

Town of Two Creeks 2039 Comprehensive Land Use Plan



August 12, 2019

Prepared by the
Manitowoc County Planning and Park Commission
4319 Expo Drive, P.O. Box 935, Manitowoc, WI 54221-0935



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Vision Statement

In the year 2039 the town of Two Creeks is envisioned as:

A largely rural community with some residential or commercial growth occurring over the preceding 20 years. This vision is based on the need to support an agriculture infrastructure intermixed with a scheme of clean open spaces and enhancements towards natural resources, woodlands & waterways. This vision is intended to manage growth, while preserving and protecting the quality of life and public services for the residents of the town as measured against the limited tax revenue that will exist in the decades covered by this Land Use Plan.



TOWN OF TWO CREEKS PLAN COMMISSION
MANITOWOC COUNTY, WISCONSIN
RESOLUTION NO. 061820

A Resolution Recommending Approval To The
Two Creeks Town Board To Adopt The
Town of Two Creeks 2039 Comprehensive Plan Update

WHEREAS, The Town of Two Creeks is authorized to prepare and adopt a comprehensive plan as defined in sections 66.1001(1)(a) and 66.1001(2) of the Wisconsin Statutes; and

WHEREAS, the *Town of Two Creeks 2022 Comprehensive Land Use Plan* was originally adopted in 2003 and according to state statute, shall be updated no less than once every ten years; and

WHEREAS, the Town of Two Creeks Plan Commission has been established by the Town Board to review and update where necessary the *Town of Two Creeks 2022 Comprehensive Land Use Plan* to guide and coordinate land use decisions and development in the town; and

WHEREAS, the *Town of Two Creeks 2039 Comprehensive Land Use Plan* has been prepared by the Town of Two Creeks Plan Commission in cooperation with the Manitowoc County Planning and Park Commission; and

WHEREAS, public meetings have been held with respect to the planning process, including a public open house on July 31, 2019.

NOW, THEREFORE, BE IT RESOLVED, that the Town of Two Creeks Plan Commission hereby recommends to the Town Board of Two Creeks the adoption of the document entitled "Town of Two Creeks 2039 Comprehensive Land Use Plan" as their comprehensive plan according to section 66.1001 (2) of the Wisconsin Statutes.

BE IT FURTHER RESOLVED, that the Town of Two Creeks Plan Commission recommends the Town Board of Two Creeks, Manitowoc County, Wisconsin, pursue necessary and reasonable action to implement the comprehensive plan.

Adopted this 31st day of July, 2019

Approved by a vote of: 4 ayes, 0 nays.



Thomas Sheley, Chair
Two Creeks Plan Commission

Town of Two Creeks
Manitowoc County, Wisconsin

Ordinance No. 70820

An Ordinance to adopt an update to the Comprehensive Land Use Plan of the Town of Two Creeks, Wisconsin.

The Town Board of the Town of Two Creeks, Wisconsin, do ordain as follows:

Section 1. Pursuant to section 59.69(2) and 60.22(3) of the Wisconsin Statutes, the Town of Two Creeks, is authorized to prepare, update and adopt a comprehensive plan as defined in section 66.1001(1)(a) and 66.1001(2) of the Wisconsin Statutes.

Section 2. The Town Board of the Town of Two Creeks, Wisconsin, has adopted written procedures designed to foster public participation in every stage of the preparation of a comprehensive plan as required by section 66.1001(4)(a) of the Wisconsin Statutes.

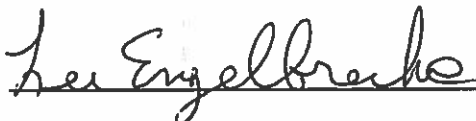
Section 3. The plan commission of the Town of Two Creeks, by a majority vote of the entire commission recorded in its official minutes, has adopted a resolution recommending to the Town Board the adoption of the document entitled "Town of Two Creeks 2039 Comprehensive Land Use Plan," containing all of the elements specified in section 66.1001(2) of the Wisconsin Statutes.

Section 4. The Town of Two Creeks has held at least one public hearing on this ordinance, in compliance with the requirements of section 66.1001(4)(d) of the Wisconsin Statutes.

Section 5. The Town Board of the Town of Two Creeks, Wisconsin, does, by enactment of this ordinance, formally adopt the document entitled, "Town of Two Creeks 2039 Comprehensive Land Use Plan," pursuant to section 66.1001(4)(c) of the Wisconsin Statutes.

Section 6. This ordinance shall take effect upon passage by a majority vote of the members-elect of the Town Board and publication/posting as required by law.

Adopted this 12th day of August, 2019

_____

Lee Engelbrecht, Chairperson

Published Date: 8/12/19

Vote 0 Nay 3 Aye

Attest:

_____

Jasmine Fitzgerald, Clerk

CHAPTER: 1 **(ISSUES & OPPORTUNITIES ELEMENT)**

1-1 Description of Planning Area

The Township of Two Creeks comprises twelve full and six fractional sections of land. Sections bordering on Lake Michigan are irregular in shape, because of the constant wave action on their banks. In the recollection of early settlers what remained of land areas in Section 1 and Section 12 has been completely washed away. The late P.J. Schroeder, among one of the early settlers in the town, purchased 320 acres of land in 1858 in Section 14, bordering on Lake Michigan for nearly three-quarters of a mile. More recently, and after a period of eighty years (1938) this property was resurveyed when it contained only 295 acres or a loss of twenty-five acres now in the lake. Evidently the shoreline advanced, approximately on the average two and one-half feet annually. Two Creeks comprises 9,652.62 acres of land and is the second smallest township in the county. Two Creeks was the first place to be visited and temporarily settled by white men in the county.

Jacques Vieau, an agent for the Northwest Fur Company, landed on the shore at Section 11 of the township in 1795 in a small boat from the Strait of Mackinac, Upper Peninsula of Michigan. The boat was heavily loaded with goods to be traded with the Indians for fur. Vieau built trading posts at Jambo Creek and later another at Manitowoc Rapids. On June 21, 1836, David Butterfield was the first white man to make entry on all lands covering Section 12, Township 21, and Range 24 East. The above property, together with land in Section 1, has since washed away and no longer exists. What is now the Town of Two Creeks was formerly a part of the territory of Brown County, but in 1838 a separate county government was organized by an act of the territorial legislature. In 1842 Peter Rowley built the first house on Section 24 in the Township of Two Creeks. In 1847 Neal McMillan located on Lot 1, in Section 25. It is of interest to note that the northern boundary line of Manitowoc County was the township line, running between Towns 20 and 21, Ranges 21, 22, 23, 24 and a fraction of 25. Not until February 9, 1850, by an act of the legislature was the northern tier of Towns, now Two Creeks, Cooperstown, Gibson, and a portion of Mishicot within Town 21, taken from Brown County and added to Manitowoc County. On July 28, 1859, the Town of Rowley was set off which represents the area now in the Town of Two Creeks, as was also the body of water bordering on its lake shore. Today it is known as Rowley's Bay, doubtless named after the Rowley families, who early settled there. Evidently the appellation 'Rowley' did not appear satisfactory to the voters of the town, and they requested the County Board of Supervisors change the name to Town of 'Two Creeks'. The name was officially changed as requested, with respect to area and boundary, on November 2, 1861, since two creeks empty into the lake at a point where a village was about to be started, the name appeared to be appropriate. It was the eighteenth and the last township to be organized in the County.

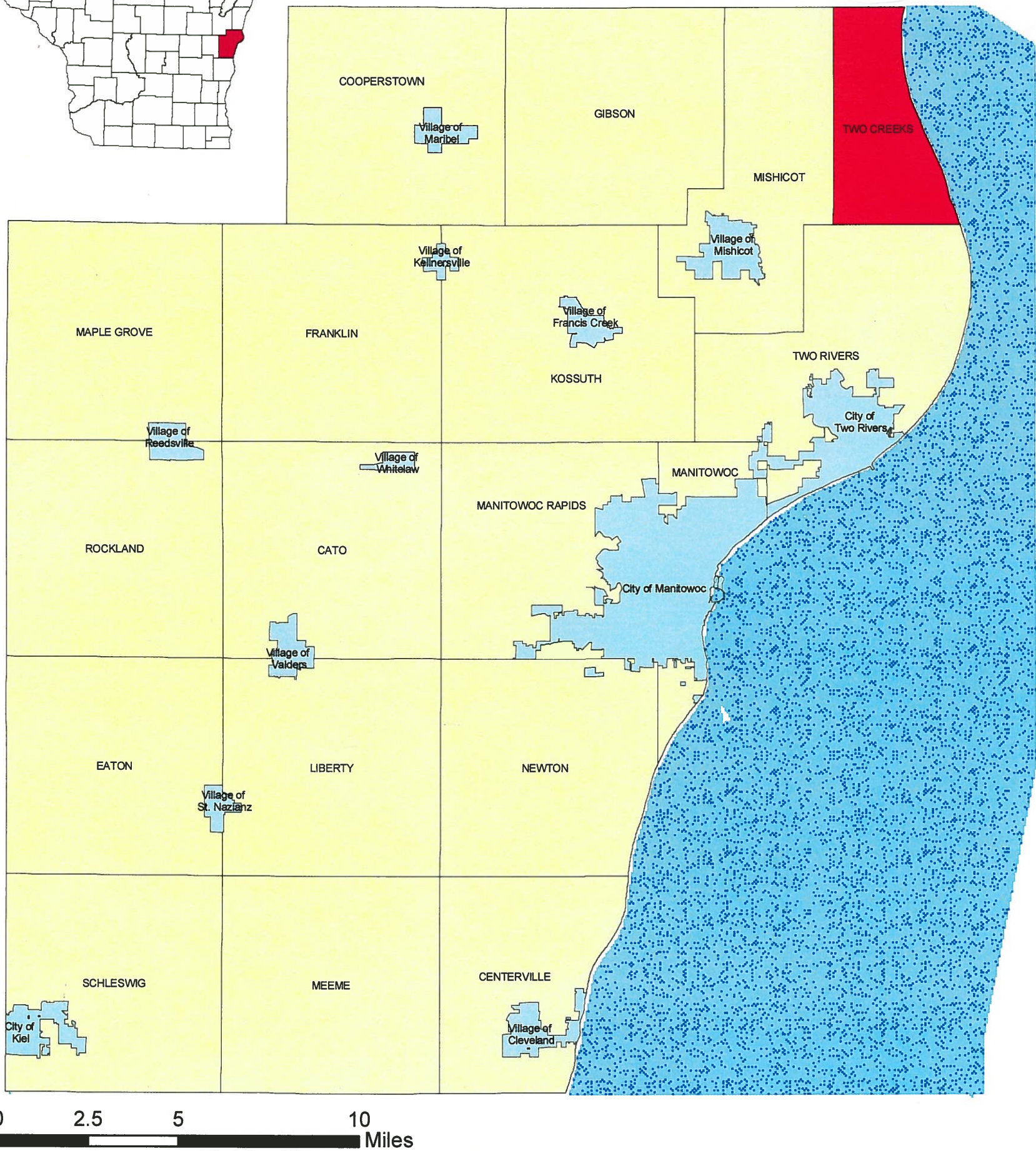
During 1861 the tannery of the Pfister and Vogel Leather Company was established on the site of what later became the Village of Two Creeks, which furnished employment for the pioneers in that region. The Town of Two Creeks, Manitowoc County, was settled and developed by people who came from England, Scotland, Ireland, Norway, Germany, Austria, Bohemia, Poland, and from New York, Massachusetts, Connecticut and other Eastern states. They came during the period ranging from 1836 to 1885, and many of them sought new and better homes in the township because of civil, religious, and economic oppression in the countries from which they emigrated. The Town, once called Rowley and now Two Creeks, was covered with dense forests, giving the opportunity to manufacture wood products and establish related industries. The English and the Irish, among the first to secure land rights in the Township of Two Creeks, were dependable, plain, and businesslike. Most of those who held the original patents to land from the United States Land Office subsequently sold their holdings to later arrivals. In 1860 one-fourth of the foreign-born were Norwegians. In 1870, the descendants of the German immigrants made up 78% of the total population. They have since been the dominant nationality group in the area. The 1860 - 70 decade found heavy immigration to the township from Germany and Bohemia.

In 1863, the unincorporated Village of Two Creeks was created, including in addition to the tannery, a sawmill, planning mill, public school, general store, boarding house, tavern, blacksmith shop, a wagon-maker, tailor and shoemaker, a meat market, telegraph office and a large market for hemlock bark, logs, ties, cordwood, and other forest and farm products. The first resident of the Village was K. K. Jones. In the decade from 1890 to 1900, Two Creeks ranked among the leading ports for shipping of baled hay and seed peas to distant markets on the lake. The general store and hotel were among the last to be operated and finally in about 1920 were destroyed by fire. Since then the land has been sold to adjoining farmers as has all other property. The evidences of the Village are still there, but the once thrifty and industrial Village of Two Creeks is no more.





TOWN OF TWO CREEKS
MANITOWOC COUNTY,
WISCONSIN



PLANNING AREA

Town of Two Creeks
Manitowoc County, Wisconsin

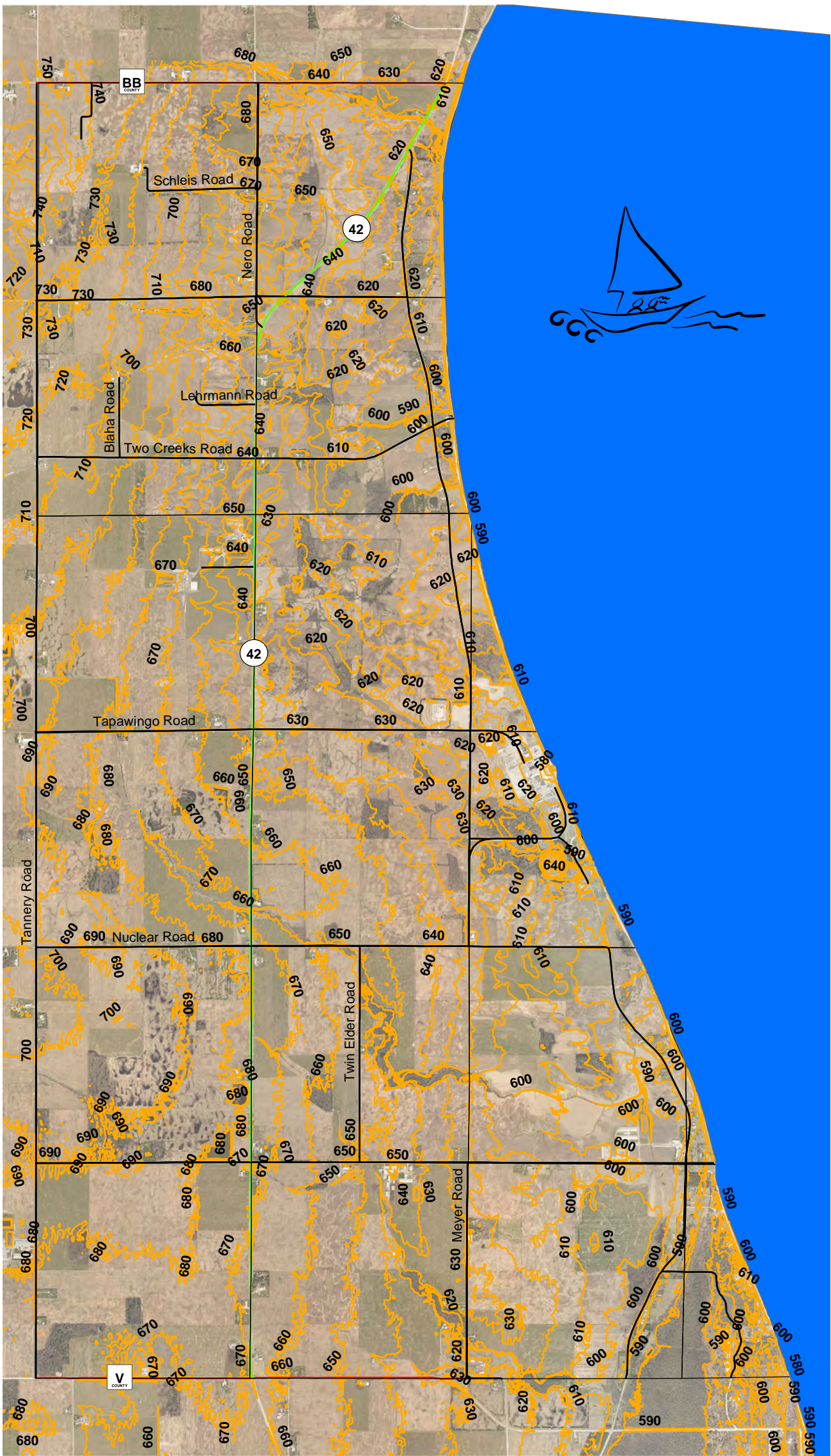
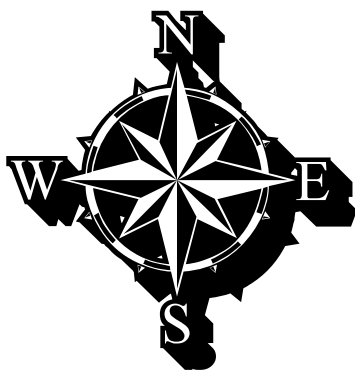
MAP 1-1

Source: State Historical Society of Wisconsin,
Summer Survey Files, March, 1980.



Legend

10' Contours



TOPOGRAPHIC MAP

Town of Two Creeks
Manitowoc County, Wisconsin

MAP 1-2

1-2 State Planning Enabling Legislation

The State enabling legislation is contained as part of Wisconsin Act 9., of the State's 1999-2000 biennial budget. This legislation is referred to "Smart Growth" with the intent to provide local units of governments, such as the Town of Two Creeks, with the tools to create a comprehensive plan. This plan will promote well-informed land-use decisions while encouraging a balance between policies and land-use rules. This plan specifically follows the requirements set forth in Act 9 by addressing the 14 planning goals identified as follows.

- ❖ Promotion of the redevelopment of lands with existing infrastructure and public services and the maintenance and rehabilitation of existing residential, commercial and industrial structures.
- ❖ Encouragement of neighborhood designs that support a range of transportation choices.
- ❖ Protection of natural areas, including wetlands, wildlife habitats, lakes, woodlands, open spaces, and groundwater resources.
- ❖ Protection of economically productive areas, including farmland and forests.
- ❖ Encouragement of land uses, densities and regulations that promote efficient development patterns and relatively low municipal, state governmental and utility cost.
- ❖ Preservation of cultural, historic and archaeological sites.
- ❖ Encouragement of coordination and cooperation among nearby units of government.
- ❖ Building of community identity by revitalizing main streets and enforcing design standards.
- ❖ Providing an adequate supply of affordable housing for individuals of all income levels throughout each community.
- ❖ Providing adequate infrastructure and public services and an adequate supply of developable land to meet existing and future market demand for residential, commercial and industrial sites.
- ❖ Promoting the expansion or stabilization of the current economic base and the creation of a range of employment opportunities at the state, regional and local levels.
- ❖ Balancing individual property rights with community interests and goals.
- ❖ Planning and development of land uses that create or preserve varied and unique urban and rural communities.
- ❖ Providing an integrated, efficient and economical transportation system that affords mobility, convenience and safety and that meets the needs of all citizens, including transit-dependent and disabled citizens.



1-3 Goals, Objectives and Strategies

The following section include goals, objectives and strategies, in addition to the 14 planning goals identified in “Smart Growth”, intended to guide the Town of Two Creeks over the next 20 years. Each proceeding chapter contains specific goals, objectives, and strategies which, pertain to the nine elements identified in the planning legislation. These statements are distinct in nature and serve different purposes throughout the plan.

GOALS: Broad statements that describe the desired situations in which the town feels planning efforts should be focused.

OBJECTIVES: Statements that describe measurable ends towards reaching the defined goals.

STRATEGIES: A compilation of policies and programs intended to ensure successful implementation of the plan.



OVERALL COMMUNITY GOAL

Protect those physical elements of the landscape in the Town of Two Creeks that define the rural character and contribute to the rural environment.

OBJECTIVE 1 Adopt, and amend as necessary, this comprehensive plan under s 66.1001 as a guide for land use decisions for the next 20 years.

OBJECTIVE 2 Encourage, foster and support community involvement in growth management practices and other issues of local importance.

OBJECTIVE 3 As needed, develop, and/or modify local ordinances to implement the goals and objectives set fourth in this plan.

STRATEGIES:

Encourage cooperation between neighboring townships and the County regarding the implementation of this plan.

Adequate funding shall be maintained for the implementation and amending of this plan.

Update the town's zoning map to be consistent with the 20 year land use map.

Maintain an advisory committee that will use this plan/guide in providing land use recommendations to the Town Board.

1-4 Plan Contents

Why develop a land use planning program? Several reasons exist. Land use planning allows the Town of Two Creeks to anticipate potential problems rather than merely reacting to them. Over the long term, planning for land uses can protect and preserve valuable material, economic and natural resources for future generations. As the year 2039 approaches, our communities will undoubtedly continue to change at a rapid pace. If our community is to realize the kind of future it desires, then they must take the initiative to influence the course of change. A land use plan, simply defined, is a guide for elected and appointed officials, staff, and the general public to manage and direct orderly growth and development in the Town of Two Creeks. The land use planning process consists of inventorying the existing land uses, examining and analyzing the forces shaping those land uses, and setting goals for the future. The following plan elements were identified in harmony with Wisconsin's "Smart Growth".

1. Issues and Opportunities Element

Background information on the local governmental unit and statement of overall objectives, strategies, goals and programs that will guide the future development over a 20 year planning period.



2. Agricultural, Natural and Cultural Resources Element

A compilation of objectives, policies, goals, maps and programs for the conservation, and promotion of the effective management of natural resources such as groundwater, forests, productive agricultural areas, environmentally sensitive areas, threatened and endangered species, stream corridors, surface water, floodplains, wetlands, wildlife habitat, historical and cultural resources, and other natural resources.

3. Housing Element

A compilation of objectives, policies, goals, maps and programs of the local governmental unit to provide an adequate housing supply that meets existing and forecasted housing demands in the Town of Two Creeks.

4. Transportation Element

A compilation of objectives, policies, goals, maps and programs to guide the future development of the various modes of transportation that include: highways, transit, transportation systems for persons with disabilities, bicycles, pedestrians, railroads, air transportation, trucking and water transportation.

5. Utilities and Community Facilities Element

A compilation of objectives, policies, goals, maps and programs to guide the future development of utilities and community facilities in the Town of Two Creeks such as sanitary sewer service, storm water management, water supply, solid waste disposal, on-site wastewater treatment technologies, recycling facilities, parks, telecommunication facilities, health care facilities, cemeteries and governmental facilities.

6. Economic Development Element

A compilation of objectives, policies, goals, maps and programs to promote the stabilization, retention or expansion of the economic base and quality of employment opportunities in the Town of Two Creeks.

7. Intergovernmental Cooperation Element

A compilation of objectives, policies, goals, maps and programs for the joint planning and decision making with other jurisdictions, including school districts and adjacent local governmental units, for siting and building public facilities and sharing public services.

8. Land Use Element

A compilation of objectives, policies, goals, maps and programs to guide the future development and redevelopment of public and private property within the Town of Two Creeks.

9. Implementation Element

A compilation of programs and specific actions to be completed in a stated sequence, including proposed changes to any applicable ordinances, official maps, or policies to reflect the recommendations proposed within this plan.



1-5 Public Participation in the Planning Process

The Town of Two Creeks has developed a comprehensive plan defined in Section 66.0295 of the Wisconsin State Statutes to promote informed land use decisions and guide community actions into the future. Wis. Stat. 66.0295(4) specifies that a local unit of government preparing a comprehensive plan must adopt written procedures that are, “Designed to foster public participation, including open discussion, communication programs, information services and public meetings for which advance notice has been provided, in every stage of the preparation of a comprehensive plan.” A copy of the “Town of Two Creeks Citizen Participation Plan” is located in Appendix B of this plan.

Town Planning Advisory Committee

The Town Board originally appointed a seven member planning committee to guide the local planning process and oversee the development of the town’s comprehensive land use plan. This appointment was made in early 2000, and has generally met twice a month during the development process. All the educational meetings were open to the public.

The 2019 update process involved appointment of a five member Land Use Committee that started meeting in the spring and summer of 2017 with all development meetings open to the public.

1-6 Community Survey

In the summer of 2000, the Two Creeks Land Use Committee mailed a community survey. Of approximately 228 registered landowners, 171 replied, resulting in a 75% return rate. This information was used by the Town’s Land Use Committee to formulate community goals and objectives included in this plan.

The results of this survey suggest that town residents favor tight restrictions on development, protection of environmental waterways, and restrictions on development of agricultural land. Most of the residents are not in favor of residential development. The results suggest they would be supportive of light commercial and retail development only in designated areas stated in the Smart Growth Plan. The survey also leads to the conclusion that the town will not support commercial or business development at the loss of farmland.

During the 2019 revision process the 2000 survey results were again reviewed. In addition, numerous Planning Commission meetings were held and a public open house offered for residence input prior to commission final review and submittal to the Town Board for review and acceptance.

Key Findings

Key findings developed from the community survey are as follows:

1. The respondents believe that most of the land will continue to be agricultural but there will be a slight increase in residential, forested and commercial land.
2. Respondents were very satisfied with various services offered through the Town of Two Creeks. 90 - 99% satisfaction rates were registered for services including: police/sheriff, fire, EMT, roads, road signs, snow plowing, recycling program, hunting & fishing areas, parks and recreation areas.
3. Almost 62% of the respondents indicated concern for the environment has been acceptable and 64.7% indicated that the town should put high priority towards the promotion/maintenance of shore lands and air quality.



1-7 Educational / Informational Meetings

September 26, 2001	Introduction to Planning and the Smart Growth Law
October 24, 2001	Survey Analysis, Citizen Participation Plans Developing Community Goals, Objectives and Vision
November 7, 2001	Demographic Data Analysis Economy, Housing, Transportation and Population
December 5, 2001	Existing Land Use, Public Facilities, Farmland Preservation Floodplains and Wetlands
December 19, 2001	Wildlife and Woodlands
January 9, 2002	Environmental Health Issues Water Quality - Surface and Groundwater
January 23, 2002	Agricultural Issues & Soils
February 6, 2002	Community Goals, Objectives and Visions Continued
February 20, 2002	Land Use Mapping
March 6, 2002	Land Use Mapping
March 20, 2002	Land Use Mapping
April 3, 2002	Land Use Tools & Strategies
May 15 , 2002	Goals & Objectives, Implementation Strategies and Priorities
August 28 , 2002	Implementation Strategies and Priorities, Preliminary Plan
October 2, 2002	Finalize Preliminary Plan
November 6, 2002	Public Open House (Plan Presentation)
April / May 2017	Land Use Committee Conducted Open Meetings for the 2039 Update
September 2018	Land Use Committee Conducted Open Meetings for the 2039 Update
August 2018	Draft Review with County Planning Staff
May 10, 2019	Draft Review with County Planning Staff
June 18, 2019	Two Creek Plan Commission Meeting, Draft Review
July 31, 2019	Two Creeks Plan Commission Open House Resolution Adoption
August 12, 2019	Two Creeks Town Board Ordinance Adoption



Planning Document Availability

The Town of Two Creeks will develop a preliminary and final comprehensive land use plan. A copy of these plans will be available at the following locations:

Manitowoc County Planning and Zoning Department
4319 Expo Drive, P.O. Box 935
Manitowoc, WI 54221-0935

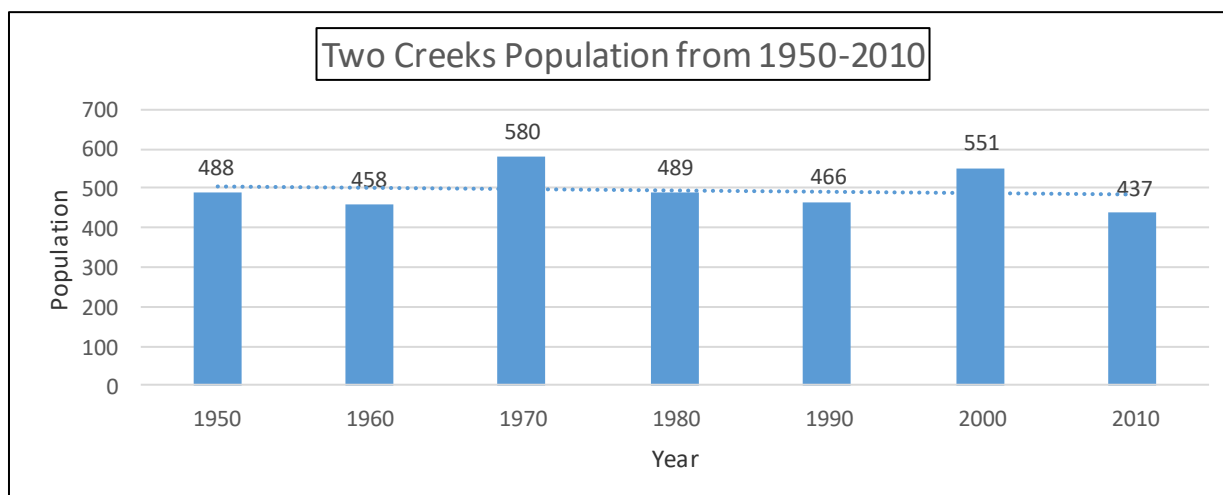
Two Creeks Town Hall
5128 E. Tapawingo Road
Two Rivers, WI 54241



1-8 Historical Population Levels

Figure 1-1 below illustrates that over the past 60 years Two Creeks has experienced minimal fluctuation in population. In 1970, Two Creeks had its highest population of 580. Between 1960 and 1970 it increased nearly 27 percent, which was subsequently followed by a 16 percent decrease in population in the following decade. This fluctuation may be attributed to two factors. First, the construction of the Point Beach Nuclear Plant began in 1967, with Unit 1 opening in 1970, followed by the final unit (unit 2) in 1972. During this period, many construction workers lived within Two Creeks for this employment opportunity at the plant. Secondly, the agricultural economic environment was favorable between 1960 and 1970, a trend which was reversed in the following decade. The Town of Two Creeks appeared to be rebounding as its' population rose 18% from 1990 to 2000, but reversed that trend and lost nearly 21% from 2000 to 2010.

Figure 1-1



Source: Wisconsin Department of Administration / Demographic Services

1-9 Population Forecasts and Estimates

Projecting future populations within the planning area provide an indication of how much land will be required for future land uses. It must be recognized that the population projections are extensions of past trends based on a number of necessary assumptions. The projections are not forecasts and, therefore, must be used with discretion as with any projection. More confidence should be placed on the earlier figures than for the year 2040 projections. Many forces work to influence the population of the region and the distribution of the projected population among various units of government, including geophysical conditions, environmental concerns, existing zoning, taxation, and other factors influence business and residential location decisions. Due to a large decline in population between 2000 and 2010, projections show a decrease of approximately 15% for the next 20 years.

Table 1-1

	Actual Population			Population Estimates		
Municipality	1990	2000	2010	2020	2030	2040
Two Creeks	466	551	437	410	390	350
Manitowoc County	80,421	82,893	81,442	81,400	82,230	78,920

Source: Wisconsin Department of Administration / Demographic Services



1-10 Population Distribution

Population by Age & Sex

The Township of Two Creeks, for the most part, follows the trends of the State distribution with only slight changes. The age group that increased the most in the past 20 years are the individuals between 45 - 54 years of age. In 2010 this segment of the population rose from 9.6% to 17.09% of the total population. The population of this group went from 45 in 1990 to 80 in 2010. On the other hand, individuals between the ages of 0 - 9 and 25 - 34 saw significant declines. For the most part, over the last 20 years the county and State have averaged close to the same percent in every category. As for the percent of the individual township compared to the County and State you will see it fluctuated by as much as 3%. By looking at the tables you can see that the town is aging. This is supported by the change in median age of 36.4 in 2000 to 43.2 in 2010.

Table 1-2

AGE BY SEX - 1990				
	TWO CREEKS		MANITOWOC	WISCONSIN
AGE (yrs)	MALE & FEMALE	PERCENT	COUNTY	PERCENT
0 - 4	46	9.9%	7.0%	7.4%
5 - 9	40	8.6%	7.8%	7.7%
10 - 14	30	6.4%	7.6%	7.2%
15 - 19	32	6.9%	6.6%	7.1%
20 - 24	34	7.3%	6.1%	7.4%
25 - 34	82	17.6%	15.4%	16.8%
35 - 44	60	12.9%	14.3%	14.9%
45 - 54	45	9.6%	10.0%	9.8%
55 - 59	20	4.3%	4.4%	4.2%
60 - 64	15	3.2%	4.8%	4.3%
65 - 74	39	8.4%	8.4%	7.3%
75 - 84	20	4.7%	5.7%	4.5%
85 +	1	0.2%	1.8%	1.5%
TOTAL	464	100 %	100 %	100 %
TOTAL	MALE = 239		FEMALE = 227	

AGE BY SEX - 2000				
	TWO CREEKS		MANITOWOC	WISCONSIN
AGE (yrs)	MALE & FEMALE	PERCENT	COUNTY	PERCENT
0 - 4	36	6.53%	5.80%	6.40%
5 - 9	56	10.16%	7.00%	7.10%
10 - 14	57	10.34%	7.80%	7.50%
15 - 19	38	6.90%	7.50%	7.60%
20 - 24	16	2.90%	5.00%	6.70%
25 - 34	55	9.98%	11.70%	13.20%
35 - 44	109	19.78%	16.40%	16.30%
45 - 54	65	11.80%	13.90%	13.70%
55 - 59	20	3.63%	5.10%	4.70%
60 - 64	30	5.44%	4.10%	3.80%
65 - 74	33	5.99%	7.70%	6.50%
75 - 84	29	5.26%	5.80%	4.70%
85 +	7	1.27%	2.20%	1.80%
TOTAL	551	100.00 %	100.00 %	100.00 %
TOTAL	MALE = 288		FEMALE = 263	

AGE BY SEX - 2010				
	TWO CREEKS		MANITOWOC	WISCONSIN
AGE (yrs)	MALE & FEMALE	PERCENT	COUNTY	PERCENT
0 - 4	13	2.78%	5.60%	6.30%
5 - 9	19	4.06%	6.10%	6.50%
10 - 14	51	10.90%	6.80%	6.80%
15 - 19	38	8.12%	7.00%	7.20%
20 - 24	39	8.33%	5.40%	6.90%
25 - 34	37	7.90%	10.10%	12.50%
35 - 44	51	10.90%	13.40%	13.50%
45 - 54	80	17.09%	16.70%	15.40%
55 - 59	37	7.91%	7.10%	6.50%
60 - 64	32	6.84%	5.40%	5.00%
65 - 74	34	7.26%	7.90%	6.80%
75 - 84	30	6.41%	6.00%	4.70%
85 +	7	1.50%	2.50%	2.00%
TOTAL	468	100.00 %	100.00 %	100.00 %
TOTAL	MALE = 258		FEMALE = 210	

Race & Ethnicity

In 1990 less than 1% of Two Creek's population was made up of minority groups. The census from 2000 indicates that there was an increase to 1.5%, with a total population of minorities in the township of 8, being a mix of American Indian, Alaska Natives, Native Hawaiian and Other Pacific Islander, along with other races. The 2010 census indicates this minority population had decreased to 1.

Source: U.S. Census Bureau



CHAPTER 2:

GENERAL PHYSICAL SETTING, AGRICULTURAL, NATURAL AND CULTURAL RESOURCE ELEMENT

In the Town of Two Creeks, agricultural, natural and cultural elements are key parts in the rural and natural landscape. In this chapter we will address the areas of: goals, objectives, strategies, maps and the programs for the conservation and promotion of the effective management of these qualities. Areas that are of special interest include: groundwater, environmentally sensitive areas, threatened and endangered species, surface water, floodplains, agricultural area, forests, wetlands, wildlife habitat, non-metallic mineral resources, parks and open spaces, historical and cultural resources and other natural resources.

2-1 Goals, Objectives & Strategies

AGRICULTURAL GOAL:

Support agricultural uses and open space as a vital economic activity and recognize its importance in preserving the town of Two Creeks' rural atmosphere.

OBJECTIVE:

1. Encourage the preservation of existing prime farmland for future generations.
2. Manage non-farm uses, including residential, in areas that minimize land use conflicts due to noise, odor, and farm traffic.
3. Maintain the right to farm.
4. Work to prevent the fragmentation of farmland in the Town of Two Creeks.

STRATEGIES:

1. Support local landowner participation in various "Voluntary Programs" dedicated to the preservation and protection of agricultural soil resources. A complete list of programs is located in Chapter 9 of this plan.
2. Documented properties which are zoned EA (Exclusive Agriculture) to participate in the Farmland Preservation Program.
3. The town should closely manage requests for zoning amendments using the Finding of Fact Tool (see Appendix D) developed to be used when evaluating re-zoning applications.
4. Use the "Town of Two Creeks 20 year Land Use Map" as a guide for future land use decisions.
5. Recommend making large farming operations, which desire to expand above 750 animal units, to apply for a conditional use permit that could address potential land use conflicts. Conditions applied during this process shall include odor control and manure management.
6. Use the land use map developed through the planning process as a template to preserve large core areas of the town dedicated to agricultural uses. These areas are depicted in orange and are labeled "prime agricultural areas".



7. Recognize working farms as an asset and work to preserve and protect quality farmland to help preserve the towns' rural character.

NATURAL RESOURCE GOAL:

Preserve the role and beauty of the natural landscape of the Town of Two Creeks, which include streams, lakes, woodlands, floodplains and unique wildlife habitats.

OBJECTIVE:

1. Preserve the rural character of the Town of Two Creeks by maintaining Natural Areas.
2. Maintain surface and groundwater quality within the town.
3. Preserve the Lake Michigan shoreline within the town.

STRATEGIES:

1. Use Manitowoc County's 20-acre "Natural Area" zoning district (NA) to preserve open space in areas that are not currently zoned EA-Exclusive Agriculture.
2. Preserve the Lakeshore Habitat Restoration Area with the assistance of Westshore Sportsman Club, Ducks Unlimited, the Department of Natural Resources, and Fish and Wildlife Service..
3. Promote voluntary participation into government programs such as Wetland Reserve, Conservation Reserve, Waterbank, Managed Forest, etc. (see Chapter 9).
4. Use the Manitowoc County Soil and Water Department for annual nitrate testing of local well samples.
5. Use UW-Extension and Wisconsin DNR educational information regarding yard and well maintenance.
6. The town should identify, and set priority to, portions of the Lake Michigan shoreline, which hold the highest natural and aesthetic value and plan for their preservation.
7. Use the Wisconsin Coastal Management Program and others to obtain funds for the purchase and/or preservation of Lake Michigan shoreline identified in strategy #1.

OPEN SPACE GOAL:

Preserve and promote the Town of Two Creeks as a community with distinct open spaces including farmland, woodlands, scenic, historic and cultural areas and Lake Michigan.

OBJECTIVE:

1. Together with Manitowoc County and following the Manitowoc County Park and Open Space Plan, work to maintain, upgrade, and purchase properties for park and open space uses.
2. Use areas in close proximity to high voltage power lines for open space, agricultural and natural uses as mapped on the towns land use map.



3. Work to remove “eyesores” within the town which include inoperable cars, decaying buildings, and other miscellaneous junk, which undermine the rural character of the town.

STRATEGIES:

1. The town should identify a process, working closely with Manitowoc County, to initiate actions for the timely removal of “junk material” in violation of Manitowoc County Code.
2. Use the Wisconsin Coastal Management Program and others to obtain funds for the purchase and/or preservation of Lake Michigan .

2-2 Geology and Topography

The Town of Two Creeks, and most of Manitowoc County, is imbedded in the Niagara Escarpment, which extends from the Lake Michigan shoreline of Wisconsin and Illinois in the west to the eastern shore of Lake Ontario in the east. This escarpment extends as far north as the southern shores of Ontario and as far south as central Indiana and Ohio. The Niagara Escarpment is an underlying bedrock composed of dolomite and limestone, which is sloped from west to east and is exposed in numerous regions throughout Manitowoc County. The topography in Two Creeks is gently rolling. There were four sub-stages that created the topography of Manitowoc County. The third sub-stage of glaciation deposited is known as Cary till. This layer was covered by a final glacial surge with Valders till which is primarily gravel and coarse sand, which are rich sources for construction use. These two drift layers have created a variety of glacial landforms like eskers, kames, drumlins, and glacial floodplains, which have characterized the topography, and landscape of Manitowoc County, and most of northeastern Wisconsin. In the period of deglaciation, the ice lobe receded northward and the water resulting from the melting of snow and ice arose to a height of 60 feet when it formed what was called Lake Chicago. The lake extended west to Lake Winnebago and Fox River lowlands. After the recession of ice far enough north to clear the Strait of Mackinac in Upper Peninsula of Michigan, an outlet was formed there and the water dropped to the present level of Lake Michigan. The sediments in the water of this lake were deposited in separate layers with various colors, known as 'Varves' over parts of the area now comprising the Town and adjoining townships. The coarse silty-sandy materials were deposited during the summer months and the fine red clay particles were laid down when the lake was frozen over in the winter. This deposit is about 16 feet deep in most places. It was on this deposit that a rare glacial feature known as the Two Creeks Buried Forest grew and developed. Plants and animals spread northward over the area just freed from the ice and thrived. The interval in which the Forest Bed developed is estimated to have been at least 82 years in duration as shown by the growth of rings of the largest spruce logs found there. Geologist J.W. Goldthwait of Wisconsin, discovered the exposure in 1907. Logs and stumps of trees which lived more than 10,000 years ago have been unearthed from wave cut banks along the shore of Lake Michigan about ½ mile south of the former Village of Two Creeks in Section 11 and 13. The same bed is also exposed three miles to the north from the above point on lake shore, and in a ravine about ¼ mile west in section 35, in Kewaunee County. The plants and animals as were observed in the Two Creeks Forest are representatives of types found in arctic, sub-arctic and the northern distribution. The climate during this interval was like that of northern Minnesota or somewhat colder. Other plants which appear in the Forest Bed level are birch, jack pine, hemlock, heath and grasses. The Forest Bed, however, came to a close with the advance of what is known as the 'Red Ice Glaciers.' In its movement southward from the north, it passed over several iron ranges in Upper Peninsula of Michigan which gave the red color directly to the till. The Red Ice reached the Two Creeks Forest Bed by crossing the



lower portion of Door County and spreading over Lake Michigan low lands. The Red Ice overrode the Forest Bed as far south as Milwaukee; its waters rose to nearly 40 feet above the present level of Lake Michigan, when an outlet was formed through the Desplains River in Racine County. The retreat of this ice left the Forest Bed buried under a thickness of red clay varying from 15 to 30 feet, which evidently has resulted in the reworking of various deposits of soil types, known as heavy clay, silty-loam, clay loam, muck, peat, gravelly-loam and others.

2-3 Soils

Heavy soil, silt, clay, loam, predominating, covers 86.2% of the area of the town - the highest in the county. Cary and Valders till are the parent drift soils of more than 65% of today's soil in Manitowoc County. These tills break up into many soil offspring. The major soil types in the Township of Two Creeks is Manawa, Kewaunee, Tustin, Udorthents, and Poygan. The soils range from well drained (Kewaunee, Tustin) to poorly drained (Poygan). All except one have a permeability that is slow; the Tustin's is moderately rapid. All have a moderate water capacity and most of these areas can be farmed. They rate from good to fair for the potential to cultivate crops. The only areas that Udorthents are located is by the Point Beach Nuclear Plant. Udorthents soils are ones that either have been moved or have been mixed with earth-moving equipment. Kewaunee, Manawa, and Poygan have poor potential for building site development and sanitary facilities. Some of the minor soils that are contributing factors include: Cosad, Lutzke, Bellevue, and Shiocton. Lutzke soil can be found on outwash plains, kames, and eskers. This soil is usually used for pastures and woodlands. About 95% of all soil in the Town of Two Creeks is Kewaunee—Manawa—Poygan. Most of these soils are dominantly clayey. The rest of the soil is grouped into the Granby—Oakville—Tedrow and Houghton—Palms—Willette. A narrow strip of sandy soil follows the lake shore in the southeastern portion of the town. The black sand found there some years ago was used in the manufacture of matches. Small pieces of floating copper have also been found by some farmers plowing their fields, giving evidence of the early movement of the glacier which gathered material along its course at least 300 miles to the north of this region.

