

WAUSHARA COUNTY

20-Year Comprehensive Plan

Volume Two: Existing Conditions Report

Waushara County, Wisconsin

Approved by Planning & Zoning Committee
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Prepared by:
East Central Wisconsin
Regional Planning Commission



ABSTRACT

TITLE: WAUSHARA COUNTY EXISTING CONDITIONS REPORT –
VOLUME TWO

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This report describes existing conditions for Waushara County.

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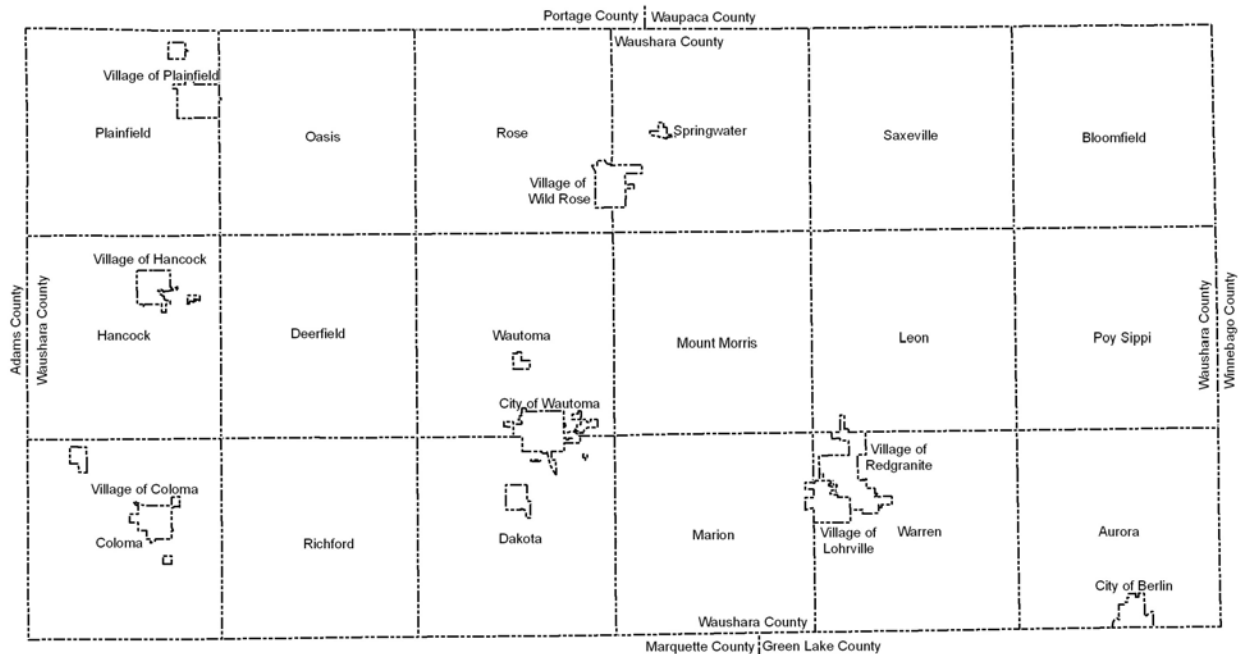
- A Issues and Opportunities
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- C Transportation
- D Agricultural, Natural, and Cultural Resources
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EXECUTIVE SUMMARY

Location

Waushara County is located in central Wisconsin and is surrounded by the counties of Portage and Waupaca to the north, Winnebago to the east, Green Lake and Marquette to the south and Adams County to the west. The county is essentially six towns in width and three towns in height. Waushara County is comprised of 18 towns (Plainfield, Oasis, Rose, Springwater, Saxeville, Bloomfield, Poy Sippi, Leon, Mount Morris, Wautoma, Deerfield, Hancock, Coloma, Richford, Dakota, Marion, Warren and Aurora), two cities (Berlin – partial and Wautoma) and six villages (Coloma, Hancock, Plainfield, Wild Rose, Redgranite and Lohrville). Interstate 39, found in the western part of Waushara County, provides north-south vehicular movement through the center of the state, while STH 21, another popular transportation corridor traverses east-west through the county, providing access from Oshkosh to I-39, I-90/I-94 and the western part of the state.

Figure ES-1. Waushara County Wisconsin



Waushara is a rural county whose major industries are agriculture and tourism. Waushara County's 136 lakes make up about 7,000 acres of surface water. The greatest concentration of lakes is found among the moraines and drumlins in the central and western portions of the county. These lakes, along with 500 miles of rivers and streams and 185,000 acres of woodlots provide for a diversity of boating, fishing, hunting, hiking and other recreational opportunities. Although agriculture has seen a decline over the years, it is still a viable industry in the County. Scattered agricultural lands exist throughout the County, but are more concentrated in eastern and western Waushara County.

