIGURE 1: Land Evaluation Rating for Agricultural Lands in Ozaukee County.
Source: Multi-Jurisdictional Comprehensive Plan for Ozaukee County: 2035; Natural Resources Conservation Service; SEWRPC

The survey identified the Town of Grafton to have a large soil association called Kewanee-Manawa association. Soil associations are general areas with broad patterns of soils. The Kewanee-Manawa 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 drainage of low, wet areas are the main concerns in managing these soils.

Smaller soil associations found within the Town of Grafton are the Houghton-Adrian association and the Casco-Fabuis association.

Soil Suitability for Agricultural Production

The NRCS developed a method known as the Land Evaluation and Site Assessment (LESA) system. LESA is a numeric system for rating potential farmland preservation areas by evaluating soil quality and geographic variables.

The NRCS rated each soil type in Ozaukee and Washington Counties and placed soil ratings into groups ranging from the best to worst suited for cropland. The best group is assigned a value of 100 and all other groups are assigned lower values. In addition to soil type, the land evaluation component considers slope, the agricultural capability class, and soil productivity.

Figure 1 and Table 1 depict the land evaluation ratings for agricultural soils in the Town of Grafton and Ozaukee County.

Existing Agricultural Land

In 2000, the Southeastern Wisconsin Regional Planning Commission (SEWRPC) identified 4,856 total acres of existing agricultural lands as part of their land use inventory for the Town of Grafton. This land use inventory included cultivated lands, pasture lands and unused agricultural lands, orchards and nurseries, and non-residential farm buildings.

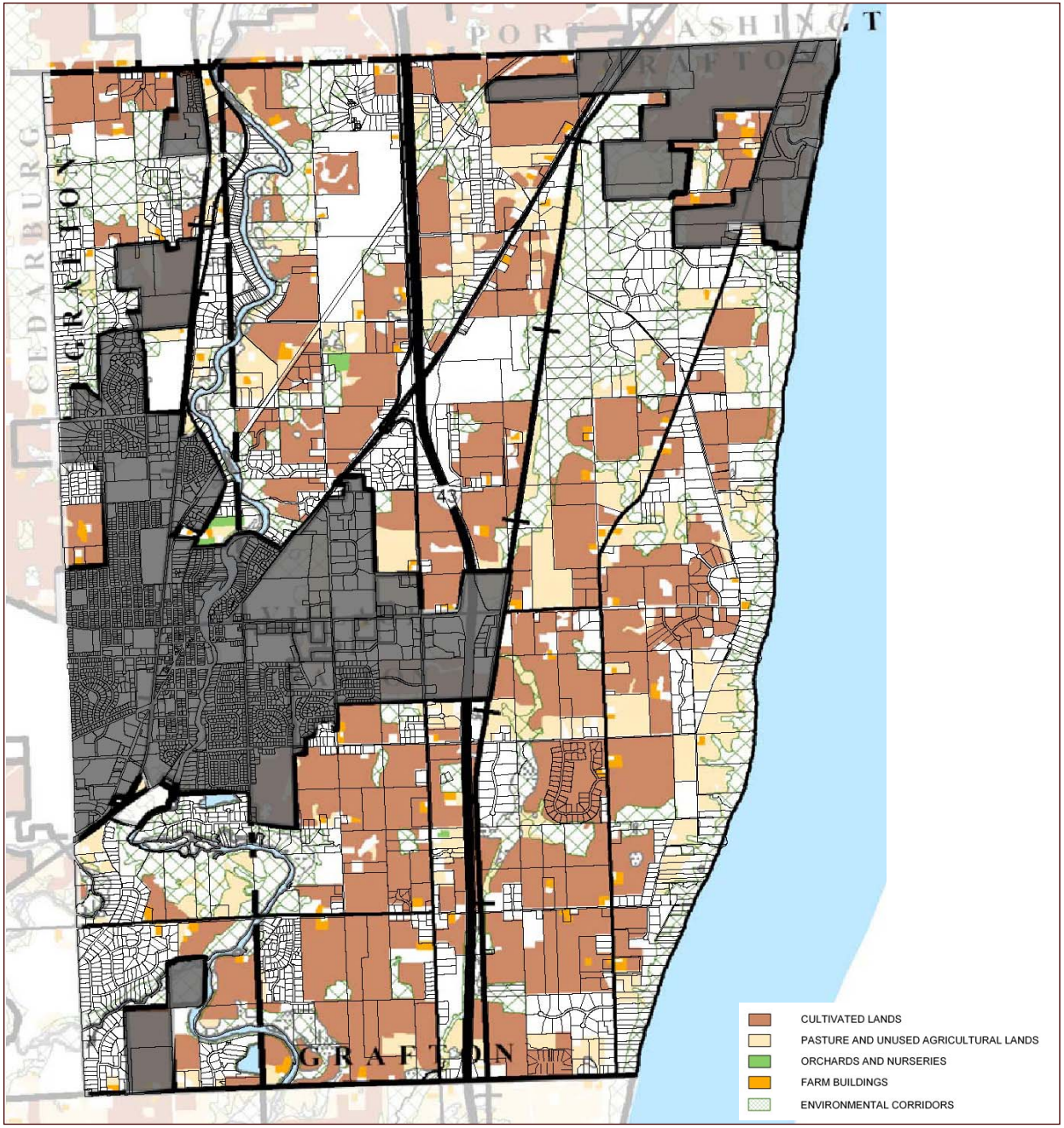

FIGURE 2: Existing Agricultural Lands in Ozaukee County: 2000.
Source: Multi-Jurisdictional Comprehensive Plan for Ozaukee County: 2035; SEWRPC

TABLE 1: Land Evaluation Rating for Agricultural Lands in Ozaukee County.

Local Government	95-100 (acres)	90-94.9 (acres)	85-89.9 (acres)	80 - 84.9 (acres)	75 - 79.9 (acres)	70 - 74.9 (acres)	60 - 69.9 (acres)	> 60 (acres)
City of Mequon	6,808	12,282	3,685	835	306	101	2,786	2,976
Town of Belgium	566	15,203	224	1,441	772	320	1,469	2,418
Town of Cedarburg	2,877	5,226	1,876	1,750	587	519	2,637	2,685
Town of Fredonia	2,205	7,684	735	1,964	168	1,312	3,457	4,304
Town of Grafton	**82**	**5,818**	**240**	**343**	**271**	**185**	**1,377**	**1,214**
Town of Port Washington	64	8,052	27	484	76	118	1,201	1,511
Town of Saukville	1,663	4,522	828	1,859	472	2,826	3,805	4,608
Town of Framington	8	52	219	143	527	84	63	522
Town of Trenton	9	106	592	805	1,128	129	694	2,476
Other Cities and Villages	551	6,407	988	1,468	468	119	2,241	2,998
Ozaukee County	14,833	65,352	9,414	11,092	4,775	5,713	19,730	25,712

Source: NRCS and SEWRPC.

TABLE 2: Existing Agricultural Lands in Ozaukee County: 2000.