Prime Agricultural & Productive Agricultural Soils

The Land Evaluation Site Assessment system was developed by the NRCS-USDA in collaboration with land use planners from Arizona State University and Oregon State University. It is a numeric rating system for scoring sites to help in formulating policy or making land use decisions on farmlands. The system is designed to take into account both soil quality and other factors affecting a site's importance for agriculture.

Soil quality factors are grouped under **Land Evaluation (LE)**. The other factors are grouped under **Site Assessment (SA)**. The SA factors are of three types: non-soil factors related to agricultural use of a site, factors related to development pressures, and other public values of a site. Thus, an agricultural LESA system may contain some or all of the following components:

Land Evaluation

- Soil-based factors

Site Assessment

- SA-1: Factors other than soil-based qualities measuring limitations on agricultural productivity or farm practices.
- SA-2: Factors measuring development pressure or land conversion
- SA-3: Factors measuring other public values, such as historic or scenic

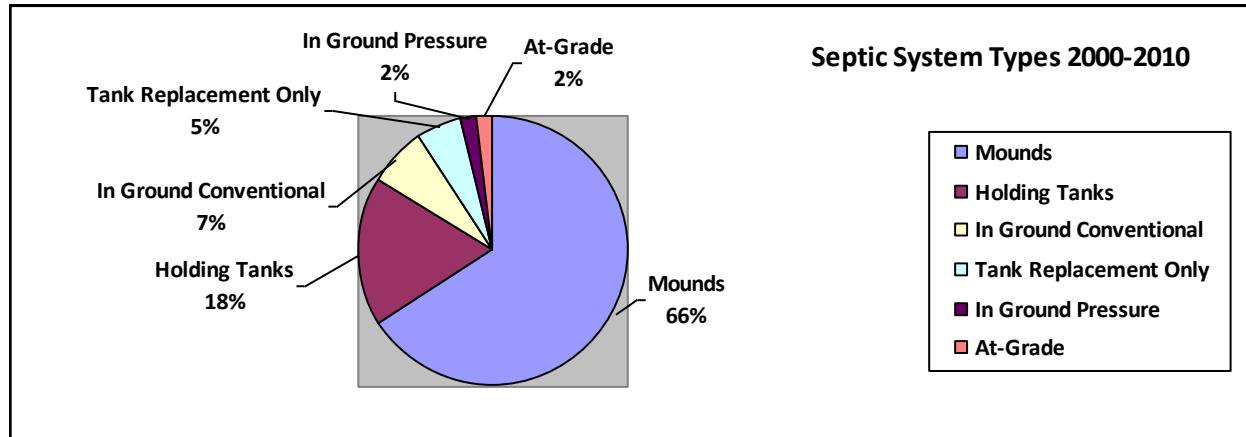
For the purposes of this plan, Manitowoc County provided the land use committees with a GIS data set identifying the prime agricultural lands. This data set was used in conjunction with a GIS data set including lands participating in the Farmland Preservation Program to identify the highly productive agricultural soils within the Town of Two Creeks.



On-Site Sewage Disposal Systems

The State of Wisconsin recently completed a comprehensive revision of Comm 83, dramatically changing the availability of options when treating on-site wastewater within the state. This revision allows for a private on-site wastewater treatment system (POWTS) to be placed upon as little as 6 inches of native soil. The previous version would require a holding tank for sites with less than 24 inches of suitable soil. While there are many options now available for treating on-site wastewater, they can be categorized by three types. First is the conventional in-ground system that treats effluent by using a septic tank and filters to remove solids, allowing the remaining effluent to be treated by native soil. The second type of system is a pressurized system that treats effluent at or above existing grade. As the conventional, it employs a septic tank and filter to remove solids from the effluent. Followed by this septic tank is a dose or pump tank that forces the remaining effluent into the drain field. It is used in areas with 48 inches or less of suitable soil. The remaining option is a holding tank. This holds wastewater at which time a licensed waste hauler removes the waste and transports it to an appropriate waste disposal site. Below is Figure 2-1 which includes all systems installed in the Town of Two Creeks from 2000-2010. Because of the limiting soil types throughout the town, the majority of systems fall under an alternate type of system such as a mound, at-grade or holding tank. Only 9% of all systems (in ground conventional and in ground pressure) utilize deeper, well drained soils.

Figure 2-1



SOURCE: Manitowoc County Planning and Park Commission





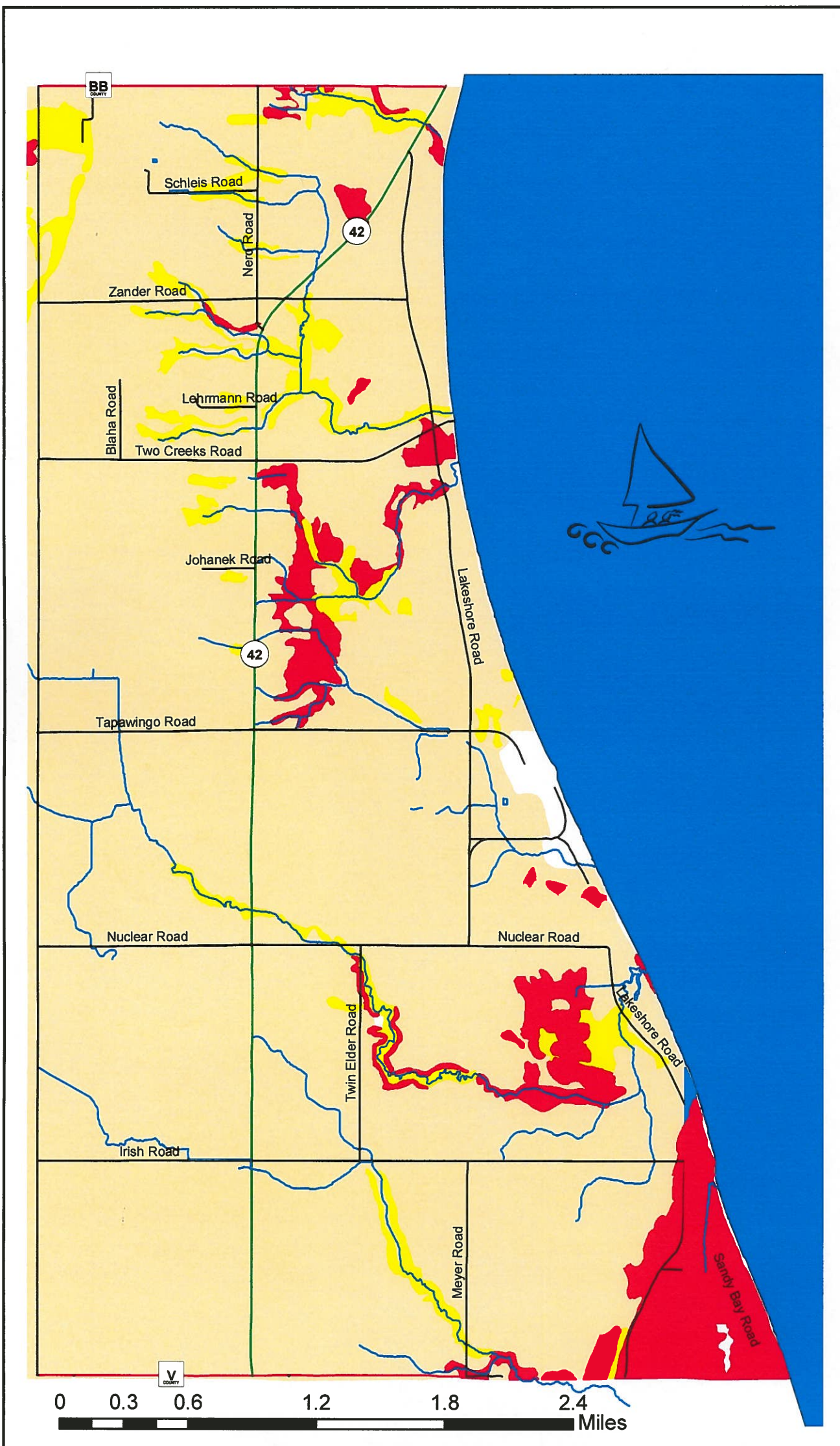
Soil Legend

 Best

 Good

 Fair

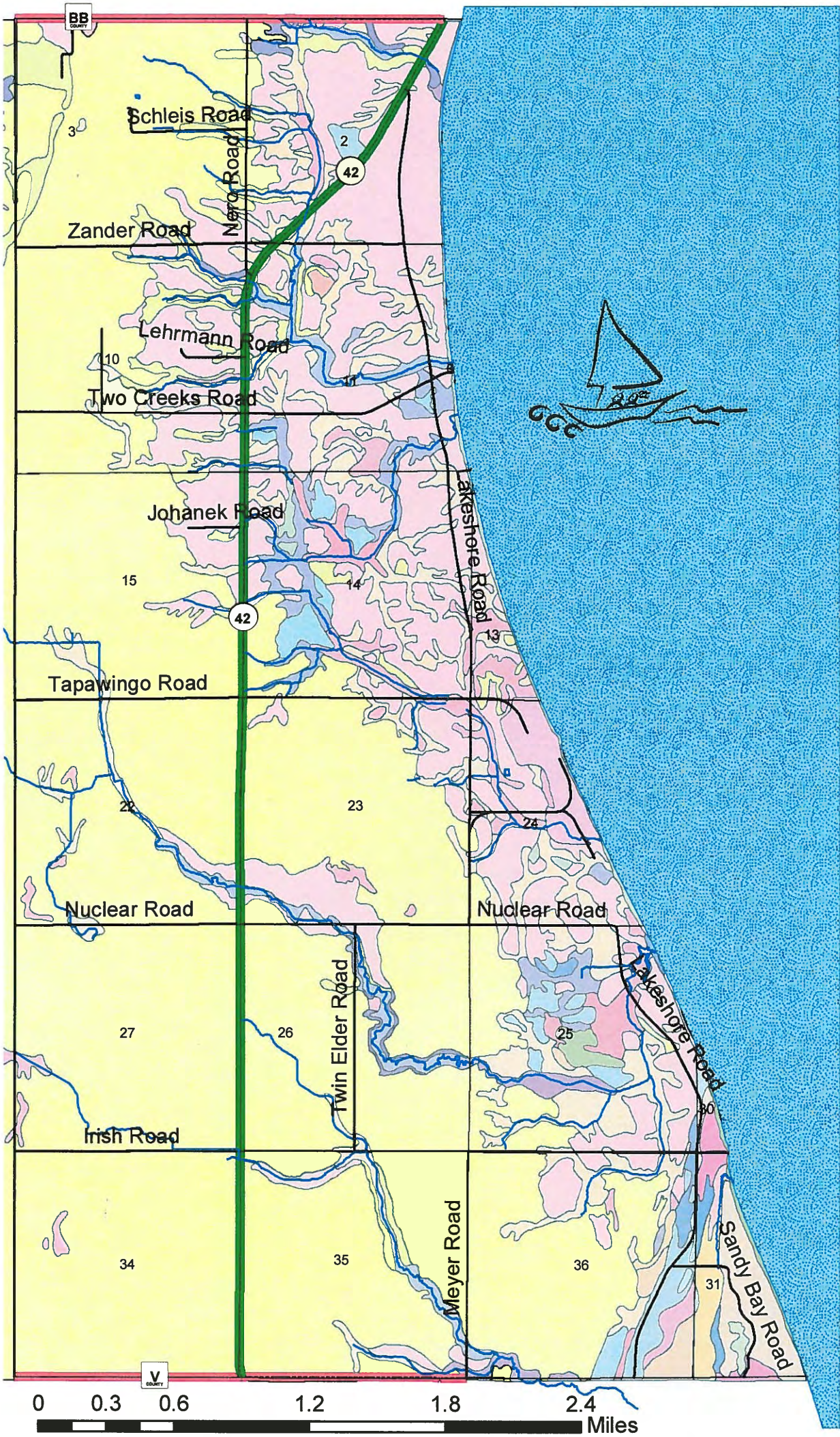
 Poor



PRIME AGRICULTURAL SOILS

Town of Two Creeks
Manitowoc County, Wisconsin

MAP 2-1



Legend

LuB	LuC2
Ac	LuD
As	MbA
BLANK	McB
BcA	MsA
BrB	MuA
BrC2	NsB
BsB	NsC2
BtB	OaB
BtC2	OaC
Bu	OgB
CoA	Pa
DoB	Pe
Fu	Pg
Gb	PIB
HmB	PIC
HmC2	PID
HmD2	Po
HrB	ShA
HrC2	SyA
Hu	TeA
Ke	TuB
KnB	Ud
KnC2	W
KnD2	WaA
KnE	We
KpB	Wt
KpC2	WVB
KpD	WVC2
LmA	ZuB
	ZuC2



SOIL TYPES

Town of Two Creeks
Manitowoc County, Wisconsin

MAP 2-2

2-4 Natural Features

Watersheds

The East Twin River Watershed encompasses the entire Town of Two Creeks. Fifty-eight percent of the total land in the East Twin River Watershed is in agriculture, 23% is woodland. Corn is the major crop, 33% with forage 29%. The land has a very high level of conventional tillage at 87%.

Lakes

The only lake that is located in the Town of Two Creeks is Lake Michigan. Of the 35 miles of shoreline in Manitowoc County, 6.36 of those miles are along the shore of the Town of Two Creeks. Lake Michigan's maximum depth of 714 feet is reached 24 miles off of the Lake Michigan Shoreline. Below the immediate beach, clay, sand, gravel and rock are the basic constituents of the littoral bottom zone. Serious shoreline erosion is evident along the lake in the county. The erosion is primarily caused by undercutting of the existing cliffs by wave action, and erosion of the cliffs through landslides. Clay and silt materials derived from the cliff are easily removed by shoreline currents. This leaves the beach without a large accumulation of residual sand or gravel. The limited protection afforded by the resultant narrow beach renders the cliff behind it vulnerable to further undercutting by waves. Evidence of this can be noted in the Town of Two Creeks.

Rivers and Streams

The Town of Two Creeks does not have any major rivers running through it, but it does have many streams that empty into Lake Michigan.

Flood Plains

Section 87-30, Wis. Stats requires counties to adopt reasonable and effective floodplain zoning ordinances for areas where flooding is likely to occur. NR 116 of the Wisconsin Administrative Code states the minimum criteria for these regulations. Ordinances must contain maps reflecting the best available data on the 100-year floodplain and define the land use restrictions in these areas. Chapter 31 of the Manitowoc County code has been adopted to satisfy these requirements in addition to the Flood Insurance Rate Maps produced by the Federal Emergency Management Agency (F.E.M.A.), indicating floodplain dissemination.






Wetlands

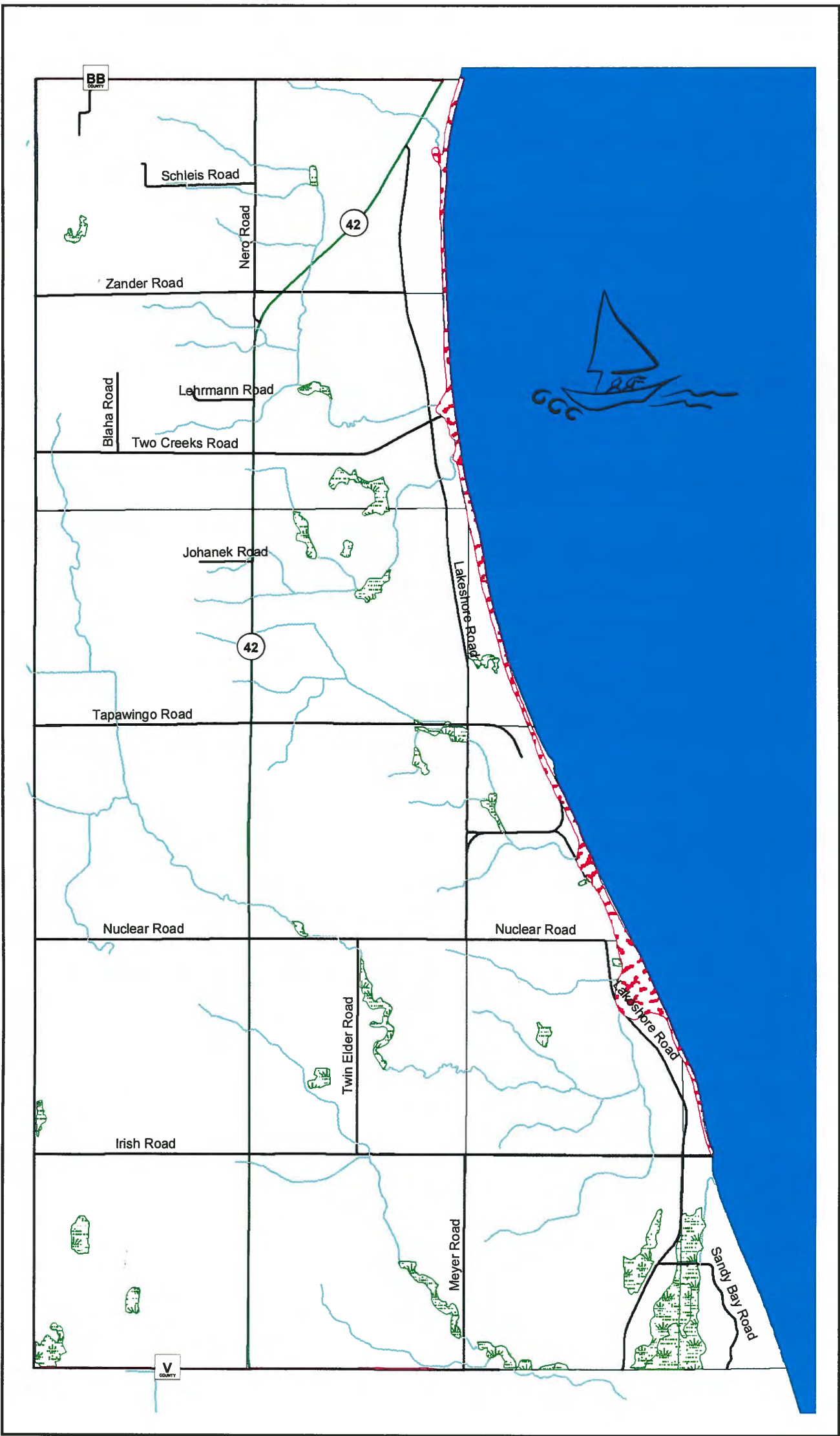
Wetlands contribute to the social, economic and environmental health of the area in many ways. They filter pollutants, nutrients and sediments from runoff, provide essential habitat for fish, waterfowl and a variety of other animals and act as groundwater recharge sources. A GIS analysis of wetlands using digital Wisconsin Wetland Inventory for the Town of Two Creeks revealed approximately 227 acres of wetlands. A little more than 68% of the wetlands are forested broad-leaved deciduous with a hydrologic modifier of wet soil, Palustrine or standing soil, Palustrine. Most of these areas have been incorporated into the town's land use map as "natural areas".





Legend

-  floodplain
-  wetland
-  stream
-  lakes
-  section



WATER RESOURCE MAP

Town of Two Creeks
Manitowoc County, Wisconsin

MAP 2-3

Forest and Woodlands

The native vegetation of this town merits careful consideration because of its rapid disappearance. This area was originally covered with virgin growth of maple, birch, beech, elm, basswood, oak, ash, poplar and wild cherry. Among the conifers that may be mentioned are the hemlock, pine, cedar, spruce, and balsam. During the early eighties and eighties lumbering, bark peeling, tie hewing, cordwood chopping, and fence post cutting were at the zenith of production. In approximately two decades, the lumberman and the settler had harvested the major portion of the virgin growing timber but had left a sufficient quantity to build farm buildings and supply firewood for years. The most destructive element to timber was the great forest fire, the so-called 'Peshtigo Fire,' of 1870, which not only brought death to many settlers - though all escaped in the Town of Two Creeks - but destroyed the forests, the farm homes, barns, and other buildings. About one-half of timber was 'burnt out', in the town which had influenced the clearing of land by farmers for cultivation more easily. Now the forested and woodland areas in the Township of Two Creeks covers roughly 508 acres. The trees that are within the 508 acres include: 49% Mixed/Other Broad-Leaved Deciduous, 18% Mixed/Other Coniferous, 17% Broad-Leaved Deciduous, 14% Mixed Deciduous/Coniferous and a little less than 1% of Coniferous. Some programs that benefit the forested areas are the Managed Forest Law, Wisconsin Forest Landowner Grant Program and Forestry Incentive Program (FIP). Eligibility for the Managed Forest Law and FIP is having 10 or more acres of forested land. Eligibility for the Wisconsin Forest Landowner Grant Program is by application. You must get approval from the DNR before beginning practice to receive funding for the Wisconsin Forest Landowner Grant Program.







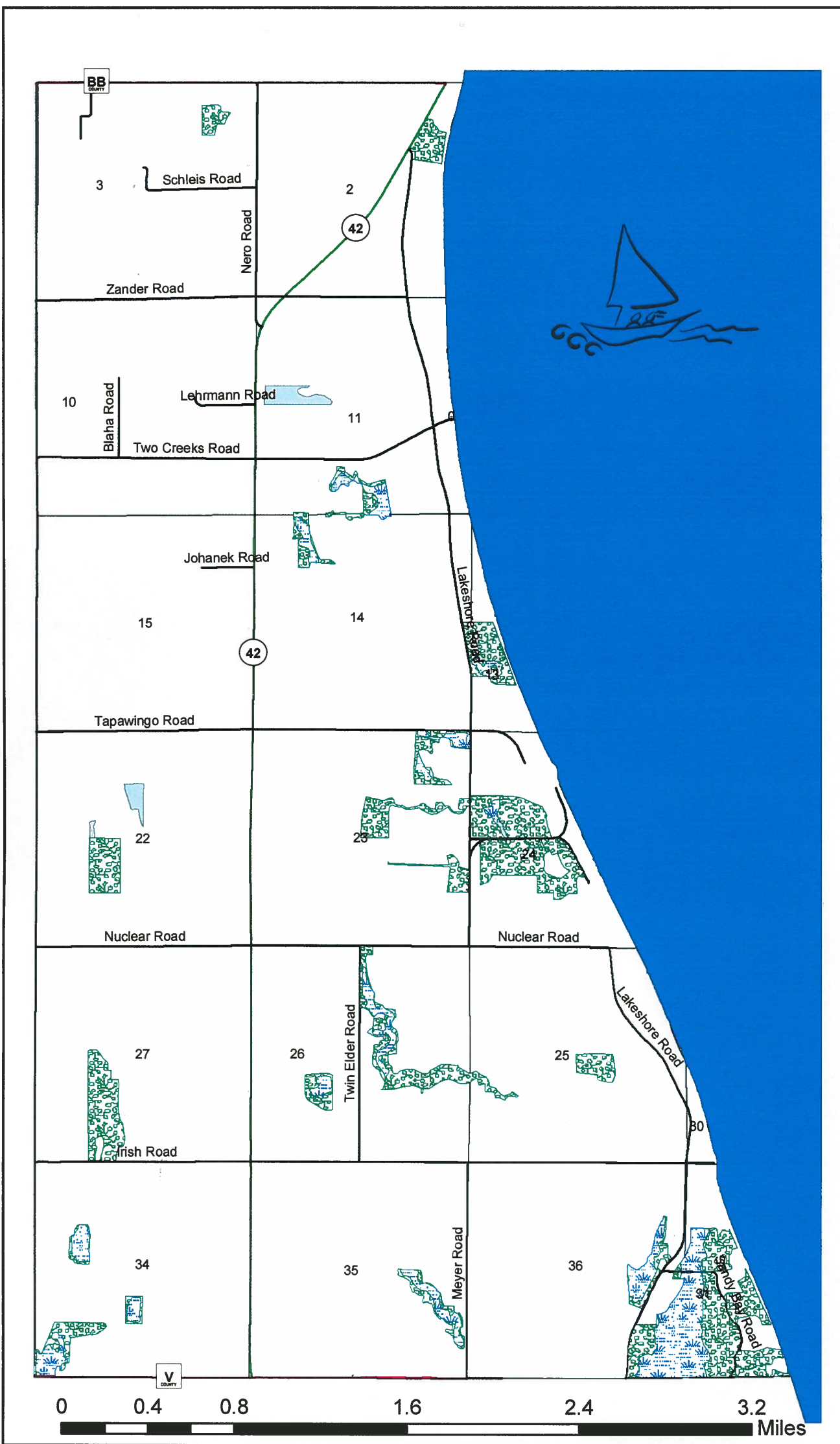


Legend

-  upland forests
-  tree plantations
-  low land forest

ROAD

-  CNTY
-  STAT
-  TWN
-  section



WOODLAND MAP

Town of Two Creeks
Manitowoc County, Wisconsin

MAP 2-4

2-5 Wildlife and Fisheries

Some of the common wildlife found in the Manitowoc County area includes white tailed deer, turkey, squirrel, fox, and rabbit. Different species of fish also occupy the rivers, streams and small lakes in the area. There are two programs that are available to protect wildlife: Partners for Fish and Wildlife program, that may be used for land that can be restored to wetland conditions, or restored to provide habitat for threatened and endangered species. Wildlife Habitat Incentives Program (WHIP) The W.H.I.P. program is for almost any type of land, including agricultural and non-agricultural land, woodlots, pastures, and stream banks. Up to 75% of restoration costs may be reimbursed to a maximum of \$10,000. The U.S. Fish and Wildlife service and WDNR list Threatened and Endangered Species for the State of Wisconsin. A species is listed as Endangered when there is possibility that it may become endangered within the foreseeable future. In addition to these listings, the WDNR also list species of Special Concern that appear to be experiencing a problem with abundance or distribution, but not contain information from the inventory (Wisconsin Natural Heritage Inventory). While this plan does not contain information from the inventory, it is recommended that prior to any large land altering activity within the town that the Bureau be contacted and a "Wisconsin Natural Heritage Inventory Information Request Form" is submitted and processed through the department.

2-6 Parks and Open Spaces

The Township of Two Creeks contains 1 special purpose park and 1 preservation area. The special purpose park is located along Lake Michigan at the end of Two Creeks Road. The preservation area is located just north of the special purpose park. The preservation area is also known as the Two Creeks Buried (Spruce) Forest, consisting of about 30 acres along Lake Michigan. This area is now part of the Ice Age National Scientific Reserve.



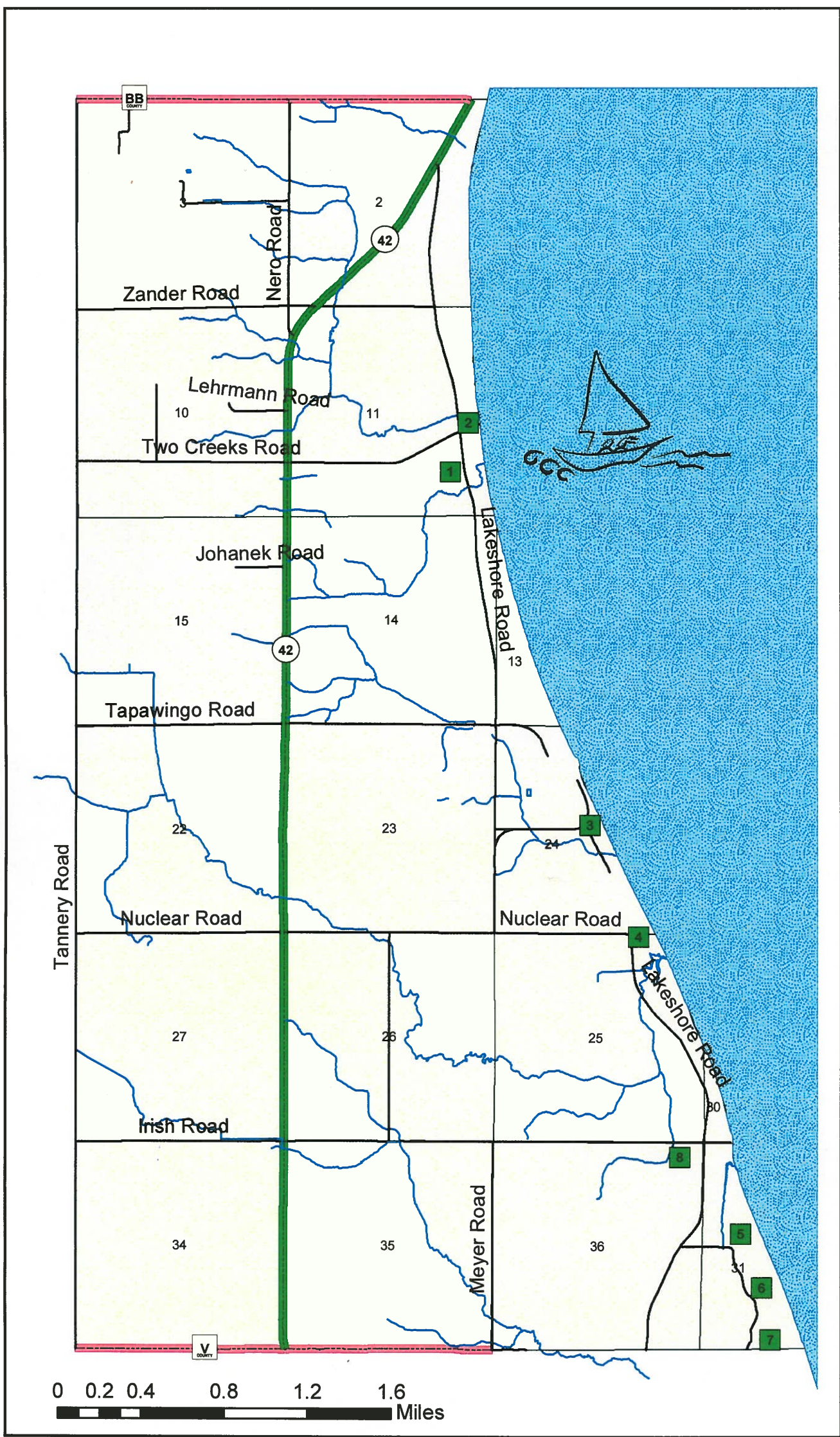
2-7 Natural Areas—Environmental Corridors

An Environmental Corridor is termed as any open space system based on natural resources and environmentally important lands. The Township of Two Creeks is covered roughly by about 780 acres of Natural Area. Environmental Corridors are usually associated with water features such as rivers, streams, lakes and wetlands; federal, state, county and local public parks and recreation areas; State or Federal wildlife areas, areas of steep slope (12% or greater), unique or isolated woodland areas, historic and archeological sites. The Natural Areas are located around the small streams in the area that empty into Lake Michigan. These areas provide essential habitat for the various types of wildlife in the township.

2-8 Historical and Archaeological Resources

The town land use committee obtained a historical and archeological sites list from the State Historical Society of Wisconsin Summer Survey Files. Of the 8 sites that were identified, 7 of those sites are archeological. 5 out of the 7 are campsites which are scattered throughout the Township of Two Creeks. The two that are not campsites are Jean Vieau's Landing Place (Trading Post Site), and the Village Site. The last remaining one is a historical site known as the Point Beach Nuclear Plant.





SITE LEGEND

- 1 Jean Vieau's Landing Place
Trading Post Village
- 2 Village Site
- 3 Point Beach Nuclear Plant
- 4 Campsite
- 5 Two Creeks Village
Campsite and Worksite
- 6 O'Neil #1 Campsite
- 7 School Forest Sites,
Campsite
- 8 Campsite



HISTORIC AND ARCHEOLOGICAL SITES

Town of Two Creeks
Manitowoc County, Wisconsin

MAP 2-5

Source: State Historical Society of Wisconsin,
Summer Survey Files, March, 1980.

2-9 Non-Metallic Mining Resources

These mineral resources are natural resources just like groundwater, forests, or agricultural lands. While the land use committee realizes the importance of these sites, it also understands that sound planning must occur in regards to the siting, size and reclamation of these sites. A specific objective was to require that all resource extraction activities be conducted in a way that minimizes their impact on the surrounding environment and that a reclamation plan is in place before extraction begins.

An analysis of existing non-metallic extraction sites was conducted as part of the land use planning process. There are less than 7 acres of land identified as non-metallic mining in the Township of Two Creeks on Map 8-4. This area is associated with the nuclear power plant and was used during the construction of the facility.

The Manitowoc County Planning and Park Commission currently is the regulating authority regarding non-metallic mining sites. Chapter 295, Wisconsin Statutes required that the Department of Natural Resources draft rules pertaining to the reclamation of non-metallic mining sites, resulting in the creation of Chapter NR 135 of the Wisconsin Administrative Code. This rule took affect on December 1, 2000 and requires that all counties must adopt an ordinance regarding site reclamation by June 1, 2001. Manitowoc County completed their draft proposal on May 24, 2001.



Chapter 3: **HOUSING ELEMENT**

In this section, population composition, as well as, housing unit trends will be identified use the most recent population and housing data. In addition, county permit data is used to determine the most recent housing trends. Provided below is a compilation and analysis of goals, objectives, strategies, and programs relating housing and population in the Town of Two Creeks.

3-1 Goals, Objectives & Strategies

HOUSING GOAL:

Promote residential development in harmony with the rural character of the town and in a manner that does not increase land use conflict through individual land uses, increased traffic, and/or degradation of the town's natural beauty.

OBJECTIVES:

1. Accept housing development in areas of need that can be done in an environmentally cost effective manner (both to the individual and the community).
2. Use zoning plans that promote residential development in harmony with the rural character of the town and in a manner that does not increase land use conflict, increase traffic, or degrade the town's natural beauty.
3. Explore ideas that encourage the preservation of open space, natural and unique areas in relation to residential development.
4. Explore ideas that also promote the enhancement of development of growth along a corridor such as US Highway 42, CTH BB and CTH V while maintaining Objectives 2 and 3.

STRATEGIES:

1. Create conservation options and incentives promoting conservation subdivisions and other tools to minimize the impacts to open spaces and rural character of the town.
2. Due to the lack of community services (i.e. water and sewer) in the town, areas in nearby cities and villages should be used where possible.
3. Identify future land uses such as Large Farming Operations and limit the location of residential development in relation to these areas to minimize land use conflict.
4. Any new development projects should be located as to reduce the possibility of land use conflict between incompatible uses.
5. The "Land Use Evaluation Checklist (gauged against the 2001 land use survey and supporting analysis conducted by the Land Use Advisory Committee) will be used as a management tool, by the Town Board in approving future improvements/changes in the town pertaining to smart growth.



3-2 Housing Inventory

The brief set of information presented in this section will provide local officials with information about the current housing configuration as well as identify significant changes that have occurred in the area of housing over the last twenty years. Information was presented to the committee concerning the structural and occupancy characteristics as well as details on housing values and projected housing. Housing is not just a big city concern. Many small towns throughout the country lack adequate housing. But what is adequate in small towns today? What are the housing needs? An inventory and analysis of the existing housing stock and factors influencing the development of new housing in the town is important to the preparation of a land use plan for the Town of Two Creeks. Information concerning the quantity and characteristics of the existing housing is necessary to determine the extent to which that housing is able to satisfy the requirements of the Town of Two Creeks population and employment base. The physical location of housing determines the location and cost of many public services and facilities. Furthermore, housing characteristics are related to the social and economic conditions of the community's residents.

3-3 Total Housing Units

Table 3-1 illustrates that over the past 20 years the total amount of housing units (occupied units, vacant units, and seasonal units) increased from 164 in 1990 to 214 in 2010. This is an increase of 50 units in 10 years. Over the past 10 years the Town of Two Creeks housing unit growth has slowed and only increased by 12 units or 5.9% from 2000 to 2010. This is slightly lower than the state (11.7%) and county (7.0%) increases in that same time period.

Table 3-1

AREA	TOTAL HOUSING UNITS					
	1980	1990	2000	2010	# change	% change
Wisconsin	1,863,857	2,055,774	2,321,144	2,593,073	729,216	39.1
County	30,140	31,843	34,651	37,082	6,942	23.0
Two Creeks	162	164	202	214	52	32.1

Source: U.S. Census Bureau - American Fact Finder

3-4 Building Permit Data

Housing Permits (2000-2010)

Information was gathered from the Manitowoc County zoning permits that were issued for single family homes in the Town of Two Creeks from 2000 - 2010 (see figure 3-2). The Town of Two Creeks does not follow any certain pattern. Instead of having a constant increase or decrease, it fluctuates. The most permits ever issued in one year was in 2005 with a total of 3. In this timeframe there were four years where no permits were issued for single family homes. Those years were 2001, 2003, 2008 and 2009. Between 2000 and 2010, a total of 13 home permits were issued in the Town of Two Creeks.

Total Zoning Permits (2000-2010)

Figure 3-3 shows all the permits that were issued from 2000 - 2010 for the Town of Two Creeks. These permits are for things such as: all homes, seasonal cottages, additions, garages, mobile homes, agricultural buildings and additions, signs, business and industrial buildings and additions, along with miscellaneous structures. 2005 was the peak year when 17 permits were issued in the Town of Two Creeks. 2007 was found to be the year with the lowest amount of permits to be issued for the Town of Two Creeks. Only 5 permits were issued that year. A total of 112 zoning permits were issued in the Town of Two Creeks between 2000 and 2010.



Figure 3-1

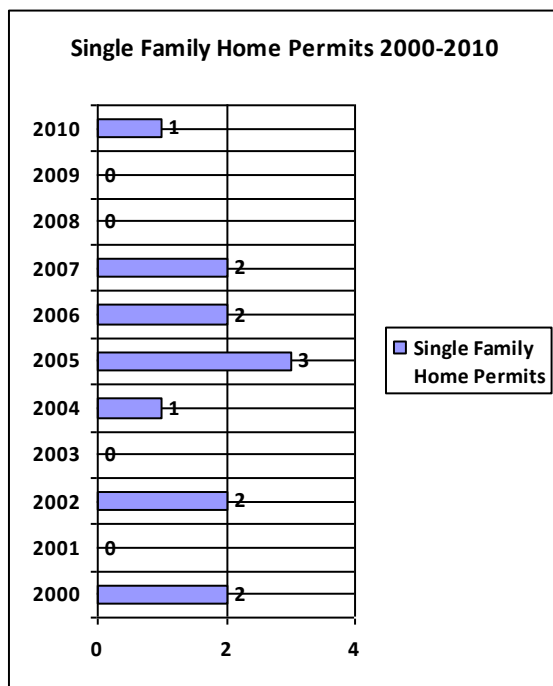
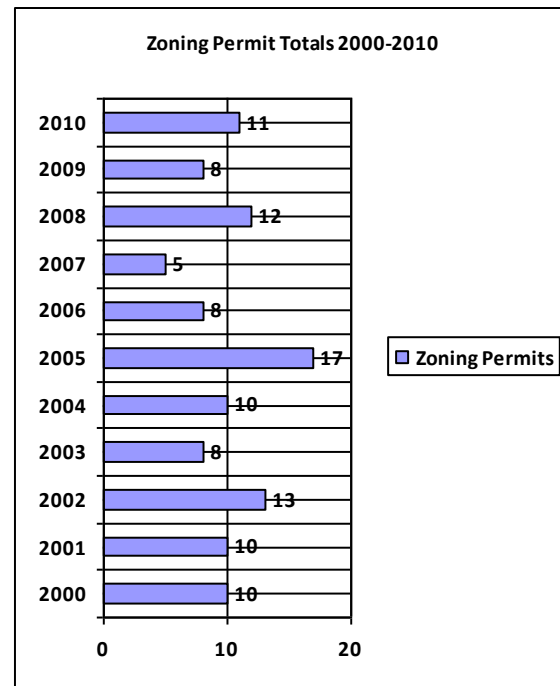


Figure 3-2



Source: Manitowoc County Planning & Park Commission

Table 3-2

Town of Two Creeks	CHARACTERISTICS OF HOUSEHOLDS AND FAMILIES					
	2000		2010		% CHANGE	
	Household	Family	Household	Family	Household	Family
Average # of persons	2.99	3.28	2.59	3.13	-13.37	-4.57

Source: U.S. Census Bureau, American FactFinder

Figure 3-3

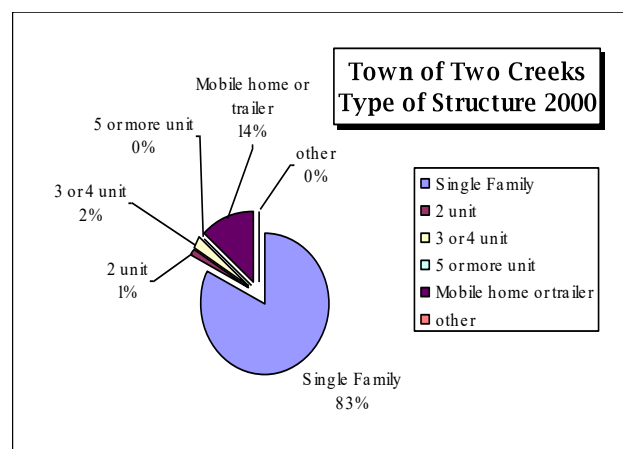
3-5 Household Characteristics

Historic and Projected Household Size

Table 3-2 illustrates how household and family size has decreased over the years. While the number of housing units has increased over the previous two decades, the number of persons per household and family has declined. If this trend should continue, there will be a slight increase in demand for new housing.

Housing Types—Units in Structure

Figures 3-3 and 3-4 show that in 2000, 83% of all structures in the Town of Two Creeks

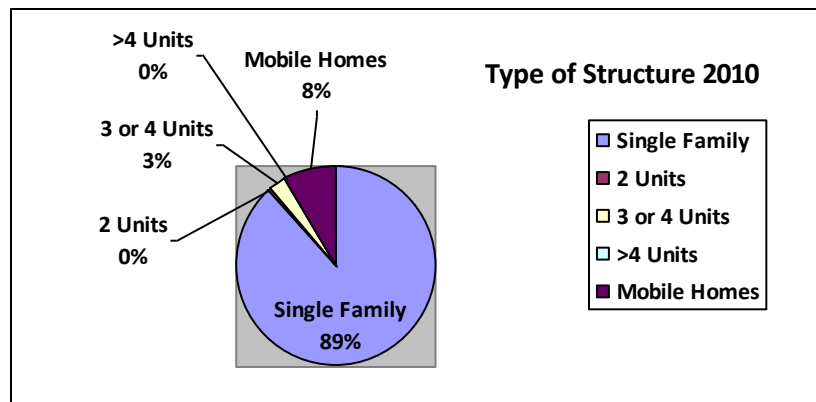


Source: U.S. Census Bureau



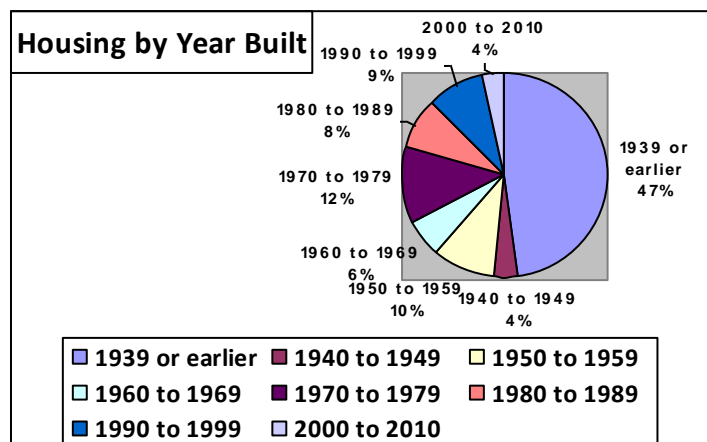
consisted of single family. In 2010, this increased to 89%. Mobile homes and trailers made up 14% of the structures in 2000, while in 2010 they decreased to 8%. 2 unit structures made up 1% in 2000 but fell to 0% in 2010, while the 3-4 unit structures increased by 1% from 2000 to 2010. Structures that are 4 or more did not exist in the Town of Two Creeks in 2000 or 2010. The main reason for this is that public services are not offered in the rural areas. Installing a private on-site wastewater treatment system for this size would be cost prohibitive.