Planning Purpose

A comprehensive plan is created for the general purpose of guiding a coordinated development pattern. This will result in land use decisions that are harmonious with both the overall vision of

the community's future and will ensure the future sustainability of the local natural resource base. Developing a comprehensive plan is a proactive attempt to delineate the ground rules and guidelines for future development within a community. Comprehensive planning decisions evaluate existing facilities and future needs; promote public health, safety, community aesthetics, orderly development, and preferred land use patterns; and foster economic prosperity and general welfare in the process of development.

The comprehensive plan is a guideline for future development. The plan evaluates what development will best benefit the community's interests in the area while still providing flexibility for land owners and protecting private property rights.

Planning History

Planning in Waushara County started in 1994, with the creation of the Waushara County Land Use Committee. The committee, comprised of elected officials and local citizens, includes representation from each community in Waushara County. Many of the earlier plans that were developed in Waushara County were started before or immediately after the state implemented its current comprehensive planning law and consequently do not conform to the "smart growth" legislation. Plans developed during later planning efforts conformed to the current legislation. In total eleven communities (towns of Coloma, Deerfield, Hancock, Leon, Mount Morris, Oasis, Plainfield, Richford, Saxeville, Springwater and the Village of Hancock) participated in a countywide process to update their community/land management plans. Another three communities (villages of Coloma, Lohrville and Plainfield) completed their first comprehensive land use plan. Finally, a countywide plan was created that combines the plans of the various municipalities. The current plans were prepared in compliance with *Wisconsin State Statutes* 66.1001 and utilized a comprehensive planning grant obtained through the Department of Administration.

Enabling Legislation

This plan was developed under the authority granted by s. 66.1001 of the *Wisconsin State Statutes* and meets the requirements of 1999 Wisconsin Act 9 which states "Beginning on January 1, 2010, any program or action of a local governmental unit that affects land use shall be consistent with that local governmental unit's comprehensive plan".¹

Waushara County should consult this plan when making decisions relative to land use and other issues including:

- Official mapping established or amended under s. 62.23 (6).
- Local subdivision regulation under s. 236.45 or s. 236.46.
- County zoning ordinances enacted or amended s. 59.69.
- Zoning of shorelands or wetlands in shorelands under s. 59.692.

Plan Contents

The Waushara County Comprehensive Plan is composed of two documents – Volume One and Volume Two. Together, the two volumes contain all information necessary to meet state

¹ Wisconsin Legislative Reference Bureau. 1997. *Budget Brief 97-6*.

regulations. The purpose of the two reports is to create a user-friendly plan that separates a majority of the required background material from the County's goals, objectives, and recommendations. Generally speaking, Volume One serves as the "guide" for decision making whereas Volume Two provides data and support for actions detailed in Volume One. Specific details are provided below for each volume.

Volume One: "Comprehensive Plan (Goals, Objectives, and Recommendations)". This volume contains issues, goals, objectives, and recommendations for each of the nine required comprehensive plan elements for implementation over the next twenty years. It describes actions and strategies to achieve the goals and objectives listed in each of the nine planning elements, or chapters, within the plan. This document should be consulted by the Planning and Zoning Committee and County Board when managing county resources. It will also be used by Waushara County on matters where a county land use control is applied within the local municipalities.

Volume Two: "Existing Conditions Report". The second volume of this comprehensive plan contains an analysis of existing conditions within the County. It provides a series of Census and other empirical data available through local, regional, state, and national sources. These data reveal current findings within the County and how these compare to historical numbers within the State of Wisconsin. These data were primarily used to identify challenges and opportunities in Volume One. The report is a companion document to Volume One and should be used to locate evidence of existing conditions that provide support for recommendations and strategies located in Volume One.

The comprehensive plan contains nine elements that are required by s. 66.1001:

- 1) Issues and Opportunities
- 2) Economic Development
- 3) Housing
- 4) Transportation
- 5) Utilities and Community Facilities
- 6) Agricultural, Natural, and Cultural Resources
- 7) Land Use
- 8) Intergovernmental Cooperation
- 9) Implementation

In addition, the state requires that Wisconsin's 14 goals for local planning be considered as communities develop their goals, objectives, and strategies. These goals are:

- 1) Promotion of the redevelopment of lands with existing infrastructure and public services and the maintenance and rehabilitation of existing residential, commercial, and industrial structures.
- 2) Encouragement of neighborhood designs that support a range of transportation choices.
- 3) Protection of natural features, including wetlands, wildlife habitats, lakes, woodlands, open spaces, and groundwater resources.
- 4) Protection of economically productive farmlands and forests.
- 5) Encouragement of land uses, densities, and regulations that promote efficient development patterns and relatively low municipal, state governmental, and utility costs.
- 6) Preservation of cultural, historic, and archeological sites.