Local Government	Cultivated Lands (acres)	Pasture Land and Unused Agricultural Land (acres)	Orchards and Nurseries (acres)	Farm Buildings (acres)	Total (acres)
City of Mequon	7,070	3,795	873	226	11,964
Town of Belgium	17,231	751	240	305	18,527
Town of Cedarburg	6,650	1,666	306	256	8,878
Town of Fredonia	13,609	974	48	266	14,897
Town of Grafton	**3,649**	**1,079**	**20**	**108**	**4,856**
Town of Port Washington	8,123	237	23	142	8,525
Town of Saukville	8,940	1,765	122	276	11,103
Town of Framington	968	153	0	27	1,148
Town of Trenton	2,826	420	0	68	3,314
Other Cities and Villages	2,689	341	6	37	3,073
Total	71,755	11,181	1,638	1,711	86,285

Source: SEWRPC.

TABLE 3: Agricultural Production in Ozaukee County: 2002.

	Ozaukee County [a]							**State of Wisconsin**	
Crop	Land Area 2002 (acres)	Land Area 1999 (acres)	Change 1999-2002 (acres)	Percent Change 1999 - 2002	Land Area 1990 (acres)	Change 1990 - 1999 (acres)	Percent Change 1990 - 1999	Percent Change 1999 - 2002	Percent Change 1990 - 1999
Corn	19,900	16,700	3,200	19.0	22,200	-5,500	-25.0	5.0	-3.0
Forage	15,200	17,800	-2,600	-15.0	21,400	-3,600	-17.0	-17.0	-11.0
Soy	9,100	9,500	-400	-4.0	3,000	6,500	217.0	17.0	202.0
Small Grains	6,400	6,400	0	0.0	12,100	-5,700	-47.0	-6.0	-50.0
Total	50,600	50,400	200	0.4	58,700	-8,300	-14.0	-3.0	-1.0

[a] Includes Ozaukee County only.

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

TABLE 4: Agricultural Trends in Ozaukee County: 1976-2005

Variable	1976	1986	1996	1998	2002	2005
Total Number of Farms	660	540	550	560	533	N/A
Number of Dairy Farms	255	190	110	98	81	77
Number of Dairy Cows	9,900	11,200	9,300	9,100	9,000	8,800
Land in Farms (Acres)	106,500	88,000	86,000	85,000	75,467	71,755
Price per Acre (Average Land Sale)	$1,500	$1,774	$2,215	$2,288	$6,602	$14,415
Total Number of Cattle	N/A	N/A	20,000	19,000	19,000	20,000

Note: N/A Indicates the Data is Not Available.

Source: Ozaukee County and SEWRPC.

TABLE 5: Agricultural Products Produced by Ozaukee County Farms: 2002

Agricultural Products	Number of Farms	Percent
Livestock & Poultry - Cattle and Calves	172	32.3
Livestock & Poultry - Hogs and Pigs	10	1.9
Livestock & Poultry - Sheep and Lambs	20	3.8
Livestock & Poultry - Chickens (Egg Production)	17	3.2
Crops - Corn for Grain	150	28.1
Crops - Corn for Silage or Greenchop	104	19.5
Crops - Wheat for Grain	87	16.3
Crops - Oats for Grain	91	17.1
Crops - Barely for Grain	15	2.8
Crops - Sorghum for Silage or Greenchop	3	0.6
Crops - Soybeans	118	22.1
Crops - Potatoes	9	1.7
Crops - Forage	218	40.9
Crops - Vegetables	59	11.1
Crops - Orchards	15	2.8
Total	1088[b]	204.2[b]

[a] *Includes Ozaukee County only.*

[b] *There were 533 farms in Ozaukee County in 2002. The number of farms total is greater than 533 and the percent total is greater than 100.0 because many farms produce more than one agricultural product.*

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

TABLE 6: Farms in Ozaukee County and Wisconsin by Value of Agricultural Product Sales: 2007

	Ozaukee County[b]		State of Wisconsin	
Value of Sales	Number	Percent	Number	Percent
Less than $2,500	226	42.4	30,491	39.5
$2,500 to $4,999	35	6.6	5,389	7.0
$5,000 to $9,999	33	6.2	5,788	7.5
$10,000 to $24,999	62	11.6	8,362	10.8
$25,000 to $49,999	33	6.2	5,929	7.7
$50,000 to $99,999	31	5.8	7,242	9.4
$100,000 or More	113	21.2	13,930	18.1
Total	533	100.0	77,131	100.0

[a] *Gross Sales of Agricultural Products Produced per Farm (Before Taxes and Expenses).*

[b] *Includes Ozaukee County only.*

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

TABLE 7: Farm Size in Ozaukee County and Wisconsin: 2002

	Ozaukee County[a]		State of Wisconsin	
Size (acres)	Number	Percent	Number	Percent
Less Than 10 Acres	59	11.1	4,141	5.4
10 to 49 Acres	164	30.8	17,152	22.2
50 to 179 Acres	169	31.7	29,458	38.2
180 to 499 Acres	118	22.1	20,021	25.9
500 to 999 Acres	17	3.2	4,465	5.8
1,000 Acres or More	6	1.1	1,894	2.5
Total	533	100.0	77,131	100.0

[a] *Includes Ozaukee County only.*

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

Figure 2 and Table 2 depict the existing agricultural lands in the Town of Grafton and Ozaukee County.

Agricultural Production

Ozaukee County farms produce an array of agricultural products including many varieties of crops and livestock. Among the most prominent of these agricultural products are corn, forage (hay, grass silage, and greenchop), soybeans, small grains, and dairy products. As Table 3 illustrates, from 1999 to 2002, the land area for the production of corn has increased by 3,200 acres, while the land area for forage, soy, and small grains has decreased.

In addition to crop agricultural activity, there is a significant livestock agricultural activity in Ozaukee County. The most prevalent livestock activity in the County is dairy farming.

As Table 4 illustrates, there were 533 farms in Ozaukee County in 2002. Of those 533 farms, 81 were dairy farms. These 81 dairy farms boarded 9,000 dairy cows (an average of 103 dairy cows per herd). These dairy farms produced 166,500,000 pounds of dairy products or 18,500 pounds per cow in 2002. This was a 13% increase in the County from 1999 to 2002.

Table 5 depicts the different agricultural products raised and grown in Ozaukee County and the number of farms involved in producing each agricultural product. It should be noted that individual farms in the County have diversified crops and livestock.

Agricultural Revenue

In 2002, Ozaukee County farms combined to produce agricultural products with a market value of $38,323,000 consisting of $14,471,000 in crops and $23,852,000 in livestock. The average farm in the County produced agricultural products with a market value of $71,901. Farms across the State combined to produce agricultural products with a market value of $5,623,275,000 in 2002. The average farm in the State produced agricultural products with a market value of $72,906.

The average net income from farm operation in the County in 2002 was $20,616, compared to an average of $17,946 for the State. Farming was the principal occupation for the farm operator on 302 farms (57%) in Ozaukee County. Farming was the principal occupation for the farm operator on approximately 59% of farms in the State.