Figure 3-4



Source: U.S. Bureau, American FactFinder

Figure 3-5



Source: U.S. Census Bureau, American FactFinder

Figure 3-6

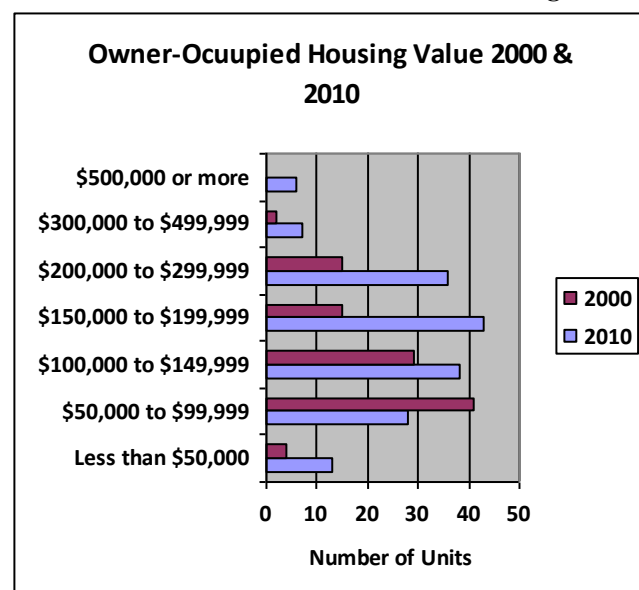
Age of Housing

On average, the Town of Two Creeks housing appears to be older than the County and State. According to Figure 3-5, approximately 47% of the homes were constructed prior to 1940 compared with 32.8% for Manitowoc County and 21.9% for the State.

Value of Housing

According to the 2000 census the median value of an owner-occupied housing in the Town of Two Creeks was \$110,000. This value was between Manitowoc County (\$90,000) and the State (\$112,200). In 2010 the median value of owner-occupied houses in Two Creeks rose to \$156,500. This value is \$32,500 more than the County (\$124,000) and approximately \$12,500 less than the State (\$169,000).

Source: U.S. Census Bureau, American FactFinder



Persons per Housing Type

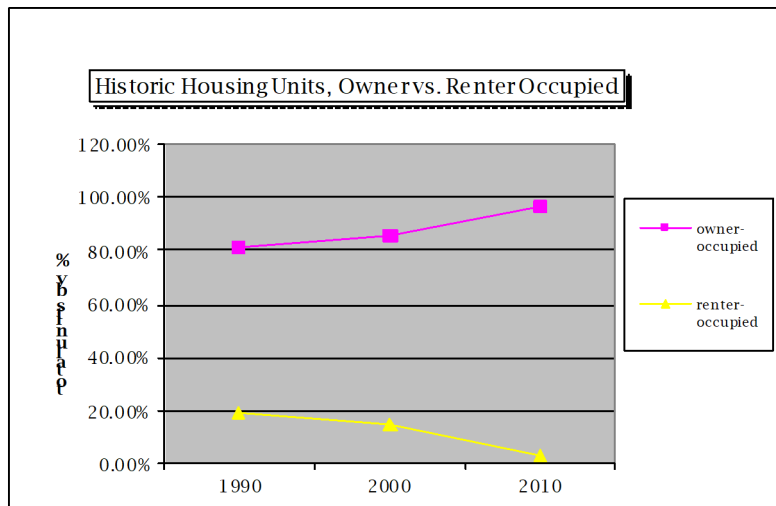
The data provided in Table 3-3 was gathered from the 1990, 2000 and 2010 censuses. According to this data, there has been an increase in percentage for owner-occupied housing in the Town of Two Creeks.

Table 3-3

PERSONS PER HOUSING TYPE – OWNER/RENTER OCCUPIED 1990–2010						
	1990		2000		2010	
Two Creeks	persons		persons		persons	
owner-occupied	395	80.8%	471	85.5%	457	96.6%
renter-occupied	94	19.2%	80	14.5%	11	3.4%

Source: U.S. Census Bureau, American FactFinder

Figure 3-7



Total Housing Units Owner & Renter Occupied

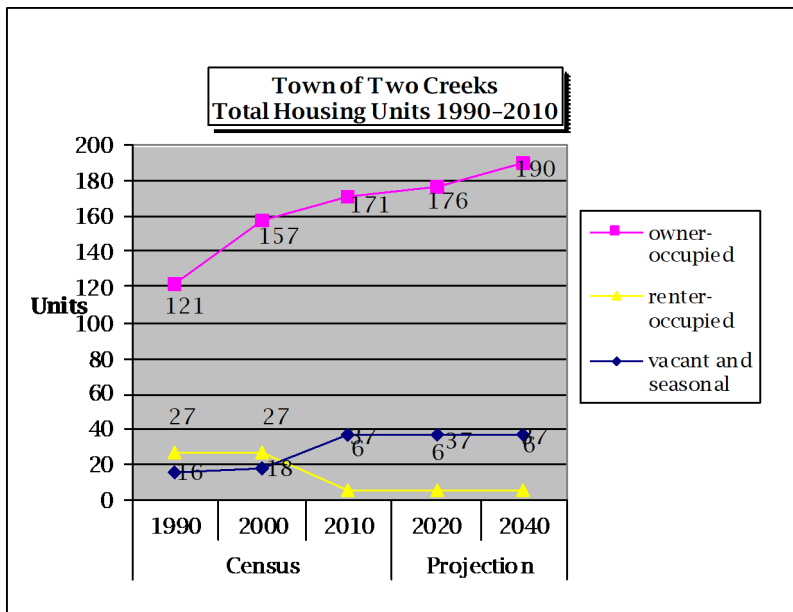
Corresponding with Table 3-3, percent of owner-occupied and renter-occupied units have remained the same. With very little to no municipal sewer and water in the area the percent of renter-occupied units is low.

Source: U.S. Census Bureau, American FactFinder

Figure 3-8

Housing Unit Projections

According to the 2010 census, the Town of Two Creeks has 171 owner-occupied and 6 renter-occupied housing units for a total of 214 including 37 vacant and seasonal units. This is an increase of 12 units from 2000 and a 50 unit increase from 1990. Based on these figures, and building permits data stated previously in this section, it is estimated that by the year 2040 the Town of Two Creeks will gain an additional 19 housing units for a total of 233. The majority of the units are projected to be owner-occupied units with no gain in renter-occupied units.



Source: U.S. Census Bureau, American FactFinder



CHAPTER 4: **TRANSPORTATION ELEMENT**

This element will address the Town of Two Creeks goals, objectives, strategies, and programs to guide the future development of the various modes of transportation including highways, transit, transportation services for elderly and disabled persons, railroads, air transportation, and water transportation. Highways within the Town of Two Creeks will be classified by function and will incorporate state, regional and other applicable plans.

4-1 Goals, Objectives & Strategies

TRANSPORTATION GOAL:

Balance traffic patterns and safety issues with the rural character of the Town of Two Creeks.

OBJECTIVE:

1. Provide a transportation strategy that provides mobility, convenience and safety while maintaining the rural character of the Town of Two Creeks.
2. Maintain and improve existing road quality.

STRATEGIES:

1. Develop and adopt driveway access standards for town roads which address dimensional standards that ensure efficient emergency vehicle access.
2. Use the Pavement Management System Road Inventory maintenance system, which inventories and analyzes existing roads within the town. Information gathered would be used to properly budget funds and set priority for projects.

4-2 Inventory of Transportation Modes

Waterborne

The Port of Manitowoc is the nearest port to the Town of Two Creeks. Over the past ten year's the port has averaged 341,000 tons of cargo. The primary commodities shipped inbound are cement, coal, barley, and wood.

In addition, the S.S. Badger provides ferry service across Lake Michigan from Manitowoc to Ludington, Michigan. The car ferry dock is located along South Lakeview Drive, to the north of the City of Manitowoc's Wastewater Treatment Facility. The ship accommodates 620 passengers, 180 automobiles, tour buses, R.V.s and semi-trucks. In 2019 the first day of sailing is May 10 and the last day of sailing is October 13. Between May 10 and June 13 the Car Ferry only leaves once from Manitowoc. June 14 to September 1 the Car Ferry departs twice from Manitowoc. Then from September 2 to October 13 the Car Ferry only has one departure from Manitowoc. In 1997, the Car Ferry carried approximately 125,000 passengers.

Air Service

The nearest airport to the Town of Two Creeks is located in the City of Manitowoc. It is a 400-acre publicly owned facility used for "General Use Aviation". This airport serves aircraft up to 60,000 pounds, while servicing private, corporate, and industrial flights. The airport has two hard surface runways, 26 hangars, and a terminal building. The east/west runway is 3,343 feet in length, while the north/south runway is 5,002 feet. The nearest commercial air service is Austin-Straubel Airport located approximately 25-30 miles northwest, in the Village of Ashwaubenon.



Rail Service

There is no rail service in the Town of Two Creeks.

Elderly and Disabled Transportation System

Currently the Manitowoc County Aging Resource Center coordinates two programs addressing the needs of elderly and disabled persons. Transportation is provided every Tuesday and Thursday to the elderly rural population in the county. These services require an advanced 24-hour request and are demand responsive. Disabled persons are provided with service Monday through Friday via 3 routes. Participants must be ADA certified and are provided service to disabled workshops through the Holiday House and New Beginnings in the City of Manitowoc.

As the elderly population grows in size and the disabled population becomes more mobile, the number of persons requesting specialized transportation will increase. Increasing demand, rising costs, limited funding, and the need for alternate providers are the emerging issues that will be addressed in the coming years. In a recent transportation community survey conducted by the Manitowoc County Aging Resource Center, nearly 20% of the respondents recognized the need for an elderly and disabled transportation system.

Recreational and Bicycle Trail Systems

The Town of Two Creeks currently has a Secondary Bicycle Route. The route travels north on Lakeshore Road, west on Nuclear Road, north on Tannery Road, east on Zander Road, finally heading north on Nero Road. You can also go south on Tannery Road, then east on Benzinger Road.

Snowmobile is a recreational system that is given special consideration. The Manitowoc County Snowmobile alliance and Manitowoc County began working towards establishing a public trail system in 1973. The initial effort provided a 32-mile public trail, through designated crew chiefs, negotiating land use agreements and performing labor necessary to develop trails. Today approximately 135 miles of public trail system is being used, which serves as a link to an estimated 550 miles of private club trails found in the County. The closest trails to the Town of Two Creeks are in the Town of Mishicot and Two Rivers and both are State Trails.

4-3 Inventory and Analysis of Road System

Functional Classification

The transportation system within the Town of Two Creeks provides the basis for movement. The roadway system within the Town of Two Creeks includes more than 45 miles of state, county trunk highway, and local roads. The principle components of the Town of Two Creeks transportation circulation system are divided into the primary categories, arterial roads, collector roads, and local roads.

The Town of Two Creeks does not have any principal arterial roads. Minor arterial roads serve in conjunction with principal arterial roads serving cities, large communities and major traffic generators on an intra-regional scale. STH 42, which traverses north and south through the township, is classified as a minor arterial recording up to 3,700 vehicles per day in 1996.

The Town of Two Creeks is also served by several major collector roads (county trunk highways) that link the township to cities and villages within the county and to those state and interstate highways, which provide access to other regions.





Major Collectors

Roads that are classified as major collectors provide service to moderately sized communities and intra-area traffic generators. Collectors also provide secondary linkage to large population centers and arterial routes.

CTH 'BB' from CTH 'R' east to STH 42. It borders the north side of the township and traverses east and west.

CTH 'V' from the Village of Mishicot east to STH 42. It borders the southwest side of the township and traverses east and west.

Minor Collectors

Roads classified as minor collectors provide service to all remaining smaller communities and link the smaller local roads to the major collector system.

CTH 'V' from CTH 'O' west to STH 42. It lies on part of the southern border of the township and traverses east and west.

Traffic Counts

Traffic counts for the plan were analyzed from 1993 to projected 2005. See Map 4-1.

Access Controls

All or portions of these county trunk highways have been designated as controlled-access highways. Highway access management is planning the number and location of driveways and intersection to help maintain safe, efficient movement of traffic and to provide safer access to and from adjacent property. Designated controlled-access highways are as follows:

1. CTH 'V' from Mishicot to STH 42.



4-4 Inventory and Analysis of Applicable Transportation Plans

New Road Alignments

While growth and development are usually good for area economies, they often result in too many access points located too close together. As a result, traffic congestion increases, conflicts between land use and highway traffic grow, accidents increase, owners become frustrated and property values may fall as some owners move away. Speed limits may have to be lowered as a result of increasing congestion and accidents. Ultimately, the highway may even have to be relocated as the only way to restore safe and efficient operations. Access management can be used to help reduce or better manage congestion problems and, thus, delay or prevent such changes.

The town is also serviced by an interconnected system of local roads, which provide efficient links between farms, rural residences and rural commercial properties to other areas within the town, county and region. Wisconsin passed a law that required all municipalities and counties to assess the physical condition of highways in their jurisdiction by December 15, 2001, using a pavement rating system that was approved by WDOT (Wisconsin Department of Transportation).

County Highway Projects

According to the Manitowoc County Highway Commission tentative five-year construction schedule for the years 2019-2023 there are no construction plans for the Town of Two Creeks.

Airport Master Plan

The Manitowoc County Airport is participating in a Master Plan that will describe the improvement for the next five years. In 2001, the airport will reconstruct the north General Aviation apron and modify the fencing with funding by a Block Grant. In 2002, the airport will reconstruct the General Aviation Terminal Apron & Hangar Taxiway; they will also reconstruct the service road. This will be funded by a Block Grant. Then State Aid will fund the design for the reconstruction of Runway 7/25. In 2003, reconstruction will take place on Runway 7/25 and will be funded by a Block Grant. Then in 2004, designing for the reconstruction for Runway 17/35 will begin, which is funded by State Aid. Finally in 2005, reconstruction of Runway 17/35 will be completed and funded by State Aid. So far, no plans have been made for any improvements after 2005.





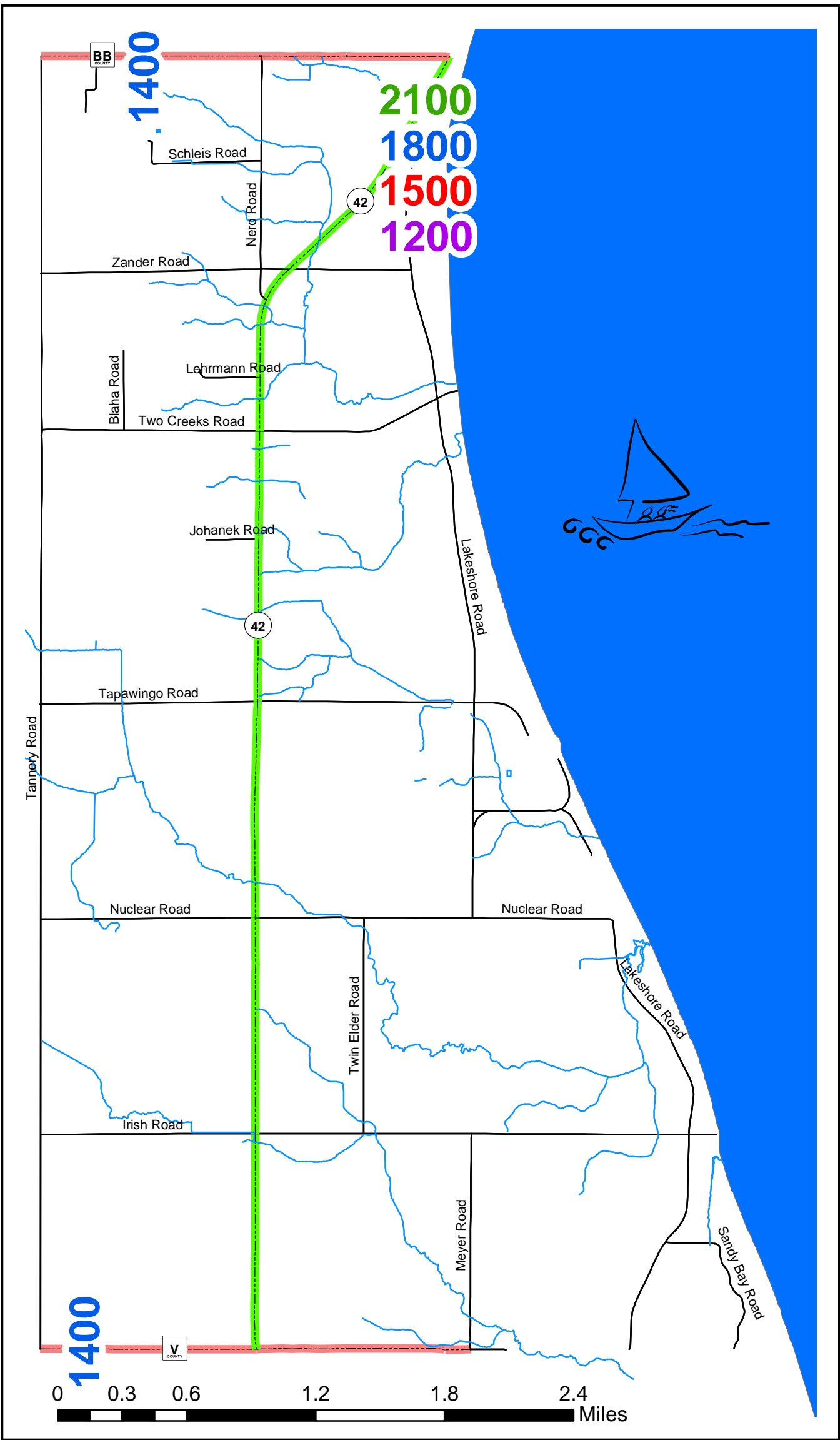
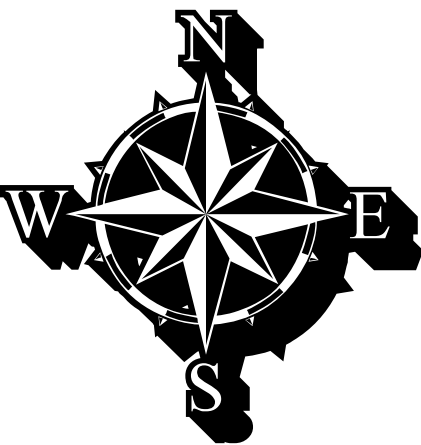
Legend

2008

2011

2014

2017



AVERAGE DAILY TRAFFIC COUNTS

Town of Two Creeks
Manitowoc County, Wisconsin

Source: Wisconsin Department
of Transportation

MAP 4-1

CHAPTER 5:

UTILITIES & COMMUNITY FACILITIES ELEMENT

This section includes a compilation of goals, objectives, strategies and programs to guide the future development of community facilities and utilities in the Town of Two Creeks. Areas addressed include private on-site wastewater treatment technologies, solid waste disposal, recycling facilities, parks, telecommunication facilities, cemeteries, health care facilities, and other services such as schools, libraries, police, fire, and rescue facilities. Understanding the location, use and capacity of community facilities and utilities is an important consideration when planning for the future. This information, coupled with the demographic trends and projections, provides a realistic picture of service supply and demand.

5-1 Goals, Objectives & Strategies

UTILITIES AND COMMUNITY FACILITIES GOAL:

Continue to provide the quality, safe, and reliable community services and facilities which town residents currently enjoy.

OBJECTIVE:

1. With over 50% of the community survey respondents believing they could be more informed about town issues, the town should promote an improved awareness factor for town residents toward general information, activity and change.
2. Promote development in a cost effective manner associated with providing community services to the town.
3. Work to provide a well maintained town.

STRATEGIES:

1. Keep town residents informed by using the current Town of Two Creeks Web page to include status & information on schedules, activities, Meeting outlines, Ordinance references, Notices, etc...
2. Work closely with Manitowoc County regarding the existing county ordinances and restrictions already in place or under development.
3. Limit future housing or farm animal production in areas of high voltage transmission lines.
4. Limit the placement of towers (>100 ft in height), Billboards, and the growth of large business facilities within the town.



5-2 Groundwater Resources

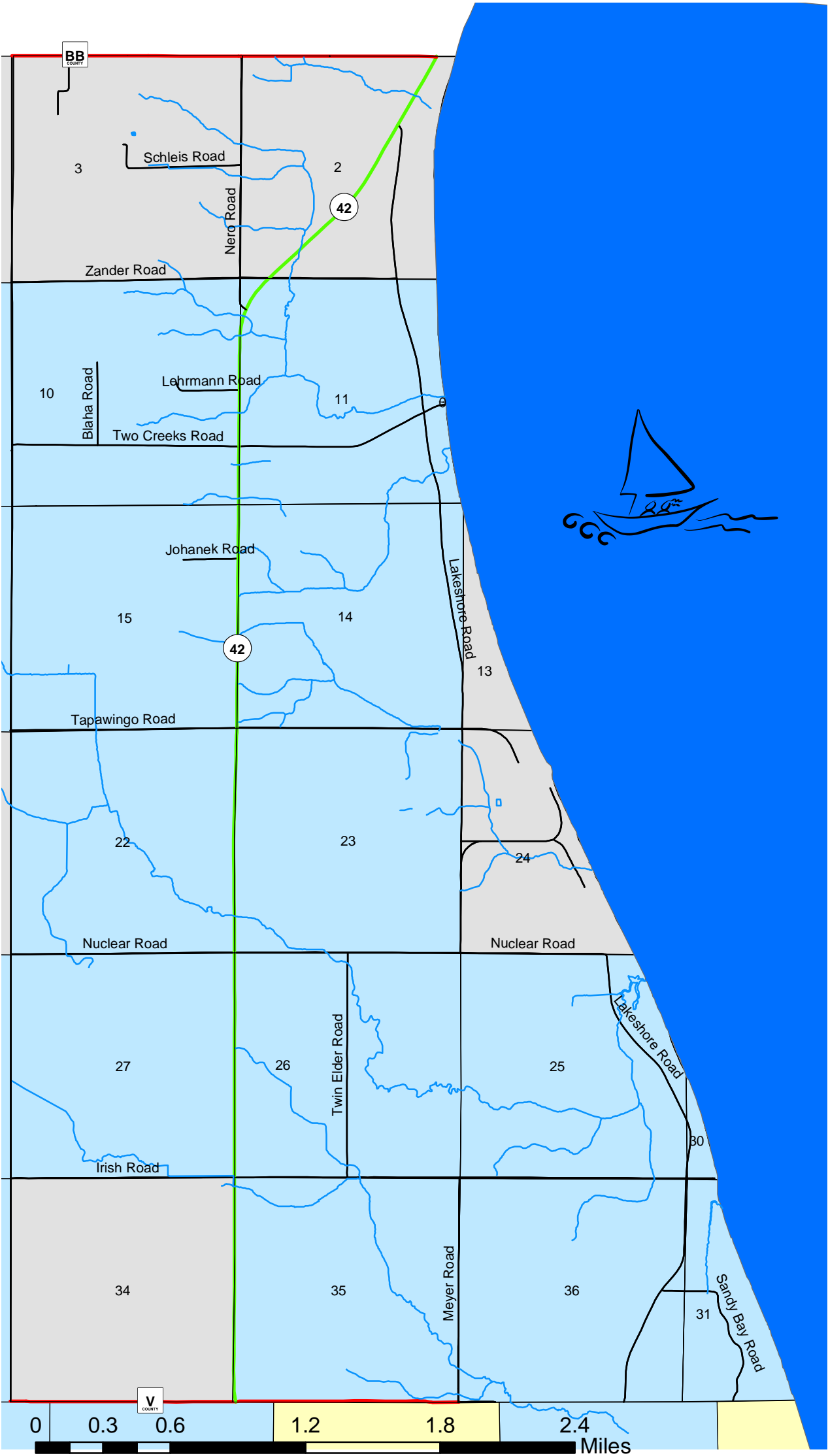
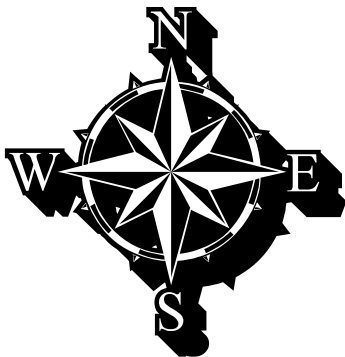
The subsurface geology is divided into three aquifer units based on their hydro geologic properties. The lowest unit is the sandstone aquifer, which includes geologic units from the Cambrian sandstone and lower Ordovician groups, and lies directly above the Precambrian basement rock. Dipping slightly to the east under Lake Michigan, this aquifer is a regional groundwater flow system, carrying water from its recharge areas along the Niagara Escarpment and Kettle Moraine to its charge beneath the lake. The second aquifer unit is the Niagara aquifer, which lies above the Maquoketa shale within dolomite of the Silurian age. The Maquoketa shale acts as a confining unit, inhibiting the flow of water between the sandstone and Niagara aquifers. Like the lower sandstone aquifer, its recharge areas are along the Niagara Escarpment and Kettle Moraine. Due to the chemical nature of the dolomite rocks and the long residence time of water within this aquifer, water discharging from it has a high conductivity, carries a significant amount of dissolved minerals, and has a more constant temperature than surface waters. Drawdown within these aquifers may, overtime, alter the functioning of wetlands whose primary water source is groundwater. The third and shallowest groundwater unit lies within unconsolidated glacial till and outwash consisting of interbedded clay, silt, sand and gravel. Since water within this unit has the shortest residence time and discharges near its recharge point, there is little opportunity for its chemistry to be greatly changed. Thus, substances that are in the water at the recharge area are generally still present at the point of discharge and sometimes have a noticeable effect on the resulting vegetation. Due to the variable nature of groundwater flow in this aquifer, its use as a water source is primarily restricted to private wells.





Levels

- low <=2.0 mg/L
- No samples
- moderate >=10 mg/L
- high 2.1-9.9 mg/L



NITRATE TESTING

Town of Two Creeks
Manitowoc County, Wisconsin

SOURCE: Manitowoc County
Soil and Water Department

MAP 5-1

5-3 Wastewater Treatment Options

On-site Treatment Options

The State of Wisconsin recently completed a comprehensive revision of Comm. 83, dramatically changing the availability of options when treating on-site wastewater within the state. This revision allows for a private on-site wastewater treatment system (POWTS) to be placed upon as little as 6 inches of native soil. The previous version would require a holding tank for sites with less than 24 inches of suitable soil. According to the Wisconsin Department of Commerce this increases the number of acres that will allow for an in-ground septic system by 34%, through new technologies such as sand filters and pre-treatment aerobic units. While the use of these new technologies increases the number of available acres for an in-ground system the exact increase in acres for the Town of Two Creeks is unknown.

Recycling Facilities

A trash collecting facility (transfer station) is currently in use, located at CTH V and Tannery Road. Trash is compacted and shipped to an in-ground burial site. The facility also accepts and recycles paper, plastic, glass and tin. Operational hours are 8:30 a.m. to 2:00 p.m. on alternate Saturdays.

Town Facilities

Town facilities generally include such things as fire stations, meeting halls and any equipment storage facilities. The Town of Two Creeks has a Town Hall, which is located at 5128 E. Tapawingo Road which includes the fire station.

5-4 Community Facilities Inventory and Locations

Health Care Facilities

Given the Town of Two Creeks proximity to the cities of Two Rivers, Manitowoc, Green Bay and Kewaunee, residents of the Town have close access to health care facilities provided in these cities. The population in the Town of Two Creeks cannot support its own hospital, primary care, or clinic facility. There are two hospitals located in the Manitowoc area serving the Town of Two Creeks. What follows is a brief description of each facility:

Aurora Medical Center, 5000 Memorial Drive, Two Rivers, WI

Aurora Health Care is a community-owned Wisconsin health care provider and a nationally recognized leader in efforts to improve the quality of health care. Aurora Health Care sites in 65 communities in eastern Wisconsin and is Eastern Wisconsin's largest health care provider. With more than 230 facilities, Aurora offers a continuum of health care services.

The Aurora Medical Center in Two Rivers opened in 2000. Built to replace the aging Two Rivers Community Hospital, the new medical center offers modern facilities, new technologies and amenities for patients and family members. The new, four-story facility includes 183,000-square-feet of space. The hospital offers primary, acute, tertiary, and extended care services. The facility is designed to support patient comfort and enhanced family involvement in a technologically advanced environment with better communication, more access to information and greater efficiency.

All 73 patient rooms are private with individual showers and home-like furnishings that promote patient rest and healing. Each room is within 40 feet of a nursing station.

Local clinics managed by Aurora Health Care include:

- ✦ Asthma Allergy and Immunology Clinic, 601 Reed Avenue, Manitowoc



- ✦ Vince Lombardi Cancer Clinic, 601 Reed Avenue, Manitowoc
- ✦ Manitowoc Clinic, 601 Reed Avenue, Manitowoc
- ✦ Mishicot Clinic, 175 S. State St., Mishicot
- ✦ Two Rivers Clinic, 2219 Garfield Street, Two Rivers
- ✦ Manitowoc Clinic – South, 4100 Dewey Street, Manitowoc
- ✦ Aurora Health Care-Walk-In Care, 4100 Dewey Street, Manitowoc

Holy Family Memorial, 2300 Western Avenue, Manitowoc, WI

Founded by the Franciscan Sisters of Christian Charity, Holy Family Hospital has evolved into Holy Family Memorial - - a comprehensive health care network made up of highly qualified health professionals who are dedicated to providing quality medical care to the residents of Manitowoc County, Wisconsin.

The network of clinics and hospitals under the Holy Family Memorial umbrella provide a host of services including: cancer treatment, heart services, women and infant specialty care, family practice, physical and emotional support therapy, emergency services, and more. Some local clinics managed by Holy Family Memorial include:

- ✦ HFM Right Now, 2300 Western Avenue & 4303 Michigan Avenue, Manitowoc
- ✦ HFM Harbor Town Campus, 1650 S. 41st St., Manitowoc
- ✦ York Street Campus, 600 York Street, Manitowoc
- ✦ Memorial Drive Campus, 1818 Memorial Dr., Manitowoc
- ✦ HFM Shady Lane Clinic, 1235 S. 24th St., Manitowoc
- ✦ HFM Family Medicine at Felician Village, 1635 S. 21st St., Manitowoc
- ✦ HFM Manitowoc Health and Rehabilitation Center, 2021 S. Alverno Rd., Manitowoc
- ✦ Dialysis Center, 333 Reed Avenue, Manitowoc
- ✦ Tamarack Behavioral Health Center, 339 Reed Avenue, Manitowoc
- ✦ Lakeshore Urology, 1818 Memorial Drive, Manitowoc
- ✦ HFM Lakefront Campus, 800 Lakefront Way, Two Rivers

In addition to the hospitals and clinics listed above, residents of the Town of Two Creeks can access many specialty, family practice, and emergency care clinics located in the City of Manitowoc, City of Two Rivers and City of Kewaunee or possibly the City of Green Bay.

- ✦ Aurora Bay Care Medical Center, 2845 Greenbrier Rd., Green Bay
- ✦ Apple Medical Clinic, 804 Jay Street, Manitowoc
- ✦ Bellin Memorial Hospital, 744 S. Webster Ave., Green Bay
- ✦ Lakeshore Pediatrics, 601 Buffalo Street, Manitowoc
- ✦ Manitowoc Foot Health Center, 930 Maritime Drive, Manitowoc
- ✦ Orthopedic & Sports Medicine, 501 N. 10th Street, Manitowoc
- ✦ Park Medical Center, 601 N. 8th Street, Manitowoc
- ✦ Rehab Plus, 3310 Calumet Avenue, Manitowoc
- ✦ Calumet Avenue Chiropractic, 3713 Calumet Avenue, Manitowoc
- ✦ Medical Arts Center, 600 York Street, Manitowoc
- ✦ Dental Park, 602 N 9th Street, Manitowoc
- ✦ Shoreline Dental, 1415 N. 8th Street, Manitowoc
- ✦ Smile Clinic, 1602 N. 18th Street, Manitowoc
- ✦ Family Dentistry, 201 E. Waldo Blvd., Manitowoc
- ✦ Lakeshore Dental SC, 4725 Plank Road, Manitowoc
- ✦ Oral & Maxillofacial Associates: A BayCare Clinic Provider, 930 Maritime Dr., Manitowoc
- ✦ Eye Clinic of Manitowoc, 4801 Expo Drive, Manitowoc
- ✦ Eye Clinic of Two Rivers, 1603 Washington Street, Two Rivers
- ✦ Eye Care Center of Two Rivers, 1413 22nd Street, Two Rivers



- ✦ Eye Care Center of Manitowoc, 811 Franklin Street, Manitowoc
- ✦ Shopko Optical, 3415 Calumet Avenue, Manitowoc

Childcare Facilities

According to the 2000 U.S. Census, of the Town's 551 residents, 187 or 33.9 percent are under the age of 19. This is a large portion of the local population that has particular service demands (i.e. schools, parks, child care facilities). Schools and Park Facilities will also be discussed elsewhere in the chapter, in this section though we will discuss the childcare facilities available to residents of the Town of Two Creeks.

There are no commercial childcare facilities located in the Town of Two Creeks at this time. However, residents may have informal networks of child care (i.e. family or friends) and some residents may provide childcare from their home for their neighbors.

The nearest commercial childcare centers to the Town of Two Creeks are located in Manitowoc and Two Rivers. What follows is a partial list of some of the childcare centers in these two cities:

- ✦ Forever Friends Family Child Care, 824 Randolph St., Mishicot
- ✦ Happy Hearts Childcare, 440 Elizabeth St., Mishicot
- ✦ Creative Learning Child Enrichment Center, 4404 Bellevue Street, Two Rivers
- ✦ Ashling Montessori School, 2005 Johnston Drive, Manitowoc
- ✦ Lakeshore Child Care Center, 3400 Division Street, Manitowoc
- ✦ The Peanut Gallery Child Care and Learning Center, 2411 Wollmer Street, Manitowoc
- ✦ Falling Star Child Care LLC, 1501 N. Rapids Road, Manitowoc
- ✦ YMCA Child Development Center, 205 Maritime Drive, Manitowoc
- ✦ YMCA Orion, 2210 Woodland Dr., Manitowoc
- ✦ Follow Your Heart Learning Center, 2132 32nd St., Two Rivers
- ✦ Tiny Treasures Christian Child Care, 1029 33rd St., Two Rivers
- ✦ A Childs Place Day Care, 2611 11th St., Two Rivers
- ✦ Kids-N-Us Family Child Care Center, 3805 Tannery Rd., Two Rivers

Senior Care Facilities

According to the 2000 U.S. Census, 69 people (12.5%) living in the Town of Two Creeks are over the age of 65. Like youth populations, seniors also demand particular services and housing options to meet their specific needs.

The Town of Two Creeks does not have any assisted living, senior housing, or retirement communities located within its boundaries. Seniors living in the Town of Two Creeks must be able to live independently or find assistance from family members, friends, and neighbors. There are some programs serving Manitowoc County that provide services and opportunities for older persons living in the Town of Two Creeks. Most common ones are, the Manitowoc County Commission on Aging provides meal programs (i.e. meals on wheels), limited transportation services (i.e. dial-a-ride to doctor and other appointments and errands), programs to help with chores and home care, and a Benefits Specialist Program for seniors having problems with private or government benefits such as Medicare and Social Security. These programs provide vital services that make independent living possible.

If a senior living in the Town of Two Creeks is unable to live independently or desires a living arrangement with other seniors, he or she would find quality assisted living, nursing homes, and retirement homes in Manitowoc. What follows is a partial listing of senior care facilities serving the area. Available space and waiting lists depend on the location and cost of the facility and can fluctuate regularly.



- ✦ The Artisan Manitowoc, 1480 N. 7th Street, Manitowoc
- ✦ Atrium Post Acute Care, 1 Hamilton Dr., Two Rivers
- ✦ Atrium Senior Living of Two Rivers, 2500 Garfield St., Two River
- ✦ Azura Memory Care of Manitowoc, 3720 Menasha Avenue, Manitowoc
- ✦ Care Partners Manitowoc, 1858 Mirro Dr., Manitowoc
- ✦ Felician Village, 1700 S. 18th Street, Manitowoc
- ✦ Fieldcrest Manor, 1510 S. 30th Street, Manitowoc
- ✦ Generations Adult Day Center, 1402 Clark St., Manitowoc
- ✦ Hannah Home LLC, 4025 Delta Street, Manitowoc
- ✦ Harbor View Assisted Living, 2115 Cappaert Road, Manitowoc
- ✦ Kindredhearts, 5005 Vista Road, Manitowoc
- ✦ Laurel Grove Assisted Living Center, 1308 S. 22nd Street, Manitowoc
- ✦ Manitowoc Health Care Center, 2021 S. Alverno Rd., Manitowoc
- ✦ Maritime Gardens Assisted Living, 1945 Dewey St., Manitowoc
- ✦ Meadow View Assisted Living, 4606 Mishicot Road, Two Rivers
- ✦ North Ridge Medical and Rehabilitation Center, 1445 N. 7th Street, Manitowoc
- ✦ River's Bend Health & Rehab Center, 960 S. Rapids Road, Manitowoc
- ✦ River Woods Place, 950 S. Rapids Rd., Manitowoc
- ✦ Sacred Heart Court, 1903 Division Street, Manitowoc
- ✦ Shady Lane Nursing Care Center, 1235 S. 24th Street, Manitowoc
- ✦ St. Mary's Home For the Aged, 1635 S. 21st St., Manitowoc
- ✦ Tender Reflections of Manitowoc, 2210 Dufek Dr., Manitowoc
- ✦ The Villa, 1600 S. 18th St., Manitowoc
- ✦ Whitetail Estates II, 910 River Bluff Dr., Manitowoc
- ✦ Wisteria Haus, 2741 45th St., Two Rivers

Since the Town's population base is not large enough to support a local senior care facility, retirement home, or nursing home, it is critical that the informal networks of friends, family and support services continue to provide needed assistance to seniors living in the Town of Two Creeks. The Town of Two Creeks must continue to pay particular attention to the special needs of seniors when providing utilities and community facilities.

Libraries

The Town of Two Creeks is located within the Manitowoc-Calumet Library System (MCLS). The MCLS is a cooperative network of six public libraries in east central Wisconsin: Kiel, Manitowoc and Two Rivers in Manitowoc County, and Brillion, Chilton and New Holstein in Calumet County. The MCLS serves as a link to improve access to materials and services and to foster cooperation among all libraries in the two counties.

Manitowoc-Calumet is one of seventeen public library systems in Wisconsin. It was established in 1973 in Manitowoc County, and expanded in 1977 to include Calumet County. MCLS is funded primarily by state aids. System services include interlibrary loan, delivery, backup reference, consulting, continuing education for library staff, planning and support for library technology, and other assistance. MCLS has a professional staff and a board of 15 trustees who are appointed by the county boards and follows the guidelines of a Mission Statement. System offices are located in the Manitowoc Public Library, which is the System's resource library.

All MCLS member libraries are open to all residents of the two counties. The two closest libraries to the Town of Two Creeks are in Manitowoc (707 Quay Street) and Two Rivers (1001 Adams)

Residents of the six cities that maintain libraries support those libraries with their city taxes.



Each county reimburses the city libraries for serving rural residents. Manitowoc and Calumet counties each maintain a plan for library services. These plans help to ensure that the library facilities and services are meeting local demands. Through MCLS agreements with other Wisconsin library systems, Town residents can also use most other public libraries in the state.

All of the libraries in MCLS are part of a web catalogue that can be accessed 24 hours a day from the Internet. WISCAT is the statewide bibliographic database and catalogue for Wisconsin. It contains 6.7 million bibliographic records with local holdings statements for 1,270 libraries of all types throughout Wisconsin. The libraries listed in WISCAT are willing to loan many of the materials through established statewide interlibrary loan channels. WISCAT has been on-line since the summer of 2000. Users can simply connect to the Internet web page, search for the materials they are interested in, and place a hold on those materials so that they can be picked up during regular library hours.

Given the improved access to resources via the web catalogue and the interlibrary loan program, in addition to the resources the internet makes available to town residents and the continual planning efforts for future library services coordinated by Manitowoc County, it is anticipated that the library services will be adequate to meet future demands through 2039.

5-5 Police and Emergency Services

Police service for the Town of Two Creeks is provided through the Manitowoc County Sheriffs Department. Staffing consists of 12 officers during the day shift, 3 officers on second shift with an additional officer on duty during the P.M shift. The department has a total of 54 sworn personnel and a fleet of 12 marked patrol cars and 10 unmarked patrol cars. While these officers cover all of

Manitowoc County, they timely respond within 1 to 10 minutes to calls from the Town of Two Creeks. National standards for police protection generally recommend 1 officer for every 2,600 persons. The Manitowoc County Sheriff's Department serves a population base of approximately 40,000 people (2000 WI DOA Estimates) with a sworn staff of 54. As a result, the officer to citizen ratio is approximately 1:740. However, the actual on-duty ratio of protection

for the daytime hours is 1:3,333 and for the nighttime shift it is 1:13,333. In the City of Manitowoc, the Manitowoc County Sheriff's Department maintains a jail facility. The facility can hold up to 200 inmates. Right now the count is at 190, 30 of them being state prisoner that can be relocated to any of the state facilities at anytime if additional space is required. As of right now there is no plans of expanding the facility since the capacity is adequate to meet anticipated future needs. Along with protecting the citizens and maintaining the jail, the Manitowoc County Sheriff's Department also participates in community outreach and education programs, including DARE sponsorship. In the event of a crisis situation, the Village of Mishicot Police Department, Wisconsin State Police Department Manitowoc Police Department, Two Rivers Police Department, and Kewaunee County Sheriff are also assigned to this area if County personnel need assistance. In the table below are statistics obtained from the Manitowoc County Sheriffs Department, you can see that in 1998 there were a total of 124 incidents with 129 officers being dispatched. In 2000, the incidents dropped to 116 with 115 officers being dispatched. In 1999 the most ambulances (20) were dispatched in the town.

Table 5-1 Police & Emergency Data

	1998	1999	2000	2001 (up until June 7)
Total Incidents	124	132	116	29
Total units dispatched	129	144	115	24
Ambulance Requests	16	20	18	8
Fire Department Requests	9	14	8	4



Fire Service

The town of Two Creeks has a voluntary fire department. It has approximately 30 active members with five response vehicles. In addition, there are shared service agreements with adjoining fire departments.

5-6 Electric and Natural Gas Service

Electric service is provided through Wisconsin Public Service Corporation. Currently most of the town has access to this service, which is extended on an as needed basis. As of right now, there is no natural gas service in the Town of Two Creeks.

Point Beach Nuclear Plant

Next Era Energy's 2-unit Point Beach Nuclear Plant is located on the western shore of Lake Michigan north of Two Rivers and Manitowoc. The site has a general permit for dry storage of nuclear waste and had 16 vertical casks and capacity for 12 horizontal casks in the spring of 2017.

Unit 1

Operator: Next Era Energy

Owner: Next Era Energy (100%)

Reactor Supplier: Westinghouse Corporation

Capacity: 640 net MWe

Reactor Type: Pressurized water reactor

License Expiration Date: 10/05/2030

Electricity Produced in 2000: 4.13 billion kWh

2016 Average Capacity Factor: 95%

Unit 2

Operator: Next Era Energy

Owner: Next Era Energy (100%)

Reactor Supplier: Westinghouse Corporation

Capacity: 640 net MWe

Reactor Type: Pressurized water reactor

License Expiration Date: 03/08/2033

Electricity Produced in 2000: 3.58 billion kWh

2017 Average Capacity Factor: 96%

Location: Two Creeks, Wis., approximately 20 miles north of Manitowoc and 100 miles north of Milwaukee.