- 7) Encouragement of coordination and cooperation among nearby units of government.
- 8) Building of community identity by revitalizing main streets and enforcing design standards.
- 9) Providing an adequate supply of affordable housing for individuals of all income levels throughout each community.
- 10) 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 uses.
- 11) 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.
- 12) Balancing individual property rights with community interests and goals.
- 13) Planning and development of land uses that create or preserve varied and unique urban and rural communities.
- 14) 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.

CHAPTER 1: ISSUES AND OPPORTUNITIES

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CHAPTER 1: ISSUES AND OPPORTUNITIES

INTRODUCTION

Socioeconomic conditions and growth patterns have implications for the future health and vitality of communities and Waushara County as a whole. Future socioeconomic conditions help define existing problems and identify available socioeconomic resources to address future challenges. They also represent the current and future demands for services and resources that are within, or provided by Waushara County. Changes in population and households combined with existing development patterns and policy choices will determine how well the County will be able to meet the future needs of its residents.

INVENTORY AND ANALYSIS

This section of the chapter provides a brief summary of historic population growth, followed by more detailed information regarding current population and household characteristics. Population and socioeconomic trends are identified and potential future growth and development patterns are discussed. Characteristics examined include age, race, income and household types. Current and potential population and socioeconomic issues are noted. Their potential impacts and policy implications will be discussed in the remaining comprehensive plan element chapters. The remainder of this chapter will briefly describe the policy context, discuss the need for intergovernmental cooperation, assess current and future trends and identify issues that need to be addressed.

Demographic Trends

Historic Population¹

Over the past fifty years, the overall population within Waushara County has seen a substantial increase. The population decreased from 1950 (13,920) to 1960 (13,497) before starting a steady increase to a year 2000 population of 23,066. (Appendix A, Table A-1).

Between 1950 and 2000, population growth in Waushara County lagged slightly behind the East Central Region², and Wisconsin. Waushara County's population increased by 65.7 percent during this time period compared to 66.1 percent in the region and 56.2 percent in the state. A number of communities within Waushara County experienced an increase in population of in excess of 100 percent. The largest increases were experienced by the Town of Springwater (257%) and the Town of Dakota (215%). Other municipalities that saw their populations increase by over 100 percent included the Waushara portion of the City of Berlin (152%), and the towns of Leon (135%), Marion (177%), Mount Morris (142%) and Wautoma (106%). While no community in Waushara County experienced an overall negative population growth between 1950 and 2000, a number of communities did see population gains of less than 10

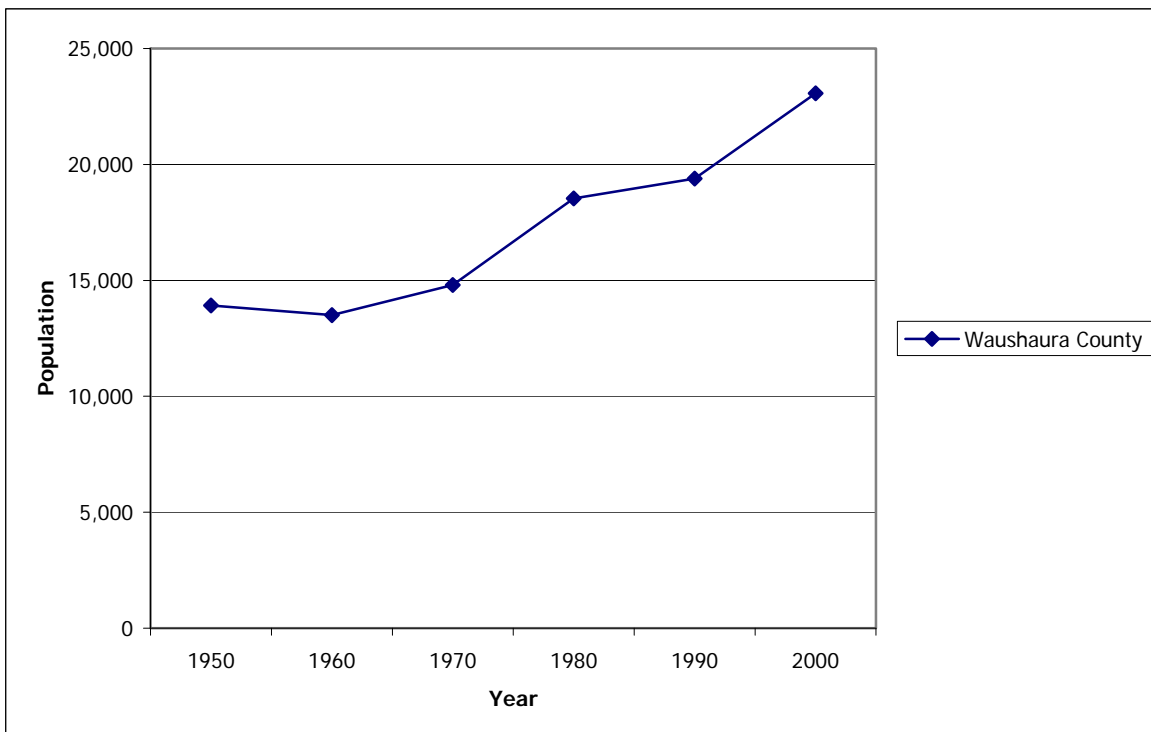
¹ U.S. Census: 1950, 1960, 1970, 1980, 1990, 2000; WI DOA 2001-2005.