Table 6 illustrates the sales of agricultural products for Ozaukee County farms in 2002.

Number and Size of Agricultural Farms

In 2002 there were 533 farms in Ozaukee County. Table 7 illustrates the number of farms by size category in Ozaukee County and the State of Wisconsin. The average farm size in the County was 142 acres in 2002, while the median farm size was 79 acres. This compares to 204 acres (average farm size) and 140 acres (median farm size), for farms in the State (refer to Table 7).

As indicated in Table 4, the total number of farms in the County has steadily decreased over the past 30 years, while the number of livestock has remained almost the same. This trend indicates that the number or size of buildings on farms has been increased to accommodate larger herds. The loss of agricultural land to increasing development is also indicated by the significant increase in the average sale price per acre of agricultural land in the County over the past 30 years.

Agricultural Farms Enrolled in State and Federal Preservation Programs

There are a number of Federal and State conservation programs that have been created to help protect farmland and related rural land. The programs include the Conservation Reserve Program (CRP), Conservation Reserve Enhancement Program (CREP), Wetland Reserve Program (WRP), and Wisconsin Farmland Preservation Program (FPP).

Table 8 identifies farms enrolled in State and Federal conservation programs for the Town of Grafton and Ozaukee County.

NATURAL RESOURCES

The landforms and physical features of the Town of Grafton and Ozaukee County are important determinants of regional growth and development. The physical geography of an area must be considered in land use, transportation, and utility and community facility planning and development. Additionally, physical features contribute to the natural beauty and overall quality of life in an area. The Town of Grafton and Ozaukee County lie on the western shore of Lake Michigan and directly east of a major subcontinental divide between the Mississippi River and the Great Lakes – St. Lawrence River drainage basins.

Topographic Features

Glaciation has largely determined the topography and soils of the Town of Grafton and Ozaukee County. Elevations in Ozaukee County range from 580 feet above sea level (Town of Belgium) to 988 feet above sea level (Town of Cedarburg). The Town of Grafton is 709 feet above sea level. In general, the topography of the Town of Grafton and Ozaukee County is relatively level to gently rolling in some areas, with low lying areas associated with streams and wetlands. The nature of the Lake Michigan shoreline in the County is generally characterized by areas of steep slopes, including bluffs and several ravines.

There is evidence of four major stages of glaciation in Ozaukee County. The last and most influential in terms of present topography was the Wisconsin stage, which ended in the State about 11,000 years ago. Most of the County 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.

TABLE 8: Farms Enrolled in State and Federal Farmland Preservation Programs in Ozaukee County: 2005.

	State Program		Federal Programs [a]					
	Farmland Preservation Program (FPP)[b]		Conservation Reserve Program (CRP)		Conservation Reserve Enhancment Program (CREP)		Wetland Reserve Program (WRP)	
U.S. Public Land Survey Township	Parcels	Acres	Parcels	Acres	Parcels	Acres	Parcels	Acres
Belgium			21	2403	1	30	2	26
Cedarburg			12	535	0	0	0	0
Fredonia			16	1156	2	31	2	14
Grafton			9	464	0	0	0	0
Port Washington			8	461	2	60	0	0
Saukville			7	535	0	0	0	0
City of Mequon			7	338	0	0	0	0
Total			80	5892	5	121	4	40

[a] *The Farm Service Agency has Refused to Release CRP, CREP, and WRP Contact and Acreage Data for the Washington County Portion of the Planning Area.*

[b] *Farmland Preservation Program Acreage Totals per Township as of 2000 are Currently Under Preparation.*

Source: Ozaukee County and SEWRPC.

TABLE 9: Potential Sources of Sand and Gravel in Ozaukee County.

Local Government	Sands (acres)	Gravel (acres)
City of Mequon	2,403	1,346
City of Port Washington	613	478
Village of Belgium	15	7
Village of Fredonia	188	140
Village of Grafton	245	152
Village of Newburg	378	363
Village of Saukville	625	520
Village of Thiensville	244	23
Town of Belgium	1,722	687
Town of Cedarburg	2,926	1,590
Town of Fredonia	3,464	2,430
Town of Grafton	**889**	**627**
Town of Port Washington	786	485
Town of Saukville	5,035	3,726
Town of Framington	792	786
Town of Trenton	3,191	3,008
Ozaukee County Planning Area[a]	23,752	16,482

[a] *Includes Data for the City of Cedarburg.*

Source: SEWRPC.

Geology

The bedrock formations underlying Ozaukee County consist of the Milwaukee Formation and Niagara Dolomite. The Milwaukee Formation includes shale, shale limestone, and dolomite. It is approximately 130 feet thick and is found in the eastern portion of the County along Lake Michigan. Niagara Dolomite is approximately 100 feet thick and is found in the central and western portions of the County.

Also located in the Town of Grafton (Section 25) is the Milwaukee River-Grafton Outcrops and Lime Kiln Park. This significant, 57-acre geologic site is an undisturbed, 40-foot-high rock outcrop along the Milwaukee River, containing the best and most extensive exposures of Silurian Racine Dolomite in the region. Historically, this site has been used for scientific research.

Lake Michigan Bluff and Ravine Areas

Shoreline erosion and bluff stability conditions are important considerations in planning for the protection and sound development and redevelopment of lands located along Lake Michigan. These conditions can change over time because they are related to changes in climate, water level, the geometry of the near shore areas, the extent and condition of shore protection measures, the type and extent of vegetation, and the type of land uses in shoreland areas.

There are approximately 25 linear miles of Lake Michigan shoreline in Ozaukee County. Of the 25 linear miles of shoreline, six are in the Town of Grafton. The Lake Michigan shoreline contains areas of substantial bluffs with heights of up to 140 feet ravines; areas of gently rolling beaches with widths of up to 150 feet; and areas of low sand dune ridges and swales.

Nonmetallic Mineral Resources

Nonmetallic minerals include crushed stone (gravel), dimension stone, and sand. Nonmetallic mines (quarries) provide sand and stone for transportation facilities and buildings. Nonmetallic minerals are important economic resources that should be taken