Power: Produces one-sixth of electricity for the state.

Employees: 620.

Generating Units: Two nuclear units, each with one reactor, one steam turbine and two steam generators. Each unit had a net capacity of 500 megawatts upon inauguration.

Turbine-Generator

Manufacturer: Westinghouse Electric Corp.

Engineer-Constructor: Bechtel Corp.

Cooling Water Source: Lake Michigan – 375,000 gallons per minute pumped through each unit's condenser.

Fuel: 107,000 pounds of slightly enriched uranium dioxide. About one-fourth of the 121 fuel assemblies in each unit are replaced every 18 months.

Groundbreaking: November 28, 1966 (Unit 1)

Operating License: Issued – October 5, 1970 (Unit 1)
May 25, 1972 (Unit 2)

Commercial Operation: December 21, 1970 (Unit 1)
October 1, 1972 (Unit 2)



License Expiration: October 5, 2030 (Unit 1)
 March 8, 2033 (Unit 2)

Nuclear Regulatory Commission (NRC) regulation and engineering design ensure that radiation from the reactor and fuel source is contained within redundant barriers, which are designed to work automatically and immediately:

- The fuel source, ceramic pellets of uranium, is the first barrier of protection. Because the fuel is solid, many of the radioactive byproducts of fission remain locked inside the fuel pellets.
- The fuel rods that hold the pellets are the second barrier. The fuel rods are made of a zirconium alloy that resists heat, radiation and corrosion.
- The steel pressure vessel that contains the fuel rods is the third barrier and is up to 6.5 inches thick.
- The containment structure, a steel-reinforced concrete, steel-lined building with three-and-a-half-foot-thick walls, houses the reactor, steam generators and other critical components. It is the fourth barrier of protection.

Uranium pellets are contained in fuel rods that are grouped together to form a fuel assembly. There are approximately 240 pellets in a rod, 179 rods in an assembly, and 121 assemblies in a reactor core at Point Beach.



Two Creeks Solar, LLC

Two Creeks Solar, LLC, a wholly-owned indirect subsidiary of NextEra Energy Resources, LLC, is proposing a 150 megawatts alternating current photovoltaic solar generating facility in Two Creeks township. This facility will encompass approximately 1,815 acres of agricultural land and will consist of photovoltaic panels, power conversion units, inverters, collection lines, substations and an operation and maintenance building.

The facility will use photovoltaic solar modules connected to a single—axis tracking system which enables the panels to follow the sun from east to west throughout the day and has a rated capacity of 150 MW alternating current and 213 MW direct current.

Two Creeks Solar, LLC has filed a Certificate of Public Convenience and Necessity application with the Wisconsin Public Service Commission. If approved, the proposed construction schedule for the Two Creeks solar generation project and tie-line is for construction of the solar site to begin in August 2019, and the tie-line construction to begin in May 2020. The project is planned to be completed and in service by December 2020.

5-7 School Districts

The Town of Two Creeks has two public school districts within its' boundaries. Beyond the public schools, there are private schools operating in Manitowoc, Mishicot and Reedsville that may be used by town residents who desire their services. All of these schools provide a faith-based education to their students.

Mishicot Area School District. The Mishicot Area School District serves approximately 1,100 students with a staff of 86 professionals. The district includes: 1 elementary school, 1 middle school, and 1 high school. There are no Mishicot Area School District Facilities located in the Town of Two Creeks.

Kewaunee Area School District. The Kewaunee Area School District includes approximately 1,160 students with about 135 professionals. The district includes: 1 grade school/middle school, and 1 high school. All the facilities are located in Kewaunee.

5-8 Wireless Facilities

The demand for wireless communication with products such as smart phones, tablets, lap tops and mobile broadband devices has greatly increased the need for towers and associated equipment to provide this service. Service providers continue to expand coverage areas and look to increase opportunities for internet access. This need was formally recognized by the federal government by the passage of the Federal Telecommunications Act of 1996 and again in 2013 with the state of Wisconsin Act 20 which limited local regulation on height, setbacks and location of towers through Wisconsin Statute section 66.0404.

Currently there is one cellular tower located in the town located in Section 10. In addition, the Nuclear plant operates a microwave tower at the north end of the facility. Wireless internet service is available throughout the township from Mercury Wireless with a tower located at the Two Creeks Town Hall.

Federal Telecommunications Act of 1996. The federal Telecommunications Act of 1996 has increased the need for many local governments to examine their zoning ordinances to make sure that they do not discriminate against cellular communications in land use and zoning decisions. Under Section 704 of the act, townships do have the power to regulate the placement, construction and modification of personal wireless facilities, as long as the rules do not unreasonably discriminate between providers or prohibit service.



When seeking to regulate cellular towers, it is important to understand the Telecommunications Act and its intent. The Telecommunications Act of 1996 is the first major overhaul of telecommunications law in almost 62 years. The Act deregulated the cellular communication industry. The goal of this law is to let any communications business compete in any market against any other to foster competition between providers. Simply stated, the law seeks to establish competitive networks of cellular service across the country. The Federal Communications Commission (FCC) administers the law by issuing licenses to carriers. The licenses have specific timing requirements for companies to complete network coverage areas. Carriers work feverishly to complete these coverage areas (i.e. erect towers) before the license expires.

Wisconsin Statutes 66.0404 Mobile Tower Siting

The primary tool used by political subdivisions of the state to regulate the siting and construction of mobile communication towers, and other land uses, is zoning. The new law created in 2013 under Act 20 states specifically that a political subdivision may regulate cell phone towers under a zoning ordinance, but places strict limits on how it may do so. It specifies the procedures and standards a political subdivision must use in reviewing applications for permits to construct or modify towers. It also lists specific limitations or regulations that a political subdivision may not impose on the construction or modification of a tower. Significant among these, it specifies that a political subdivision may not prohibit the placement of cell phone towers in particular locations within the political subdivision, meaning essentially that it may not designate cell phone towers as a prohibited use in any zone. The new law does not disturb existing building code requirements, but it expressly prohibits any regulation of cell phone towers except by zoning ordinances, as specified in the law, and building codes. In response to these changes, Manitowoc County updated its mobile and radio broadcast services ordinance in 2014.

Tower Location and Coverage. How large is the service area for a single cellular tower? This is a very complicated question to answer. Coverage areas depend on topography and tower height. In order to provide a complete network, towers must be able to “see” one another. When cellular technology first came about, analog service required towers of a height of 300 feet or more. These towers could provide coverage within a five mile radius of the tower. Today, new digital technologies, PCS, and the wireless internet operate at a higher frequency than the older analog towers. This increased frequency reduces the coverage from a five-mile radius to a 2-3 mile radius. As a result, there is a need for more towers to serve the same area.

There are groups that prefer several shorter towers in a community while another group prefers the use of fewer taller towers. Each of these approaches can provide adequate coverage within a community, but do not necessarily eliminate the need for additional towers.

Communities like Two Creeks do have options to reduce the overall number of towers and minimize their visual impact. For example, co-location of several antennas on a single tower reduces the need for additional towers. Carriers also are more and more willing to camouflage their towers by locating the antenna on church steeples, tall buildings, silos, tall power transmission lines and water towers. Each of these techniques can help to minimize the impact of the wireless industry in the Town of Two Creeks.



Future Tower Needs in the Town of Two Creeks.

Unfortunately, it is not possible to develop a map of specific locations to site towers in the Town of Two Creeks. This is because networks provided by different carriers have different location requirements for towers. Moreover, as technologies change and new licenses are granted for additional carriers to move into the area, locations identified on a map would quickly become outdated.

One problem with 1996 Telecommunications Act, from a local perspective, is that simply providing coverage is not enough. Communities must provide for networks from competing carriers licensed in an area. The number of licenses granted, and in turn, the number of towers needed is controlled by the FCC.

It is anticipated that in the next 5-10 years the primary coverage for wireless service in the Town of Two Creeks will be along Hwy 42 corridor. Beyond this timeframe, coverage will likely extend next to the county trunk lines and finally to other remote areas of the Town. The rate of tower construction will depend on local demand, the number of licenses granted by the FCC, and the capacity of new towers to accommodate additional carriers.











5-9 Public And Community Facilities Recommendation

All the Community Facilities (Police/Sheriff, Fire Protection, EMT Services, Roads, Road Signs, Snow Plowing, Recycling Program, Hunting/Fishing Areas, and Parks and Recreation areas) in the Community Survey received higher than 90% for satisfaction. The only one that didn't meet the 90% was Ditch Maintenance. Fire protection received the highest satisfaction with 99.4%. With the level of satisfaction of services in the Town of Two Creeks and adequate building facilities in place, the Town of Two Creeks has no major expansions or rehabilitation projects planned, although matters may be addressed as they arise.





Legend

-  tower sites
-  streams
-  lakes
-  section
-  Kewaunee School
-  Mishicot School
-  Nuclear plant
-  old landfill
-  power line
-  substation



COMMUNITY FACILITIES MAP

Town of Two Creeks
Manitowoc County, Wisconsin

MAP 5-2

CHAPTER 6:

ECONOMIC DEVELOPMENT ELEMENT

This section contains a compilation of goals, objectives, strategies and programs to promote the stabilization, retention, or expansion of the current economic base on the Town of Two Creeks. With a predominant agricultural economic base and the lack of municipal sewer and water services available to the needs of intense industrial and commercial operations, this section focuses on smaller non-agricultural businesses, in addition to, agricultural use.

6-1 Goals, Objectives & Strategies

ECONOMIC GOAL:

Allow for economic development (i.e. commercial and industrial) in appropriate locations, which address the town's strong interest in preserving its rural character.

OBJECTIVE:

1. Any new development projects should be located as to reduce the possibility of land use conflict between incompatible uses.
2. Any economic development project will be planned to preserve and promote the rural character of the Town of Two Creeks and adapt to a changing tax structure.

STRATEGIES:

1. Encourage large industrial, commercial, retail and service development to locate in areas where municipal services can be provided economically without creating land use conflicts.
2. Support small and home-based businesses, which do not harm the rural atmosphere of the township and/or create land use conflict.
3. Recognize working farms as an economic asset and work to preserve and protect quality farmland.
4. Identify future land uses such as Large Farming Operations and limit residential development in relation to these areas.
5. The "Land Use Evaluation Checklist (gauged against the 2001 land use survey and supporting analysis conducted by the Land Use Committee) will be used as a management tool, by the Town Board in approving future improvements/change in the town pertaining to smart growth.



6-2 Labor Force Characteristics

A brief review of the socio-economic characteristics of the planning area and an analysis of the changes that have occurred will be discussed in this section to portray the general overall condition of the areas economy. Shifts in the age and sex characteristics of residents, seasonal changes, and employment opportunities can all cause fluctuations in the number of persons in the civilian labor force. According to the Bay Lake Regional Planning Commission, the 1999 civilian labor force in Manitowoc County was 43,594, which is a 5.28 percent increase from 1990. Over 16 percent of this labor force worked outside the County, with Sheboygan County being the largest recipient with 2,395 commuters. Other counties include Brown and Calumet with slightly over 1,000 commuters each. Nearly 1,900 workers travel into the County for employment, over 6,176 workers travel out of the County for employment. This results in a net migration of 4,278 workers out of Manitowoc County. While specific destinations of commuters are unavailable for the Town of Two Creeks, Table 6-1 illustrates that 46 percent of the people travel 20 minutes or longer to their place of employment, down 23.8 percent from 1980.

Table 6-1

Travel Time in Minutes	Town of Two Creeks			
	1990	%	2010	%
Under 10	73	11.0%	44	21.6%
10 to 19	196	31.0%	50	24.6%
20 to 44	253	40.0%	103	50.5%
45 or more	38	6.0%	7	3.4%
Worked at home	NA	NA	NA	4.7%
NA - Not Available				

Source: U.S. Census of Population and Housing. WIS.

TABLE 6-2

MANITOWOC COUNTY COMMUTING PATTERNS

	Commute Into	Commute From	Net Commute
Brown	1,106	497	-609
Calumet	1,370	507	-863
Kewaunee	275	268	-7
Sheboygan	2,395	538	-1,857
Elsewhere	1,030	88	-942
Total	6,176	1,898	-4,278
Work Within Manitowoc County			

Source: WI DWD, Bureau of Workforce Information. Wisconsin Commuting Patterns, 1994

Place of Work

Figures 6-1, 6-2 and 6-3 compare relevant census data from the 1990, 2000 and 2010 census. The largest industry in Manitowoc County in 1990 was the agriculture industry, which accounted for 34 percent of employment. The agriculture industry has declined the last two decades and has been replaced by manufacturing as the largest industry. From 2000 to 2010, transportation saw the largest increase from 6% to 14.9%. Construction, education, financial services, real estate and retail trade experienced moderate increases, while wholesale trade, agriculture services, and manufacturing saw decreases during the same period.

Manufacturing increased to 35% in 2000, but decreased to 28.8% in 2010. This number is back to 1990 figures. From 2000 to 2010, the trend of the employment is a slight shift from manufacturing and agriculture to transportation and health care.



Figure 6-1

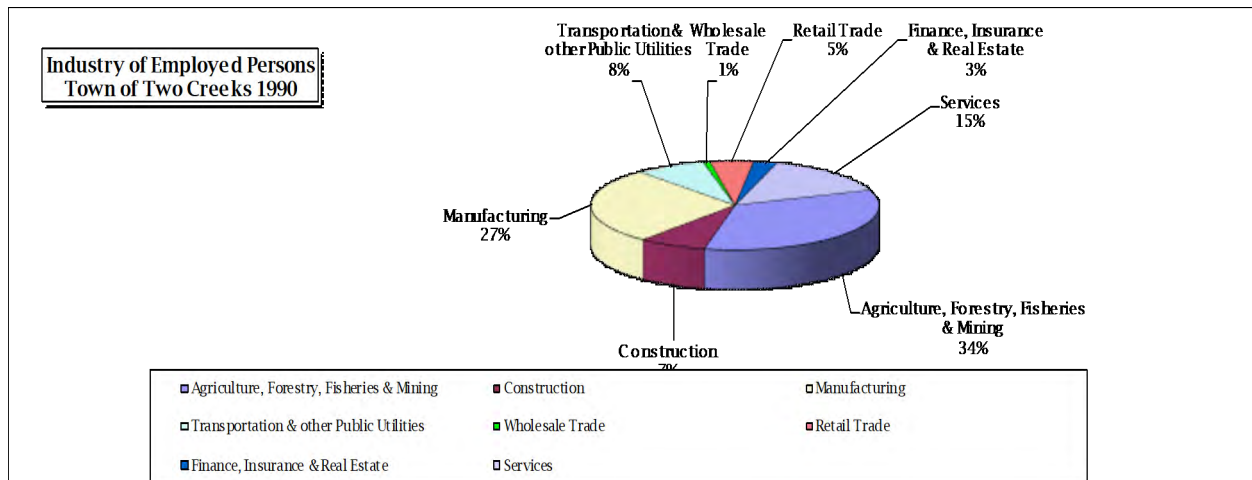


Figure 6-2

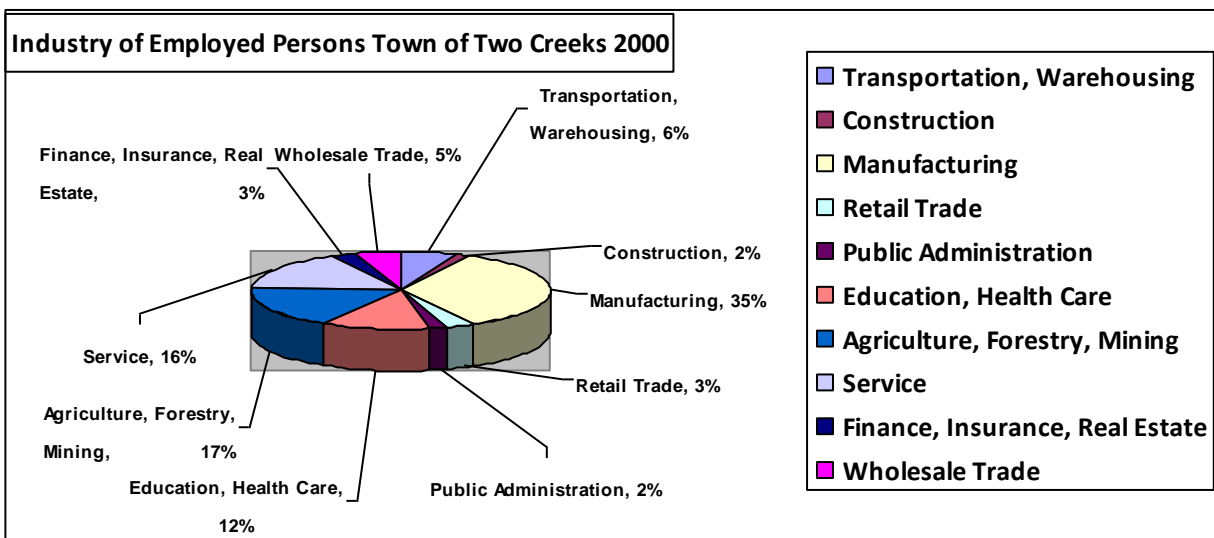
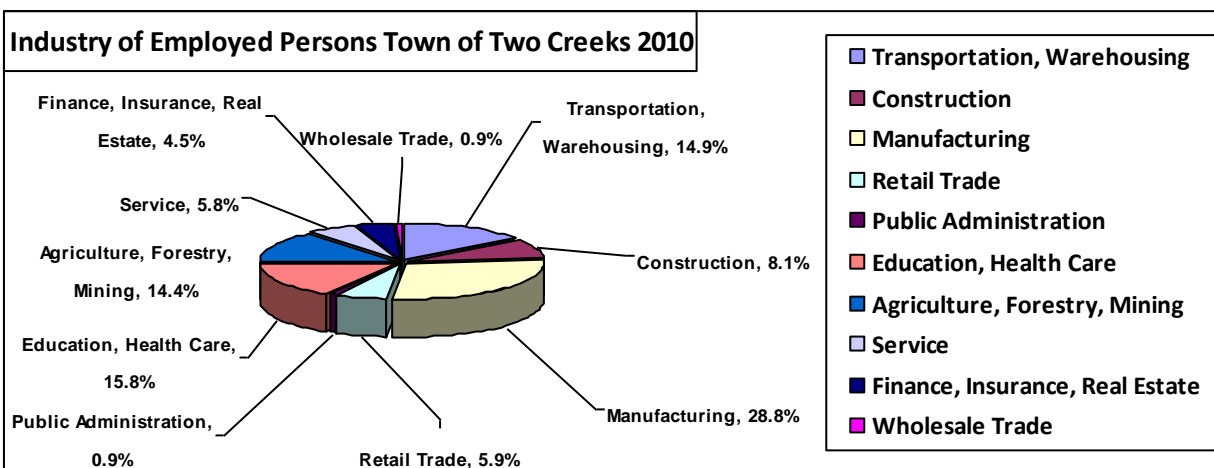


Figure 6-3



Source: U.S. Census of Population and Housing. WIS. POP



Occupation

In comparing occupational related data from the 1990, 2000 and 2010 census it appears that there was a considerable shift in farming, forestry & fishing. In 2000, 14 persons in the Town of Two Creeks had an occupation in farming, forestry and fishing fields compared to 90 in 1990. The census bureau combined categories for the 2010 census, adding construction and maintenance to the farming data, which together showed no increase for those occupations. At the same time, transportation, material movers, production and managers and professionals had large increases. See Figures 6-4, 6-5 and 6-6.

Figure 6-4

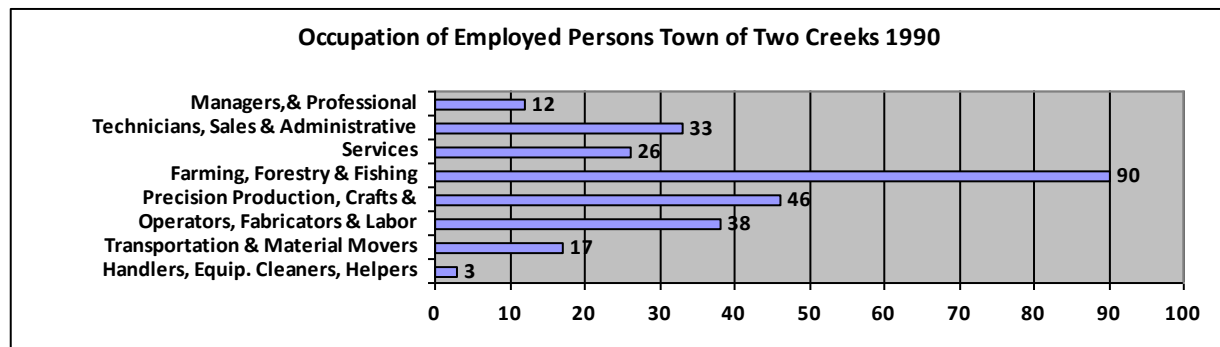


Figure 6-5

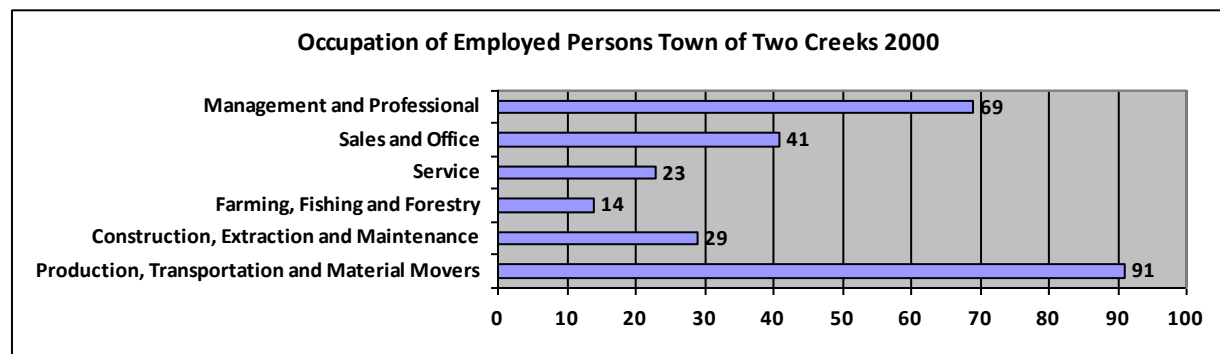


Figure 6-6



Source: US Census Bureau, American FactFinder



6-3 Unemployment Rate & Forecast

Table 6-3 shows the labor force aspects for the study area. The labor force is the sum of employed and unemployed persons who are 16 years and older. (People who are not working include people who are not in the labor force. Examples of people who are not working but who are not unemployed are retirees or people who choose not to work.) According to the 1980 Census, there were 205 persons in the civilian labor force of the town. Of this total, 127 were male and 78 were female. At the time of the 1980 Census, 19 persons (15 male & 4 female) were unemployed, representing an unemployment rate of 9.27 percent. This is nearly 2 ½ the County rate of 3.8 percent and slightly more than 2 times the State rate of 4.2 percent. Then in 1990, the unemployment rate for the town declined significantly to 5.36 percent. In 1990 there were 280 persons in the civilian labor force in the town. Of this total, 173 were male and 107 were female. Of the 280 persons, 15 (7 males & 8 females) were unemployed. Now in the 2000 Census, there were 275 persons in the civilian labor force. Of the 275 persons, 8 were unemployed. The unemployment rate for 2000 was at 2.91 percent. Another significant drop since 1990.

Table 6-3

	TWO CREEKS	COUNTY	STATE
1990	5.4	4.9	4.4
2000	2.9	3.4	3.5
2010	8.3	9.9	8.7

UNEMPLOYMENT RATES OF PERSONS 16 YEARS AND OLDER

* * * * information not available

SOURCE: U.S. CENSUS BUREAU, AND W.D.O.A.

6-4 Income Characteristics

From the 2000 population census, data was collected to estimate that the Median Household Income in the Township of Two Creeks is around \$45,625. It was estimated that in 2000, 81.6% of the resident income came from salaries and wages. About 12% of resident income came from self-employed workers in own not incorporated businesses. Table 6-4 compares personal per capita incomes of Manitowoc County, the State and the United States. It appears the even though the per capita income has increased for the County it is still lower than the per capita income of the State for the last decade.

TABLE 6-4 PER CAPITA PERSONAL INCOME								
	2005	2006	2007	2008	2009	2010	1 Year	5 Year
U.S.	\$25,035	\$25,267	\$26,688	\$27,589	\$26,409	\$26,059	-1.3%	3.0%
Wisconsin	\$24,761	\$24,875	\$25,993	\$26,932	\$25,897	\$25,458	-1.7%	2.3%
Manitowoc	\$22,058	\$22,263	\$24,006	\$26,639	\$25,193	\$24,321	-3.6%	8.5%

Source: U.S. Census Bureau. American FactFinder

6-5 Sites For Business and Industrial Development

The majority of the persons in Two Creeks are employed outside the Township. In 2000 the mean travel time to work was 24.6 minutes. This length of commute would be long enough to drive completely out of the town from any location within it. The Town has some interest in promoting the development of Hwy 42 for commercial services.



CHAPTER 7: **INTERGOVERNMENTAL COOPERATION ELEMENT**

This section identifies existing and potential conflict between the Town of Two Creeks and other units of government within its areas. A compilation of goals, objectives, strategies and programs have been identified to promote the joint planning with other jurisdictions, including school districts.

7-1 Goals and Objectives

INTERGOVERNMENTAL COOPERATION GOAL:

Promote cooperation among neighboring units of government (Townships of Mishicot, Two Rivers, and Carlton (Kewaunee County)).

OBJECTIVE

1. Consolidate community resources when possible.
2. Consolidate community planning efforts when possible.

STRATEGIES:

1. Expand joint recycling and waste services with neighboring units of government.
2. Work with the Village of Mishicot, addressing future boundary issues to minimize possible conflicts.
3. Promote cooperation with Manitowoc County regarding plan updates and amendments to the Town's Plan.
4. Work with Manitowoc County regarding various zoning issues (i.e. variances, special exception permits, and zoning amendments) for consistency with this plan.

7-2 Planning Documents

Most of the Town of Two Creeks land use controls are administered through the Manitowoc County Planning and Park Commission. The County uses the following planning documents.

Parks and Open Spaces

The primary purpose of these documents is to provide guidance to the County, Cities, Villages and Towns of Manitowoc County in their efforts to meet the recreation needs of the people and to aid in preserving the bountiful natural resources of the area. Under Section 27.04 of the Wisconsin Statutes, the Commission prepared a plan for the County park system in 1997, officially updating plans completed in 1963, 1972, 1978 and 1985. This plan was also designed to meet the statutory responsibilities of the Commission and to obtain eligibility for another five-year period under LAWCON and for the Acquisition and Development of the Local Parks Programs. Two Creeks currently does not have a county park, but they do have a natural area and a Town park. The Two Creeks Buried Forest State Natural Area is located in Section 2 and the Two Creeks Town Park is located in Section 11



Farmland Preservation Plan

As a result of the State of Wisconsin Farmland Preservation Act of 1977, Manitowoc County prepared the Manitowoc County Farmland Preservation Plan. This 1980 plan provided guidance to both units of government and County residents in their attempts to preserve agricultural lands and planned urban growth. This plan met the necessary State Farmland Preservation Act requirements to qualify land zoned Exclusive Agricultural (EA) for a tax credit based on the landowner's income and property taxes. The plan was revisited in 1986 to include changes in land use resulting in urban growth and in farmland reduction. In addition, 1994 changes to the State Farmland Preservation Act that increased the tax credits and added soil conservation requirements to the Act were included in the 1986 update. In 2009, the Wisconsin Working Land Initiative was passed as part of the state's 2009-2011 biennial budget which expanded and modernized the existing farmland preservation program. The changes included new zoning standards, increased tax credits, improved consistency between local plans and ordinances, established Agricultural Enterprise Areas (AEAs) and developed a purchase of agricultural conservation easement program (PACE). Manitowoc County updated its Exclusive Agriculture zoning ordinance in 2011 and its Farmland Preservation Plan in 2015 to incorporate these changes.



Priority Watershed Plan

A plan created to assist the towns with erosion and land use control for urban areas by preventing runoff into natural water areas. One watershed plan has been developed within the Town of Two Creeks. Below is the key derived from the plan.



East Twin River Watershed

- 1.3 tons of erosion per acre along the East Twin River, which is below the County average. The East Twin River is a relatively clean river according to these analysis. Sandy soils in this area may be a contributing factor. There are a number of high quality tributary streams on this river.

County Development Plan

The Manitowoc County 20-Year Comprehensive Plan was adopted on December 15, 2009 in compliance with state planning legislation s.66.1001, Wis. Stats. This planning document contains two volumes. Volume I describes the desired development of the County over the next 20 years. It includes information on land use issues, recommended county development / preservation opportunities and strategies, land use projections, a 20-year future land use map and a plan implementation guide. Volume II contains countywide background information and data that served as the basis in the creation of the county's development strategies and 20-year land use plan such as natural, agricultural and cultural resources; population and housing; economic development; transportation; utilities and community facilities; and land use controls and inventory.

Lakes Classification Project

In 1999, a citizen advisory group was formed to make recommendations to the Manitowoc County Land Conservation Committee and Zoning Committee regarding the classification and management of the County's lakes and streams. These recommendations will be used to update the County's Shoreland/Floodplain Zoning Ordinance which regulates areas within 1,000 feet of a lake and 300 feet of a river or stream.

Through the project, all lakes, rivers and streams were placed into three classes: natural waters, semi-developed waters and developed waters. Lakes were placed into these categories according to the potential development, current development patterns, and the quality of existing and potential aesthetic quality and habitat. Development standards were recommended for each class to include setback for structures, lot sizes, impervious areas, shoreline buffer areas and erosion control practices for development projects. In total, four public meetings were held throughout the County at which the recommendations were presented and comments received and analyzed from the public. One major concern of the public was, existing non-conforming structures in these areas. The intent of the recommendations was to thoroughly address these concerns by calculating building area based more on a formula calculation lot coverage area of impervious areas rather than the straight set back dimensions currently used.

State Transportation Plans

In November 1994, the Wisconsin Department of Transportation adopted a comprehensive, long-range inter-modal transportation plan called *Translinks 21*. The plan, which is required by the federal Inter-modal Surface Transportation Efficiency Act (ISTEA), will guide transportation policies, programs and investments through the year 2020. Overall, the plan calls for a total investment of approximately \$39 billion (1994 constant dollars) by 2020. As part of Translinks 21, the following transportation modal plans have been, or are in the process of being developed.

Wisconsin State Airport System Plan 2020

Wisconsin State Bicycle Transportation Plan 2020

Wisconsin State Highway Plan 2020

Wisconsin State Pedestrian Policy Plan 2020

Wisconsin State Rail Plan 2020

Wisconsin State Transit Plan 2020



State Recreational Trails Network Plan

This plan identifies a series of potential trail corridors across Wisconsin that would link existing trails, public lands, natural features and communities. It describes a vision of a statewide network of interconnected trails into which smaller state, partnership, county, municipal and private trails feed. Preserving corridors for future use is a very important consideration when converting a rail line to a recreational and alternative transportation corridor. Under current Federal Law, once preserved the corridor will remain available for future rail use.

Watersheds

One watershed encompasses the whole Township of Two Creeks. The watershed that covers all of Two Creeks is the East Twin River Watershed.

Wisconsin Basin Initiative

The East Twin River Watershed is part of the Lakeshore Basin Partnership team. Developed in 1998, a partnership referred to as the “Wisconsin Basin Initiative” was begun by the Department of Natural Resources, University of Wisconsin-Extension, and the Natural Resources Conservation Service to promote citizen-based watershed programs. The initiative has pulled together Basin Partnership Teams to promote clean water, wise land-use, and protection and stewardship of Wisconsin’s natural resources. The Basin Partnership Teams are comprised of citizens, organizations, businesses, agencies, and others, and are meant to provide a forum for collaborative efforts related to natural resource management. Specifically, the Basin Partnership Teams work to identify, prioritize and address natural resource management issues within their basin. By bringing individuals from all sectors of society together, it is envisioned that innovative and collaborative approaches to resource management will evolve.

7-3 Inventory of Existing or Potential Conflicts

Proposed Conflict Resolution Process

A chief purpose of a comprehensive plan is to devise a useful strategy for the orderly transition of land within “proper” aesthetics of the community’s vision and goals. It is imperative to recognize the existing or possible conflicts between land uses in the town, in order to achieve the community’s vision and goals. This would involve an analysis of uses, where the characteristics of a particular land use are incompatible with an adjoining use.

This discussion is somewhat relative because there may be some level of undesirability between various land use combinations. Nonetheless, there are some typical associations that may produce problems. A typical example might be a residential development in close proximity to a particular industrial or commercial development that might conflict with sight, sound, odor or other undesirable characteristics. Another example could be an auto salvage yard in proximity to a recreational or natural area, or a home occupational, commercial-type uses in a single-family area that has outgrown its roots.

Loss of Agricultural Land - Preserving productive farmland and maintaining agricultural production efficiencies are vital components to sustaining agriculture as a local business opportunity and part of the community’s character. Loss of productive farmland soils to development, will directly impact the Town’s overall potential for agricultural productivity. In addition, fragmentation of town agricultural lands by non-farm related development can indirectly impact or eliminate agricultural resource production that are better suited on larger tracts of contiguous resource lands. For example, the construction of homes in the middle of fields or splitting larger farm tracts into several residential ownerships may cause a much greater loss of agricultural land than the actual acres taken up by home construction.



Conflicts Between Residential and Farm Uses - Demand for rural residential living environments and recreational lands has resulted in a number of potential land use issues: 1) increased conflicts between farming operations and rural residents; and 2) loss of farming efficiency as homes and new subdivisions are built or designed with little regard to continued use of surrounding lands for agricultural production. The potential for conflict between farm and non-farm residential uses is often greatest near the active farm site when farm-related activities such as operating machinery, animal management (e.g., housing, feeding, product processing, manure storage), farm traffic, etc..., operations occur on a daily, seasonal or year-round basis. Establishing residential building setbacks is one of a number of land use management techniques, which can help evade or lessen potential nuisance complaints and land use conflicts.

Loss of Other Traditional Rural Land Uses - Conserving larger tracts of contiguous town agricultural lands, woodlands, and other rural open spaces is important to sustain non-agricultural, rural land uses such as hunting, snowmobiling, wildlife habitat, etc... that are carried out on private lands. Development and fragmentation of such areas into home sites, businesses, roads, parking and landscaped areas can considerably impact or eliminate all or some of these desirable traditional rural land uses which are often better suited on larger tracts of contiguous resource lands.

7-4 Units of Government

Surrounding Townships

The Town of Two Creeks is neighbored by 3 townships, Two Rivers, Mishicot and Carlton in Kewaunee County. The Town of Two Creeks should be aware of land use policies and decisions in these towns, especially when near common borders. Contradiction of land uses near these borders has the potential to produce conflict, being incompatible with individual town planning efforts.

The Town of Two Creeks provides many services to town residents. Likewise, the surrounding townships and villages offer many of the same services. Cooperation between towns and villages may enable Two Creeks to provide the same services more efficiently and cost effective.

Manitowoc County

The Town of Two Creeks relies on Manitowoc County to regulate many land uses, with zoning being used as the primary tool. County zoning has been in affect in the town since April 13, 1966. Since that time, few revisions have taken place. This being said, Two Creeks should work with the County to not only update zoning text, but also update classifications and districts which are included on the Town of Two Creeks zoning map. These efforts should coincide with the issues identified in this plan and the 2022 Land Use Map, which were developed during the planning process.

In addition, Two Creeks should work with the County in regards to any proposed zoning amendments. Currently, both units of government hold separate meetings that address these issues. A fixed procedure in which the applicant first applies with the town for approval should be followed. If the town recommends approval of the zoning amendment, then the County can proceed with their zoning amendment process.



CHAPTER 8: **LAND USE ELEMENT**

This element includes a compilation of goals, objectives, strategies, and programs to guide the future development and re-development of properties located within Two Creeks. The amount, type, intensity and net density of existing land uses are disseminated to allow analysis of supply, demand, price, and opportunities for development in uses providing the least amount of potential land use conflicts. Included in the analysis are projections of future residential, agricultural, commercial and industrial land uses in five-year increments. The future desired land uses have been identified on a “Town Land Use Map” grouping these areas into categories as they pertain to the development and prosperity of the Town of Two Creeks.

8-1 Goals, Objectives & Strategies

LAND USE GOAL:

Provide a mix of land uses which are consistent with the goals and objectives of this plan which continue to provide the rural environment desired within the Town of Two Creeks

OBJECTIVES:

1. Maintain the area designated as “Prime Agricultural” on the 2039 Year Preferred Land Use Map as an Agricultural Core Area.
2. Maintain a mix of agricultural, rural residential, open space, and small business uses in designated areas.
3. Promote development in a manner that reduces the cost associated with providing community services to the town.
3. Focus growth in or near areas along USH 42, CTH BB and CTH V.

8-2 Inventory of Existing Land Use Controls

Land Use Regulations

The land use controls for the Town of Two Creeks are administered through the Manitowoc County Planning and Park Commission. On April 13, 1966 the town adopted County Zoning under the Wisconsin State Statues. The following regulations are included in the November 15, 1988 codification of the Manitowoc County Code.

Manitowoc County General Zoning Ordinance

The Town of Two Creeks adopted the Manitowoc County Comprehensive Zoning on April 13, 1966. Administered through the Manitowoc County Planning and Park Commission, this ordinance pertains to the regulating and restricting of the locations, construction and use of buildings, structures, and the use of land in County of Manitowoc. It provides for the public health, safety and general welfare of the unincorporated areas of Manitowoc County. This ordinance, as amended in 1980, 1981, 1982 and 1988, serves as the main land use control in the Town of Two Creeks. A comprehensive revision of the County’s General Zoning and Land Use Regulation Ordinance was adopted in 2011. This revision was completed to implement the newly adopted 20-year land use and farmland preservation plans.



Manitowoc County Subdivision Ordinance

Under Chapter 236 of the Wisconsin Revised Statutes, Manitowoc County has established the Manitowoc County Subdivision Ordinance governing the subdivision or other division of land. The purpose of the ordinance is to promote public health, safety and general welfare by lessening road congestion, promoting the orderly layout of land, as well as other problems associated with land divisions.

Manitowoc County Shoreland/Floodplain Ordinance

The Town of Two Creeks shoreland and floodplain ordinance derives from the Manitowoc County Ordinance that was adopted from the Wisconsin State Statutes. The Shoreland Ordinance is designed to help protect and promote healthful conditions for both humans and wildlife. While the floodplain ordinance was designed to protect human life and property and reduce the hazard of floods.

Manitowoc County Setbacks Ordinance

The Town of Two Creeks adopted the Manitowoc County Setbacks Ordinance, which was drafted in 1960. Administered through the Manitowoc County Planning and Park Commission, this ordinance pertains to the regulating and siting of structures near all roadways in the township. According to this ordinance, roads within Two Creeks are broken into five categories: class 1 highways which are town roads, class 2 highways which are county trunks, class 3 being state trunks, class 5 which are expressways, freeways and divided highways and class 4 highways that include any class or portion of class in which frontage has been developed to densities with principle structure closer than 300 feet. Amended in 1973, 1977, 1980 and 2007 this ordinance provides for the public health, safety and general welfare of the incorporated areas of Manitowoc County.

Mobile and Radio Broadcast Services Ordinance

Wisconsin Statutes 66.0404, revised by Wisconsin Act 20 in 2013 placed strict limits on how a political subdivision regulates communication facilities. It specifies the procedures and standards to be used in reviewing applications for permits to construct or modify towers. It also lists specific limitations or regulations that a political subdivision may not impose on the construction or modification of a tower. Significant among these, it specifies that a political subdivision may not prohibit the placement of cell phone towers in particular locations within the political subdivision, meaning essentially that it may not designate cell phone towers as a prohibited use in any zone. In response to these changes, Manitowoc County updated it's mobile and radio broadcast services ordinance in 2014.

Manitowoc County Private Sewage Systems Ordinance

In July of 2000, the State of Wisconsin adopted revisions to the on-site wastewater disposal code. The revisions added numerous options for treating wastewater with Private On-site Wastewater Treatment Systems (P.O.W.T.S.). Previous to the revisions, 24 inches of suitable, native soil was required to place a septic system. With the new requirements, land with as little as 6 inches of suitable soil may qualify for a septic system by using new technologies such as aerobic systems, sand filters and other technologies. With the ratification of the codes by Manitowoc County, there is more land considered developable within the Town of Two Creeks. While the exact numbers for Two Creeks are unavailable, the State estimated that the amount of land permitting an on-site sewage system have increased by 37% statewide. While this may have some impact on previously un-developed lands in the town, the aforementioned County ordinances should keep this impact to a minimum. In addition, this comprehensive land use plan will provide the insight to curtail development in areas not deemed suitable. The Private Sewage System Ordinance was again revised in 2017 to update maintenance responsibilities, plan approval, holding tank specifications and procedures for dealing with new treatment technologies.



Erosion Control Ordinance

There is no erosion control ordinance for the Town of Two Creeks; erosion control is practiced in the Town and in the County. The Soil and Water Department controls most of the erosion plans, which are spelled out in the “Wisconsin Best Management Practices for Erosion”. The plans mainly revolve around agricultural practices.

Special Boards

In addition to the Town Board, the 7 member County Planning and Park Commission consider re-zoning requests and variances to the County’s land division ordinance. In addition, the 5 members on the County Board of Adjustments hear conditional use requests and all other area variances requested under County Zoning within the Town of Two Creeks.



8-3 Existing Land Use

The concept of “Land Use” consists of identifying and classifying activities and their relation to how the land is used. In order to address land use issues to affect the Town of Two Creeks through 2039 the plan must address past and present land uses as well.

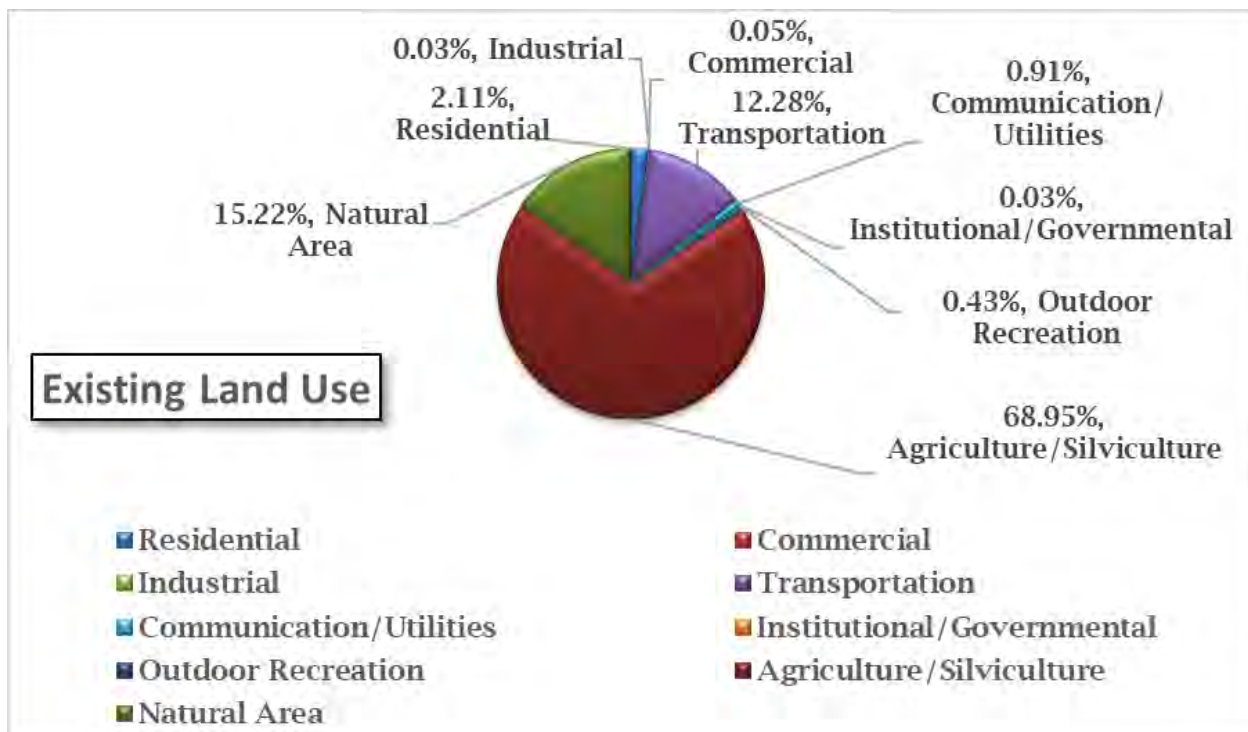
Current Land Use Inventory

Current land use data used for this analysis was developed by Bay Lake Regional Planning Commission in 2010. This data includes nine defined categories that consist of residential, commercial, industrial, transportation, communication/utilities, institutional/governmental, outdoor recreation, agriculture/silviculture and natural areas.