² East Central Region made up of the counties of Waushara, Calumet, Fond du Lac, Green Lake, Marquette, Menominee, Outagamie, Shawano, Waupaca and Winnebago.

percent. Communities that saw modest growth included the Village of Hancock (3.1%) and the towns of Oasis (4.1%) and Warren (6.1%).

2005 population estimates from the Wisconsin DOA indicate that ***recent Waushara County growth trends between 2000 and 2005 have slowed but continue to outpace the East Central Region and Wisconsin.*** Since 2000, Waushara County's population has increased by 8.0 percent from 23,066 to 24,918. In comparison, the population has grown by 4.8 percent at the regional level and 4.0 percent at the state level. Population gains within the various communities in Waushara County have also slowed. The largest increase was experienced by the Village of Redgranite. Between 2000 and 2005, the Village of Redgranite saw a population increase of 97.2 percent as a direct result of the prison locating within the community. ***While Waushara County has experienced an overall increase in population, some communities (within the county) are experiencing population losses, as the population is aging and younger people are going elsewhere for jobs.*** Population losses were experienced in the villages of Hancock (-2.2%), Plainfield (-0.7%) and Wild Rose (-2.5%) and the towns of Oasis (-1.5%) and Poy Sippi (-0.1%).

Figure 1-1. Historic Population Change, 1950 to 2000



Source: U.S. Census: 1950, 1960, 1970, 1980, 1990, and 2000

Components of Population Change

The two components of population change are natural increase and net migration. Natural increase is calculated by subtracting deaths from births during a specific time period. Net migration is, in theory, the number of people leaving an area (out-migrants) subtracted from the number of people coming into an area (in-migrants). However, since no convenient way of determining the movement of people on a regular basis exists, net migration must be estimated. Net migration can be estimated based on survey data, information from census

questions, IRS data or calculated by subtracting natural increase from total population change. Net migration estimates may vary depending on which methodology is used. Data from the University of Wisconsin-Extension Applied Population Laboratory (APL) and the Wisconsin DOA, for example, show similar trends, but their net migration estimates vary.

An examination of the data provided by the University of Wisconsin-Extension APL and the Wisconsin DOA indicate that since 1950, ***migration has played a greater role in population change in Waushara County than natural increase.*** With the exception of the 1950s, Waushara County has experienced a positive net migration rate (Tables 1-1 and 1-2). ***Furthermore, the rate of net migration in Waushara County has exceeded the overall Wisconsin net migration rates each decade since 1980, which indicates that Waushara County is attracting residents from other parts of Wisconsin.***

Table 1-1. Net Migration Estimates, 1950 to 1990

	Waushara County		Wisconsin	
	Net Migration	Total Change	Net Migration	Total Change
1950 to 1960	-8.6%	-3.0%	-1.4%	15.1%
1960 to 1970	6.4%	9.6%	0.2%	11.8%
1970 to 1980	17.7%	25.2%	0.2%	6.5%
1980 to 1990	7.3%	4.6%	2.7%	4.0%

Source: UWEX Applied Population Laboratory, "Net Migration by Age for Wisconsin Counties, 1950-1990".

The role of migration in the county's population growth became more important in the 1990s and early 2000s, when the rate of natural increase fell below zero. ***Since natural increase rates were negative, the entire increase in population in Waushara County since 1990 can be attributed to in-migration*** (Table 1-2).

Table 1-2. Components of Population Change, Waushara County

	Numeric Change			Percent Change		
	Natural Increase	Net Migration	Total Change	Natural Increase	Net Migration	Total Change
1970-1980	215	3,516	3,731	1.5%	23.8%	25.2%
1980-1990	448	411	859	2.4%	2.2%	4.6%
1990-2000	-23	3,792	3,769	-0.1%	19.6%	19.4%
2000-2005 est.	-131	1,983	1,852	-0.6%	8.6%	8.0%

Source: Population Trends in Wisconsin: 1970-2000, WI DOA, 2001; WI DOA, 2005.