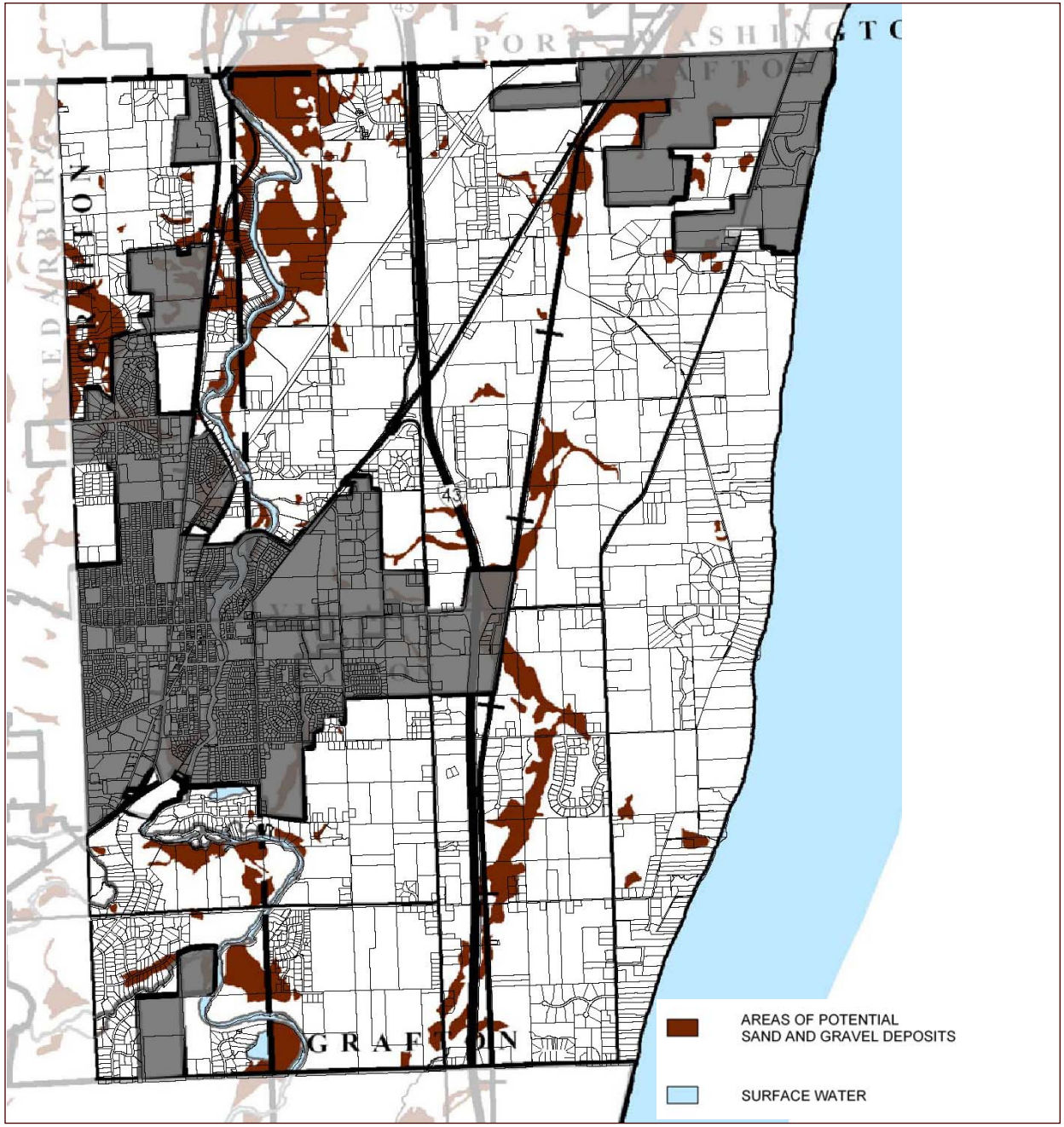

FIGURE 3: Potential Sources of Sand and Gravel in Ozaukee County.
Source: Multi-Jurisdictional Comprehensive Plan for Ozaukee County: 2035; Natural Resources Conservation Service; SEWRPC.

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 locally desirable. If an adequate supply of stone and sand is desired for the future, wise management of nonmetallic mineral resources is important.

Areas Suitable for Sand and Gravel Extraction

Figure 3 illustrates areas possibly containing commercially workable amounts of sand and gravel, with the largest concentrations in the western portion of the County and along the Milwaukee River. Table 9 depicts the potential sources of sand and gravel, in acres, for the Town of Grafton and Ozaukee County.

Existing Nonmetallic Mining Sites and Registered Sites

There are 21 nonmetallic mining operations encompassing about 479 acres in Ozaukee County. Each mining operation may include a combination of active mining sites, future mining sites, proposed mining sites, reclaimed mining sites, and unreclaimed mining sites. As the inventory of agricultural, natural, and cultural resources provided by Ozaukee County and SEWRPC illustrates, active mining sites include about 216 acres, future mining sites include 17 acres, proposed mining sites include 39 acres, reclaimed mining sites includes 94 acres, and unreclaimed mining sites includes 113 acres.

According to the inventory provided by Ozaukee County and SEWRPC, the Town of Grafton has two nonmetallic mining sites. The Tillman Pit encompasses 11.5 acres of active mining, 3.2 acres of proposed mining, 1.1 acres of reclaimed mining, and 1.3 acres of unreclaimed mining, for a total of 17.1 acres. The Denow Pit, which is identified as a historic pit, encompasses 30.1 acres of unreclaimed mining.

Water Resources

Water resources such as lakes, streams and their associated floodplains, and groundwater form an important element of the natural resource base for Ozaukee County. The contribution of these resources is immeasurable to economic development, recreational activity, and aesthetic quality of the Town of Grafton and Ozaukee County.

Watersheds

Ozaukee County encompasses five major watersheds and an area that drains directly into Lake Michigan. All of the watersheds are part of the Great Lakes-St. Lawrence River drainage system. The major watersheds include the Milwaukee River watershed, Sauk Creek watershed, Menomonee River watershed, Sheboygan River watershed, and Sucker Creek watershed. A majority of Ozaukee County is located in the Milwaukee River watershed.

Furthermore, since Ozaukee County is located entirely east of the subcontinental divide that separates the Mississippi River and the Great Lakes-St. Lawrence River drainage basin, local governments within Ozaukee County are not subject to limitations on the use of Lake Michigan water that affect areas west of the divide.

Surface Water Resources

Surface water resources consist of streams, rivers, lakes, and associated floodplains and shorelands. Lakes, rivers, and streams constitute a focal point for water-related recreation activities and greatly enhance the aesthetic quality of the environment. However, lakes, rivers, and streams are readily susceptible to degradation through improper land development and management. Water quality can be degraded by excessive pollutant loads, including nutrient loads from manufacturing and improperly located onsite waste treatment systems; sanitary sewer overflows; urban runoff, including runoff from construction sites; 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. Surface waters, illustrated on Figure 4 cover an area of 2,280 acres, or about 1%, of Ozaukee County.

Floodplains

Floodplains 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, can be expected to occur periodically. For planning and regulatory purposes, floodplains are defined as those areas subject to inundation by the 100-year interval flood event.

Floodplains in the Town of Grafton and Ozaukee County were identified as part of the Ozaukee County Flood Insurance Study (FIS). Subsequent to adoption of the FIS, detailed floodplain studies were conducted for Cedar Creek and a portion of Ulao Creek. Floodplain delineations developed as part of the FIS and the Cedar Creek and Ulao Creek detailed studies are illustrated on Figure 4.

Shorelands

Shorelands are defined by the Wisconsin Statutes as lands within the following distances from the ordinary high water mark of navigable waters: 1000 feet from a lake, pond, or flowage; and 300 feet from a river or stream, or to the landward side of the floodplain, whichever distance is greater. Additional ordinances in Ozaukee County 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. Areas affected by shoreland regulations are illustrated on Figure 5 for the Town of Grafton and Ozaukee County.