The most predominant land use in the Town of Two Creeks is agriculture/silviculture accounting for 69% of the town. Natural areas contain 15% of the town’s area while outdoor recreation contains approximately .5%. The total passive land use totals are approximately 84% of Two Creek’s land area. This solidifies the fact that the town is a rural community in nature. This rural character is something that the residents identified as important when planning for the Town’s future. The remaining 16% of the current land uses within the town are more intensive. Roads and other transportation uses make up 12%, with the remaining 4% consisting of uses such as single-family residential, industrial, commercial, utilities and governmental uses.

These 2010 land use figures do not take into account the proposed Two Creeks Solar, LLC solar generating facility being planned in the town. The area of agriculture land slated for solar energy production is approximately 1,030 acres with an overall project area of 1,815 acres. This potential land use impact is roughly 9% - 16% of the overall land mass in Two Creeks. The Two Creeks Solar, LLC project is further described in section 5-6.

Figure 8-1



Source: Bay Lake Regional Planning Commission, 2010



EXISTING ZONING CLASSIFICATIONS

Table 8-1

DISTRICTS	LOT REQUIREMENTS		STRUCTURE REQUIREMENTS			
	AREA IN SQ. FEET/ACRES	LOT WIDTH IN FEET	MAXIMUM HEIGHT	ROAD 60' town road 100' CTH, STH	PROPERTY LINES Principal/ Accessory	MINIMUM SETBACK FROM ORDINARY HIGH WATER MARK
EA EXCLUSIVE AGRICULTURE	20 ACRE	150	60'	60' OR 100'	25'/10'	75'
GA GENERAL AGRICULTURE	10 ACRE	150	60'	60' OR 100'	25'/10'	75'
LE LARGE ESTATE RESIDENTIAL	217,800 5 ACRE	150	35'	60' OR 100'	25'/10'	75'
SE SMALL ESTATE RESIDENTIAL	2 ACRE	150	35'	60' OR 100'	25'/10'	75'
RR RURAL RESIDENTIAL	43,560 1 ACRE	150	35'	60' OR 100'	25'/10'	75'
HD HIGH DENSITY RESIDENTIAL	21,780 .5 ACRE	100	35'	60' OR 100'	7.5'/5'	75'
LR LAKE RESIDENTIAL	10,000 OR 20,000*	100	35'	60' OR 100'	7.5'/5'	75'
CB COMMERCIAL/BUSINESS	10,000	100	60'	60' OR 100'	7.5'/5'	75'
ID INDUSTRIAL	43,560 1 ACRE	150	60'	60' OR 100'	25'/10'	75'
NA NATURAL AREAS	20 ACRE	150	35'	60' OR 100'	25'/10'	75'

*Lot Size requirement for a sewerred vs. an unsewerred lot.

Source: Manitowoc County Planning and Park Commission



8-4 Existing Zoning Classifications

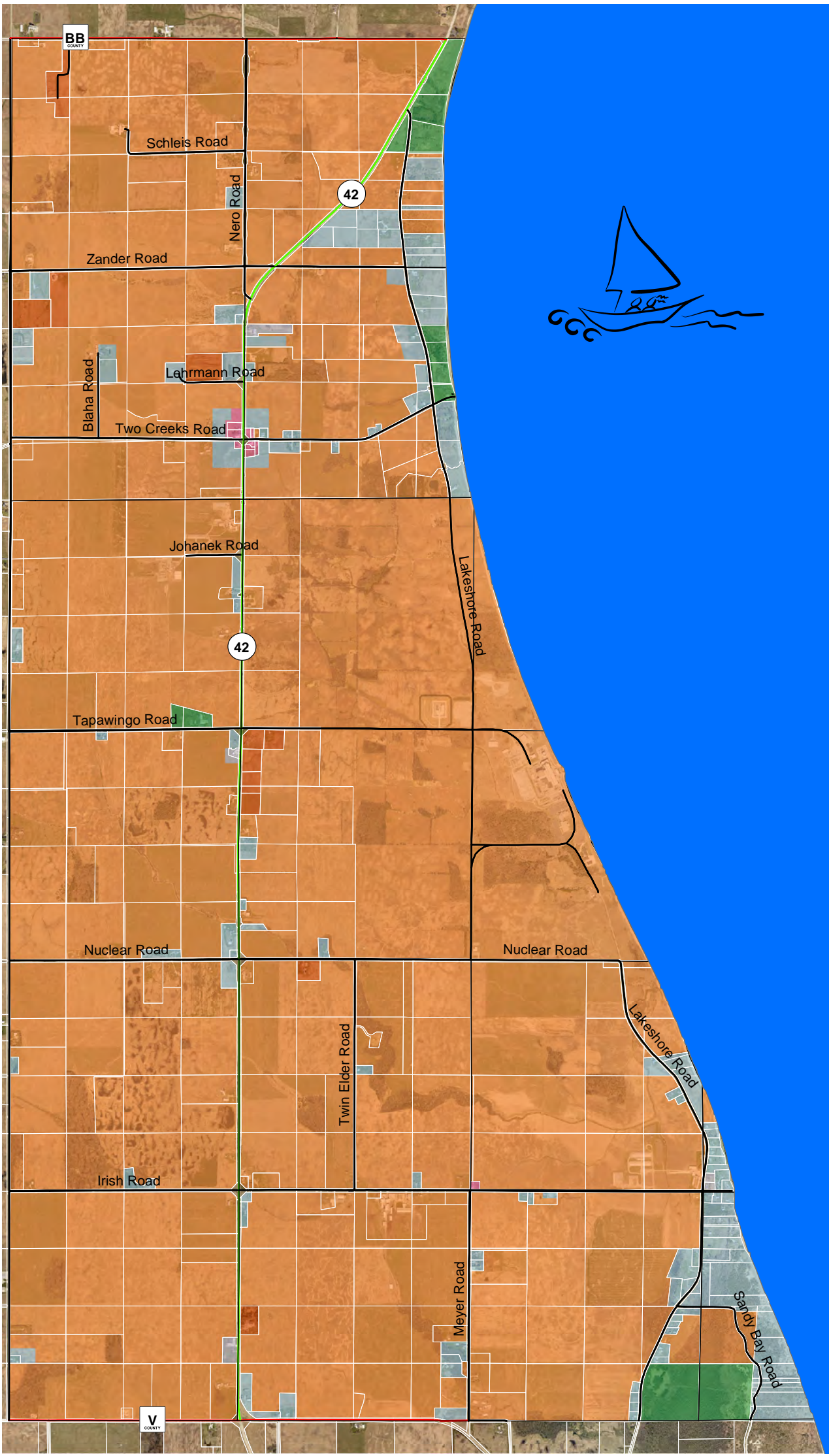
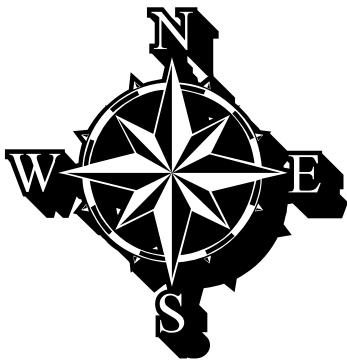
The table listed on the previous page includes all the zoning districts in the Town of Two Creeks as administered through Manitowoc County. These general zoning districts are the main land use control implemented throughout the town. The EA, Exclusive Agricultural District is by far the largest, covering nearly 80 - 90%. This district allows owners to enroll into the Farmland Preservation Program if the parcel or parcels contain more than 20 acres and its designation provides for few non-agricultural uses. The remaining agricultural district (GA) allows for agricultural uses, as well as, low density residential. In some instances, light business uses may be permitted upon the issuance of a conditional use permit. There is one residential area that exists in the Town and it is located in un-incorporated Two Creeks. There are also two business districts located in the Town. One is located in un-incorporated Two Creeks, the other is located at the intersection of Irish Road and Meyer Road.





Legend
Zoning

- CB
- EA
- GA
- HD
- ID
- LE
- LR
- NA
- RR
- SE





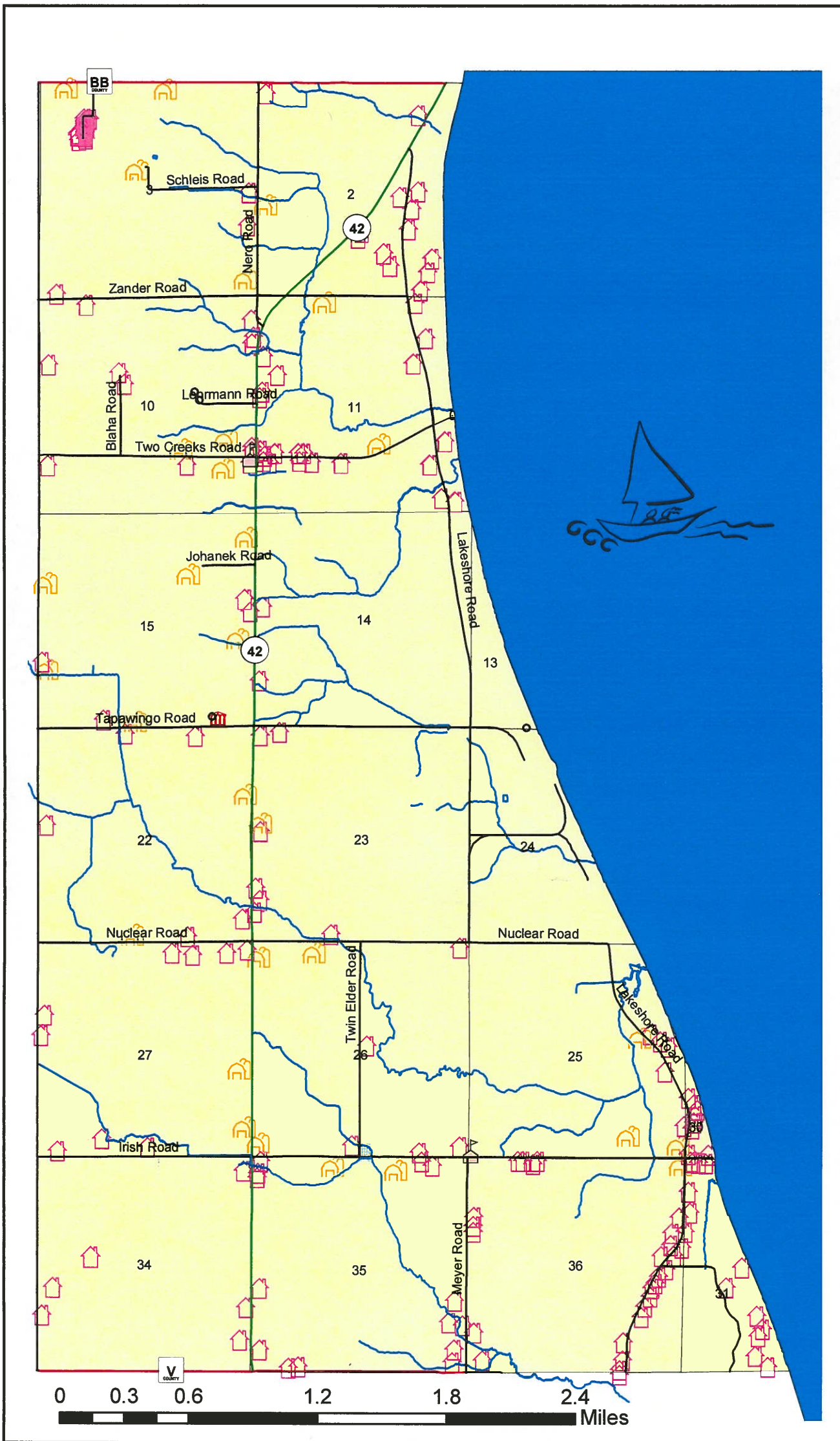
EXISTING ZONING MAP

Town of Two Creeks
Manitowoc County, Wisconsin



STRUCTURE TYPE

-  business
-  farm
-  out building
-  town hall
-  single-family home



EXISTING DEVELOPMENT

Town of Two Creeks
Manitowoc County, Wisconsin

SOURCE: Manitowoc County
Planning and Park Commission

MAP 8-2

8-5 Existing Land Use Issues and Conflicts

A chief purpose of a comprehensive plan is to devise a useful strategy for the orderly transition of land within “proper” aesthetics of the community’s vision and goals. It is imperative to recognize the existing or possible conflicts between land uses in the town, in order to achieve the community’s vision and goals. This would involve an analysis of uses, where the characteristics of a particular land use are incompatible with an adjoining use. This discussion is somewhat relative because there may be some level of undesirability between various land use combinations. Nonetheless, there are some typical associations that may produce problems. A typical example might be a residential development in close proximity to a particular industrial or commercial development that might conflict with sight, sound, odor or other undesirable characteristics. Another example could be an auto salvage yard in proximity to a recreational or natural area, or a home occupational, commercial-type uses in a single-family area that has outgrown its roots.

Loss of Agricultural Land - Preserving productive farmland and maintaining agricultural production efficiencies are vital components to sustaining agriculture as a local business opportunity and part of the community’s character. Loss of productive farmland soils to development, will directly impact the Town’s overall potential for agricultural productivity. In addition, fragmentation of town agricultural lands by non-farm related development could indirectly impact or eliminate agricultural resource production that is better suited on larger tracts of contiguous resource lands. For example, the construction of homes in the middle of fields or splitting larger farm tracts into several residential ownerships may cause a much greater loss of agricultural land than the actual acres taken up by home construction.

Conflicts Between Residential and Farm Uses - Demand for rural residential living environments and recreational lands has resulted in a number of potential land use issues: 1) increased conflicts between farming operations and rural residents; and 2) loss of farming efficiency as homes and new subdivisions are built or designed with little regard to continued use of surrounding lands for agricultural production. The potential for conflict between farm and non-farm residential uses is often greatest near the active farm site where farm-related activities such as operating machinery, animal management (e.g., housing, feeding, product processing, manure storage), farm traffic, etc... operations occur on a daily, seasonal or year-round basis. Establishing residential building setbacks is one of a number of land use management techniques, which can help evade or lessen potential nuisance complaints and land use conflicts.

Home Based Businesses - Home businesses are becoming more popular as the workforce is disseminated from the office environment, and more people with entrepreneurial spirit are “testing the waters” of self-employment from their homes. In addition, employees can be networked to the home office with Internet services and overnight mail. The transformation of the worldwide web and fiber optic technology will literally change the way people work and do business, now and in the future. Land use conflicts such as increased neighborhood noise, glare, traffic or rural aesthetics may occur related to such home-based businesses if such impacts are not properly considered or the business becomes the primary use of the property. To address this issue, specific policies must be generated in the plan to minimize any potential impacts.



Loss of Other Traditional Rural Land Uses - Conserving larger tracts of contiguous Town agricultural lands, woodlands, and other rural open spaces is important to sustain non-agricultural, rural land uses such as hunting, snowmobiling, wildlife habitat, etc... that are carried out on private lands. Development and fragmentation of such areas into home sites, businesses, roads, parking and landscaped areas can considerably impact or eliminate all or some of these desirable traditional rural land uses which are often better suited on larger tracts of contiguous resource lands.









AGRICULTURAL PROTECTION AREAS

AGRICULTURAL USE





-  1000' Buffer of Farmsteads
-  1000' Buffer of Manure Storage Facilities

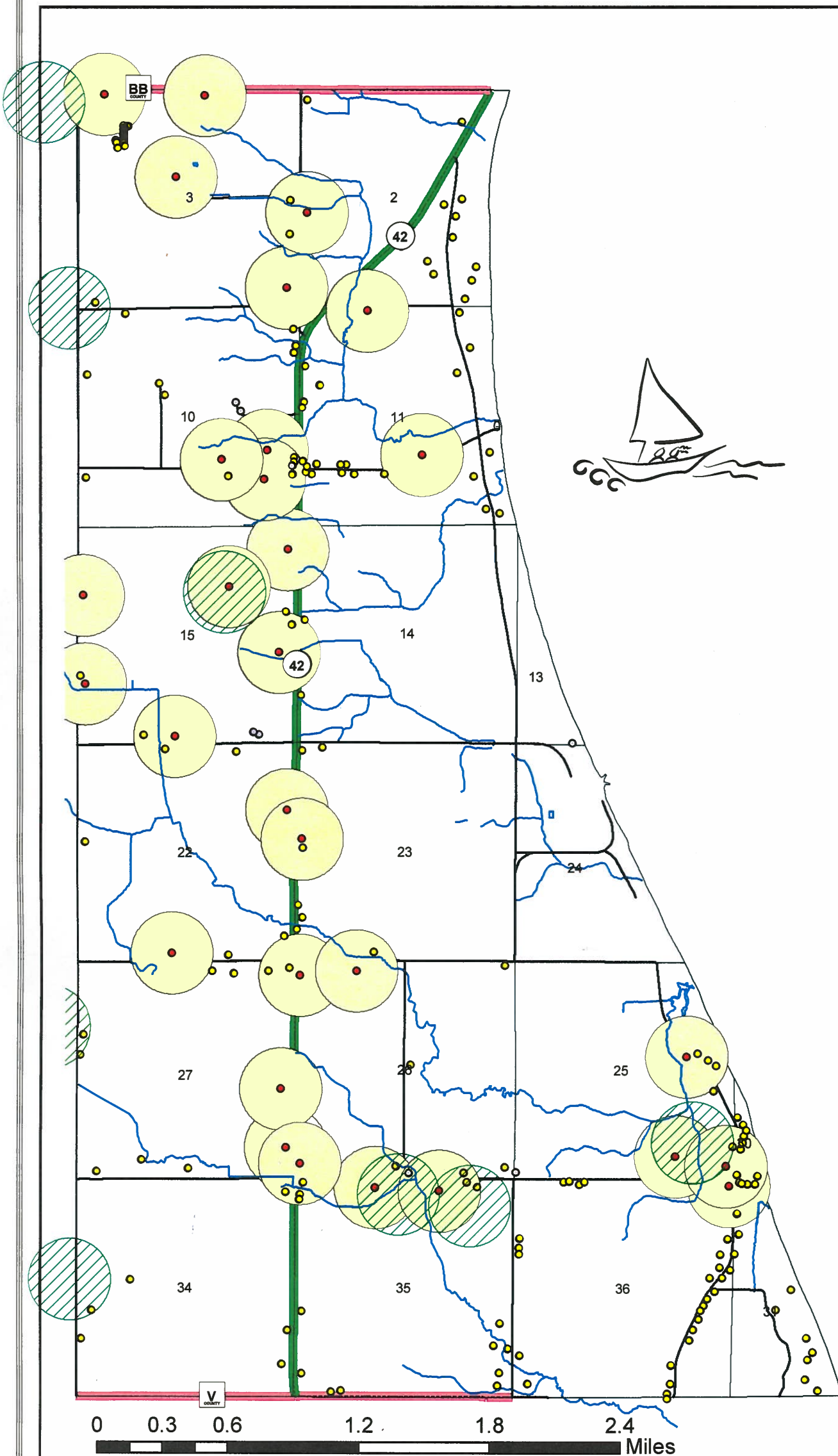
LAND USE TYPE

-  Business
-  Farmsteads
-  Single-Family Homes
-  Other

Other

ROAD TYPE

-  CNTY
-  STAT
-  TWN
-  streams



AGRICULTURAL BUFFER AREAS

Town of Two Creeks
Manitowoc County, Wisconsin

MAP 8-3

Town of Two Creeks

Existing Land Use

Landuse Type

Residential

Commercial

Industrial

Transportation

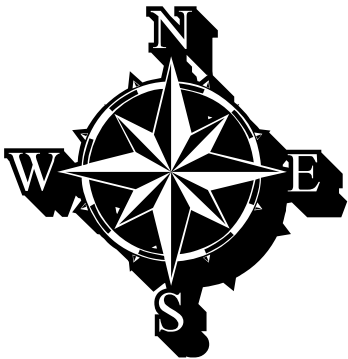
Communication/
Utilities

Institutional/
Governmental

Outdoor Recreation

Agriculture/
Silviculture

Natural Areas



EXISTING LAND USE

Town of Two Creeks
Manitowoc County, Wisconsin

MAP 8-4

8-6 Land Use Map 2039

An integral part of the land use planning in the Town of Two Creeks was the development of the 2039 Land Use Map. This map was developed as a tool to manage land use activities in Two Creeks through the year 2039. Used with goals, objectives and strategies formulated throughout this plan, the Town has the tools needed to affectively manage anticipated growth. The first process in developing the map was to create clear criteria for each of the land use designations. A larger part of the mapping process was based upon the Land Evaluation Site Assessment (L.E.S.A.) system developed by the NRCS-USDA in collaboration with land use planners from Arizona State University and Oregon State University. It is a numeric rating system for scoring sites to help in formulating policy or making land use decisions on farmlands. The system is designed to take into account both soil quality and other factors effecting a site's importance for agriculture. The LESA system aided the Town Land Use Committee in comparing sites on the basis of their agricultural value. Quantifying soils and other site factors, then systematically combining them to using LESA to create a map for the land use committee to know where the good farmland is located based on soil productivity, land capability, soil potential rating and farmland classes allowed decisions to be made on where development should and should not occur. The following designations contain the criteria selected to include the L.E.S.A. rating system.



Agricultural Preservation Areas

The map clearly designates agricultural preservation areas that are to be preserved for agricultural uses. These areas were chosen on the basis of soil types, topography, agricultural productivity and trends, current and potential agricultural use, and other relevant factors identified in the plan.

Mapping Criteria:

- Soils (LESA) - Best and Good Categories (will be color-coded).
- Buffer size of 1000 feet around Large Farm Operations
- Participants of the Farmland Preservation shall be indicated



Other Agricultural Areas (General)

The town's plan identifies general agricultural areas that are not designated as agricultural preservation areas or transition areas. These areas include lands that are currently being used as farmland, but these owners will not qualify for the farmland preservation tax credits.

Mapping Criteria:

- Soils that are rated Best and Good (LESA).
- Buffer size of one mile around Large Farm Operations
- Single-Family Home densities shall not be less than 10 acres
- Areas designated as Wetlands
- Areas that are Existing Non-Metallic Mining
- Participants of the Farmland Preservation shall be indicated
- No Cell Tower sites shall be located within 1500 ft.

Rural Residential Areas

The land use map clearly identifies areas of residential use. The areas are generally located where substantial growth has already occurred and/or municipal sewer is available.

Mapping Criteria:

- Single-Family Home densities shall be 5 acres or less in size
- Buffer size of 500 feet from Lake Michigan

Natural Areas

The map clearly identifies areas of special environmental, natural resource or open space significance. These Natural Areas should not be developed with parcel size less than 35 acres because of natural resource conditions. The considerations include shoreline conservation, flooding, wetland conservation, wildlife habitats, unique aesthetic features, cultural and historic sites, existing and proposed parks, and State Forest and Wildlife Areas. The delineation of lands with these characteristics often falls into a linear pattern, hence the reference to environmental areas as corridors.

Mapping Criteria:

- Show existing slopes that are 12% or greater
- Woodland areas that are greater than 10 acres
- Areas designated as Wetlands
- Buffers of 150 ft. from Streams and Rivers
- Buffers of 1000 ft from Lake Michigan
- Existing Recreational Areas
- Properties that are in the Managed Forest Law

Growth Areas

This plan clearly identifies areas of non-agricultural use, including a mix of, industrial, commercial, transportation and residential use. Growth areas include unincorporated villages, existing concentrations of rural non-farming housing outside of unincorporated villages and areas proposed to be developed with rural non-farm uses.

Mapping Criteria:

- Single-Family Home densities shall be 5 acres or less in size

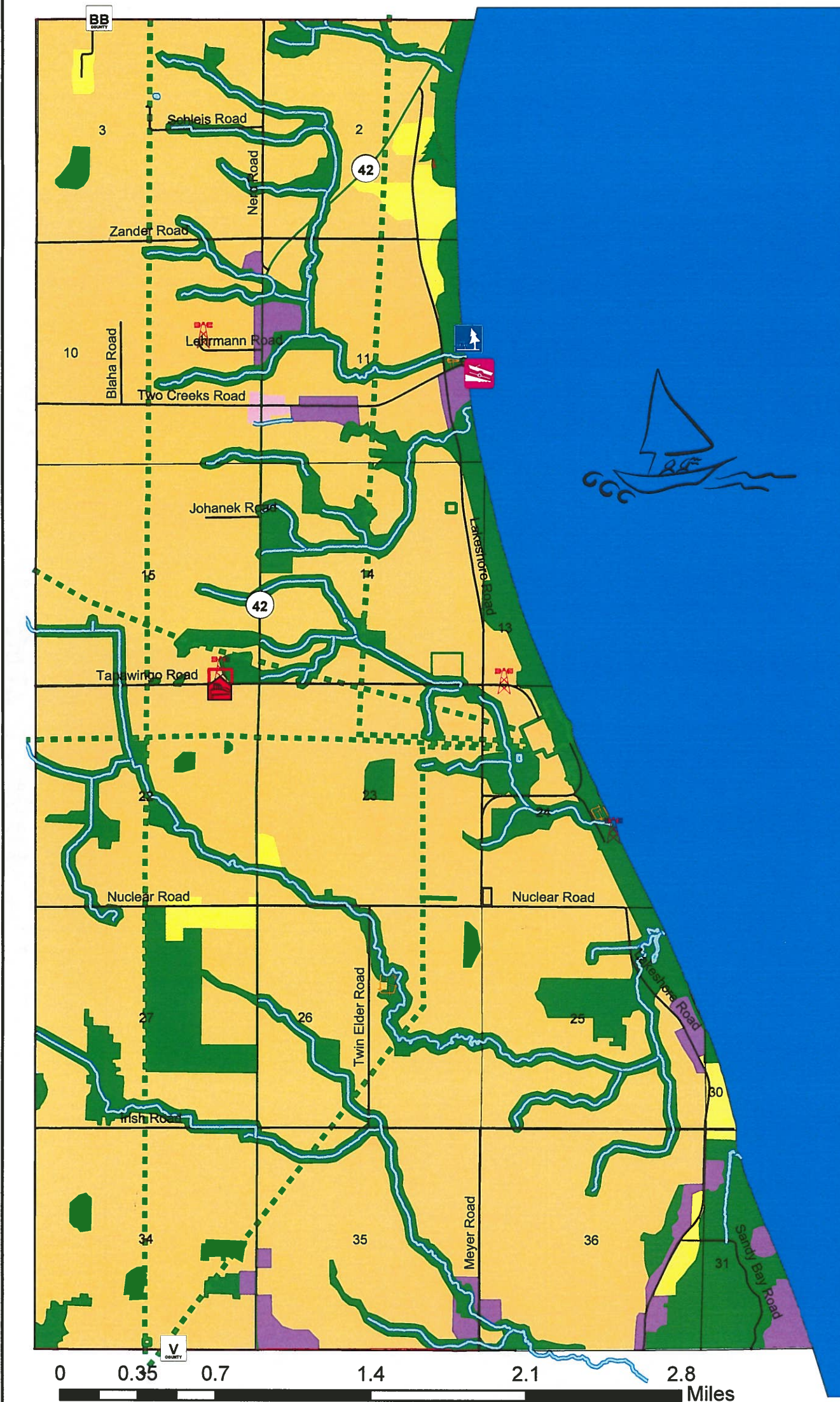
Recreation Areas

The map clearly identifies areas of recreational value.

Mapping Criteria:

- Woodland areas that are greater than 10 acres
- Areas designated as Wetlands
- Existing Recreational Areas
- Properties that are in the Managed Forest Law





- Preferred Landuse**
- LANDUSE TYPE**
- GROWTH AREA
 - NATURAL AREA
 - OTHER AGRICULTURAL AREA
 - PRIME AGRICULTURAL AREA
 - RURAL RESIDENTIAL AREA
- OTHER**
- cell tower sites
 - streams
 - lakes
 - section
 - Kewaunee School
 - Mishicot School
 - Nuclear plant
 - old landfill
 - power line
 - substation



20 YEAR PREFERRED LAND USE MAP

Town of Two Creeks
Manitowoc County, Wisconsin

MAP 8-5

Chapter 9: **IMPLEMENTATION ELEMENT**

9-1 Plan Recommendations

Adoption alone does not ensure that this plan will accomplish its intended goals. Its effectiveness depends upon the commitment of Local residents, and Town and County officials to follow through with the goals, objectives, strategies and recommendations contained in this plan.

The following recommendations will be required for the successful implementations of the plan. While the Town of Two Creeks relies heavily on Manitowoc County to administer various controls in the town, it is essential that the Town take an active role in making necessary recommendations to these processes.

ACTION PLAN RECOMMENDATIONS:

- ◆ Formally adopt this plan following the procedures set forth in Wis. Stat. 66.1001(4). The procedure requires that the plan be adopted by ordinance with a majority vote of the Two Creeks Town Board after a resolution from the Town Planning Committee.

Who: Town board

When: 2019

- ◆ Update demographic information included in this plan within three years of its adoption, such as population, population forecast, housing and economic information based upon the 2020 Census.

Who: Town Planning Committee / Town board

When: Fall 2022

- ◆ Complete a comprehensive review of this plan every ten (10) years starting on the date of adoption.

Who: Town Planning Committee / Town board

When: Fall 2029

- ◆ Keep intact the Town Land Use Committee to make recommendations to the Town Board that ensure future land use decisions are consistent with this plan and procedures listed in Wis. Stat. 66.1001(3).

Who: Town board

When: Ongoing



- ◆ Have a land use committee or zoning committee be the local point of contact for questions and concerns regarding land use issues within the town.

Who: Town board

When: Ongoing

- ◆ Develop a detailed packet of information regarding building within the Town of Two Creeks to include, contact lists and other pertinent information regarding living in the Town of Two Creeks. This information should be readily available to the public, and provided whenever a town building permit is issued.

Who: Town Planning Committee

When: Ongoing

- ◆ Work closely with the surrounding townships and villages to explore opportunities for streamlining like services such as recycling, policing, fire protection, etc.

Who: Town Board

When: Ongoing

9-2 Process for Updating Plan

Under the “Smart Growth” legislation, (Wis. Stats. 66.1001(2)(I), “A comprehensive plan under this subsection shall be updated no less than once every 10 years”. Furthermore, 66.1001(4) sets specific procedures that shall be consistent with the adoption and/or amendment of a comprehensive plan. For an entire copy of Wis. Stats. 66.1001 (Smart Growth) see Appendix A.

Over the course of the 20 year planning period there may be incidents that have not been planned for, such as large road projects or large industrial developments. If such an incident occurs, it is recommended that the plan be updated to reflect the changes sooner than every ten years.



9-3 Intended Land Use Management Area Recommendations

Prime Agriculture Areas (orange)

These areas include the best agricultural lands within the town. They qualify for Farmland Preservation credit and are to be preserved for agricultural uses. These areas were chosen on basis of soil types, topography, and agricultural productivity.

Management objectives

1. Require farmers who wish to expand large agricultural operations to establish buffers between the farming operation and nearby residential uses. These buffers could include, but not limited to, trees, shrubs, earth berms, fencing, and odor control measures.
2. Require making large farming operations, which expand above a designated number of animal units, to apply for a conditional use permit which could address potential land use conflicts.
3. The 2039 land use map should be used to preserve large core areas of productive farmland throughout the town.
4. Areas on the 2039 land use map have been identified on a town wide scale. In reviewing rezone request on a property basis, it can be assume that not all of the Land Use Management areas are comprised solely of the initial designation. With this said, the town should use a finding of fact tool developed for the rezoning of lands in Prime Agricultural Areas (see Appendix D).
5. There are numerous "Voluntary Programs" administered through government agencies for protecting agricultural uses and resources. Landowners should be educated of these programs through town, county and state efforts.
6. These areas require 20 contiguous acres with zoning standards that preserve land for agricultural uses.
7. Recognize the "right to farm" in these areas.

<i>Correlated Zoning Districts (in corresponding order)</i>	<i>Minimum Acreage required</i>
EA Exclusive Agricultural District	20.00
GA-General Agriculture District	10.00
NA-Natural Areas District	20.00
Other zoning districts as related to an existing lot of record.	



Estate (Other) Agriculture Areas (purple)

Areas not designated as prime agricultural or transition areas. These areas include a mix of agricultural, open space and rural residential uses. These areas do not qualify for Farmland Preservations.

Management objectives

1. These areas could be developed with a parcel from 2.5 to 20 acres with zoning standards that preserve agricultural production and open spaces throughout the town.
2. Areas which may provide low-density rural residential development with a goal of maintaining rural character.

<i>Correlated Zoning Districts (in corresponding order)</i>	<i>Minimum Acreage required</i>
EA Exclusive Agricultural District	20.00
NA-Natural Areas District	20.00
GA-General Agriculture District	10.00
LE-Large Estate Residential District	5.00
SE-Small Estate Residential District	2.50
RR Rural Residential District	1.00
Other zoning districts as related to an existing lot of record.	



Natural Areas (green)

These areas include shorelines, floodplains, wetlands, wildlife habitats, unique aesthetic features, existing and proposed parks, state forest and wildlife areas. These areas often fall into a linear pattern which are referred to as corridors.

Management objectives

1. These areas could be developed with a parcel from 20 acres with zoning standards that preserve the rural character and natural beauty of the town.
2. There are numerous “Voluntary Programs” administered through government agencies for protecting natural areas and open spaces. Landowners should be educated of these programs through town, county and state efforts.
3. Preserve Natural Areas in linear patterns (corridors) to promote biodiversity among wildlife populations and reduce habitat fragmentation.
4. Coastal grants (Two Rivers and Two Creeks only)

<i>Correlated Zoning Districts (in corresponding order)</i>	<i>Minimum Acreage required</i>
EA Exclusive Agricultural District	20.00
NA-Natural Area District	20.00
GA-General Agriculture District	10.00
Other zoning districts as related to an existing lot of record.	
*LR-Lake Residential District	20000 sq.ft.
	10000 sq.ft for sewered lots.

*For areas with an existing development pattern and small established lot sizes which adjoin a lake or river, the following districts may be used.



Rural Residential Areas (yellow)

Areas with existing residential development which are identified for residential uses in harmony with the rural character of the town. These areas would be developed at densities greater than Other Agricultural Areas.

Management objectives

1. Require developers to establish buffers between conflicting uses. These buffers could include, landscaping or providing sufficient open space between such uses.
2. The town should supply a “building packet” of pertinent information regarding building and living within the town of Two Creeks.
3. These areas could be developed with a parcel from 1 to 5 acres.

<i>Correlated Zoning Districts (in corresponding order)</i>	<i>Minimum Acreage required</i>
ES-Estate Residential District	5.00
LE Large Estate District	5.00
SE Small Estate Residential District	2.00
RR Rural Residential District	1.00
Other zoning districts as related to existing lots of record.	

*For areas with an existing development pattern and small established lot sizes which adjoin a lake or river, the following districts may be used.

LR Lake Residential District	20000 sq.ft.
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Growth Areas (pink)

Areas that include unincorporated villages, existing concentrations of rural non-farm housing, and areas proposed to be developed with rural non-farm uses.

Management objectives

1. Require developers to establish buffers between residential and business uses. These buffers could include, landscaping, earthen berms, fencing or providing sufficient open space between such uses.
2. Select zoning districts that require a conditional use permit for most business activity in these areas. This will ensure that proper conditions are placed which preserve the rural character of the town.

<i>Correlated Zoning Districts (in corresponding order)</i>	<i>Minimum Acreage required</i>
RR Rural Residential District	1.00
Other zoning districts as related to existing lots of record and uses.	

EXISTING ZONING DISTRICTS

<i>Zoning District</i>	<i>Minimum Acreage required</i>
LE Large Estate Residential District	5.00
SE Small Estate Residential District	2.00
LR Lake Residential District	20,000 sq. ft. *
GA General Agriculture District	10.00
NA Natural Areas District	20.00
RR Rural Residential District	1.00
EA Exclusive Agricultural District	20.00
CB Commercial/Business District	10,000 sq.ft.
ID Industrial District	1.00

*10,000 sq.ft. for sewerred lots.



9-4 Ordinance Modification And Creation

General Zoning Ordinance

The Town of Two Creeks adopted the Manitowoc County Comprehensive Zoning on May 26, 1965. Administered through the Manitowoc County Planning and Park Commission, this ordinance pertains to the regulating and restricting of the locations, construction and use of buildings, structures, and the use of land in the County of Manitowoc. It provides for the public health, safety and general welfare of the unincorporated areas of Manitowoc County.

Building Codes

According to Wisconsin Statute the Town of Two Creeks employs a building inspector to enforce state building codes.

Sanitary Codes

The State of Wisconsin sanitary code is administered by the Manitowoc County Planning and Parks Department. *

Proposed change: No change is needed here.

Subdivision Ordinances

Two Creek's subdivision regulations are administered through the Manitowoc County Planning and Parks department under Chapter 12 of the Manitowoc County Code. These regulations were amended in 2001, increasing the size requirement from 5 acres to 15 acres for parcels creations requiring certified survey maps.

Proposed change: No change is needed here.

Shoreland/Floodplain Ordinance

The Town of Two Creeks falls under the Jurisdiction of the Manitowoc County Shoreland/Floodplain Zoning Ordinance. Originally written in 1967, this ordinance is in the process of being re-written.

In 1999, a citizen advisory group was formed to make recommendations to the Manitowoc County Land Conservation Committee and Zoning Committee regarding the classification and management of the County's lakes and streams. These recommendations will be used to update the County's Shoreland/Floodplain Zoning Ordinance which regulates areas within 1,000 feet of a lake and 300 feet of a river or stream.

Driveway Specifications Ordinance

With the increase in rural development, more homes are being located on town roads. In addition, it appears the trend to find more secluded building sites has development occurring at a greater distance from public road right-of-ways. Emergency vehicles are finding it increasingly difficult to access these properties. The town of Two Creeks has a driveway ordinance.

Proposed change: No change is needed.



Non-Metallic Mining Ordinance

Two Creek's non-metallic mining regulations are administered through the Manitowoc County Planning and Parks department under Chapter 21 of the Manitowoc County Code. These regulations were created in 2001, to comply with NR 135 of the Wisconsin Administrative Code. The purpose of this ordinance is to establish a local program to ensure the effective reclamation of non-metallic mining sites within Manitowoc County.

Proposed change: No change is needed.

Wireless Communication Facilities Ordinance

Two Creek's communication facilities regulations are administered through the Manitowoc County Planning and Parks department under Chapter 20 of the Manitowoc County Code. The purpose of this ordinance is to encourage the collocation of new and existing tower sites; to minimize the total number of towers throughout the county; to encourage the users of towers and antennas to configure them in a way that minimizes their adverse visual impact; to encourage the location of towers in non-residential areas; and to enhance the ability to provide communications services quickly, effectively, and efficiently.

Proposed change: No change is needed.

Official Map

The Town of Two Creeks currently does not have an Official Map. Due to the rural environment, lack of development throughout the town, and not sharing a common boarder with a city or village, the need for such a map does not exist.

Proposed change: No change is needed.

Sign Ordinance

Two Creek's signage regulations are administered through the Manitowoc County Planning and Parks department under Chapter 8, (General Zoning) of the Manitowoc County Code. These regulations are comprehensive, allowing only directional signs in the rural areas of Manitowoc County. The only place an off-site business sign would be permitted is in areas zoned for business. The only places within the town are the small developed area at the intersection of STH 42 and Two Creeks Road, a small general store and one other repair business on STH 42 just north of CTH V.

Proposed change: No change is needed.



9-5 Voluntary Programs

An important part of the implementation process for the Town of Two Creeks is to recognize and promote existing programs that may accomplish the goals identified in the preceding elements. There are numerous programs designed to promote the preservation and restoration of wetlands, fish and wildlife, water and farmland. The following section outlines these programs and provides the administering agency.

WISCONSIN FARMLAND PRESERVATION PROGRAM

INTENT:	To preserve farmland through local zoning and planning, promote soil and water conservation, and provide tax relief to participants.
DESCRIPTION:	Participants qualify if their land is zoned or if they sign an agreement to use their land exclusively for agricultural purposes.
PRACTICES:	Required in conservation plan.
ELIGIBILITY:	Participants must own greater than 35 acres, and produce gross farm profits of \$6000 in the previous year.
PUBLIC ACCESS:	Not required.
CONTACT:	LCD, DATCP, ZO

USDA FARMLAND PROTECTION PROGRAM

INTENT:	To maintain farmland in agricultural uses through agricultural conservation easements.
DESCRIPTION:	Provides funding for tribal, state, or local government programs to purchase development rights on prime agricultural land.
ELIGIBILITY:	Property must be part of a pending easement offer from state, tribal, or local program, have a conservation plan, and meet other criteria on size and location to support long-term agricultural production.
CONTRACT:	Permanent easement limiting use of the land to agricultural purposes.
PUBLIC ACCESS:	Not required.
CONTACT:	NRCS

CONSERVATION RESERVE PROGRAM

INTENT:	To reduce erosion, increase wildlife habitat, improve water quality, and increase forest land.
DESCRIPTION:	Landowner sets aside cropland with annual rental payments based on amount of bid.
PRACTICES:	Grass cover, wetland restoration, tree planting, and others.
ELIGIBILITY:	Varies by soil type and crop history. If owner bid qualifies, the land is accepted into the program. Continuous signup is open for buffers, waterways and environmental practices. Periodic signups announced throughout the year for other conservation practices.
CONTRACT:	10 years or 15 years if planting hardwood trees. Contract is transferable with change in ownership.
PUBLIC ACCESS:	Not required
CONTACT:	FSA, NRCS, LCD



ENVIRONMENTAL QUALITY INCENTIVES PROGRAM

INTENT: Provide financial and technical assistance to landowners for conservation practices protecting soil and water quality.
PRACTICES: Nutrient management and prescribed grazing eligible for cost-sharing. Assistance for other practices available in selected areas.
ELIGIBILITY: Agricultural producers on agricultural lands are eligible. Projects are selected based on environmental value.
CONTRACT: 5-10 year contracts available. Agricultural producers may be eligible for up to 75% cost share, up to \$10,000 per year and \$50,000 life of contract.
PUBLIC ACCESS: Not required.
CONTACT: NRCS, FSA, LCD

COUNTY LAND AND WATER RESOURCE MANAGEMENT PLAN IMPLEMENTATION

INTENT: To reduce soil erosion, protect water quality, and conserve county-identified natural resources.
DESCRIPTION: Technical assistance and cost sharing to landowners to install best management practices.
ELIGIBILITY: Determined by the county land conservation departments and committee. Usually a 70% cost-share.
CONTRACT: Through cost-share agreement.
PUBLIC ACCESS: Not required.
CONTACT: LCD, DATCP

PARTNERS FOR FISH AND WILDLIFE

INTENT: Restoration of grasslands, wetlands, and threatened and endangered species habitat.
DESCRIPTION: Up to 100% cost-share provided to restore wildlife habitat on private lands.
ELIGIBILITY: Land which can be restored to wetland conditions. Degraded or former grasslands that can be restored. Land that can be restored to provide habitat for threatened and endangered species.
CONTRACT: 10 years.
PUBLIC ACCESS: Not required.
CONTACT: FWS

WILDLIFE HABITAT INCENTIVES PROGRAM

INTENT: To develop and improve fish and wildlife habitat on privately owned lands.
PRACTICES: Seeding, instream structures, fencing, etc.
ELIGIBILITY: Nearly any type of land is eligible, including woodlots, shoreland areas, agricultural lands and non-agricultural lands.
CONTRACT: Usually 10 years. Up to 75% of restoration cost, to a maximum of \$10,000.
PUBLIC ACCESS: Not required.
CONTACT: NRCS.