Waushara County migration patterns also varied by age³ (Appendix A, Table A-2). Between 1990 and 2000, young families (age 30 to 44 yrs) and baby boomers (age 45 to 64) moved to Waushara County. During this time period, Waushara County lost population in two other age groups, as many individuals ages 20 to 29 and individuals age 75 and older migrated out of the

³ WI DOA, 2005.

county. The net loss of young adults is likely attributable to two factors. First, many students leave the county to attend college. Others may have relocated in search of affordable housing and better employment opportunities. The out-migration of elderly individuals likely resulted from a need or desire for additional services. ***As the County's population ages, an increase in demands or desires may exist for a wider variety of housing, healthcare, support services and transportation options than are typically available in rural communities.***

Population Density⁴

Population density reflects the degree of urbanization and impacts the demand and cost effectiveness of urban service provision. Over time, urban growth and suburbanization within Waushara County has expanded, and settlement patterns have increased in density. In 2000, population densities for villages within Waushara County ranged from a low of 334 persons per square mile (Village of Lohrville) to a high of 692 persons per square mile (Village of Plainfield). Towns, having a lower population density than villages, ranged from a low of 12 persons per square mile (Town of Oasis) to high of 62 persons per square mile (Town of Marion). ***The average population density in Waushara County was 37 persons per square mile in 2000*** (Appendix A, Table A-3).

Age Distribution

The age structure of a population impacts the service, housing and transportation needs of a community. Communities with growing school age populations may need to expand school facilities. Communities with growing elderly populations may need to expand healthcare, housing options and transportation services. Currently, the largest age cohort within the east central region and the state is the "baby-boom" generation, which includes those individuals born between 1945 and 1965. These individuals have had, and will continue to have, a significant impact on service and infrastructure needs within communities and the county.

The change in population by age cohort between 1990 and 2000 indicates that the County's population is aging⁵ (Appendix A, Tables A-4 and A-5). Waushara County experienced a slight increase in the share of persons in the 5 to 19 and 45 to 64 age cohorts and a slight decline in the 20 to 24 and 25 to 44 year age cohort. The county also lost population in the preschool (age 0 to 5 yrs.) and the elderly (age 65 and older) age cohort. The largest increase for Waushara County occurred in the 45 to 64 year old age cohort. Between 1990 and 2000, the share of population in the age 45 to 64 age cohort increased by 4.2 percent in the county.

The relative decline in population under age 5 can be attributed to the out migration of individuals age 20 to 29 and the high proportion of residents age 45 to 64, as most individuals age 45 and older have moved beyond child bearing. The increase in the number of working age individuals can be attributed to in-migration of individuals age 30 and older and the aging of the baby-boomers.

⁴ U.S. Census, 2000.

⁵ U.S. Census; 1990, 2000.

Median age divides the age distribution of the population in half. One half of the population is younger than the median age, while the other half of the population is older than the median age. As a result, the median age of the population provides some insight into the overall population structure within a community. Median age can and does vary over space and time. Changes in population compositions resulted in most Waushara County communities experiencing an increase in median age between 1990 and 2000⁶ (Appendix A, Tables A-4 and A-5).

In 1990, the median age of the population was older in Waushara County than Wisconsin. The median age within Waushara County in 1990 was 38.6 years, compared to a state average of 32.9. The youngest communities within the county were the Waushara County portion of the City of Berlin (30.3) and the Village of Plainfield (31.1). While the oldest community within Waushara County, by far was the Town of Springwater (50.6). ***Between 1990 and 2000, the median age increased by 3.5 years in Waushara County; as a result the county (42.1) continued to have a higher median age than the state (36.0).*** Within the county, the two youngest communities continued to be the Waushara County portion of the City of Berlin (35.5) and the Village of Plainfield (34.5). Although the Town of Springwater continued to have the oldest median age in the county, the median age decreased from 50.6 in 1990 to 48.7 in 2000. The Town of Marion was the second oldest community in the county in 2000 with a median age of 48.4. Per the 1990 and 2000 Census, the communities with the oldest median age appear to be communities with lake and other recreational resources.