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. As illustrated on Figure 4, 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.

Groundwater Resources

Ozaukee County has seen an increase in overall water consumption and groundwater consumption in recent decades. Total water consumption increased 15% (gallons per day) between 1979 and 1995. Groundwater consumption in Ozaukee County increased 14% (gallons per day) between 1979 and 1995. Over 84% of the total water used per day by Ozaukee County was groundwater in 1995.

A regional groundwater report prepared by SEWRPC indicates that there is an adequate supply of groundwater in the shallow aquifer of Ozaukee County and the Region as a whole. The shallow aquifer is the source of water for most wells in the Town of Grafton and Ozaukee County.

A critical factor to maintaining a high quality groundwater supply is determining which areas of the Town of Grafton and Ozaukee 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.

Woodlands

With good planning practices, woodlands can serve a variety of beneficial functions. In addition to contributing to clean air, water, and regulating surface water runoff, woodlands help maintain a diversity of plant and animal life. The destruction of woodlands, can contribute to excessive stormwater runoff, siltation of lakes and streams, and loss of wildlife habitat.

Figure 6 identifies the woodland areas for the Town of Grafton and Ozaukee County. For the purpose of this Comprehensive Plan, woodlands are defined as

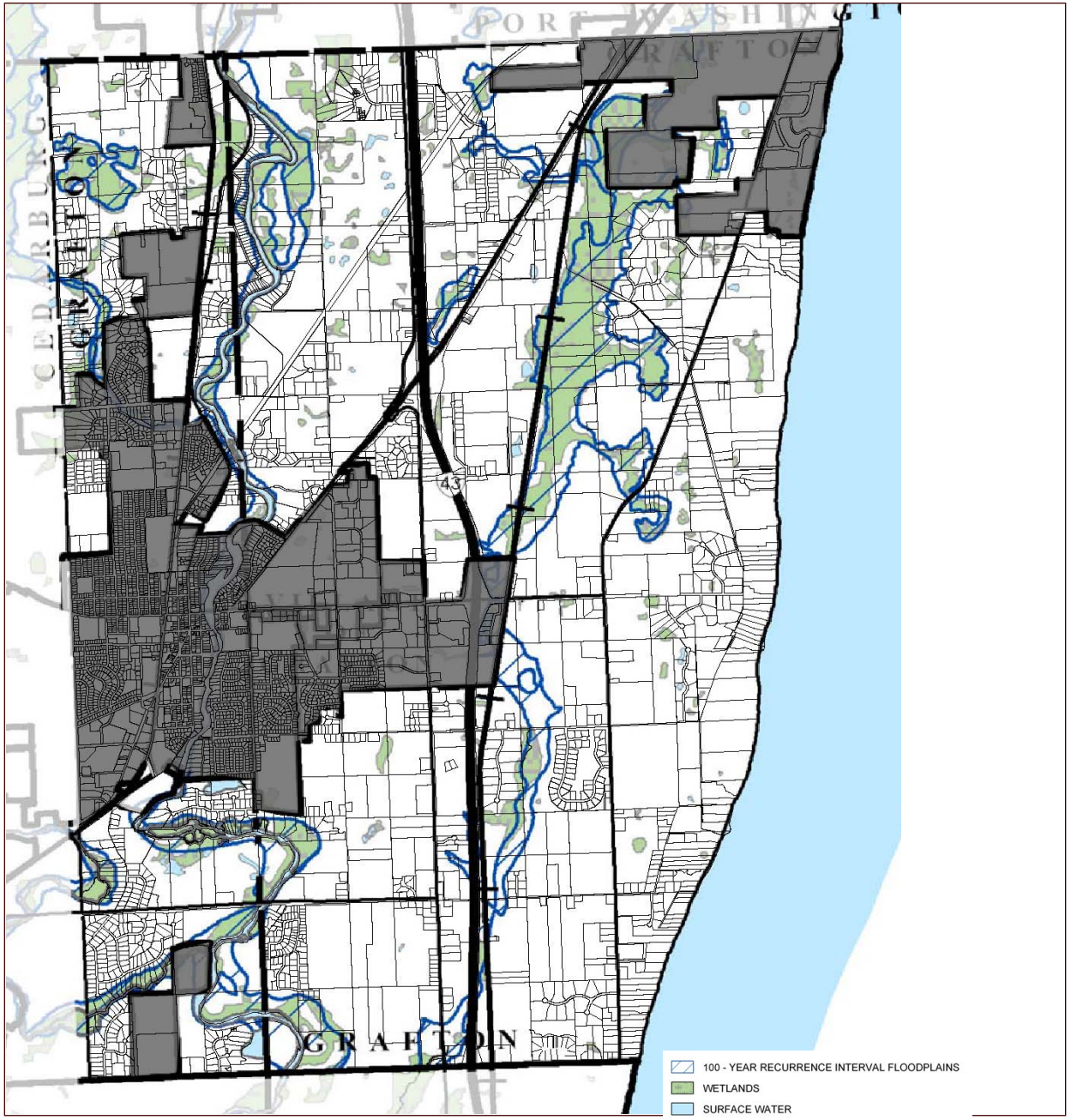

FIGURE 4: Surface Waters, Wetlands, and Floodplains in Ozaukee County.
Source: Multi-Jurisdictional Comprehensive Plan for Ozaukee County: 2035; ;Federal Emergency Management Agency, Wisconsin Department of Natural Resources and SEWRPC.

upland areas of one acre or more in area, having 17 or more trees per acre (each measuring 4 inches in diameter and 4.5 feet above the ground), and having a canopy coverage of 50% or greater.

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: NA-1 (statewide or greater significance), NA-2 (county-wide or regional significance), and NA-3 (local significance). Consideration on an area for one of these classification is based on 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.

Figure 7 identifies natural areas in Ozaukee County. The natural areas within the Town of Grafton include: Kurtz Woods State Natural Area (NA-1), Grafton Woods (NA-3), and Lions Den Gorge (NA-3). These natural areas encompass a total of 108 acres of natural areas in the Town of Grafton. The Town supports the continued preservation of these areas and the Ulao Creek Conservancy, including the protection of wildlife habitats.