MANAGED FOREST LAW

INTENT:	To promote forest management practices through property tax incentives.
PRACTICES:	Required through an approved forest management plan.
ELIGIBILITY:	Property must be a minimum of 10 contiguous acres of which 80% must be capable of producing merchantable timber.
CONTRACT:	50 to 25 years, transferable to a new owner for small fee.
PUBLIC ACCESS:	Open areas must allow fishing, hunting, hiking, skiing, and sight-seeing. Up to 80 acres may be closed to public access by the landowner.
CONTACT:	DNR

WISCONSIN FOREST LANDOWNER GRANT PROGRAM

INTENT:	To assist private landowners in protecting and enhancing forested lands, waters, and prairies.
DESCRIPTION:	Program allows qualified landowners to be reimbursed up to 65% of cost eligible practices.
ELIGIBILITY:	Practice must be identified in the landowners Forest Stewardship Plan to be eligible for cost-sharing. Landowners are required to contact their DNR forester for guidance prior to completing application.
CONTRACT:	Must receive written approval from the DNR before beginning a practice or ineligible for funding.
PUBLIC ACCESS:	Not required.
CONTACT:	DNR, NRCS, LCD

FORESTRY INCENTIVE PROGRAM

INTENT:	To provide cost-sharing for forestry practices
PRACTICES:	Tree planting, site preparation for natural regeneration, and timber stand improvement.
ELIGIBILITY:	Greater than ten acres with approved management plan
CONTRACT:	Agree to maintain practices for estimated life span.
PUBLIC ACCESS:	Not required.
CONTACT:	NRCS, DNR

WILDLIFE DAMAGE ABATEMENT AND CLAIM PROGRAM

INTENT:	Provides claim assistance and abatement to landowners receiving wildlife damage.
PRACTICES:	Shooting permits, cannons, fencing, etc.
ELIGIBILITY:	Assistant provided to landowners or crop owners receiving damage by deer, geese, or bears to commercial seeding, orchard trees, crops or agricultural lands, nursery stock, or livestock.
CONTRACT:	Fence contracts and enrollment agreement required.
PUBLIC ACCESS:	Hunting access for the species causing damage must be allowed
CONTACT:	LCD, WS, DNR



A

APPENDIX A

WIS. STATS. 66.1001 “SMART GROWTH”



(b) Contract for the construction or other acquisition of additions or improvements to, or alterations in, a hospital and the equipment or furnishing of an addition.

(c) Employ a manager of a hospital and other necessary personnel and fix their compensation.

(d) Enact, amend and repeal rules and regulations for the admission to, and government of patients at, a hospital, for the regulation of the board's meetings and deliberations, and for the government, operation and maintenance of the hospital and the hospital employees.

(e) Contract for and purchase all fuel, food, equipment, furnishings and supplies reasonably necessary for the proper operation and maintenance of a hospital.

(f) Audit all accounts and claims against a hospital or against the board, and, if approved, pay the accounts and claims from the fund specified in sub. (10). All expenditures made pursuant to this section shall be within the limits of the ordinance.

(g) Sue and be sued, and to collect or compromise any obligations due to the hospital. All money received shall be paid into the joint hospital fund.

(h) Make studies and recommendations to the county board and city council or city councils relating to the operation of a hospital as the board considers advisable or the governing bodies request.

(i) Employ counsel on either a temporary or permanent basis.

(9) BUDGET. The board shall annually, before the time of the preparation of either the county or city budget under s. 65.90, prepare a budget of its anticipated receipts and expenditures for the ensuing fiscal year and determine the proportionate cost to the county and the participating city or cities under the terms of the ordinance. A certified copy of the budget, which shall include a statement of the net amount required from the county and city or cities, shall be delivered to the clerks of the respective municipalities. The county board and the common council of the city or cities shall consider the budget, and determine the amount to be raised by the respective municipalities in the proportions determined by the ordinance. After this determination, the county and city or cities respectively shall levy a tax sufficient to produce the amount to be raised by the county and city or cities.

(10) HOSPITAL FUND. A joint county–city hospital fund shall be created and established in a public depository to be specified in the ordinance. The treasurer of the respective county and city or cities shall pay into the fund the amounts specified by the ordinance and resolutions of the respective municipalities when the amounts have been collected. All of the moneys which come into the fund are appropriated to the board for the execution of its functions as provided by the ordinance and the resolutions of the respective municipalities. The moneys in the fund shall be paid out by the treasurer of the hospital board only upon the approval or direction of the board.

(11) CORRELATION OF LAWS. (a) In any case where a bid is a prerequisite to contract in connection with a county or city hospital under s. 66.0901, it is also a prerequisite to a valid contract by the board. For this purpose, the board is a municipality and the contract a public contract under s. 66.0901.

(b) All statutory requirements, not inconsistent with the provision of this section, applicable to general county or city hospitals apply to hospitals referred to in this section.

(12) REPORTS. The board shall report its activities to the county board and the city council or councils annually, or oftener as either of the municipalities requires.

(14) POWERS OF VILLAGES. Villages have all of the powers granted to cities under subs. (1) to (12) and whenever any village exercises these powers the word “city” wherever it appears in subs. (1) to (12) means “village” unless the context otherwise requires. Any village participating in the construction or other acquisition of a hospital or in its operation, pursuant to this section, may enter into lease agreements leasing the hospital and its equipment and furnishings to a nonprofit corporation.

(15) POWERS OF TOWNS. Towns have all of the powers granted to cities under subs. (1) to (12) and whenever any town exercises these powers the word “city” wherever it appears in subs. (1) to (12) means “town” unless the context otherwise requires. Any town participating in the construction or other acquisition of a hospital or in its operation, under this section, may enter into lease agreements leasing the hospital and its equipment and furnishings to a nonprofit corporation.

History: 1977 c. 29; 1983 a. 189; 1983 a. 192 s. 303 (1); 1993 a. 246; 1999 a. 150 ss. 262, 480 to 483; Stats. 1999 s. 66.0927.

SUBCHAPTER X

PLANNING, HOUSING AND TRANSPORTATION

66.1001 Comprehensive planning. (1) DEFINITIONS. In this section:

(a) “Comprehensive plan” means a guide to the physical, social, and economic development of a local governmental unit that is one of the following:

1. For a county, a development plan that is prepared or amended under s. 59.69 (2) or (3).

2. For a city, village, or town, a master plan that is adopted or amended under s. 62.23 (2) or (3).

3. For a regional planning commission, a master plan that is adopted or amended under s. 66.0309 (8), (9) or (10).

(am) “Consistent with” means furthers or does not contradict the objectives, goals, and policies contained in the comprehensive plan.

(b) “Local governmental unit” means a city, village, town, county or regional planning commission that may adopt, prepare or amend a comprehensive plan.

(c) “Political subdivision” means a city, village, town, or county that may adopt, prepare, or amend a comprehensive plan.

(2) CONTENTS OF A COMPREHENSIVE PLAN. A comprehensive plan shall contain all of the following elements:

(a) *Issues and opportunities element.* Background information on the local governmental unit and a statement of overall objectives, policies, goals and programs of the local governmental unit to guide the future development and redevelopment of the local governmental unit over a 20-year planning period. Background information shall include population, household and employment forecasts that the local governmental unit uses in developing its comprehensive plan, and demographic trends, age distribution, educational levels, income levels and employment characteristics that exist within the local governmental unit.

(b) *Housing element.* A compilation of objectives, policies, goals, maps and programs of the local governmental unit to provide an adequate housing supply that meets existing and forecasted housing demand in the local governmental unit. The element shall assess the age, structural, value and occupancy characteristics of the local governmental unit's housing stock. The element shall also identify specific policies and programs that promote the development of housing for residents of the local governmental unit and provide a range of housing choices that meet the needs of persons of all income levels and of all age groups and persons with special needs, policies and programs that promote the availability of land for the development or redevelopment of low-income and moderate-income housing, and policies and programs to maintain or rehabilitate the local governmental unit's existing housing stock.

(c) *Transportation element.* A compilation of objectives, policies, goals, maps and programs to guide the future development of the various modes of transportation, including highways, transit, transportation systems for persons with disabilities, bicycles, electric scooters, electric personal assistive mobility devices, walking, railroads, air transportation, trucking and water transportation. The element shall compare the local governmental unit's objectives, policies, goals and programs to state and

regional transportation plans. The element shall also identify highways within the local governmental unit by function and incorporate state, regional and other applicable transportation plans, including transportation corridor plans, county highway functional and jurisdictional studies, urban area and rural area transportation plans, airport master plans and rail plans that apply in the local governmental unit.

(d) *Utilities and community facilities element.* A compilation of objectives, policies, goals, maps and programs to guide the future development of utilities and community facilities in the local governmental unit such as sanitary sewer service, storm water management, water supply, solid waste disposal, on-site wastewater treatment technologies, recycling facilities, parks, telecommunications facilities, power-generating plants and transmission lines, cemeteries, health care facilities, child care facilities and other public facilities, such as police, fire and rescue facilities, libraries, schools and other governmental facilities. The element shall describe the location, use and capacity of existing public utilities and community facilities that serve the local governmental unit, shall include an approximate timetable that forecasts the need in the local governmental unit to expand or rehabilitate existing utilities and facilities or to create new utilities and facilities and shall assess future needs for government services in the local governmental unit that are related to such utilities and facilities.

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

(f) *Economic development element.* A compilation of objectives, policies, goals, maps and programs to promote the stabilization, retention or expansion, of the economic base and quality employment opportunities in the local governmental unit, including an analysis of the labor force and economic base of the local governmental unit. The element shall assess categories or particular types of new businesses and industries that are desired by the local governmental unit. The element shall assess the local governmental unit's strengths and weaknesses with respect to attracting and retaining businesses and industries, and shall designate an adequate number of sites for such businesses and industries. The element shall also evaluate and promote the use of environmentally contaminated sites for commercial or industrial uses. The element shall also identify county, regional and state economic development programs that apply to the local governmental unit.

(g) *Intergovernmental cooperation element.* A compilation of objectives, policies, goals, maps, and programs for joint planning and decision making with other jurisdictions, including school districts, drainage districts, and adjacent local governmental units, for siting and building public facilities and sharing public services. The element shall analyze the relationship of the local governmental unit to school districts, drainage districts, and adjacent local governmental units, and to the region, the state and other governmental units. The element shall consider, to the greatest extent possible, the maps and plans of any military base or installation, with at least 200 assigned military personnel or that contains at least 2,000 acres, with which the local governmental unit shares common territory. The element shall incorporate any plans or agreements to which the local governmental unit is a party under s. 66.0301, 66.0307 or 66.0309. The element shall identify existing or potential conflicts between the local governmental unit and other governmental units that are specified in this paragraph and describe processes to resolve such conflicts.

(h) *Land-use element.* A compilation of objectives, policies, goals, maps and programs to guide the future development and redevelopment of public and private property. The element shall contain a listing of the amount, type, intensity and net density of existing uses of land in the local governmental unit, such as agricultural, residential, commercial, industrial and other public and private uses. The element shall analyze trends in the supply, demand and price of land, opportunities for redevelopment and existing and potential land-use conflicts. The element shall contain projections, based on the background information specified in par. (a), for 20 years, in 5-year increments, of future residential, agricultural, commercial and industrial land uses including the assumptions of net densities or other spatial assumptions upon which the projections are based. The element shall also include a series of maps that shows current land uses and future land uses that indicate productive agricultural soils, natural limitations for building site development, floodplains, wetlands and other environmentally sensitive lands, the boundaries of areas to which services of public utilities and community facilities, as those terms are used in par. (d), will be provided in the future, consistent with the timetable described in par. (d), and the general location of future land uses by net density or other classifications.

(i) *Implementation element.* A compilation of programs and specific actions to be completed in a stated sequence, including proposed changes to any applicable zoning ordinances, official maps, or subdivision ordinances, to implement the objectives, policies, plans and programs contained in pars. (a) to (h). The element shall describe how each of the elements of the comprehensive plan will be integrated and made consistent with the other elements of the comprehensive plan, and shall include a mechanism to measure the local governmental unit's progress toward achieving all aspects of the comprehensive plan. The element shall include a process for updating the comprehensive plan. A comprehensive plan under this subsection shall be updated no less than once every 10 years.

(2m) EFFECT OF ENACTMENT OF A COMPREHENSIVE PLAN, CONSISTENCY REQUIREMENTS. (a) The enactment of a comprehensive plan by ordinance does not make the comprehensive plan by itself a regulation.

(b) A conditional use permit that may be issued by a political subdivision does not need to be consistent with the political subdivision's comprehensive plan.

(3) ORDINANCES THAT MUST BE CONSISTENT WITH COMPREHENSIVE PLANS. Except as provided in sub. (3m), beginning on January 1, 2010, if a local governmental unit enacts or amends any of the following ordinances, the ordinance shall be consistent with that local governmental unit's comprehensive plan:

(g) Official mapping ordinances enacted or amended under s. 62.23 (6).

(h) Local subdivision ordinances enacted or amended under s. 236.45 or 236.46.

(j) County zoning ordinances enacted or amended under s. 59.69.

(k) City or village zoning ordinances enacted or amended under s. 62.23 (7).

(L) Town zoning ordinances enacted or amended under s. 60.61 or 60.62.

(q) Shorelands or wetlands in shorelands zoning ordinances enacted or amended under s. 59.692, 61.351, 61.353, 62.231, or 62.233.

(3m) DELAY OF CONSISTENCY REQUIREMENT. (a) If a local governmental unit has not adopted a comprehensive plan before January 1, 2010, the local governmental unit is exempt from the requirement under sub. (3) if any of the following applies:

1. The local governmental unit has applied for but has not received a comprehensive planning grant under s. 16.965 (2), and the local governmental unit adopts a resolution stating that the

local governmental unit will adopt a comprehensive plan that will take effect no later than January 1, 2012.

2. The local governmental unit has received a comprehensive planning grant under s. 16.965 (2) and has been granted an extension of time under s. 16.965 (5) to complete comprehensive planning.

(b) The exemption under par. (a) shall continue until the following dates:

1. For a local governmental unit exempt under par. (a) 1., January 1, 2012.

2. For a local governmental unit exempt under par. (a) 2., the date on which the extension of time granted under s. 16.965 (5) expires.

(4) PROCEDURES FOR ADOPTING COMPREHENSIVE PLANS. A local governmental unit shall comply with all of the following before its comprehensive plan may take effect:

(a) The governing body of a local governmental unit shall adopt written procedures that are designed to foster public participation, including open discussion, communication programs, information services, and public meetings for which advance notice has been provided, in every stage of the preparation of a comprehensive plan. The written procedures shall provide for wide distribution of proposed, alternative, or amended elements of a comprehensive plan and shall provide an opportunity for written comments on the plan to be submitted by members of the public to the governing body and for the governing body to respond to such written comments. The written procedures shall describe the methods the governing body of a local governmental unit will use to distribute proposed, alternative, or amended elements of a comprehensive plan to owners of property, or to persons who have a leasehold interest in property pursuant to which the persons may extract nonmetallic mineral resources in or on property, in which the allowable use or intensity of use of the property is changed by the comprehensive plan.

(b) The plan commission or other body of a local governmental unit that is authorized to prepare or amend a comprehensive plan may recommend the adoption or amendment of a comprehensive plan only by adopting a resolution by a majority vote of the entire commission. The vote shall be recorded in the official minutes of the plan commission or other body. The resolution shall refer to maps and other descriptive materials that relate to one or more elements of a comprehensive plan. One copy of an adopted comprehensive plan, or of an amendment to such a plan, shall be sent to all of the following:

1. Every governmental body that is located in whole or in part within the boundaries of the local governmental unit.

2. The clerk of every local governmental unit that is adjacent to the local governmental unit that is the subject of the plan that is adopted or amended as described in par. (b) (intro.).

4. After September 1, 2005, the department of administration.

5. The regional planning commission in which the local governmental unit is located.

6. The public library that serves the area in which the local governmental unit is located.

(c) No comprehensive plan that is recommended for adoption or amendment under par. (b) may take effect until the political subdivision enacts an ordinance or the regional planning commission adopts a resolution that adopts the plan or amendment. The political subdivision may not enact an ordinance or the regional planning commission may not adopt a resolution under this paragraph unless the comprehensive plan contains all of the elements specified in sub. (2). An ordinance may be enacted or a resolution may be adopted under this paragraph only by a majority vote of the members-elect, as defined in s. 59.001 (2m), of the governing body. One copy of a comprehensive plan enacted or adopted under this paragraph shall be sent to all of the entities specified under par. (b).

(d) No political subdivision may enact an ordinance or no regional planning commission may adopt a resolution under par. (c) unless the political subdivision or regional planning commission holds at least one public hearing at which the proposed ordinance or resolution is discussed. That hearing must be preceded by a class 1 notice under ch. 985 that is published at least 30 days before the hearing is held. The political subdivision or regional planning commission may also provide notice of the hearing by any other means it considers appropriate. The class 1 notice shall contain at least the following information:

1. The date, time and place of the hearing.

2. A summary, which may include a map, of the proposed comprehensive plan or amendment to such a plan.

3. The name of an individual employed by the local governmental unit who may provide additional information regarding the proposed ordinance.

4. Information relating to where and when the proposed comprehensive plan or amendment to such a plan may be inspected before the hearing, and how a copy of the plan or amendment may be obtained.

(e) At least 30 days before the hearing described in par. (d) is held, a local governmental unit shall provide written notice to all of the following:

1. An operator who has obtained, or made application for, a permit that is described under s. 295.12 (3) (d).

2. A person who has registered a marketable nonmetallic mineral deposit under s. 295.20.

3. Any other property owner or leaseholder who has an interest in property pursuant to which the person may extract nonmetallic mineral resources, if the property owner or leaseholder requests in writing that the local governmental unit provide the property owner or leaseholder notice of the hearing described in par. (d).

(f) A political subdivision shall maintain a list of persons who submit a written or electronic request to receive notice of any proposed ordinance, described under par. (c), that affects the allowable use of the property owned by the person. Annually, the political subdivision shall inform residents of the political subdivision that they may add their names to the list. The political subdivision may satisfy this requirement to provide such information by any of the following means: publishing a 1st class notice under ch. 985; publishing on the political subdivision's Internet site; 1st class mail; or including the information in a mailing that is sent to all property owners. At least 30 days before the hearing described in par. (d) is held a political subdivision shall provide written notice, including a copy or summary of the proposed ordinance, to all such persons whose property, the allowable use of which, may be affected by the proposed ordinance. The notice shall be by mail or in any reasonable form that is agreed to by the person and the political subdivision, including electronic mail, voice mail, or text message. The political subdivision may charge each person on the list who receives a notice by 1st class mail a fee that does not exceed the approximate cost of providing the notice to the person.

(5) APPLICABILITY OF A REGIONAL PLANNING COMMISSION'S PLAN. A regional planning commission's comprehensive plan is only advisory in its applicability to a political subdivision and a political subdivision's comprehensive plan.

(6) COMPREHENSIVE PLAN MAY TAKE EFFECT. Notwithstanding sub. (4), a comprehensive plan, or an amendment of a comprehensive plan, may take effect even if a local governmental unit fails to provide the notice that is required under sub. (4) (e) or (f), unless the local governmental unit intentionally fails to provide the notice.

History: 1999 a. 9, 148; 1999 a. 150 s. 74; Stats. 1999 s. 66.1001; 1999 a. 185 s. 57; 1999 a. 186 s. 42; 2001 a. 30, 90; 2003 a. 33, 93, 233, 307, 327; 2005 a. 26, 208; 2007 a. 121; 2009 a. 372; 2011 a. 257; 2013 a. 80; 2015 a. 391; 2019 a. 11.

A municipality has the authority under s. 236.45 (2) to impose a temporary town-wide prohibition on land division while developing a comprehensive plan under this

B

APPENDIX B PUBLIC PARTICIPATION PLAN



Town of Two Creeks Manitowoc County, Wisconsin

procedures for:

Public Participation
for
Adoption or Amendment
of the

Town of Two Creeks Smart Growth Comprehensive Plan

Manitowoc County, Wisconsin
Resolution No. 8-2002

RESOLUTION ADOPTING WRITTEN PUBLIC PARTICIPATION PROCEDURES

WHEREAS, the Town of Two Creeks is preparing a Comprehensive Plan under Wis. Stats. 66.1001, and;

WHEREAS, the Town of Two Creeks may amend the Comprehensive Plan from time to time, and;

WHEREAS, Wis. Stats. 66.1001 (4) requires a governing body of a local unit of government adopt written procedures designed to foster public participation in the adoption or amendment of a comprehensive plan and;

WHEREAS, the Town has prepared and publicly reviewed such written procedures entitled Procedures for Public Participation for Adoption or Amendment of the Town of Two Creeks Smart Growth Comprehensive Plan and has followed such procedures from the inception of the planning process (1999).

NOW THEREFORE BE IT RESOLVED, the Town Board of Trustees of the Town of Two Creeks officially adopts Procedures for Public Participation for Adoption or Amendment of the Town of Two Creeks Smart Growth Comprehensive Plan

Adopted this 12th of August 2002

Approved:

Kenneth H. Truenek
Town Chairperson

Attest:

Mary Ann Chervinsky
Town Clerk

Manitowoc County, Wisconsin

PUBLIC PARTICIPATION PROCEDURES AND PLAN ADOPTION

INTRODUCTION

In order for the public to be kept continually informed during the development of the Town of Two Creeks Comprehensive Plan, and to meet the requirements of Wisconsin's "Smart Growth Law" (Ch. 66.1001 (4)(a) Wis, Stats.), the Town of Two Creeks Has prepared the following public participation plan.

SMART GROWTH LAW REQUIREMENTS

"The governing body of a local government unit shall adopt written procedures that are designed to foster public participation, including open discussion, communication programs, information services, and public meetings for which advanced notice has been provided, in every stage of the preparation of a comprehensive plan. The written procedures shall provide for wide distribution of proposed, alternative or amended elements of a comprehensive plan and shall provide an opportunity for written comments on the plan to be submitted by members of the public to the governing body and for the governing body to respond to such written comments."

PLAN COMMITTEE AND COMMITTEE MEETINGS

The Town of Two Creeks has established an Advisory Comprehensive Plan Committee to develop a comprehensive plan that will meet Wisconsin's new Smart Growth standards. The members will be chosen by the town and comprised of a mix of key stakeholders. This body will adopt the plan by majority and recommend the Town Board to adopt the plan by ordinance.

All meeting of the Comprehensive Plan Committee will be posted in advance and open to the public in accordance with Wisconsin law. These notices will be posted at the Two Creeks Town Hall. In addition, notices may be placed on the local Cable Channel or the website if applicable. The agenda shall provide for comments from the public. To encourage intergovernmental cooperation, adjacent municipalities and Manitowoc County will receive copies of the agenda.

COMMUNITY SURVEY

Using the information gathered a Town-wide survey will be developed by the Comprehensive Plan Committee with the help of Manitowoc County. This survey will be mailed to all property owners, and will further gauge citizen opinion regarding issues identified at the visioning session. These results will guide the Comprehensive Plan Committee and Town in developing the comprehensive plan and each of its components. The Town will conduct a visioning exercise as part of the preparation and update of the Comprehensive Plan and any subsequent updates to the plan as appropriate.

OPEN HOUSES

A minimum of two (2) "Open Houses" shall be held during the development of the comprehensive plan in order to present information regarding the comprehensive plan and to obtain public comment. One shall be held at the "beginning" point to present background information, and the second open house will be held near the end of the planning process to present the plan prior to the required public hearing. The open houses shall be noticed in each of the public places described above under **Committee Meetings** by the Town Clerk. The open houses will provide the public with an opportunity to review and comment on work that has been accomplished by the Comprehensive Plan Committee and Manitowoc County.

PUBLIC ACCESS AND PUBLIC COMMENT ON DRAFT DOCUMENT

In all cases Wisconsin's open records law will be complied with. During the preparation of the comprehensive plan, a copy of the draft plan will be kept on file at the Manitowoc County Planning and Park Commission and will be available for public inspection during normal office hours. The public is encouraged to submit written comments on the plan or any amendments of the plan. Written comment

should be addressed to the Town Clerk who will record the transmittal and forward copies of the comments to the Town Board for consideration.

The Town Board shall respond to written comments either individually or collectively by type of comments. Town Board responses may be in the form of written or oral communication, or by a written summary of the Town's disposition of the comments in the comprehensive plan.

COMPREHENSIVE PLAN COMMITTEE ADOPTION OF PLAN BY RESOLUTION

The Comprehensive Plan Committee may recommend the adoption or amendment of the comprehensive plan only by the adoption of a resolution by a majority vote of the entire Committee at a regularly scheduled and publicly noticed meeting of the Comprehensive Plan Committee in accordance with s. 66.1001 (4) b. The vote shall be recorded in the official minutes of the Comprehensive Plan Committee. The resolution shall refer to maps and other descriptive materials that relate to one or more elements of the Comprehensive Plan.

ADOPTION OF COMPREHENSIVE PLAN BY TOWN BOARD

After adoption of a resolution by the Comprehensive Plan Committee, the Town Board will adopt the Comprehensive Plan by ordinance only after holding at least one public hearing at which the ordinance relating to the Comprehensive Plan is discussed. A majority vote of the members-elect is necessary for adoption. That hearing will be preceded by a Class I notice under ch. 985 that is published at least 30 days before the hearing is held.

Upon the day of publication of the public hearing notice, copies of the plan will be made available for public review at the Town Hall. The Town Board will accept written comments on the plan from members of the public at any time prior to the public hearing and at the public hearing.

DISTRIBUTION OF THE ADOPTED PLAN

In accordance with State Statute 66.1001(4), *Procedures for Adopting Comprehensive Plans*, one copy of the adopted plan or amendment shall be sent to the following:

1. Every governmental body that is located in whole or in part within the boundaries of the local governmental unit.
2. Every local governmental unit that is adjacent to the local governmental unit which is the subject of the plan.
3. The Wisconsin Department of Administration
4. The Bay-Lake Regional Planning Commission

ADDITIONAL STEPS FOR PUBLIC PARTICIPATION

The Town reserves the right to execute additional steps, means, or methods in order to gain additional public participation and or additional understanding of the Comprehensive Plan and the process of its development and adoption. These optional steps may include informational memos, postcards, letters, posters, fliers, or website.

STATE STATUTES

Where there is a conflict with these written procedures and provisions of s. 66.1001 (4) Procedures for Adopting a Comprehensive Plan, the state statutes shall apply.

AMENDMENTS

The Town Board may amend these procedures from time to time.

C

APPENDIX C
COMMUNITY SURVEY TABULATION



Town of Two Creeks Land Use Survey

January 2001

Background:

As part of the state of Wisconsin's 1999-2000 biennial budget, the governor signed new legislation into effect requiring a "Smart Growth" plan to be implemented by January 1, 2010. The Smart Growth theme is centered on a desire to establish a foundation of guidance / limitation / rules that would govern the disposition and use of lands within the state to support the needs and desires of the present and future population. Rules and regulation to support this effort will be directed by the state unless local communities establish their own guidance.

The Two Creeks town board acknowledged to the Manitowoc County Planning board that they would support the project and would develop our own community guidance. In the summer of 2000 the board enlisted the support of seven town residents to work as a team in reviewing our existing land use structure, glean a prospective of town residents desires and work with the surrounding townships & municipalities in proposing a structured Town of Two Creeks Land Use Plan.

The surrounding Manitowoc County Townships of Mishicot, Gibson, Two Rivers and the village of Mishicot have also established such committees to support their specific municipality's needs.

The town's committee received a preliminary outline of the state's overall project within a single meeting conducted by a representative from the Manitowoc County Parks and Planning Office. The Committee developed a survey and sent it out to two hundred and twenty eight (228) registered landowners (as listed on the tax roll). One hundred and seventy one (171) surveys were returned, resulting in a 75% return rate.

The enclosed results are only a compilation of raw objective facts as recorded on the surveys. These values (and additional analysis) will be used by the committee within the process of projecting the town's needs / desires against the overall state goal (legislation already enacted).

The committee was very happy with the overall response and thank you for your time and effort.

Committee members will receive additional training by the Manitowoc County Parks and Planning Department sometime later this year. Our meetings are open to the general public. Meeting dates are posted on the cable television system.

Committee Members:

Mary Dean	755-2201
Monica Johnson	755-4280
Gene LeClair	755-2511
Roger Lehrmann	755-4058
Betty Schleis	776-1596
Tom Sheley	755-2133
Roger Sinkula	755-4911

Town of Two Creeks Land Use Survey Result (Summary)

January 2001

Surveys mailed = 228
Surveys returned = 171
Surveys returned with data = 159
Surveys returned that were totally blank = 12

NOTE:

The following results are based on the 159 returns that contained data. Although data in most of the returned surveys was very complete there were some questions not answered. The following percent (%) values represent a response based on responses recorded in a given question and are rounded to the nearest tent.

All additional comments received within the survey are recorded in Attachment A

Miscellaneous: (157)

Full time resident of Two Creeks =	127	(80.9%)
Part time resident =	9	(5.7%)
Land owner only =	21	(13.4%)

Average number of years = 28.9

Reason(s) for living in Two Creeks (701 responses averaged into the following categories):

a. Born & raised here	9.4 %
b. Pleasant /friendly surroundings	10.3 %
c. Rural life style	15.6 %
d. Easy access to work	5.7 %
e. School district	4.9 %
f. Farm based operation	6.7 %
g. Lake Michigan proximity	8.0 %
h. Safe area	8.9 %
i. Reasonable cost of housing	5.9 %
j. Recreation	4.6 %
k. Good place for children	7.3 %
l. Tax structure	12.0 %
m. Other	.9 %

Demographics:

Total number of persons in all responding households = 458

Household breakdown:

a. Employed	42.6 %
b. Self-employed	10.2 %
c. Not employed outside the home	3.4 %
d. In school	24.2 %
e. Pre school or home school	3.1 %
f. Retired	16.6 %
g. Other	6.8 %

How is the household supported:

a. Farming / home business	13.2 %
b. Big business outside the home / farm	32.9 %
c. Small business outside the home / farm	17.1 %
d. Savings / investment	7.5 %
e. Retirement	22.5 %
f. Other	6.8 %

Age of individual in households

0-17	26.0 %
18-24	6.7 %
25-44	23.6 %
45-64	29.8 %
65-84	12.5 %
85+	1.4 %

Housing

Approximate age of the residence in Two Creeks: 49.7 years

Question #1: The town should support a wide variety of housing choices that meet the needs of persons or most income levels, age groups and persons of special needs. (150)

Agree 44.7 %

Disagree 55.3 %

Question #2: The town should support the development of multiple family, apartments / condos. (149)

Agree 6.7 %

Disagree 93.3 %

Question #3: The town should support the development of elderly or handicap housing. (149)

Agree 27.5 %

Disagree 72.5 %

Question #4: The town should promote the availability of land for the development of low-income housing. (151)

Agree 9.3 %

Disagree 90.7 %

Comments -- See attachment A (page #13)

Community Facilities: (159 Responses)

	Satisfied	Dissatisfied
Police/Sheriff	93.7 %	6.3 %
Fire Protection	99.4 %	.6 %
EMT Services	96.9 %	3.1 %
Roads	96.9 %	3.1 %
Ditch Maintenance	88.7 %	11.3 %
Road Signs	98.1 %	1.9 %
Snow Plowing	93.1 %	6.9 %
Recycling Program	94.3 %	5.7 %
Hunting & Fishing areas	91.8 %	8.2 %
Parks and Recreation areas	91.8 %	8.2 %

Question: Do you feel that you could be more informed about town issues? (145)

Yes 52.4 %

No 47.6 %

Comments -- See attachment A (page # 14 &15)

Economic Development:

Question #1: Do you approve of the way land use in the Town of Two Creeks has evolved to accommodate growth over the past 10-20 years? (142)

Yes 61.3 %

No 38.7 %

Question #2: Excluding residential areas, where / when can the following types of businesses be located?

	Anywhere	Smart Growth Plan	Nowhere
--	----------	-------------------	---------

Retail/Commercial large(149)	3.4 %	36.2 %	60.4 %
Retail/Commercial small (150)	10.7 %	66.0 %	23.3 %
Manufacturing / Industry (147)	4.1 %	40.1 %	55.8 %
Farming 0-50 animals (145)	53.1 %	44.8 %	2.1 %
Farming 50-100 animals (151)	44.4 %	50.3 %	5.3 %
Farming 100-500 animals (141)	16.3 %	65.3 %	18.4 %
<u>Farming 500-1000 animals (143)</u>	<u>7.0 %</u>	<u>36.4 %</u>	<u>56.6 %</u>
Farming greater than 1000 animals (142)	7.8 %	26.8 %	65.5 %
Forestry business (146)	29.5 %	46.6 %	23.9 %
Compost business (147)	11.6 %	59.8 %	28.6 %
Gravel pit & Quarries (147)	5.4 %	39.5 %	55.1 %
Salvage/junkyards (150)	2.7 %	22.0 %	75.3 %
Boating or airplane services (148)	2.7 %	57.4 %	39.9 %
Hotel / Condo (149)	1.3 %	27.5 %	71.2 %
Other (3)			

Comments -- See attachment A (page #16)

Rural Residential Housing Development:

Question #1: In comparison with the existing town structure of 9,100 acres (excluding the existing 1,580 acres of Power plant, town and state property) what formula / mix of land allocation would best represent your vision for the town over the next 10 years?

	Current	Next 10 Years
a. Industrial	0.0 %	.4 %
b. Commercial	.4 %	1.6 %
c. Agriculture	85.2 %	<u>75.9 %</u>
d. Residential	8.4 %	<u>11.5 %</u>
e. Forest land	3.1 %	7.2 %
f. Waste land	2.9 %	3.0 %
g. Other	0.0 %	.3 %

Question #2: With this vision in mind, what type of land use can co-exist with residential use?

	Anywhere	Smart growth plan	Nowhere
Public recreation area (152)	<u>24.3 %</u>	69.7 %	5.9 %
Services = Schools, police, fire, etc. (146)	<u>21.2 %</u>	75.3 %	3.4 %
Environmental features (wet lands, natural areas etc.)(147)	25.9 %	61.2 %	12.9 %
Hunting / gaming areas (149)	19.5 %	64.4 %	16.1 %
Light commercial & retail (i.e. Kwik Mart) (151)	8.0 %	64.2 %	27.8 %
Salvage & Junk yards (153)	2.6 %	20.3 %	<u>77.1 %</u>
Mobil trailer parks (152)	1.3 %	32.9 %	<u>65.8 %</u>
Camping facilities (151)	8.0 %	64.2 %	27.8 %
Home Business (150)	<u>10.0 %</u>	52.0 %	<u>8.0 %</u>
Industrial / Manufacturing (147)	2.0 %	38.8 %	<u>59.2 %</u>
Billboards (150)	3.3 %	45.3 %	51.3 %
Towers over 100 ft (149)	5.4 %	51.7 %	<u>43.0 %</u>
Airports / landing fields (151)	0.7 %	37.0 %	<u>62.3 %</u>
Boat launch facilities (145)	18.6 %	73.1 %	<u>8.3 %</u>
Composting business (144)	<u>9.0 %</u>	63.9 %	27.1 %
Farming 0-50 animals (139)	<u>47.5 %</u>	50.4 %	2.1 %
Farming 50-100 animals (148)	<u>44.6 %</u>	50.7 %	4.7 %
Farming 100-500 animals (143)	20.3 %	61.5 %	18.2 %
Farming 500-1000 animals (145)	8.3 %	33.8 %	<u>57.9 %</u>
Farming 1000 or more animals (150)	6.6 %	22.7 %	<u>70.7 %</u>

Question #3 As the Land Use Committee works towards promoting the interests of the town residents (as a whole), what priority should be applied towards the following subjects:

	High	Medium	Low
Promotion/protection of conservancy districts (141)	46.8 %	35.5 %	17.7 %
Protection of environmental waterways (147)	60.5 %	27.9 %	11.6 %
Limit future large farms (500 units and greater) (149)	61.1 %	18.8 %	20.1 %
Right to farm (141)	58.2 %	26.2 %	15.6 %
Set back ordinances for res. dev. near waterways (144)	51.4 %	34.0 %	14.6 %
Establishing building codes (149)	34.2 %	43.0 %	22.8 %
Septic system limitations (143)	21.0 %	55.3 %	23.8 %
Residential lot size (149)	46.3 %	34.9 %	18.8 %
Commercial / tourism / industrial development (151)	21.2 %	29.1 %	49.7 %
Regulation of mobile homes and trailer parks (149)	63.8 %	23.5 %	12.7 %
Removal of junk cars and hazardous buildings (150)	65.3 %	16.7 %	18.0 %
Billboard regulation (147)	40.8 %	39.5 %	19.7 %
Noise regulation (148)	28.4 %	41.9 %	29.7 %
Weed regulation (147)	30.6 %	44.9 %	24.5 %
Odor regulation (147)	50.3 %	35.5 %	14.3 %
HWY 42 commercial services (143)	21.7 %	53.9 %	24.5 %
Other (7)			

Question #4 Should the town limit lot size for any future new house construction: (156)

Yes 84 %

No 16 %

Question #5 If limits are applied what size lot is the minimum size: (153)

Under 1 acre	2.6 %
1 acre	13.1 %
5 acres	25.5 %
15 acres	8.5 %
35 acres	26.8 %
40 acres	23.5 %

Question #6 Should the town restrict the use of holding tanks for new home construction (answer does not reflect the use of holding tanks to repair existing systems): (138)

Yes 47.1 %

No 52.9 %

Comments -- See attachment A (page # 17 & 18)

Agriculture:

Question #1: How important is it to preserve farms and farmland for agriculture purposes in the Town of Two Creeks (155)

High	72.9 %
Medium	21.9 %
Low	5.2 %

Question #2: Which of the following would you support: (202)

a. Farming only on productive agriculture land currently being farmed.	41.6 %
b. Farming on any land available.	29.2 %
c. As a tool to prevent urban sprawl.	24.8 %
d. Other.	3.5 %
e. None.	.1 %

Question #3: Do you own Farm property that may one day be offered for sale outside the farming environment in the next 10 years: (150)

Yes	20.0 %
No	80.0 %

Question #4: If you answered yes why do you feel that you will seek to sell your property for residential or industrial development (14) See attachment A

Question #5: Should a landowner or farmer be permitted to sell his or her farmland for purposes other than farming (chose one) (149)

For any reason, it is their right.	42.3 %
Only if it doesn't conflict with the Smart Growth Comprehensive Plan for the town of Two Creeks.	49.7 %
Other	8.0 %

Comments – See attachment A (page #19)

Natural Resources:

Question #1: How would you rank the Town of Two Creeks historical management toward the environment and natural resources: (148)

Acceptable	61.5 %
Poor	9.5 %
Unknown	29.1 %

Question #2: What priority should the Land Use Committee apply to promotion / maintenance of the following environmental features in the town:

	High	Medium	Low	
Woodland (150)	52.0 %	39.3 %	8.7 %	
Shore lands (150)	64.7 %	27.3 %	8.0 %	-
Grasslands (148)	33.1 %	50.0 %	16.9%	
Floodplains (148)	30.4 %	47.3 %	22.3 %	
Wetlands (150)	36.7 %	39.4 %	24.0 %	
Archeological Sites (147)	34.7 %	40.1 %	25.2 %	
Air Quality (148)	61.5 %	31.8 %	6.8 %	
Other (2)				

Question #3: What level of priority should the Land Use Committee place on wildlife habitats in the town.

	High	Medium	Low
Wetlands (150)	37.3 %	42.0 %	20.6 %
Woodlands / forestry (150)	48.7 %	38.7 %	12.7 %
Green / Open spaces (148)	28.4 %	50.0 %	21.6 %
Shorelines (lakes and streams) (148)	54.1 %	34.5 %	11.5 %
Other (2)			

Comments -- See attachment A (page #19)

Ground Water Protection

Question #1: Do you feel there is a problem with the contamination of groundwater in your area of the town: (153)

Yes	13.7 %
No	56.2 %
Not Sure	30.1 %

If Yes what do you feel is the cause – See comments Attachment A (page #20)

The Two Creeks Land Use Committee is currently promoting the following proposals. Do you agree or disagree?

a) Not allowing residential development in areas where groundwater contamination reaches or exceeds 2PPM nitrate levels: (150)

Agree	64.7 %
Disagree	35.3 %

b) The regulation of siting, construction and monitoring of specific potential sources of groundwater contamination's (e.g. agri-chemical storage / transportation facilities, road salt storage facilities, pipeline construction, fuel and waste oil storage facilities, livestock production, industrial operation, etc.): (149)

Agree	89.3 %
Disagree	10.7 %

c) Permits for new wells and the closing / abandonment of wells: (149)

Agree	74.5 %
Disagree	25.5 %

Surface Water Protection

Shoreline setbacks should be: (148)

75 feet	35.1 %
100 feet	26.4 %
150 feet	14.2 %
300 feet	24.3 %

Shoreline Vegetation: (233 recommendations)

Restrict to natural vegetation	36.9 %
Restricted mowing along shore	18.0 %
Prohibit use of pesticides, herbicides & fertilizers	45.1 %

Comments -- see Attachment A (page 21)

Attachment A

Caution:

Some of these comments may not be clear to individuals that have not been privileged to analyze them against the composite of the overall individual survey. The comments are from individuals and do not necessarily reflect the opinion of the majority, but again do reflect insight into individual items of interest and concern of some of your neighbors.

Page #4

Housing:

- Farming, Farming, Farming, not wetland or housing.
- Handicap/Elderly/ Multiple family housing serve better if located near public transportation and services.
- If we did promote this it would mean we would have to form a village to support sanitation etc.
- We should severely restrict new growth.
- Building of a home should allow the owner to build what they need and what the land will allow.
- An Elderly facility for current town residents would be acceptable.
- Our town is too small for this.
- I would agree with handicap housing.
- You have to address these needs; it is part of the Smart Growth law.
- Such development as described is impractical this far from town.
- The town should help out and keep the elderly residence in the town, especially when a lot of them are lifetimes and are forced out when they are no longer capable of up keeping their homes (example = assisted living).
- Two Creeks is good farmland and the above service is better suited for towns like Two Rivers and Mishicot.
- There are already enough available in Two Rivers and Mishicot.
- The building moratorium is just about the haves in the town stopping the have-nots in the town from building.
- The town is just too small to support this type of development.
- This type of arrangement would require a hook up to a sewer and water systems like in a village or city.
- Going ahead with some of these ideas would require strong ground rules and legal advice.
- The town should talk to the residence that look like large junkyards and tell them to clean it up.
- Keep the environment quiet.
- Hold the current tax structure.
- This area is too far away from conveniences (grocery, etc.) therefore it is better off a "getaway town"
- The township is rural with no close city to support the above-described concepts.
- Not in favor of this type of housing that may spoil the rural identity or jeopardize property tax values and public safety.