Household Structure

Household Size

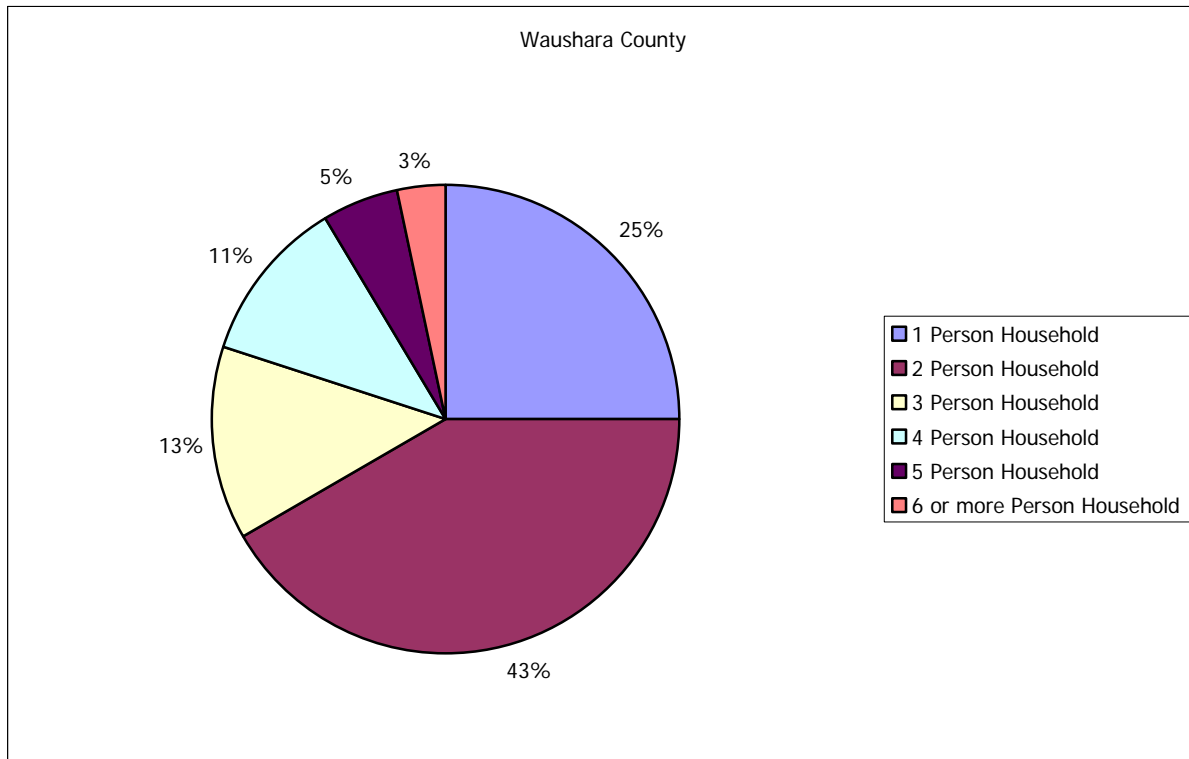
Household size and changes in household structure help define the demand for different types and sizes of housing units. The composition of a household coupled with the level of education, training, and age also impact the income potential for that household. It also helps define the need for services such as childcare, transportation, and other personal services. Decreases in household size create a need for additional housing units and accompanying infrastructure, even if no increase in population occurs.

Household size for Waushara County has been decreasing since 1970⁷ (Appendix A, Table A-21). ***Waushara County had an average household size of 2.5 in 1990 and 2.4 in 2000.*** This decline is from a decrease of three, four, and five person households, and an increase in one and two person households. In 2000, about two-thirds of all households within Waushara County were one (24.9%) or two (41.9%) person households. The majority of the remaining households were comprised of three (13.3%), four (11.3%) and five (5.4%) persons. It is interesting to note, however, that in this same period six person households increased from 241 to 312 households (Figure 1-2 and Appendix A, Table A-6 and A-7).

Average household size for communities within Waushara County varied in 2000 from a low of 2.2 persons per household (City of Wautoma) to a high of 3.1 persons per household (Town of Richford). Eleven percent (11.1%) of all households within the Town of Richford was six person households, while 3.1 percent of households in the City of Wautoma had a similar makeup.

⁶ U.S. Census; 1990, 2000.

⁷ U.S. Census; 1970, 1980, 1990, 2000.

Figure 1-2. Persons per Household, 2000

Source: U.S. Census, 2000.

Household Composition⁸

In 1990 and 2000, the majority of households in Waushara County were family households, and the majority of family households were married couple families (Appendix A, Tables A-8 and A-9). Between 1990 and 2000, Waushara County and Wisconsin experienced a decrease in the share of family households and married couple families and an increase in the share of nonfamily households. In 1990, the share of family households ranged from 70.0 percent of all households in Wisconsin to 73.1 percent of all households in Waushara County. By 2000, the share of family households had decreased to 66.5 percent of all households in Wisconsin to 70.5 percent of all households in Waushara County. The share of single parent family households increased in the county and the state between 1990 and 2000, but still remained a relatively small share of total family households. Waushara County had the smallest share of single parent family households and nonfamily households in both years (Figure 1-3).