Critical Species Habitat and Aquatic Sites

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 identified as "critical" habitat are considered to be important to the survival of a particular species or group of species of special concern. There are 7 critical habitat sites within Ozaukee County which encompass approximately 294

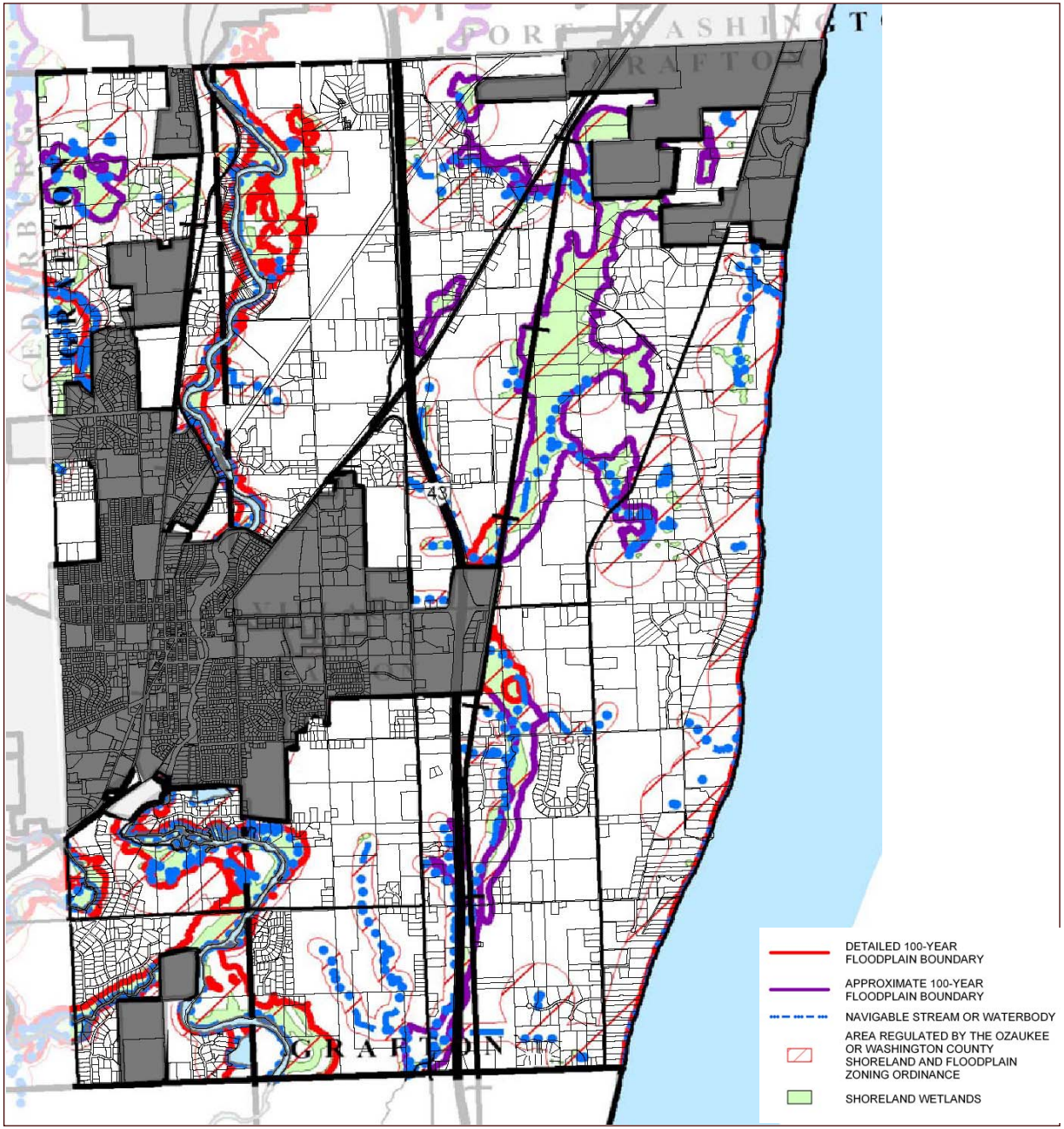

FIGURE 5: Shoreland and Floodplain Zoning in Unincorporated Areas in Ozaukee County: 2005.
Source: Multi-Jurisdictional Comprehensive Plan for Ozaukee County: 2035; SEWRPC

acres. However, these sites are not located in the Town of Grafton.

There are also 30 aquatic sites that support threatened or rare fish, reptile, or mussel species in Ozaukee County. In the Town of Grafton, the Milwaukee River is identified as a critical aquatic habitat site for several fish species, including but not limited to, the striped shiner.

Environmental Corridors and Isolated Natural Resource Areas

One of the most important tasks completed under the regional planning program for Southeastern Wisconsin has been the identification and delineation of those areas in which concentrations of the best remaining elements of the natural resources occur. It has been recognized that preservation of these areas is essential to both the maintenance of the overall environmental quality of the region and to the continued provision of the amenities required to maintain a high quality of life for residents.

Seven elements of the natural resources are considered essential to the maintenance of the ecological balance and the overall quality of life in the Region, and served as the basis for identifying the environmental corridor network.

These seven elements are:

- Lakes, rivers, streams, and associated shorelands and floodplains
- Wetlands
- Prairies
- Wildlife habitat areas
- Wet, poorly drained, and organic soils
- Rugged terrain and high relief topography

In addition, there are certain features which are closely related to the natural resources and were used to identify areas with recreational, aesthetic, ecological, and natural value. These features include existing