Community Facilities:

- Need more police in the area.
- Home garbage pick up would be nice.
- Park areas need improving.
- We have a nice cable channel 8. Use it more for information about the town. Go into more detail not just fire department meetings etc. Have someone keep this up full time.
- Strongly support maintenance of rural roads and scenic drives.
- The town was built as an agriculture town; it should generally be kept that way.
- Cable TV needs work, and possible Internet cable hookup would be nice.
- Channel #8 does a fair job of informing us but perhaps a screen or two of town tidbits would help.
- I find it outrageous that in the middle of the night it takes the sheriff's department 45 minutes to an hour to respond to a call.
- Town meetings could be put on TV.
- The cable channel keeps us informed.
- The recycling program should be up at the town hall for Two Creeks residence only and open every weekend till 3PM.
- A community house or place for kids to safely play / socialize/ swim. We need a youth center. It seems that Manitowoc and Green Bay are the closest areas for our youth.
- HW 42 ditch maintenance is a problem.
- Residents / Owners should be given a map of the township and locations of public lands / parks / recreational areas.
- Please get fire number signs on all residence. Some residence do not maintain a mailbox. Would a young fireman know where someone lives without a mailbox? Ditch maintenance on HW 42 is poor. We take pride in our yard and every year we have to remove wheelbarrows of gravel. Please pull up a little on the snowplow – Thank you. When we asked for permits for storage we were informed “no junk and old trucks should be on the roadside because it is an eye sore. Why doesn't everyone have to obey this rule?
- The ditches in front of our land is not properly pitched, this is complicated because the ditches on HY 42 is also not properly pitched.
- It would be nice if the snowplow lifted its wing a little as it goes past houses to eliminate all of the stones in the driveway.
- A new net in the tennis court. Better ball field maintenance. Portable toilets in recreation area of the town hall.
- Speed limit signs on lakeshore road are needed. Some ditches hold water (standing) after rain and snow. The town provides outstanding services to it's residences, the board should be proud.
- First Responders needs. More observation and control of the power plants traffic situations. Ditches should be cut in June not wait until August or Sept. as in the past.
- Get rid of the standing water in ditches.
- Improved boat landing would enhance recreation area.
- A few more things could be posted on the local TV channel. Most of the time I think we are being fairly well informed.

- The recycling center should be opened during the week.
- The town has an excellent recycling service. Cable based Internet would be nice.
- Second shift workers cannot attend town meetings.
- A new tower is going up in the town right in the middle of farmland. People should have had the right to say yes or no.
- We miss the private snow plowing. We attend most meeting open to the public and have no problem being informed on the issues.
- We need a safe way down to the beach at both the North and South ends of the park.
- More Cable TV variety.
- More parks and space set aside for future parks.
- Garbage / recycling pickup. Clean up the litter on lakeshore road. Use the cable system to keep us more informed.
- I need to go to the town meetings.
- A better boat ramp.
- We have channel 8 that is enough.
- Recycling / trash should be open each weekend.
- Recycle center should be open every Saturday (perhaps for shorter hours).
- The town crew does work in our area in changing the roads and does not get the local residence consensus on the task / project.
- As long as someone keeps up the information on the TV that is enough. Too much gravel in the ditches from the snowplow.
- A deeper boat launch. We need a monthly town newsletter to keep residence informed of changes or pending changes / issues.
- The cable system provides us with adequate information.
- Improve the cable system.
- Hunting areas should be away from homes and farms.
- Put town board meetings on channel 8.
- It does not really matter what we the people say, the town board will do what ever they want. If they like you, you get a permit, if not, you do not.
- Need the dump open during the week. Add more channels to the cable system. A larger dump sight area.
- Would like to see the recycling center open every Saturday during the summer months.
- We need the minutes of the town board meeting published.

Economic Development:

- Anybody that hunts needs the farms with animals for their hunting lands. If it was not for dairy land we will end up with homes and keep out signs.
- There has to be a balance between growth and protection from over development.
- Present junkyards should be cleaned up.
- Most businesses when designed properly and maintained well are an asset to any town.
- We have enough junkyard looking places.
- The town should be involved in the addition of businesses.
- Small home sales such as woodcraft sales should be allowed along the road.
- Retail / Commercial small store such as a gas station or mini mart would be ok.
- Some controls should be applied or forced on properties with junk cars and dilapidated buildings.
- Anything that will better the community is good. One should be able to build on your own land as long as it is attractive to the community.
- We have a beautiful area and must be careful not to ruin it.
- Two Creeks should strive to maintain its tax structure and rural atmosphere.
- Too many residence going up already. A town law should be made that all new residence will pay property tax to stop this run away building. This type of law should have been in place from the beginning.
- Large farms should be limited.
- Most any small venture of animal husbandry or such should be allowed on you own property as in the past.
- All of the above selections should be defined through a professionally prepared land plan and written ordinance. Thanks to the tax base created by the nuclear plant Two Creeks has no further need for additional retail, commercial, manufacturing or industrial uses. Also Two Creeks should have an ordinance prohibiting all billboards and regulating other signage.
- We have family members that do woodworking and sell their items. We would not like this restricted.
- New homes are nice and well cared for but would prefer to see farm prosperity.
- There has been too much residential growth.
- Bad odor problem when too many animals are confined in a small space.

Residential development:

- We have a definite order problem in this town with one big farm.
- The farm land out there that is a small or retired farmers land should be at the owners discretion on how they want to use it, they should not be stuck having to use it only for farming because they are at the mercy of bigger farms to sell to them, thus they loose value. A retired farmer that sells his animals should have the right to sell his land for whatever purpose he chooses to get the most money for his land.
- Someone could generate a lot of business (such as a shop or gas station) from the Point Beach and Kewaunee power plants. The town could get some revenue off of that.
- If the town designates a housing development area it would be OK for smaller parcels of property to build on.
- It's a shame we have so many junkyards in the town especially on HW 42. Besides being an eye sour, they possibly are potential areas that are harboring rats and rodents.
- We should all work together to keep yards neat and clean. Remove all junk etc. This makes a community one can be proud of.
- A safe boat harbor is needed.
- There is a need to limit new construction.
- No new large farms.
- The town should only use the interest and other income to pay the bills (including property tax) and not touch the principal. If the interest is not enough then residence should make up the difference.
- Until we find a replacement for food we need to save our farmland. About 30 years ago the town had a soil survey done and we were told that it was not compatible for development. Over the last 10 years people are building whatever they can get away with. I think the houses are already too close together. I think we should be prudent in granting permits for new houses. With the construction of each new house the odds of contamination of our ground water increases due to septic tank failures. We should not put ourselves in a position where the state will make it mandatory for the town to build sewage and water treatment plants. Also attached was a copy of the 4 February 2001 Green Bay press-gazette full-page article titled "Sprawl gobbles up acre after acre".
- In this area we know many homes in our township are older and with age septic systems can fail or have already failed. I question with failed and failing systems what kind of ground contaminants are present. Holding tanks are far much safer if properly cared for. When we see ground water contamination, 95 % of the time the finger is pointed at the farmer when in fact the homeowner with less legal systems are just as much at fault. I would much rather see focus placed upon inspection of systems to make sure that they are up to par to protect the environment for future generations. Running septic systems into ditches and hidden waterways should not be tolerated (no exceptions).
- Big dairy farm operation smell bad. There are no adequate regulations to control the manure and smell. For this reason big operations must not be allowed.

Holding tanks:

- If installed properly and monitored should not be a problem.
- Black water exclusive to holding tanks, gray water (second system) to drainage fields.
- You may want to think smaller plots allowed in existing population areas (Kidville / Two Creeks).
- If a parcel perks for a mound, it should be allowed, but the size should be adequate so the system will work well. Also the new low style should be promoted.
- A homeowner is far better off putting in a mound system.
- Holding tank may be the last resort on some of the soil types. This should be used with caution, so buildings are not constructed on poorly drained sites.
- It is too easy to violate the intention of a holding tank.
- Holding tanks with a hauler contract. Sewage would be removed to a sanitary system and not left to leak into the soil.
- We spend too much on wetlands now.
- If the town restricts the use of holding tanks they should help with the cost of other construction.
- Not if a conventional or mound system could be installed.
- Whatever is best for the landowner.
- Holding tanks are better than any system because they must be pumped.
- As a last resort.
- Too many tanks are not maintained.
- The town should check existing systems. Some homes do not have proper septic systems right now.
- Get all town septic systems up to date.
- Mound system or holding tank they both work.
- Holding tanks cost less to maintain than normal systems. Mounds cost \$7000. The cost of pumping a holding tank over the holding tank's life cost less per year.
- Some areas cannot have a mound system and only a holding tank can be used.
- Only if there is some assurance the tanks are maintained properly.
- Due to our tax structure holding tanks are a liability to the town. If people do not pump them the town is obligated to pick up the expense.
- If it perks they can put in whatever system they want.
- One holding tank per 40 acres with one residence.

Agriculture:

- What a person does with his own property should be his own business. However the Township could make an offer to purchase at a fair price or help young farmers get a start with incentive programs.
- It is a persons right to do what they want but the Smart Growth plan could have the right of first refusal on a property sale.
- A person has a right to sell to a buying customer.
- May need the income. The land may not be farmed in the future.
- To keep the family close and to help them start a living when they move from home.
- If farming conditions do not improve we may have to sell and get out.
- Compensate farmers for allowing hedgerows to grow along fence lines for loss of tillable acreage.
- Most of the land East of HW 42 is considered wetland according to the state land office.
- The land is part of my retirement.
- May need the income.
- Money.
- Family member might buy it to build a house.
- Right now all small farmers are at the mercy of two large farms in the town (they set the price).
- Family members may want to have some land.

Natural Resources:

- Can regulate future use of land, but cannot do much with current owners use.
- The preservation of our lands and access to these lands give older people pride and younger people the love of the land and nature.
- Hunting should be allowed on state lands.
- Cut set aside grasslands.
- Ensure development has minimal impact on nature.
- Limit duck pond/wetland. The extra wild life will be a problem some day. Consider trees if the land will be left idle.

Ground Water:

- Landowners should be allowed to drill wells and should be forced to close / seal abandon wells.
- Close watch and help should be given to large farmers to contain waste.
- Pesticides are well regulated already.
- We do not have a problem now but in the future some large farm manure pits (which are right next to a creek) may pose a problem.
- You should not need a permit to drill a new well, but I would support a permit to make sure abandon wells are closed.
- We have poor water and are currently surrounded by farms.
- Manure is what is causing the increased nitrate levels.
- Sulfur smell in the water if not treated.
- Farm pollutants are causing the problem.
- Poorly treated sewage is the problem.
- Big farms.
- Improperly abandon wells, or wells not up to state code or standards.
- Unsealed old wells (example near church in down town Two Creeks).
- Manure is the problem.
- Manure (500-1000 cows = a city of about 3000-6000 people). Abandon pits should also be eliminated.
- Big farms.
- Large farms.
- Permits only for large operations. Homeowners should be allowed to drill or close wells without.
- Do not need any more XXX regulations.
- New construction
- With proper equipment nitrates can be removed from your drinking water.
- Nitrogen fertilizers & pesticides.
- Closing of wells is very important.
- Abandon wells not properly being closed are the problem.
- Manure run off.
- Too many houses.
- Pesticides and weed killers.
- Do not tell me to drill a new well or close one, but monitoring water will be helpful.

Shoreline:

- Use common sense on how close to plant and harvest near shorelines.
- The diversity of shoreline and circumstance varies. The need for Management if the landowner needs assistance in battling erosion. The town should give assistance unless refused by landowner.
- Very difficult to regulate such things. Chemical use near waterways is important.
- General restrictions like these may be difficult and unfair but I agree some control is essential.
- Let Nature take its course.
- Existing structures should be grand fathered. Houses lost to natural disaster should be allowed to be rebuilt in the same area.
- Soil consistency may determine required distance for setback and vegetation restrictions.
- It is very important to eliminate the use of pesticides / herbicides and fertilizers near any waterway.
- Maintain a natural shoreline as much as possible.
- A large buffer & conservation practice are needed to lessen shoreline erosion.
- Use of common sense is very important. I think the town board has done a good job for years and will do so in the future. I think the taxpayers should make any changes by popular vote in case the town board has some doubts or wants more input.
- If you want to replace an existing house with a new one at the same location that should be allowed.

D

APPENDIX D
FINDING OF FACT TOOL



Town of Two Creeks Land Use Evaluation Worksheet

Rev 0 (4/14/2003)

Purpose:

Standard analytical work sheet to aid in gauging if land use change is appropriate as compatible against the Vision, Goals and Objectives outlined within the Town of Two Creeks 2002 Comprehensive Land Use Plan (Ordinance 041403).

Scope:

This tool creates format of objective consistency toward a balance of land use evaluation within the township. The specific subjects / structure outlined in this work sheet parallel the responses received from town residents within the January 2001 land use survey and the analysis conducted by the land use committee within the development of the Comprehensive Land Use Plan.

This Work sheet is a living document and subject to change. The standing Land Use Commission and the Town Board will approve all changes.

The scoring system used within this evaluation tool is numerical (0->10) with the highest value representing the closest match toward land use goals and objectives.

This checklist is not an accounting exercise, with a pass / fail objective / criteria, but rather a format that is intended to support consistent quantitative judgment calls against a set of minimum standards that will be used to support / advise the town's governing body (Two Creeks Town Board).

Evaluation:

Date: _____

Individual requesting change (name and address): _____

Description of property structure to be changed / rezoned / etc. (attach reference material as required):

Major reference points / questions to be considered:

1. Will the proposed change exceed the limits imposed within the current zoning restrictions outlined within the towns Smart Growth Plan?

0 = Yes

10 = No

_____ Total

2. Will the proposed use negatively impact the adjacent land's potential of agriculture use, or have the potential to create conflicts between agriculture and proposed use?

0 = Yes

10 = No

_____ Total

3. Is the proposed rezoning close to an existing development of a similar use?

10 = Adjacent

8 = No more than ¼ mile

6 = No more than ½ mile

4 = No more than ¾ mile

2 = No more that 1 mile

_____ Total

4. Will the proposed change go against the Smart Growth Plan of requiring multi family, low income, elderly or special handicap housing only into areas which posses the resources to support them (example: Sewer, water, emergency services and health care facilities)?

0 = Yes

10 = No

_____ Total

5. Will the proposed change result in residential growth into existing areas of industrial or sizeable livestock production (distance to existing potential conflicting area)?

0 = Located <1000 ft

5 = Located <2000 ft

10 = Located >2000 ft

_____ Total

6. Will the proposed change result in industrial or sizeable livestock product into existing areas of residential growth (distance to existing potential conflicting area)?

0 = Located <1000 ft

5 = Located <2000 ft

10 = Located >2000 ft

_____ Total

7. Will the proposed change go against the Smart Growth Plan of requiring retail and commercial growth only in areas, which possess the resource to accommodate them (example Sewer, water, road structures)?

0 = Yes 10 = No _____ Total

8. Will the proposed change promote situations that would degrade the towns existing rural setting, natural beauty or air quality of shorelands, woodlands, grasslands or flood plains?

0 = Yes 10 = No _____ Total

9. Will the proposed change foster situations of eyesore concern (example: Billboards, unused vehicles, abandon buildings, gravel pits, towers >200 ft)?

0 = Yes 10 = No _____ Total

10. Will the proposed go against the Smart Growth Plan of Farming operations on the order of the following large animal units?

0 = >1000 5 = >500 / <1000 10 = 500 or less _____ Total

11. Will the proposed change go against the Smart Growth Plan of allowing small home business?

0 = Yes 10 = No _____ Total

12. Will the proposed change present a substantial change to the existing public services of the residence of the town as measured against the managed tax structure, which has been enjoyed in previous decades?

0 = Yes 5 = Moderate 10 = No _____ Total

Sub total _____

Any value < 120 requires comment.

Discussed this _____ day of _____, _____ by the Town of Two Creeks Planning Commission, _____, Chair.

The Town of Two Creeks Planning Commission makes the following recommendation to the Two Creeks Town Board and potential consideration of the Manitowoc County Planning department (potential request to rezone, accept zone exclusion or effect use of agriculture land).

A copy of this work sheet record will be filed at the Two Creeks Town Hall under "Land Use Request change".

The Commission makes the following recommendation to the Two Creeks Town Board on the Proposed land use change proposal:

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There are approximately 20 lines visible. The paper appears to be from a notebook or a standard sheet of stationery. There is no handwriting or other markings on the page.

(See attachments for any individual committee members special comments / reservation)

Name / Signature of Plan Commission Chair _____ Date _____

Committee members participating in this evaluation: _____

Town Board Comments:

[illegible]

_____/_____
Name / Signature of Town Board Chairman Date

E

APPENDIX E CONSERVATION SUBDIVISION





CONSERVATION SUBDIVISION DESIGN

A Four-Step Process

NATURAL LANDS TRUST, INC.

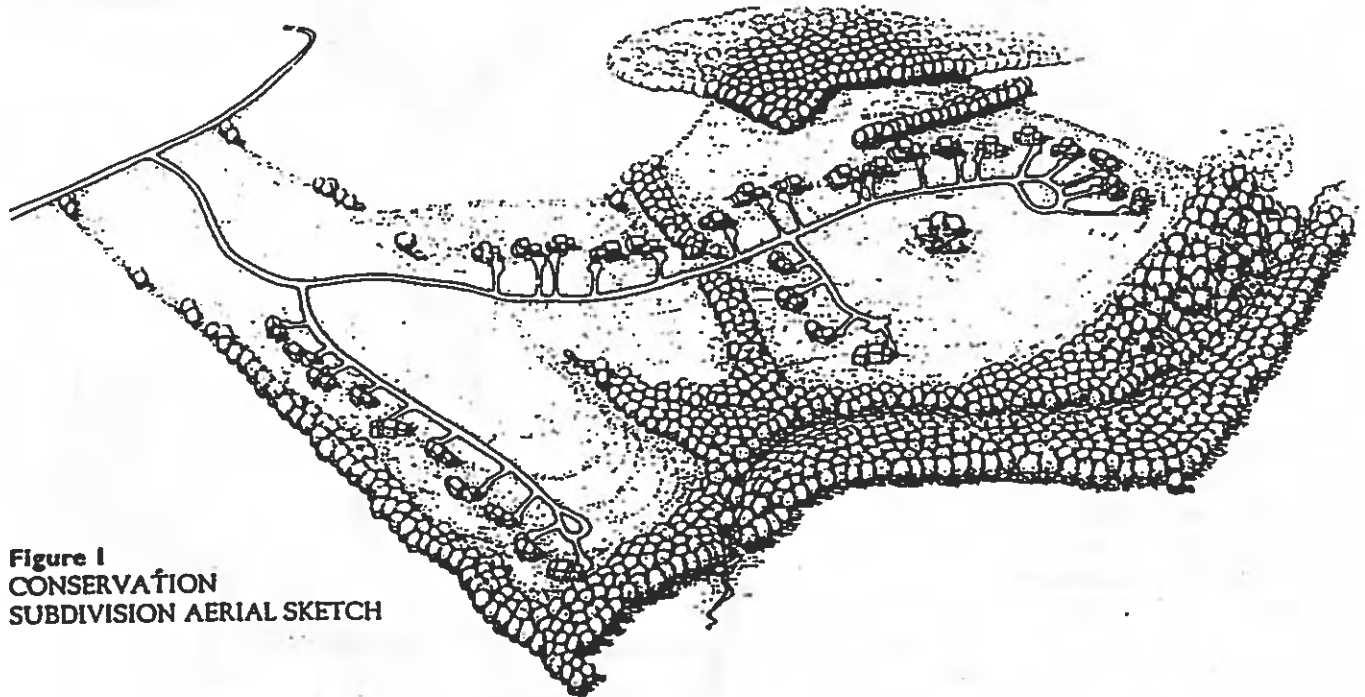


Figure 1
CONSERVATION
SUBDIVISION AERIAL SKETCH

NATURAL LANDS: SPECIAL PLACES IN YOUR COMMUNITY

If you live in a rural area or along the suburban fringe, chances are that you live not far from a stream valley, wildflower meadow, or patch of woods. Chances are also good that none of these special places will be recognizable 20 or 30 years from now, unless they are in a public park, state forest or wildlife refuge, or unless they happen to be protected through a conservation easement held by a conservation organization such as the Natural Lands Trust.

That is because most townships have adopted zoning and subdivision ordinances whose principal purpose is to set rules for the orderly conversion of virtually all land that is dry, flood-free and flat to moderately sloping, into developed properties.

Fortunately, practical alternatives do in fact exist, and this publication describes a straight-forward way to ensure that new subdivisions are designed around the central organizing principle of conservation. This technique can also be used to help communities create an interconnected network of open space through creative approaches to land development.

SPECIAL FEATURES WORTH CONSERVING

The aerial drawing above shows how a partially wooded property could be developed at the full two-acre density allowed under local zoning, following the principles of conservation design. Altogether, two-thirds of this 82-acre parcel could be conserved, including 17 acres of wetlands and steep slopes and 37 acres of upland without any building constraints.

Although the hedgerows on this site are not visually spectacular, they are capable of providing instant

Working with people to conserve land in our region and our communities

buffering between backyards in addition to their intrinsic habitat value. The species found there along a typical 300-foot length include white ash, cockspur hawthorn, wild crabapple, black cherry, shadblow serviceberry, hackberry and white oak. These trees provide many perching, feeding and nesting opportunities for a variety of arboreal birds such as indigo buntings, tree swallows and bluebirds.

Below them grows a dense thicket of shrubs including black chokeberry, box huckleberry, pin cherry, American hazelnut, viburnum, elderberry and blackberry bramble which, together with a variety of thick meadow grasses, offer excellent cover for meadow voles and other small rodents, providing abundant food sources for foxes and other carnivores.

The little hollow sheltering the spring house where the stream rises is filled with rue anemone, sweet flag, marsh bellflowers, turtlehead, spearmint, milkweed, silky dogwood and summersweet or sweet pepperbush, and the wildflower meadow in the northwest corner of the property is noted for its wild strawberry, sleepy catchfly, tall anemone thimbleweed and broomsedge. These features can also be seen in Figure 2, showing the site in its pre-development state.

Under normal development circumstances, not one of these features would rate highly enough for it to be designed around and saved, or even noted, as local ordinances typically do not address conservation of such natural areas. However, they provide food and shelter for a myriad of birds, small mammals, amphibians and insects. (For example, milkweed is a critical plant in the life cycle of the Monarch butterfly, a species that is currently suffering markedly from the careless destruction of this kind of habitat, which is almost universally being replaced by tidy suburban lawns.)

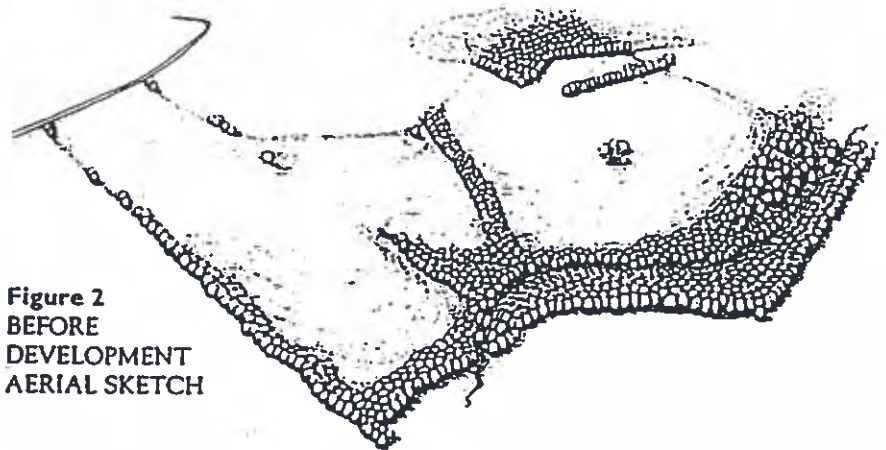


Figure 2
BEFORE
DEVELOPMENT
AERIAL SKETCH

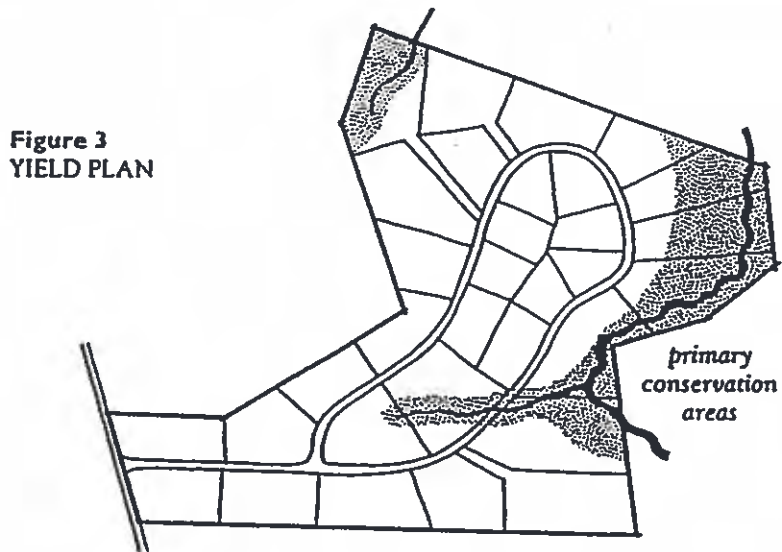


Figure 3
YIELD PLAN



Figure 4
YIELD PLAN
AERIAL SKETCH

CONVENTIONAL SUBDIVISION DESIGN

Figures 3 and 4 illustrate the typical kind of "checkerboard" layout that is permitted (sometimes even required) by local zoning and subdivision ordinances. Conventional developments such as this needlessly displace wildlife habitat and convert other natural areas into ecologically diminished suburban yardspace. The same number of houses could just as easily be accommodated onto a smaller portion of the land, not only reducing development costs but also helping to foster a greater sense of community among the new residents by providing them with a more neighborly arrangement of homes. The two-acre lots shown in these drawings are "too large to mow and too small to plow." Meanwhile, many forms of wildlife are driven farther away, and opportunities to take woodland walks or weekend strolls across wildflower meadows simply do not exist, because every acre has been divided into private lawns and yards.

THE CONTEXT

Municipal Planning for Conservation and Development

To broaden land conservation efforts throughout the region, the Natural Lands Trust has for the past three years been working on an approach to revising local zoning and subdivision ordinances that will multiply the options available to landowners, setting higher standards for both the quantity and quality of land that is set aside for permanent conservation.

Network of Conservation Lands

The ultimate goal of these planning efforts is to help communities identify and protect an intercon-

nected network of natural lands woven into the fabric of new development, to assure greener futures for succeeding generations of residents. While traditional conservation methods such as acquisition, easements and "limited development" (involving greatly reduced densities) will continue to play an important role in certain instances, it is likely that the vast majority of undeveloped parcels in our region will ultimately be proposed for full-density residential development in the years to come. It is therefore essential that more conservation-oriented design standards be incorporated into the local land-use ordinances that govern subdivision proposals, so that the majority of new developments will contain a substantial percentage of protected open space.

Municipal Open Space Plans

The site planning principles which the Trust advocates for individual properties that are proposed by their owners for development—principles which are the main subject of this article—are part of a much larger effort to help local officials prepare community-wide open space plans. These plans typically include maps combining a variety of natural resource data with tax parcel boundaries to identify, well in advance of development, broad opportunities for conservation throughout the community.

Ordinance Improvements

After completing these maps and drafting specific planning policies to conserve significant resources, the next step involves helping local officials to update their land-use ordinances. A key provision recommended by the Trust allows municipalities to require that developers take those pre-identified conservation areas into account and design their houselots and streets around them in a respectful manner. In a typical situation, flexible standards for lot size and frontage allow for the

full legal density to be achieved on one-third to one-half of the buildable land, leaving the balance in permanent conservation.

Several townships in our region have also taken the further step of requiring that developers group their homes on half or less of their unconstrained land so that upland terrestrial habitat and other ecologically important areas may be maintained



in their natural state. Current regulations in most municipalities protect only unbuildable areas such as wetlands, floodplains, and steep slopes (the so-called "obligatory open space"). Without open space design standards such as advocated by the Trust, most developers would continue to overlook other important conservation possibilities in their subdivisions, fragmenting many kinds of natural lands into individual houselots, rather than designing around them to create undivided conservation areas managed for long-term resource protection.

The kind of resource fragmentation described above is illustrated in Figures 3 and 4 and in the upper part

of Figure 5, showing a typical large-lot subdivision layout that divides all upland and lowland areas on the subject parcel into a checkerboard of houselots and streets. Houses would, of course, be located away from wetlands, floodplains and steep slopes under most current ordinances, but woodlands and meadows would typically be cut up into indi-

Although lots that abut conservation land typically sell more quickly and at premium prices compared with standard lots surrounded by more of the same, many developers lack experience in designing and marketing this kind of alternative, and therefore tend to continue subdividing in the conventional land-consumptive manner.

vation principles, in accordance with new planning policies and ordinance standards developed by the Trust to help communities implement their visions of a greener future for the generations that will follow our own.

Designing Around Conservation Features: The Four-Step Process

Until now, the zoning regulations in most communities have established a "one size fits all" approach to regulating lot sizes in each of their various districts, essentially creating a single standard size for new houselots which frequently results in "checkerboard" layouts of nearly identical lots covering the entire parcel. This result is illustrated in Figures 3 and 4, which for the purposes of the following example serves one useful purpose — as a "Yield Plan" demonstrating the legal development potential of the site (in this case, 32 lots could be created).

To provide more options for landowners (and developers) who might want to conserve their site's most special features, while at the same time receiving an acceptable economic return on their property, the Trust has drafted model zoning regulations that offer a wide range of density options (from rural estate lots to village designs), each of which is related to specific standards for open space conservation. This approach is known as "multi-tiered zoning."

In addition, our staff has been drafting new standards for designing residential subdivisions and improved procedures for governing the process in which these development proposals are reviewed. The basic idea is to set up an approach in which land conservation becomes the central organizing principle around which houselots and streets are sensitively designed. As a general rule, this approach would conserve at least half the land area of each site, in addition to the wetlands, floodplains and steep slopes that are typically

CONSERVATION SUBDIVISIONS

A new breed of development — known as "conservation subdivisions" — is illustrated in the middle section of Figure 5. In communities where all three controlling documents (the comprehensive plan and the zoning and subdivision ordinances) are coordinated to produce an interconnected network of natural lands — even after the last unprotected property is ultimately developed — subdivisions would typically contain between 50 and 70 percent conservation land. Those areas would be located in broad conformance with a community-wide "Map of Conservation and Development" to ensure that the eased land in each development will connect with similar areas on adjoining parcels.

Conserving a parcel in its entirety — either through fee ownership or holding an easement — as illustrated in the lower example in Figure 5 is, of course, preferable, but may not always be practicable. The Trust's system of preserves is based on this principle, made possible largely through the generosity of conservation-minded landowners and donors. However, neither county open space bond monies, nor funding available from the state's new "Key 93" program, will allow any single municipality to protect more than a handful of properties in this manner. The balance of this article describes a practical approach for designing full-density subdivisions around conser-

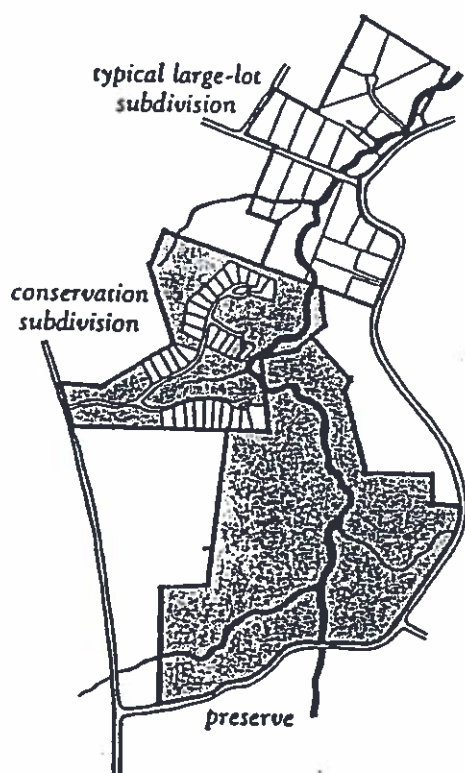


Figure 5
THREE PARCELS ON A
STREAM VALLEY

vidual lots and converted to suburban yardspace, precluding any overall management to enhance wildlife habitat or conserve other resource values.

In the majority of cases where complete protection of the land is not possible, new ordinance standards can be adopted to ensure that developers lay out their houselots and streets around the central organizing principle of open space conservation.

protected under existing codes. This approach has been drafted to work well at both reduced density and full density levels, so that the principle of landowner equity is respected.

Among the procedures recommended by the Trust is the preparation of an "Existing Features and Site Analysis Plan." (In this article these features are all shown on Figures 6 and 7.) This critical element identifies all the special characteristics of the subject property, from unbuildable areas such as wetlands, floodplains and steep slopes, to other kinds of land that are developable but which contain certain features that merit the small amount of additional effort needed for their conservation. Such features might include mature or healthy and diverse woodlands, wildlife habitats critical for breeding or feeding, hedgerows and prime farmland, scenic views into and out of the site, and historic buildings in their rural context.

Production of the "Existing Features and Site Analysis Plan" sets the stage for beginning the four-step design process.

Step One: Identifying Conservation Areas

The first step, which involves the identification of open space worthy of preservation, is divided into two parts: Primary Conservation Areas (Figure 6) limited to regulatory wetlands, floodplains and steep slopes, and Secondary Conservation Areas (Figure 7) including those unprotected elements of the natural and cultural landscape that deserve to be spared from clearing, grading, and development.

The act of delineating conservation areas also defines "Potential Development Areas," which occupy the balance of the site (Figure 8). This completes the first step and virtually ensures that the site's fundamental integrity will be protected, regardless of the actual configuration of houselots and streets that

Figure 6
PRIMARY
CONSERVATION
AREAS

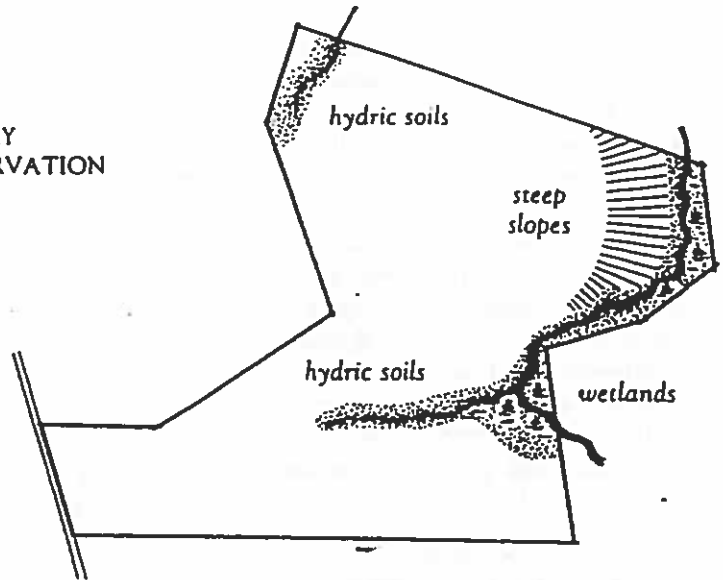


Figure 7
SECONDARY
CONSERVATION
AREAS

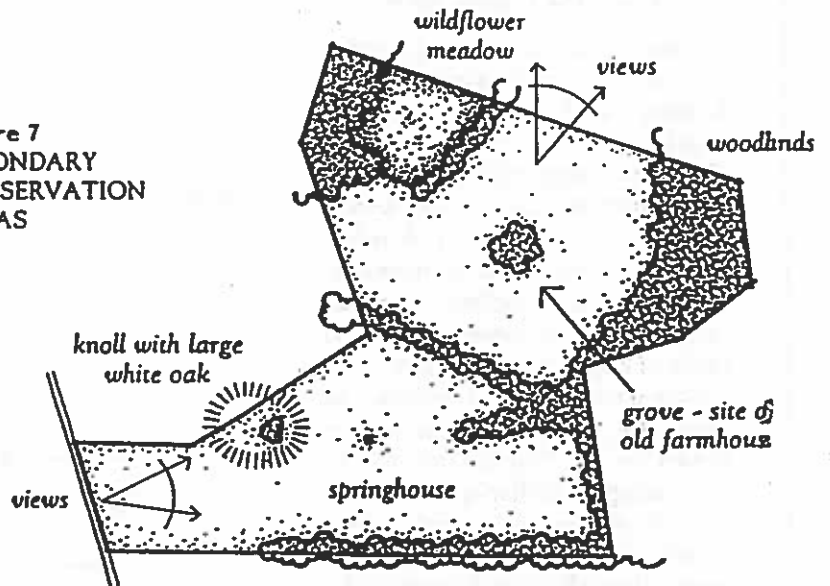
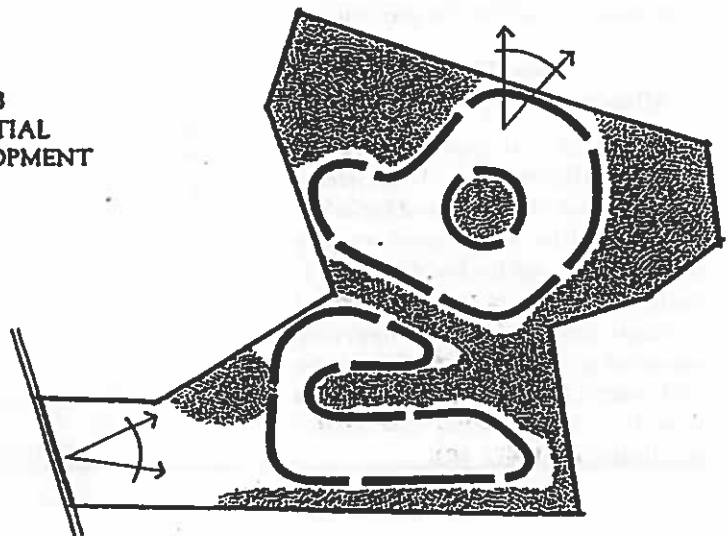


Figure 8
POTENTIAL
DEVELOPMENT
AREAS



will follow. In other words, once the "big picture" of conservation has been brought into focus, the rest of the design process essentially involves only lesser details. Those details, which are of critical importance to developers, realtors and future residents, are addressed during the last three steps. In Figure 7, those features include hedgerows, wildflower meadows, a large white oak tree, a grove of trees on the site of the original farmhouse and rural roads into the property from the township road.

Step Two: Locating House Sites

The second step involves locating the approximate sites of individual houses, which for marketing and quality-of-life reasons should be placed at a respectful proximity to the conservation areas, with homes backing up to woodlands or hedgerows for privacy, fronting onto a central common or wildflower meadow, or enjoying long views across open fields or boggy areas (Figure 9). In a full-density plan, the number of house sites will be the same as that shown on the "Yield Plan" (32 in this example). Other options would include voluntarily reducing that density to create a "limited development" plan, which under certain circumstances might produce the same economic payoff for the landowner.

Step Three: Aligning Streets and Trails

The third step consists of tracing a logical alignment for local streets to access the 32 homes and for informal footpaths to connect various parts of the neighborhood, making it easier for residents to enjoy walking through the open space, observing seasonal changes in the landscape and possibly meeting other folks who live at the other end of the subdivision (Figure 10).

Figure 9
LOCATING HOUSE
SITES

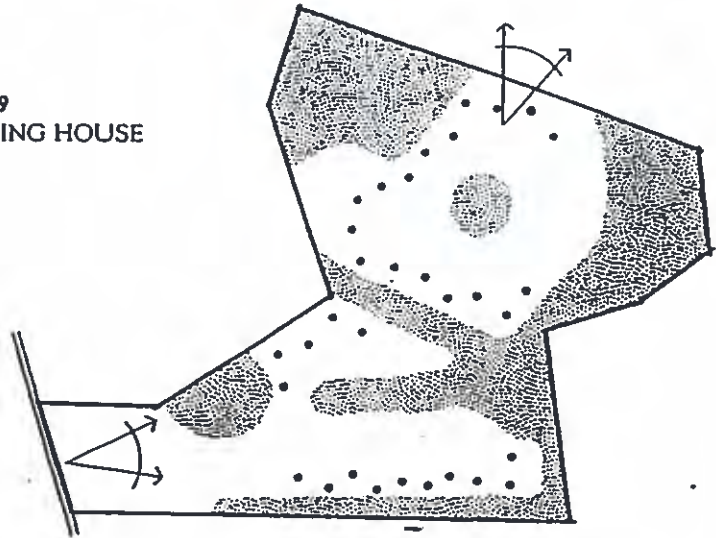


Figure 10
ALIGNING STREETS
AND TRAILS

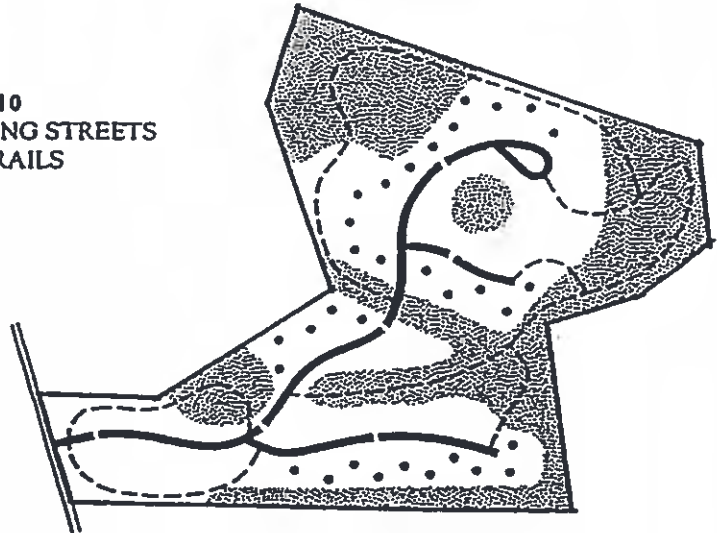
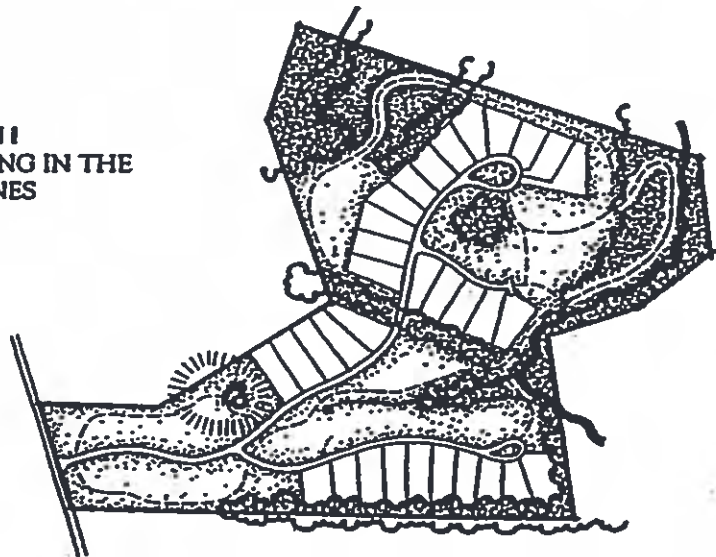


Figure 11
DRAWING IN THE
LOT LINES



Step Four: Drawing in the Lot Lines

The final step is simply a matter of drawing in the lot lines, perhaps the least important part of the process. Successful developers of open space subdivisions know that most buyers prefer homes in attractive park-like settings, and that views of protected open space enable them to sell lots or houses faster and at premium prices (Figures 1 and 11). Such homes also tend to appreciate more in value, compared with those on lots in standard "cookie-cutter" developments offering no views or nearby open space.

SUMMING UP

Advantages for Municipalities, Developers, and Residents

Perhaps the most significant aspect of this design process is the way that it can help communities build an interconnected network of conservation areas. As described at the beginning of this publication, township-wide open space plans, containing "Maps of Conservation and Development", can pre-identify land

to be conserved in each new residential subdivision. Of course, such plans must be supplemented by amendments to zoning and subdivision ordinances to ensure that developers design around the natural features on their property and place them into undivided conservation areas rather than allowing them to be converted to suburban lawns and streets. Conservation planning staff at the Trust have worked with a number of municipalities in our four-county region to implement such improvements and have acted as advisors to many landowners and developers.