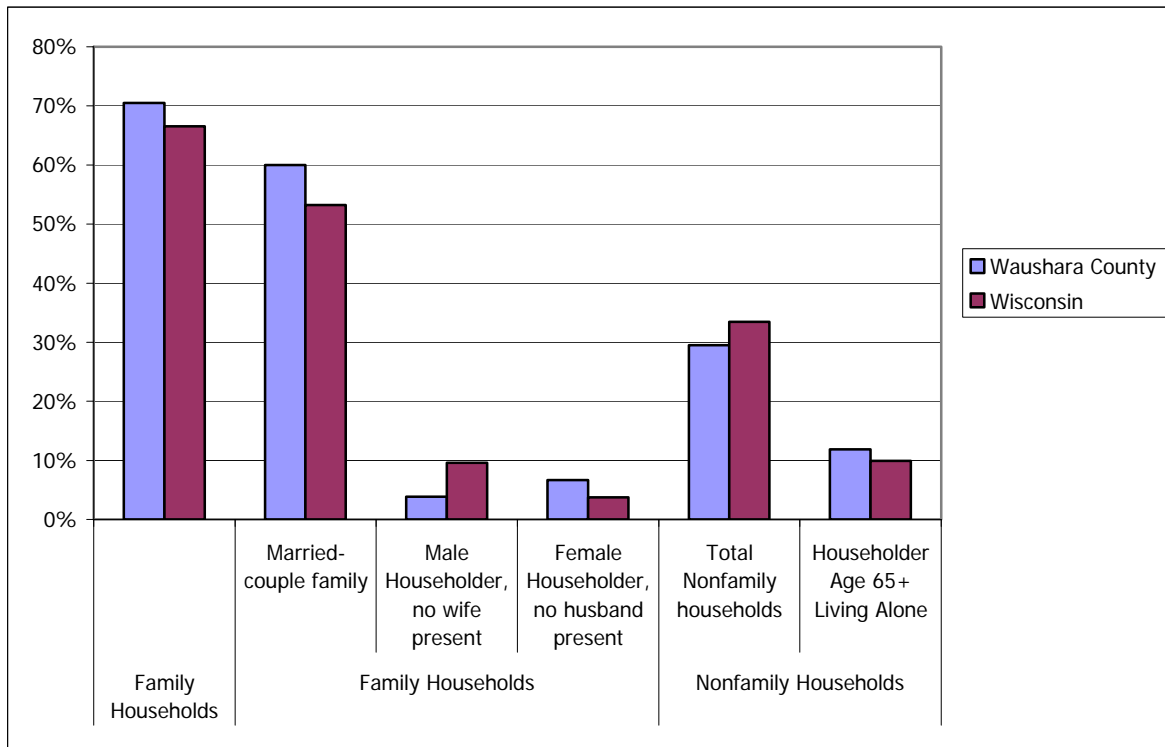
The Town of Richford (83.2%/74.2%) and the Town of Aurora (80.1%/71.0%) had the highest share of family households and married couple family households in the county in 2000. While the City of Wautoma (46.7%), had the highest share of non-family households.

In 1990, householders age 65 or older and living alone ranged from 13.8 percent in Waushara County to 10.5 percent in Wisconsin. Between 1990 and 2000, the share of elderly

⁸ U.S. Census; 1990, 2000.

householders living alone decreased in Waushara County and the state. By 2000, elderly householders living alone ranged from 11.9 percent of all households in Waushara County to 9.9 percent in the state. The City of Wautoma had the largest share of elderly householders living alone in 2000; 20.1 percent. This is not surprising since residents in the City of Wautoma are closer to grocery and drug stores, medical care and other needed services. Communities with the lowest percentage of elderly householders included the towns of Aurora (6.5%), Plainfield (6.6%), Richford (6.8%) and Saxeville (6.9%).

Figure 1-3. Percent of Households by Type, 2000



Source: U.S. Census; 1990, 2000, STF 1A.

While householders age 65 or older and living alone comprises a very small share of the total households, their numbers are increasing in Waushara County. Between 1990 and 2000, the combined number of householders age 65 or older and living alone in the county increased from 1,049 to 1,109. While this may be a satisfactory living situation for some, for others it may be a challenge. As costs rise and health declines, elderly singles may have difficulty maintaining their housing unit, especially if they own a larger home. Homes may need special modifications or additional equipment if the elderly or disabled are to live independently. Assistance may also be needed with housekeeping, transportation or meal preparation, etc. Social isolation may also become an issue if these individuals have limited mobility options.

Race

Population by race provides information regarding the social and cultural characteristics of an area. It also provides information regarding population dynamics. Access to education and economic opportunities differ by race. Differences also exist in age structure, language barriers and risks for various diseases and health conditions.

Since new immigrants are more likely to settle in areas with existing populations from their countries of origin, race and ethnicity, existing populations may also influence migration patterns. National population trends indicate that persons of color (includes African Americans, Native Americans, Alaskan Natives, Pacific Islanders, Asians and persons declaring two or more races) and persons of Hispanic Origin are growing faster than non-Hispanic whites⁹. As the population of Waushara County and Wisconsin continue to grow, it is likely that the minority proportion of the population (persons of color and whites of Hispanic Origin) will also continue to grow. If this occurs, communities may need to compensate for the changing demographic composition. It is important that these individuals participate in the planning process so that these individuals not only understand local cultural norms, but also have a positive stake in local communities. Communities and counties may also find it beneficial to promote opportunities for positive interaction between cultures. An increase in understanding of differences and similarities in expectations and cultural values may help reduce friction between groups.