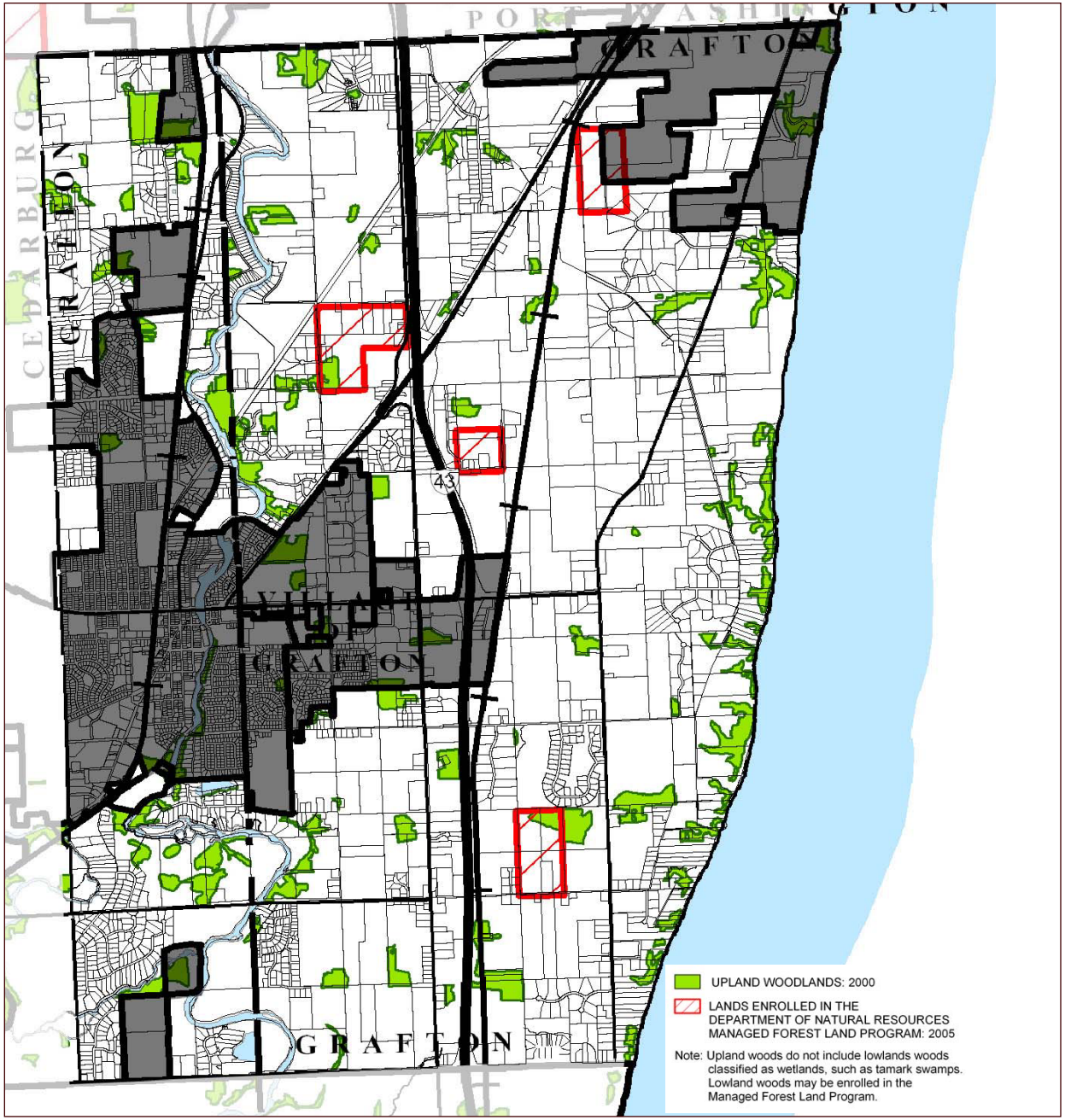

FIGURE 6: Woodlands and Managed Forest Lands in Ozaukee County.
Source: Multi-Jurisdictional Comprehensive Plan for Ozaukee County: 2035; SEWRPC

park and open space sites, potential park and open space sites, historic sites, scenic areas and vistas, and natural areas.
Figure 8 identifies the environmental corridors and isolated natural resource areas for the Town of Grafton and Ozaukee County.

Primary environmental corridors include a wide variety of most important natural resources and are at least 400 acres in size, two miles long, and 200 feet wide. Secondary environmental corridors serve to link primary environmental corridors; no minimum area or length criteria apply. Secondary environmental corridors that do not connect primary environmental corridors must be at least 100 acres in size and one mile long. An isolated natural resource area is a concentration of natural resource features, encompassing at least five acres but not large enough to meet the size or length criteria for primary or secondary environmental corridors.

The importance of maintaining the integrity of the remaining environmental corridors and isolated natural resource areas is apparent. The preservation of environmental corridors and isolated natural resource areas as natural open areas can assist in flood-flow attenuation, water pollution abatement, noise pollution abatement, and maintenance of air quality. Corridor preservation is also important to the movement of wildlife and for the movement and dispersal of seeds for a variety of plant species.

Park and Open Space Sites

Park and open space sites and related topics will be addressed as part of the Utilities and Community Facilities element of the Town of Grafton's Comprehensive Plan.

CULTURAL RESOURCES

Cultural resources encompass historic buildings, structures, and sites, and archeological sites. Cultural resources help to provide Ozaukee County, the Town of

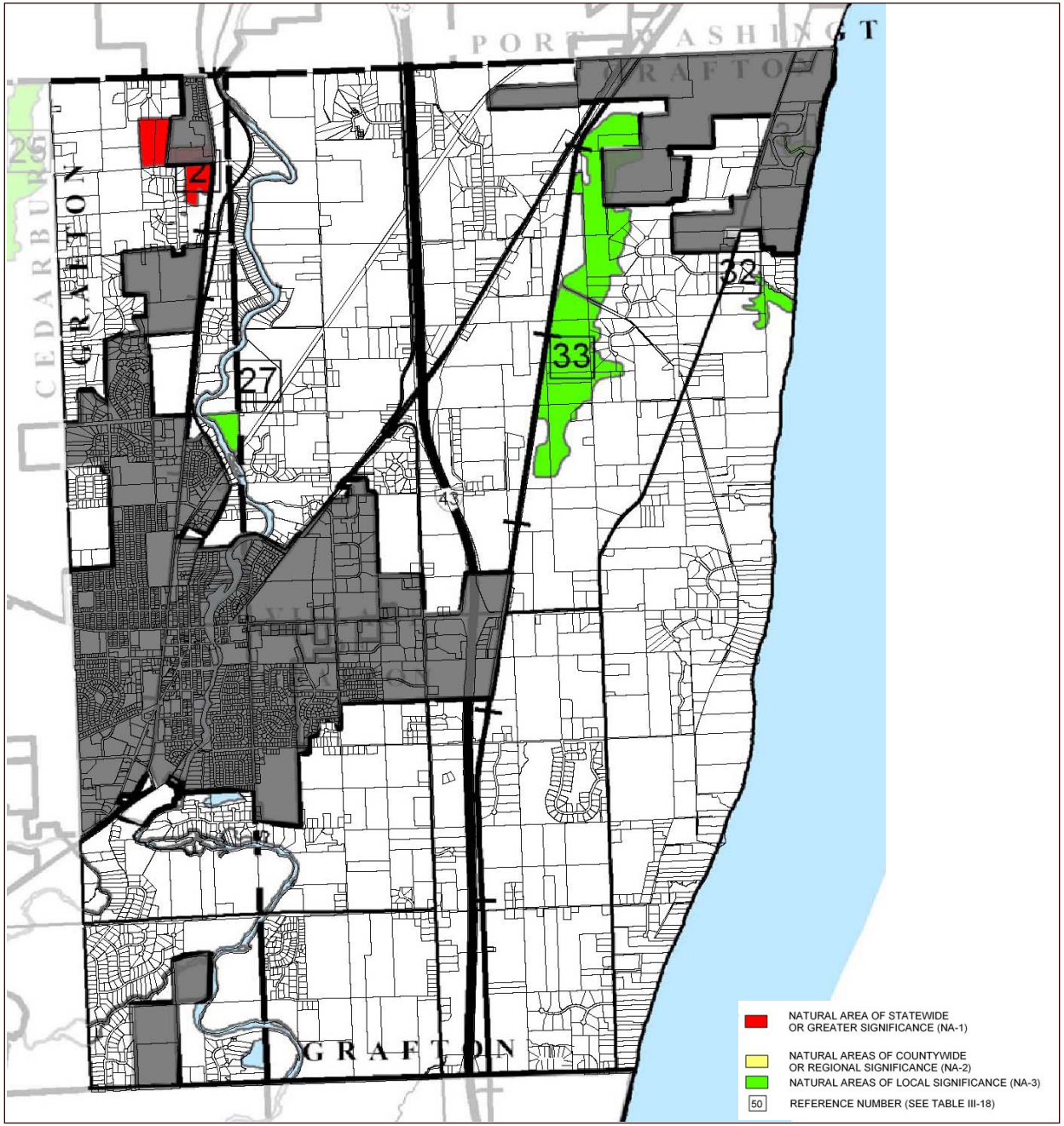

FIGURE 7: Natural Areas in Ozaukee County: 1994.
Source: Multi-Jurisdictional Comprehensive Plan for Ozaukee County: 2035; SEWRPC

Grafton, and each distinct community with a sense of heritage, identity, and civic pride.