These kinds of designs are finding a ready market among homebuyers, who are placing greater emphasis on "quality of life" issues when purchasing new houses. In our area several developers have recognized the value of open space conservation, using it successfully as a marketing tool in some of their recent subdivisions. Long vistas across 137 acres of permanently preserved fields, plus 76 acres of protected woodlands, have helped make one 418-acre subdivision in lower Bucks the fastest selling development in its price range in the County. Similarly, preserva-

tion of nearly half the woodlands at another development in southern Delaware County, has boosted sales to prospective purchasers, each of whom receives a handsome trail brochure when touring the model homes in that project.

Confirming what Trust staff had long suspected, an informal survey by *The Philadelphia Inquirer* has revealed that as many as four out of five house buyers in two new golf course developments in Montgomery County have little or no interest in playing golf. They have chosen homes there primarily because they prefer to dwell in park-like settings, ones that offer attractive views from their windows and pleasant places in which to stroll. Developers find that lots abutting or looking onto open space sell faster — and at premium prices — compared with lots that are surrounded by more of the same. The good news for everyone is that huge sums need no longer be spent clearing natural land to create artificial open space in the form of golf courses. Developers who let Nature alone can reap the same benefits at minimal cost — and with minimal disturbance to woodlands, meadows and fields.

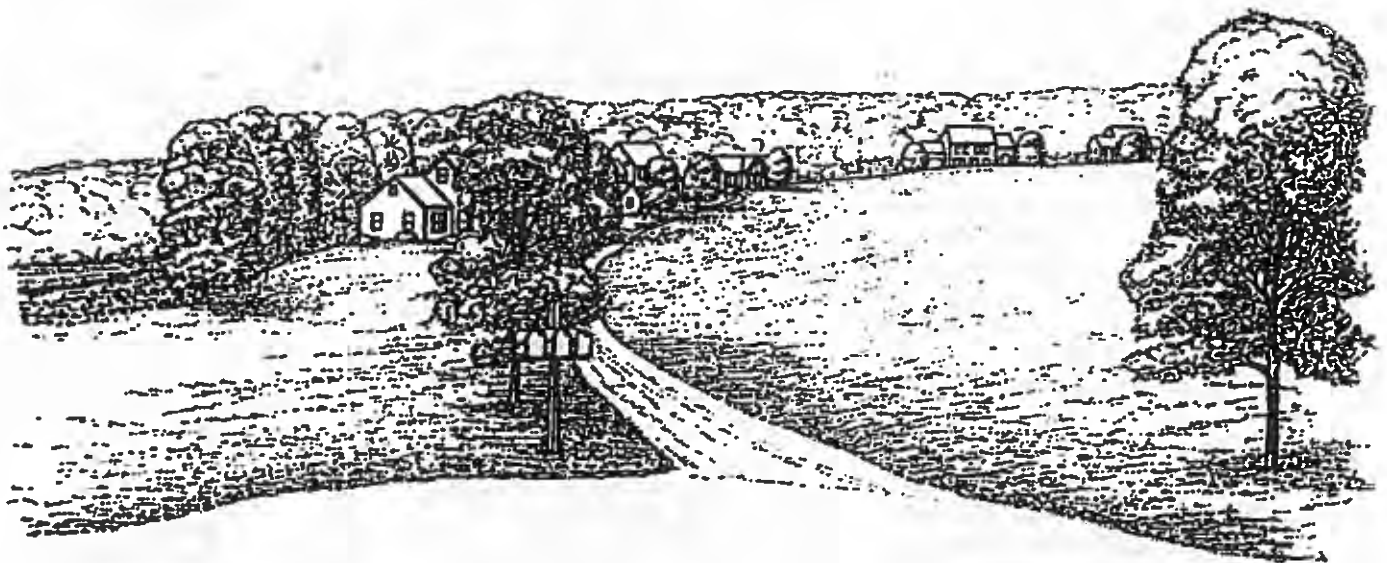


Figure 12
A view across a protected meadow toward a group of new homes built at the edge of the woods. This view, from a township road, typifies the pattern of conservation and development represented by the examples illustrated in Designing Open Space Subdivisions.

TOWARD A NEW LAND ETHIC

The idea of a "land ethic" represents an evolution from the ancient Judeo-Christian ethics that govern relations among individuals and between individuals and society. Sixty years ago, Aldo Leopold suggested a third kind of ethic to deal with man's relation to the land.

As Leopold, who founded the discipline of game management at the University of Wisconsin, observed in 1933, "There is yet no ethic dealing with man's relation with the land and the animals and plants which grow upon it... The land-relation is still strictly economic, entailing privileges but not obligations."

The idea of a land ethic is probably very much alive in the minds and hearts of many rural residents, including many landowners. What farmer, for example, would truly prefer the noise of traffic or the hum of air conditioners over the sound of bird-song or the rustle of wind through the leaves? Who would prefer to see rooftops defining the horizon line instead of treetops, or parking lots instead of fields and meadows?

In Leopold's time there were few financial alternatives for those who depended upon the value of their land to ease their retirement years, or to pay for health care costs. Today a variety of options exist, allowing landowners to realize the economic value of their farms and woodlands without destroying the wildlife and ecological values of their properties. The 150-page handbook described in this brief publication (*Designing Open Space Subdivisions*) illustrates one of these options, one that could be used along with others to strike a better balance between development and natural areas conservation.

Among those other options are the purchase of development rights, the transfer of development rights, "landowner compacts" involving density shifts among contiguous parcels, bargain sales to land conservancies, and "limited development". Of the entire range of alternatives, it is likely that the approach described in our new handbook offers the greatest potential because it does not require public expenditure, does not depend upon landowner generosity, does not need a special "high end" market, does not involve complicated regulations for transferring rights to other sites and does not depend upon the cooperation of two or more adjoining landowners.



This is not to imply that the other options should not be actively encouraged in your community, but rather to place those techniques in a realistic perspective as supporting elements in an areawide program of conservation and develop-

ment that is most logically based upon the flexibility and advantages offered by "conservation subdivision design", within a comprehensive planning framework as delineated on a township-wide "Map of Conservation and Development".

The great advantage of some of those other options is that many of them preserve parcels in their entirety, although they are implemented less frequently. The great advantage of open space planning and conservation design is that when they are institutionalized into local zoning and subdivision ordinances, they will be used on a day-to-day basis to protect significant percentages of land in each new subdivision that is proposed.

Further information about this approach is contained in the Natural Lands Trust's publication, *Conservation Design for Subdivisions*. Available in April 1996 for \$35.00 from Island Press (1-800-828-1302), this comprehensive 150-page handbook with color plates is written in non-technical language and illustrates each step of the design process for seven different sites. Model ordinance language is also provided in an extensive appendix, which also describes the economic benefits of conserving natural lands in new subdivisions.

Research for the handbook was made possible by grants from the W. Alton Jones Foundation and the U.S. Environmental Protection Agency.



Natural Lands Trust is a regional land trust dedicated to working with people to conserve land in the Delaware Valley and other nearby areas of environmental concern by acquiring and managing preserve properties, accepting conservation easements, and encouraging and supporting the conservation efforts of landowners, communities, government agencies, and non-profit organizations.

HILDACY FARM
1031 PALMERS MILL ROAD
MEDIA, PENNSYLVANIA 19063
TEL: (610) 353-5587
FAX: (610) 353-0517

F

APPENDIX F COASTAL ZONE MANAGEMENT GRANT



Department of Administration



Project Application Summary Sheet

Project Title: GIBSON, MISHICOT, TWO CREEKS, TWO RIVERS LAND USE		Principal staff contact Name: MATT PAYETTE MANITOWOC COUNTY PLANNING & PARK COMMISSION Address: 4319 EXPO DRIVE - BOX 610 MANITOWOC WI 54221-0610 Phone number: 920-683-4185	
Start Date: OCT 2000 End Date: SEPT 2001		Person authorized to receive funds: DONALD MARKWARDT, Address: MANITOWOC COUNTY BOARD CHAIR 1110 SOUTH 9th ST MANITOWOC WI 54220 Signature:	
Type of Project (check one): <input type="checkbox"/> Wetland Protection <input type="checkbox"/> Public Access (All construction projects) <input type="checkbox"/> Cumulative and Secondary Impacts Nonpoint Source Pollution Contaminated Sediments <input checked="" type="checkbox"/> Land Use and Management Planning <input type="checkbox"/> Other		For WCMP Staff Use Project Number:	
Budget Summary: Total Cost \$ 88,200.00 WCMP Share \$ 25,200.00 Applicant Share \$ 63,000.00			

Please provide a brief summary of the project using only the space below.

The goal of the proposed project is to develop an individual comprehensive land use plan for the Town of Gibson, Town of Mishicot, Town of Two Creeks, and Town of Two Rivers in Manitowoc County. The project area contains approximately 16.71 miles of Lake Michigan shoreline. This shoreline is affected by land uses throughout the East Twin River and West Twin River Watersheds. These watersheds contain coastal estuaries and other rare coastal wetlands that are in decline due to agricultural and urban pressures. The Towns, along with Manitowoc County, UW Extension and the WDNR have recognized the need to conserve these coastal resources by planning for the orderly development throughout these watersheds. These efforts will identify coastal resources at risk and specify goals on how to preserve them.

The project will be completed in three phases. Phase 1 will include completing town survey results developing goals and objectives for each town. Phase 2 will involve a series of public meetings that include, Planning & Park Staff, Soil & Water Staff, and WDNR Staff. The elements completed in this phase will include, housing, transportation, utilities & public facilities, economic development, intergovernmental cooperation, agricultural, natural, and cultural resources. Phase 3 will conclude the process with the County completing the final land use map and a consultant completing the final land use plan that could be used as a model for future town plans. This process will incorporate the elements contained in Wisconsin's new "Smart Growth" Legislation.

By incorporating four townships into the process, it allows Manitowoc County and each community to greatly reduce cost, maximize services and reduce time constraints on the Town Planning Committees, County staff and WDNR staff.

DEPT OF ADMINISTRATION

JAN 24 2000

DIVISION OF ENERGY AND

PROBLEM

The Manitowoc County Land and Water Resource Plan, approved by the Wisc. Dept. of Agriculture Trade and Consumer Protection on October 1999, identified land use conflicts as a major issue. Response by members of the public indicated the following two issues in the plan as problems, "Issue V: Land use conflicts have been increasing as more people move to rural areas. Sixty four percent of current complaints with Animal Waste Ordinance have been nuisance related. Issue VI: The town land use planning survey and the public input session for the planning process indicated a concern that the rural landscape is being urbanized by new housing going up in areas of good farmland, prime hunting land or natural areas".

Residential construction has increased 161% since 1986. Since 1992, residential building permits within villages and cities have decreased 50%. Meanwhile rural residential building permits have increased by 50%. Manitowoc County's population has not experienced a significant increase, but the movement to the country is creating some serious threats to our coastal resources. Five problems have been identified in the Land and Water Resource Plan.

1. Increased conflict between farming operations and rural residents.
2. Loss of cropland as homes are built in the middle of a field thus decreasing effective field size.
3. Loss of forests and wildlife habitat as homes are built in limited acres of woodland and wildlife habitat.
4. Loss of the rural character of many previously rural areas.
5. Threats to ground water and surface water from septic systems, construction runoff and related problems.

Manitowoc Counties other industry is Agriculture and is home to over 43,000 dairy cows. The demand for rural building sites and recreational land is driving up land rental rates and inflating the land prices beyond the economic rate of return for operating farm units. The size of our dairy operations is also growing. There are currently 35 dairy herds over 300 animal units. Six of these are over 1000 animal units. A state survey indicated that 55 percent of the producers with herd sizes between 100 to 200 cows plan to expand; 66 percent with herd sizes above 200 cows are also planning to expand cattle numbers. This past year in 1999 the Soil & Water Conservation office issued 33 permits for modification of animal waste storage structures under our Animal Waste Ordinance.

Dairy expansion increases cattle concentration and poses special concerns with disposal of animal waste. Currently many of our County soils have reached Phosphorus saturation levels that further compound the waste distribution problem. Lakes in the county have been significantly impaired by phosphorus levels. Four lakes have experienced fish kills as a result of high nutrient levels and Silver Lake is listed on the EPA impaired waters list due to phosphorus levels.

Tourism has grown as a major industry to the County. This industry is attracted to the area due to our Coastal Resources. Three major river systems and their harbors, the East and West Twin River and the Manitowoc, have coastal estuaries and diversify the topography of our community that attract visitors to our area. Increase land use pressure jeopardizes these Coastal Resources in the project area.

PROJECT DESCRIPTION

The goal of the proposed project is to develop an individual comprehensive land use plan for the Town of Gibson, Town of Mishicot, Town of Two Creeks, and Town of Two Rivers in Manitowoc County. Three factors were involved in the selection of these towns, first being their proximity to each other. By selecting these townships we not only can analyze individual town issues, but also, land use issues and their affect on regional scale. The second factor is the location of these townships to Lake Michigan and their impact on coastal resources. Lastly, by incorporating four townships into the process, it allows Manitowoc County and each community to greatly reduce cost, maximize services and reduce time constraints on the Town Planning Committees, County staff and WDNR staff.

The project includes the nine elements contained in Wisconsin's new "Smart Growth" Legislation. These elements will be concluded in three phases.

- ♦ Preparing final land use plan (WCMF Funding Request \$15,200.00)
On receipt of the Coastal Management Grant, an independent consultant would be employed to gather all data contained in the 8 elements listed above and prepare a comprehensive land use plan emphasizing strategies that promote and protect the coastal resources in these communities. This consultant would also include an implementation element focusing on an overall plan of action. The end result would include a model plan emphasizing coastal resources that could serve as a template for future use under the guidelines set forth in Wisconsin's "Smart Growth" Legislation and aid Manitowoc County in completing a County Comprehensive Plan by 2010.

SIGNIFICANCE AND IMPACT

The goal of this project is to develop comprehensive town land use plans for the Town of Gibson, Town of Mishicot, Town of Two Creeks and Town of Two Rivers in Manitowoc County. These four townships were chosen due to their proximity and their direct impact on the coastal resources of Lake Michigan. The Towns of Two Creeks and Two Rivers contain approximately 16.71 miles of Lake Michigan shoreline, and all four are located in the East Twin River and West Twin River Watersheds, which empty into Lake Michigan (please see Appendix F for map). These four towns are environmentally rich with abundant coastline, woods, streams and wetlands. With development pressure developing, these four townships, along with Manitowoc County, UW Extension and the WDNR have recognized the need to plan for the orderly development and the preservation of coastal resources and the natural landscape throughout this area.

METHODOLOGY

1.

ISSUES AND OPPORTUNITIES ELEMENT

- The issues and opportunities element will provide the foundation for the town comprehensive plan by using town-wide survey results in identifying public concerns. UW Extension in coordination with the Manitowoc County Soil and Water Conservation Department and Manitowoc County Planning staff will assist the town Planning Committees to incorporate town specific goals and objectives into the framework provided with Wisconsin's new "Smart Growth" law. This will provide each township a comprehensive land use plan, guiding future development and redevelopment to the year 2020. Information including in this element are listed below;
 - ♦ Survey Vision/Goals and Objectives
UW Extension will assist each town in identifying issues of importance by executing individual town-wide surveys. Once completed, UW Extension will use the survey results to develop "consensus points" which will be applied to the formulation of goals and objectives as they relate to land use and its impact on coastal resources
 - ♦ Population Characteristics
A basic component of all comprehensive land use plans is the analysis of a town's demographic structure. Utilizing data from the U.S. Census Bureau and Wisconsin Department of Administration, we will review and analyze historic population trends, population densities, age, and gender composition. This data will be used to project demographic and population change to the year 2020.

➤ **Phase 1 Issues and Opportunities**

- ◆ Survey Vision/Goals and Objectives (WCMP Funding Request \$5,000.00)
UW Extension will assist each town in identifying issues of importance by executing individual town-wide surveys. Once completed, UW Extension will use the survey results to develop "consensus points" which will be applied to the formulation of goals and objectives as they relate to land use and its impact on coastal resources.

- ◆ Population and Economics
This phase includes analysis of each town's demographic structure. Data from the U.S. Census Bureau and the Wisconsin Department of Administration will be reviewed and analyzed based on population trends, densities, gender composition and age.

In addition, the County will assist in developing an economic profile of the Town of Gibson, Mishicot, Two Creeks and Two Rivers. This will include an evaluation of the employment base, labor force, income characteristics, taxes, educational attainment and other economic based characteristics. This evaluation will compare the towns with Manitowoc County and the State of Wisconsin.

➤ **Phase 2 Collecting and Analyzing Data**

- ◆ Collecting and Analyzing Data
Through a series of public meetings that include, Planning & Park Staff, Soil & Water Staff, and WDNR Staff data will be collected and analyzed for each town planning committee. This includes Element 2 through Element 6 in the methodology portion of this application.
- ◆ Analysis of Agricultural, Natural and Cultural Resources (WCMP Funding Request \$5,000.00)
A comprehensive analysis of each town's Agricultural, Natural and Cultural Resources will be completed. The County currently has the ability to create many digital layers to compliment this process. The funding request in this element would be applied to hire an intern to complete a digital GIS parcel layer for each township. While this money will provide only minimal accuracy, it will provide an invaluable tool in which many complicated analysis of coastal resources may be performed that could otherwise not. Examples include:
 - Determining the average parcel size located in a given environmental corridors.
 - Identify shoreland Zoning boundaries and analyze land use characteristics.
 - Query land values of coastal properties.
 - Query ownership type (public or private) within 1000 feet of Lake Michigan and 300 feet of its' tributaries.
 - Determine ownership of wetlands, estuaries and woodlands.

➤ **Phase 3 Finalizing Individual Town Land Use Plans**

- ◆ Preparing final land use map
Manitowoc County Planning & Parks and Manitowoc County Soil and Water Conservation will assist town committee members to produce a map for each town that include the future location of all land use types recommended as part of land use projections. Special emphasis will be given to the land uses affecting coastal resources in each town. The approach will prioritize growth areas in order to help guide development in areas where services can be most efficiently provided and in areas that minimize impacts on coastal resources at risk.

- ♦ *Economic Profile*

The County will assist in developing an economic profile of the Town of Gibson, Mishicot, Two Creeks and Two Rivers. This will include an evaluation of the employment base, labor force, income characteristics, taxes, educational attainment and other economic based characteristics. This evaluation will compare the towns with Manitowoc County and the State of Wisconsin. Based on this comparison, trends will be evaluated relative to their potential impact on land use change in the towns.

2.

HOUSING ELEMENT

- The physical location of housing often determines the location and cost of many public services and facilities. Often, housing characteristics are related to the social and economic conditions found within the community. The County will identify housing trends, and develop housing unit projections for each township. Emphasis will be given to assessing the current condition of housing stocks by analyzing the age, structural value and occupancy characteristics for each town. Building permit information will be obtained and analyzed to determine the most recent housing trends. This information will be used to provide an indication of a housing supply that will meet existing and forecasted housing demands.
- In addition, each township will research and consider specific policies and programs that:
 - ♦ Promote housing and provide a range of housing choices that meet the needs of persons of all income levels, age groups, and special needs.
 - ♦ Promote the availability of land for the development or redevelopment of low-income and moderate-income housing.
 - ♦ Maintain or rehabilitate existing housing stock.

3.

TRANSPORTATION ELEMENT

- This element of the comprehensive plan shall assess transportation issues that impact the Town of Gibson, Mishicot, Two Creeks and Two Rivers. Transportation systems for persons with disabilities, highways, transit, bicycles, walking, railroads, air transportation, trucking and water transportation will be analyzed in developing a guide for the future development of the various modes of transportation. Special attention will be given to the following:
 - ♦ Identifying highways by function.
 - ♦ Incorporating state, regional and other applicable transportation plans.

4.

UTILITIES AND COMMUNITY FACILITIES ELEMENT

- Manitowoc County will inventory and map community facilities and services in the four Towns. This information will be used to encourage land uses, densities and regulations that promote efficient development patterns and relatively low municipal, state government and utility costs, and to providing adequate infrastructure and public services to meet existing and future market demand for residential, commercial and industrial uses. Special emphasis will be placed on:
 - ◆ Describing the location, use and capacity of existing public utilities and community facilities that serve the local governmental unit.
 - ◆ Forecasting the need to expand, rehabilitate, or to create new utilities and facilities.
 - ◆ Assessing future needs for governmental services that are related to such utilities and facilities.

5.

INTERGOVERNMENTAL COOPERATION ELEMENT

- Manitowoc County will contact or meet with representatives from the adjoining townships as well as the City of Two Rivers, City of Manitowoc and Village of Mishicot to discuss any existing shared service arrangements as well as opportunities to develop or expand shared service agreements for projects recommended as part of the planning process. Opportunities identified through these contacts will be incorporated into the planning document and a course of action recommended. Emphasis will be placed in the following areas:
 - ◆ Analyzing each town's relationship to school districts, adjacent local governmental units, the region, the state, and other governmental entities.
 - ◆ Incorporating existing intergovernmental plans and agreements.
 - ◆ Identifying existing or potential intergovernmental conflicts and describe processes to resolve such conflicts.

6.

ECONOMIC DEVELOPMENT ELEMENT

- Wisconsin's new "Smart Growth" legislation defines the economic development element as objectives, policies, goals, maps and programs to promote the stabilization, retention, or expansion of the economic base and quality employment opportunities in the local governmental unit. With that definition, the Town of Gibson, Mishicot, Two Creeks and Two Rivers will address the following criteria:
 - ◆ Analyze local labor force and economic base.
 - ◆ Identification of strength/weaknesses for attracting and retaining local businesses.
 - ◆ Designate sites for such businesses and industries.
 - ◆ Evaluate and promote the use of environmentally contaminated sites.
 - ◆ Identify applicable county, regional and state economic development programs.

7. AGRICULTURAL, NATURAL AND CULTURAL RESOURCE ELEMENT

- A very essential component of each Town's comprehensive land use plan will be an analysis of their physical and biological characteristics. The physical characteristics and natural resources of a town often dictate how land is used. For instance, soils, topography and natural features such as wetlands can pose limitations to certain types of developments. Additional natural features that affect the coastal areas of Lake Michigan and the areas watersheds will be given thorough consideration. Manitowoc County will research, review and analyze the following physical and biological characteristics to develop recommendations for resource protection.

- ◆ Watersheds and sub-watersheds.
- ◆ Environmentally significant areas/corridors.
- ◆ Wetlands.
- ◆ State natural/scientific areas.
- ◆ Historic and cultural sites.
- ◆ Groundwater resources.
- ◆ Prime Agricultural lands.
- ◆ Wildlife and fisheries.
- ◆ Vegetation types.
- ◆ Parks and open spaces.
- ◆ Topography.
- ◆ Soils.
- ◆ Groundwater resources.
- ◆ Floodplains.
- ◆ Rivers and Lakes.
- ◆ Woodlands.
- ◆ Public natural areas.

- A review of county, state and federal resource management programs will be conducted to determine their impact on the Towns of Gibson, Mishicot, Two Creeks, and Two Rivers. Resource protection programs such as the Manitowoc County shoreland zoning ordinance, the Wisconsin Farmland Preservation Program, Managed Forest Law, Forest Crop Law, Woodland Tax Law, and the Conservation Reserve Program will be explored. Lands protected through public ownership or by non-profit conservation organizations will also be reviewed. Consultation with various resource protection agencies such as the WDNR, U.S. Fish & Wildlife, USDA and NRCS will also occur.

8. LAND USE ELEMENT

- The four towns involved must take a thorough look at what types of land uses are part of their town and where they occur before new strategies can be formulated. The basis of a solid land use plan begins with a precise inventory of each town's existing land use. Manitowoc County Staff will update their existing land use inventory they developed in 1990 and determine development trends occurring over the past decade. As land use trends are evaluated, each town will get an idea of where its' priorities lie. At that point, they can merge their land use management goals and objectives with its land use plan map in an effort to promote and work towards their individual desired vision.

- ♦ **Existing Land Use Inventory and Analysis**——An existing land use map will be generated including, but not limited to:
 - Residential.
 - Single family.
 - Multi family.
 - Farmsteads.
 - Commercial.
 - Industrial.
 - Government/Institutional.
 - Parks and recreation.
 - Utilities.
 - Non-Metallic mining.

 - ♦ **Land Protection Criteria**——AutoCAD Map, PC ArcInfo, and ArcView software will be utilized to aid in this process. Data will be used to identify opportunities, limitations and constraints based on selected criteria. Examples of land protection criteria could include, but are not limited to the following:
 - Wetlands. (WDNR, NRCS)
 - Woodlands greater than ten (10) acres.
 - Environmentally sensitive areas. Large livestock operations.
 - Publicly owned property.
 - Shoreland/floodplains.
 - Privately owned coastal wetlands
 - Slopes greater than 20 percent.
 - Exclusive zoned lands in the farmland preservation program.
 - Prime agricultural soils..
 - Existing Cropland.
 - Woodlands enrolled in forest management programs.
 - Soils with limitations for dwellings with basements.
- Data for each criteria will be assembled into informational maps on mylar transparency. These maps will then be placed over a base map consisting of a digital orthophoto, road networks and section lines.
- ♦ **Land Use Projections**——Based on population and household projections, development trends and recommendations made from other selected elements of the plan, land acreage needs will be forecasted. Each town's planning steering committee and town board will discuss the criteria to be used to determine the location of agricultural, residential, commercial, and industrial institutional and other land use types. These projections will be forecasted for a twenty-year planning period.

 - ♦ **Finalized Land Use Map**——Once each town has agreed upon the type and location of future land uses, a Preferred Year 2020 land use map will be prepared by the Manitowoc County Planning and Park Commission. This map will include the future location of all land use types recommended as part of the land use projections. Special emphasis will be given to the land uses affecting coastal resources in each town. The approach will prioritize growth areas in order to help guide development in areas where services can be most efficiently provided and in areas that minimize impacts on coastal resources at risk.

- ♦ Finalized Land Use Plan—On receipt of the Coastal Management Grant an independent consultant would be employed to gather all data contained in the elements listed and prepare a comprehensive that emphasizes land use strategies that promote and protect the coastal resources in these communities. This consultant would also include an implementation element focusing on formulating an overall plan of action. In addition, an evaluation section would be included to measure progress or success. This would indicate to the towns and county if the goals and objectives of the plan are being satisfied. This evaluation would occur every five years.

9.

IMPLEMENTATION ELEMENT

- Implementation of the comprehensive land use plan is the critical link between planning and positive action in the towns.
- Manitowoc County will develop an implementation strategy which suggests an overall plan of action. Attention will be given to the following areas:
 - ♦ Preservation of coastal resources.
 - ♦ Shoreland/Floodplain Zoning.
 - ♦ Conservation Easements. Zoning Ordinance.
 - ♦ Land Division Ordinance.
 - ♦ Construction Site Ordinance.
 - ♦ Revisions to the Manitowoc County Comprehensive.
 - ♦ Design Review Standards.
 - ♦ Manitowoc County Lake Classification System.
- A measure of effectiveness developed to ensure the 14 elements of the "Smart Growth Legislation" are satisfied, incorporating a timeline for review.

RELATED ACTIVITIES

THE COASTAL WETLANDS OF MANITOWOC COUNTY, INVENTORY, ASSESMENT AND MANAGEMENT RECOMMENDATIONS

This study was completed in 1998 by graduate students and faculty of the Water Resources Management Program from the Institute for Environmental Studies, University of Wisconsin-Madison. It includes a study and inventory of wetlands along the shores of Lake Michigan. These rare coastal wetlands are declining due to agricultural and urban pressures. These valuable wetlands, in the town of Two Rivers and Two Creeks, will be examined thoroughly and the following four key recommendations of the study will be addressed.

- ♦ Protecting priority wetlands, particularly riverine and coastal canyon wetlands.
- ♦ Promote the economic value of coastal wetlands.
- ♦ Visualize coastal wetlands within a watershed context.
- ♦ Capitalize on citizen interest to protect coastal resources

LAKES CLASSIFICATION:

Manitowoc County is in its last year of the Wisconsin Lakes Classification Grant. The \$50,000 of the grant was matched with \$10,000 from the Manitowoc County Fish and Game Association. A local Waters Team of DNR, County Departments, Natural Resource Conservation Service, Fish and Game Protective Association and the Manitowoc County Lakes Association developed the classification system and manage the Grant.

The Classification system identified the degree of development that has occurred on our lakes and assesses the remaining lakes and portions of lakes as to their potential to be developed either because the soils are very suitable, or the current zoning does not protect the lake. The system grouped the lakes into three categories Natural, Semi Developed and Developed lakes. A 25-member citizen advisory committee developed a vision for each of the three lake classes.

The Lakes and Rivers Citizen Planning Committee also developed Shoreline Zoning Standards for each Lake Class and is currently presenting those recommendations to the Planning and Park Commission. The Zoning Standards for each lake class have been also applied to the Natural and semi developed portions of the rivers and streams and Lake Michigan coastline.

ANIMAL WASTE MANAGEMENT AND AGRICULTURAL SHORELAND MANAGEMENT ORDINANCE:

Manitowoc County passed a very comprehensive animal waste ordinance by referendum in 1998. The Ordinance prohibits the application of animal waste on steep slopes greater than 12%; or within 1000 feet of a lake; 300 feet of a stream unless the manure is incorporated. It prohibits the application within 50 feet of a well, sinkhole, tile inlet or waterway. On slopes between 6% and 12%, conservation practices must be in place to apply manure with out incorporation. The ordinance also requires a nutrient plan and permit for any animal waste storage facility installed or modified after adoption of the ordinance.

The ordinance further requires that any construction within 1000 feet of a lake or 300 feet of a stream apply erosion control measures during construction. A 20-foot wide buffer is required on all streams and cropland erosion must be under the tolerable soil loss in this zone.

The ordinance does not regulate the siting of a livestock expansion facilities relative to incompatible land uses. We are proposing that the land use planning process and this model address the issue. It has been suggested that buffer zones be identified between residential areas and agriculture preservation areas that would require a conditional use permit for large livestock facilities.

MANITOWOC COUNTY SHORELAND / FLOODPLAIN ORDINANCE

In 1981 Manitowoc County established a stable slope angle for bluffs at a ratio of 2.5 feet of horizontal for every one foot of vertical distance. At the same time they established a recession rate setback for receding shorelines by multiplying the average annual long-term recession rate by a structural design life of 50 years. In areas where the shoreline has been receding but the recession rate is unknown, the setback is calculated by assuming a two-foot per year average annual long-term recession rate (based upon a Sea Grant Study from several years before).

WORK PRODUCTS

The services and data described in the methodology portion of the application will be compiled in a comprehensive plan for the Town of Gibson, Town of Mishicot, Town of Two Creeks, and the Town of Two Rivers.

➤ **Specific Deliverables Include:**

- ◆ 15 meetings with the towns' land use planning committee in a group environment.
- ◆ Approximately 6 maps compiled of various inventory and recommendation elements.
- ◆ 15 copies of the pre-final land use plan document.
- ◆ 20 copies of the final land use document.
- ◆ Presentation maps for analytical purposes.
- ◆ One final wall-size Preferred Year 2020 land use plan map.
- ◆ Tabular statistical information.
- ◆ Illustrations, work maps, charts and slide presentation materials for steering committee and public meetings.
- ◆ A finalized Model Land Use Plan that:
 - Could be used as a template that would be applied to 16 of towns excluding Newton and Centerville.
 - A model that has accessed all the tools such as the ordinances, federal programs, local initiatives and applied them to each town goals and vision, and our GIS resource analysis.
 - Is smart growth compliant.
 - Is a model that integrates the town/county perspectives.
 - A model that will be supported at the "Grass Roots" level

OTHER INFORMATION

The Towns of Gibson, Mishicot, Two Creeks and Two Rivers, along with Manitowoc County, UW Extension and the WDNR have recognized the need to plan for the orderly development and the preservation of coastal resources and the natural landscape throughout this area. This commitment is illustrated by letters received from each town and the WDNR (please see appendix A-E).

TIMETABLE

UW Extension has made initial contact with the four townships involved. They are in the process of forming their land use planning steering committees with the goal of beginning Phase 1 of the project in October 2000. Once the town survey results are analyzed and each town's goals and objectives are developed, Phase 2 will begin (approximately January 2001). At the completion of Phase 2 in June 2001, Phase 3 will begin with the County completing the final land use map and a consultant completing the final land use plan. This would be complete by September 30, 2001.

COST-SHARE

The Town of Gibson, Town of Mishicot, Town of Two Creeks, Town of Two Rivers and Manitowoc County will provide their share of the costs through in-kind service contributions.

PROJECT BUDGET

ELEMENTS OF PLAN		COUNTY COST		TOWN VOLUNTEER LABOR	APPLICANT MATCH	W/CMP DOLLARS	TOTAL COST
PHASE 1	ISSUES AND OPPORTUNITIES	LABOR***	EQUIP***				
	HOUSING	\$1,650.00		\$ 1,750.00	\$ 3,400.00	\$5,000.00	\$ 8,400.00
	TRANSPORTATION	\$1,750.00		\$ 1,750.00	\$ 3,500.00		\$ 3,500.00
	UTILITIES & COMMUNITY FACILITIES	\$4,500.00		\$ 1,750.00	\$ 6,300.00		\$ 6,300.00
		\$6,150.00		\$ 1,750.00	\$ 7,900.00		\$ 7,900.00
PHASE 2	AGRICULTURAL, NATURAL & CULTURAL RESOURCE	\$10,350.00	\$500.00	\$ 1,750.00	\$12,800.00		\$12,800.00
	ECONOMIC DEVELOPMENT	\$3,250.00		\$ 1,750.00	\$ 5,000.00		\$ 5,000.00
	INTERGOVERNMENTAL COOPERATION	\$3,450.00		\$ 1,750.00	\$ 5,200.00		\$ 5,200.00
	LAND USE	\$9,950.00	\$500.00	\$ 1,750.00	\$12,200.00	\$5,000.00	\$17,200.00
	IMPLEMENTATION	\$3,450.00		\$ 1,750.00	\$ 5,200.00		\$ 5,200.00
PHASE 3	FINALIZED MAP & DOCUMENT	\$ 700.00	\$800.00		\$ 1,500.00	\$15,200.00	\$16,700.00
	TOTAL COST	\$47,200.00	\$1,800.00	\$14,000.00	\$63,000.00	\$25,200.00	\$88,200.00

***County cost consist of time and equipment/materials for UW Extension, Soil and Water Conservation and the Planning & Park Commission using figures from past town comprehensive plans.

***Town labor was figured including 5 land use committee members per town working 70hrs total at \$10 per hour. Five members is the minimum size for a land use steering committee according to Wisconsin's Smart Growth Legislation.

TOWN OF TWO RIVERS

6802 C.T.H. O
TWO RIVERS, WISCONSIN 54241

January 17, 2000

Michael Demske
Director, Manitowoc County Planning and Parks
4319 Expo Drive
Manitowoc, WI 54220

Dear Mr Demske:

I am writing to inform you that the Town of Two Rivers supports the Land Use Planning initiative and welcome the opportunity to work in coordination with your staff in the development of a comprehensive plan for the Town of Two Rivers. In addition, we would like to add our support in the effort to obtain a Coastal Management Grant, through the Wisconsin Department of Administration. If we can be of any assistance, please feel free to contact me.

Sincerely,

William Wilfert
gw

William Wilfert
Chairperson, Town of Two Rivers

WW/jw

APPENDIX A

Town of Mishicot

Office of Town Clerk

Glen Skubal, Chairman
15624 Saxonburg Road
Mishicot, WI 54228
(920) 755-2748

January 17, 2000

Matt Payette
Senior Planner
Manitowoc County Planning & Park Commission

Richard Heyroth, Supervisor
2410 Benzinger Road
Mishicot, WI 54228
(920) 755-2148

James Miller, Supervisor
17812 Tisch Mills Road
Denmark, WI 54208
(920) 776-1107


Judy Johnson, Treasurer
1620 E. Tapawingo Road
Mishicot, WI 54228
(920) 755-2671

Connie Tesarik, Clerk
618 Tisch Mills Road
Mishicot, WI 54228
(920) 776-1597

Richard Franz, Constable
2727 Maplewood Road
Two Rivers, WI 54241
(920) 793-4657

Dear Matt,

The Town of Mishicot has asked for assistance from the Park & Planning Commission and the U.W. Resource Development Agent to develop a Comprehensive Land Use Plan for the Town of Mishicot. The Town of Mishicot unanimously does support the Park & Planning Commission and Manitowoc County Soil and Water Conservation Department of Administration in preparing a Coastal Management application Grant.

Sincerely,

Glen Skubal Chairperson

APPENDIX B

TOWN OF TWO CREEKS

TWO RIVERS, WISCONSIN 54241

January 17, 2000

Manitowoc County Park and Planning
4319 Expo Drive
P.O. Box 610
Manitowoc, WI 54220-0610

To Whom it Concerns:

The Town of Two Creeks agrees with the Manitowoc County Parks and Planning and Soil and Water Conservation Department in their preparation of a Coastal Management Grant application. If the grant is obtained, the Town of Two Creeks would use it to assist in the completion of the Comprehensive Land Use Plan process for the Town of Two Creeks.

Sincerely,



Kenneth H. Duveneck
Town of Two Creeks Chairman

APPENDIX C

TOWN OF GIBSON

January 20, 2000

Michael Demske
Director, Manitowoc County Planning and Parks
4319 Expo Drive
Manitowoc, WI 54220

Dear Mr. Demske;

I am writing in regards to the Coastal Management Grant you are working on. We would like to inform you that the Town of Gibson supports the Land use planning initiative and welcomes the opportunity to work in coordination with you're staff in the development of a comprehensive plan for the town of Gibson. If we can be of any assistance, please feel free to contact me.

Sincerely,

A handwritten signature in cursive script, appearing to read "Frank A. Hlinak".

Frank Hlinak
Clerk, Town of Gibson

APPENDIX D



State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Tommy G. Thompson, Governor
George E. Meyer, Secretary
Ronald W. Kazmierczak, Regional Director

Point Beach State Forest
9400 C.T.O. O
Two Rivers, Wisconsin 54241
Telephone 920-794-7480
FAX 920-794-7976

January 20, 2000

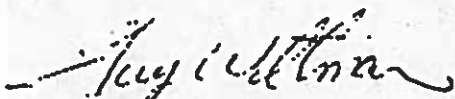
Wisconsin Coastal Management Program
PO Box 7868
Madison, WI 53707

Subject: Partners in Manitowoc County Land Use Planning-

Since 1997, local Department of Natural Resources employees have been cooperating with citizen committees, and local governmental agencies to educate and facilitate the land use effort in Manitowoc County. Our goal is to provide citizen land use planning committees with the information and incentives to make thoughtful, forward-looking land use and land management decisions.

Partnership efforts with Natural Resources Conservation Service, United States Fish and Wildlife Service, Department of Natural Resources, land owners, Manitowoc County Soil and Water Conservation Department and various conservation organizations have successfully restored 105 wetland basins and 1100 acres of grassland habitat in the Town of Two Creeks alone. These projects are critical to maintaining clean air, water and providing wildlife habitat. Sound land use planning can protect and encourage more of these conservation efforts.

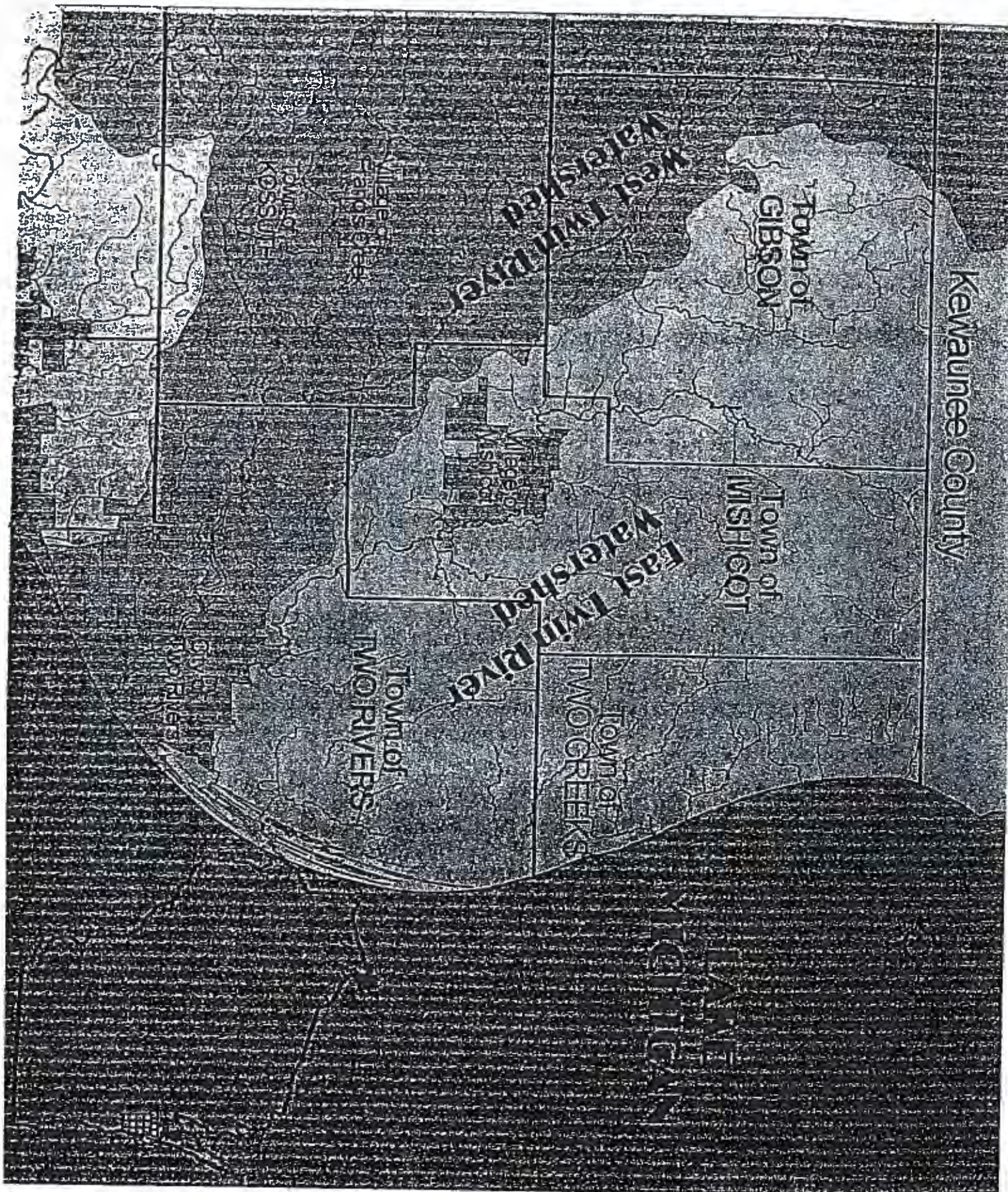
With DNR involvement in the land use planning effort, we recognize the tremendous effort by all that are involved in the process (Manitowoc Planning and Zoning Office, UW Extension, Manitowoc County Soil and Water Conservation Department and citizen committees) and the strain for time and resources to complete land use plans for townships in Manitowoc County. This Coastal Management Grant will provide those resources and enable the townships the opportunity for sound planning today and in the future.


Guy Willman
Lakeshore Team Leader

APPENDIX E

Quality Natural Resources Management
Through Excellent Customer Service





ATTACHMENT B

This is the official acknowledgement for all printed documents funded through the Wisconsin Coastal Management Program. Adopted at the October 22, 1993, Wisconsin Coastal Management Council meeting in Oconto.

Acknowledgement

FUNDED IN PART BY THE WISCONSIN COASTAL MANAGEMENT PROGRAM.

Financial assistance for this project was provided by the Coastal Zone Management Act of 1972, as amended, administered by the Office of Ocean and Coastal Resource Management, National Oceanic and Atmospheric Administration pursuant to Grant # NA07OZ0138 and the **WISCONSIN COASTAL MANAGEMENT PROGRAM**.

THE WISCONSIN COASTAL MANAGEMENT PROGRAM, part of the Wisconsin Department of Administration, and overseen by the **WISCONSIN COASTAL MANAGEMENT COUNCIL**, was established in 1978 to preserve, protect and manage the resources of the Lake Michigan and Lake Superior coastline for this and future generations.