The Town of Grafton does not have any cultural, historical, or archaeological resources that are listed on the National or State Historic Register at this time.

With few physical remains, however, the Town of Grafton is poignant, rich, and varied when it comes to the history of Ulao. A descriptive history of the Town of Grafton can be read in the Issues and Opportunities element of the Town of Grafton's Comprehensive Plan.

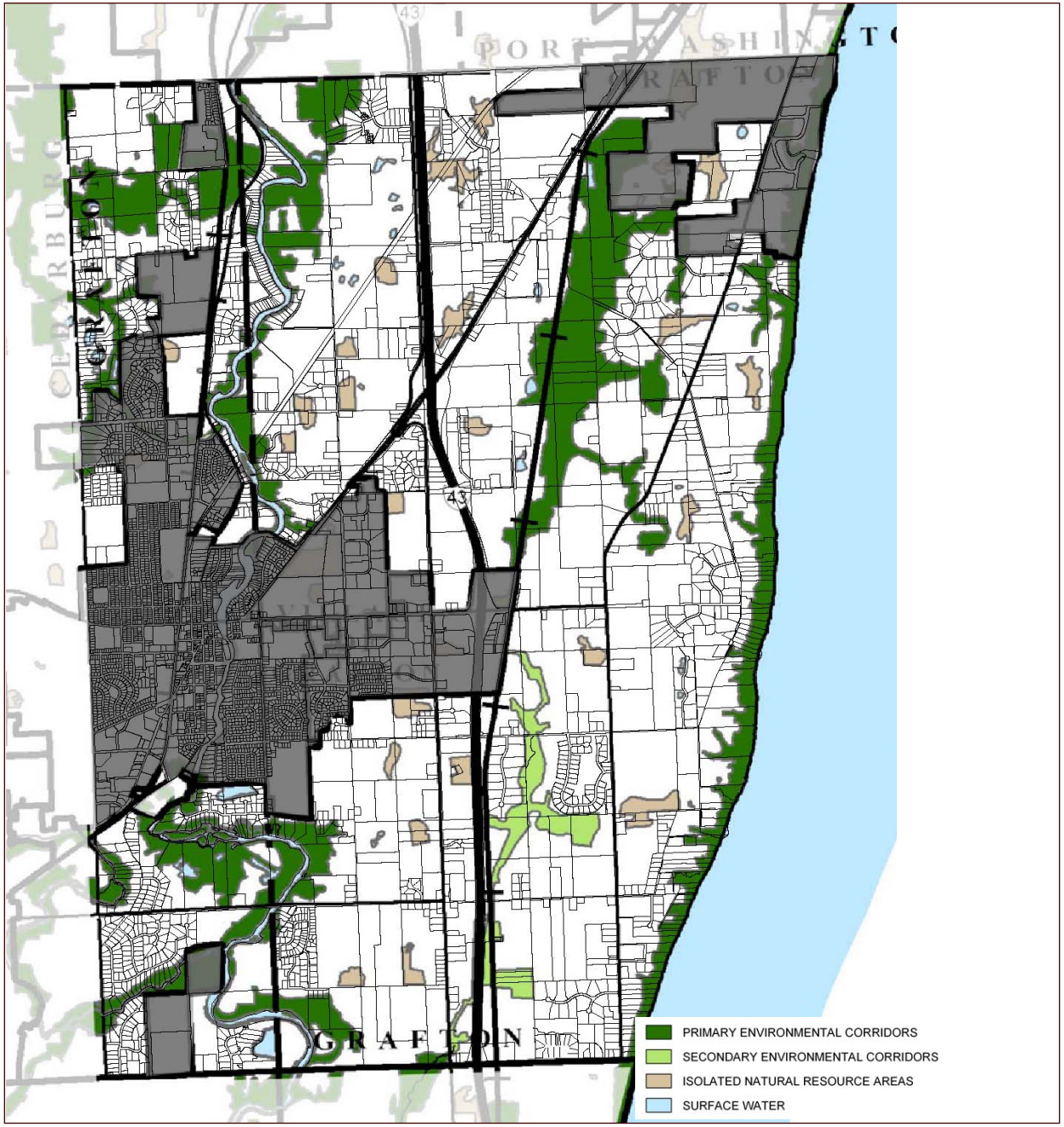

FIGURE 8: Environmental Corridors and Isolated Natural Resource Areas in Ozaukee County: 2000.
Source: Multi-Jurisdictional Comprehensive Plan for Ozaukee County: 2035; SEWRPC

AGRICULTURAL, NATURAL, AND CULTURAL RESOURCES GOALS, OBJECTIVES, AND POLICIES

Goal
Maintain and protect the Town of Grafton's unique rural character and identity.

Objective
Preserve and maintain significant cultural features, natural areas, and environmental corridors.

Policies
Explore the use of program to allow the transfer of development rights (TDR) and the purchase of development rights (PDR) for significant cultural features, natural areas, and environmental corridors.

Encourage deed restrictions on unique/sensitive areas as part of new development or redevelopment to preserve open space.

Promote Managed Forest Law (MFL) or similar programs as incentives to encourage the sustainability of woodlands in the Town of Grafton.

Promote the implementation of a Tree Preservation Ordinance for the Town of Grafton.

Promote the implementation of a Park and Open Space Plan for the Town of Grafton.

Objective
Preserve scenic views and minimize views of new development from roads.

Policies
Discourage new development on hilltops and ridges and encourage significant housing setbacks from major roads.

Encourage "parkway" streetscapes along major roadways in the Town of Grafton.

Goal
Ensure the long-term continuation of agricultural and agricultural related uses in the Town.

Objective
Preserve and protect agricultural land from premature development.

Policies
Promote the use of agricultural tax incremental financing (TIFs) to maintain, attract, or expand agricultural and agricultural related uses.

Promote unique agricultural uses (i.e. forestry, tree farms, vegetable farms, equestrian facilities, etc.). The Town of Grafton should explore incentive programs to attract these types of uses.

Manage conflicts between agricultural uses and residential development.

Achieve a balance between residential development and maintaining the rural character and identity of the Town.

Authorize limited non-agricultural commercial activities that meet applicable regulations pertaining to home occupations/professional home offices, or, in the case of utilizing outbuildings, such commercial activities that are low profile in nature, be operated by the owner of the premises, employ no more then two non-resident employees, produce no light or noise, be compatible with the agricultural setting of the area, and be a commercial activity that would not be better suited to be maintained in a traditional commercial setting or business park.

Goal
Require all mineral extraction operations and utilities to be functionally and visually compatible with the predominant agricultural and rural residential uses of the Town.

Objective
Require the submission of a master land plan, mineral extraction phasing plan, and reclamation plan for future mineral extraction sites in the Town of Grafton.

Policies
Actively participate with Ozaukee County and the Wisconsin Department of Natural Resources in zoning and conditional use deliberations for the establishment, maintenance, operation, and reclamation of any existing or future mineral extraction sites.