Racial Distribution¹⁰

Waushara County experienced a slight increase in minority population between 1990 and 2000 (Appendix A, Tables A-10 and A-11). However, the number of persons of non-White race remained relatively small. In 2000, 741 individuals or 3.2 percent of the population identified themselves as non-White in Waushara County. Whites continued to comprise an overwhelming majority of the population. Persons of "other races" made up the largest non-White group in the county. The 2000 Census was the first Census which allowed persons of mixed race to identify themselves as belonging to two or more races. Less than two percent of state residents and less than one percent of Waushara County residents declared they were of two or more races.

The population in Waushara County is less diverse than that of the state. In 2000, whites comprised 96.8 percent of Waushara County's population compared to 88.9 percent of the state's population. The most diverse communities within Waushara County were the Village of Hancock (92.2%) and the Village of Plainfield (92.2%).

Although Hispanics are the fastest growing ethnic group in the United States, they currently comprise less than four percent of the county's and state's population (Appendix A, Table A-12). However, like the nation, this segment of the population is one of the fastest growing in the area. Between 1990 and 2000, the Hispanic population within Waushara County and Wisconsin just about doubled. At the county level, the Hispanic population increased from 2.0 percent of the county's population to 3.7 percent. At the state level, the Hispanic population increased from 1.9 percent of the state's population in 1990 to 3.6 percent of the state's population in 2000.

Although the number and share of Hispanics increased in Waushara County between 1990 and 2000, they remain a very small part of the population. If Waushara County is going to continue to grow through migration, it is likely that the number and percentage of Hispanics will also increase as Hispanics are becoming a larger share of the national and state population.

⁹ U.S. Census.

¹⁰ U.S. Census; 1990, 2000, STF 1A.

Income Levels

Income includes both earned and unearned income. Earned income includes money earned through wages, salaries and net self-employment income (including farm income). Unearned income includes money from interest, dividends, rent, social security, retirement income, and disability income and welfare payments¹¹. Traditionally, earned income is geographically dependent, as the quality of local jobs determines the earning potential and quality of life for local residents dependent on earned income. Unearned income is not geographically dependent. Retirement pensions, for example, may come from a company which is located several states away. As a result, a retiree's quality of life is not as dependent on the health of the local economy and quality of jobs in the area as someone who derives the majority of their income from earnings. As telecommuting increases and becomes more mainstream, earned income may become more geographically independent. However, at this point in time, little telecommuting occurs in Waushara County.

Impact of Earnings on Household Income¹²

An examination of 1999 income data indicates that the majority of household income within Waushara County and the state are derived from earnings. As a result, ***access to earning opportunities is a strong determinant in meeting the income needs of residents in both Waushara County and Wisconsin*** (Appendix A, Table A-13). Seventy-one percent (71.4%) of income in Waushara County was derived from earnings, which is lower than the 80.6 percent of earned income in Wisconsin. This indicates that the county is less dependent on employment and job creation than the state.

Within Waushara County, the Town of Marion (58.2% of income from earnings) is the least dependent on employment and job creation, while the Town of Bloomfield (83.2% of income from earnings) is the most dependent. This may indicate that the Town of Marion has a larger percent of households which benefit from unearned income.

In Waushara County and Wisconsin the average income per household was higher than the average earnings per household, which shows that both jurisdictions also benefit from unearned income (Appendix A, Table A-13). The percent of households with earnings ranged from 75.7 percent in Waushara County to 81.8 percent for the state.

Income Comparisons¹³

Three commonly used income measures are median household income, median family income and per capita income. Median income is derived by examining the entire income distribution and calculating the point where one-half of incomes fall below that point, the median, and one-half above that point. Per capita income measures income per person, and is calculated by dividing the total income of a particular group by the total population of that particular group, including all men, women and children, regardless of age and earning potential.

¹¹ U.S. Census Bureau.

¹² U.S. Census, 2000, STF 3A.

¹³ U.S. Census, 2000

A comparison of median family, median household and per capita income values between 1989 and 1999 indicate that Waushara County and Wisconsin experienced an increase in all income measures during this time period (Appendix A, Table A-14). However the income gap between the state and the county does not appear to be narrowing. Although Waushara County experienced a higher rate of growth in all three income measures, the only income measure that appears to be narrowing is the median family income category.

Therefore, ***the State of Wisconsin maintained higher median household, family and per capita incomes than Waushara County for both years.*** The City of Berlin had the highest median family (\$53,125) and per capita (\$23,859) in Waushara County in 1999, while the Town of Aurora had the highest median household income (\$49,583) in 1999. At the other end of the spectrum, the Village of Redgranite had the lowest median household (\$26,726) and per capita (\$13,994) income and the Village of Hancock had the lowest median family (\$36,250) income.

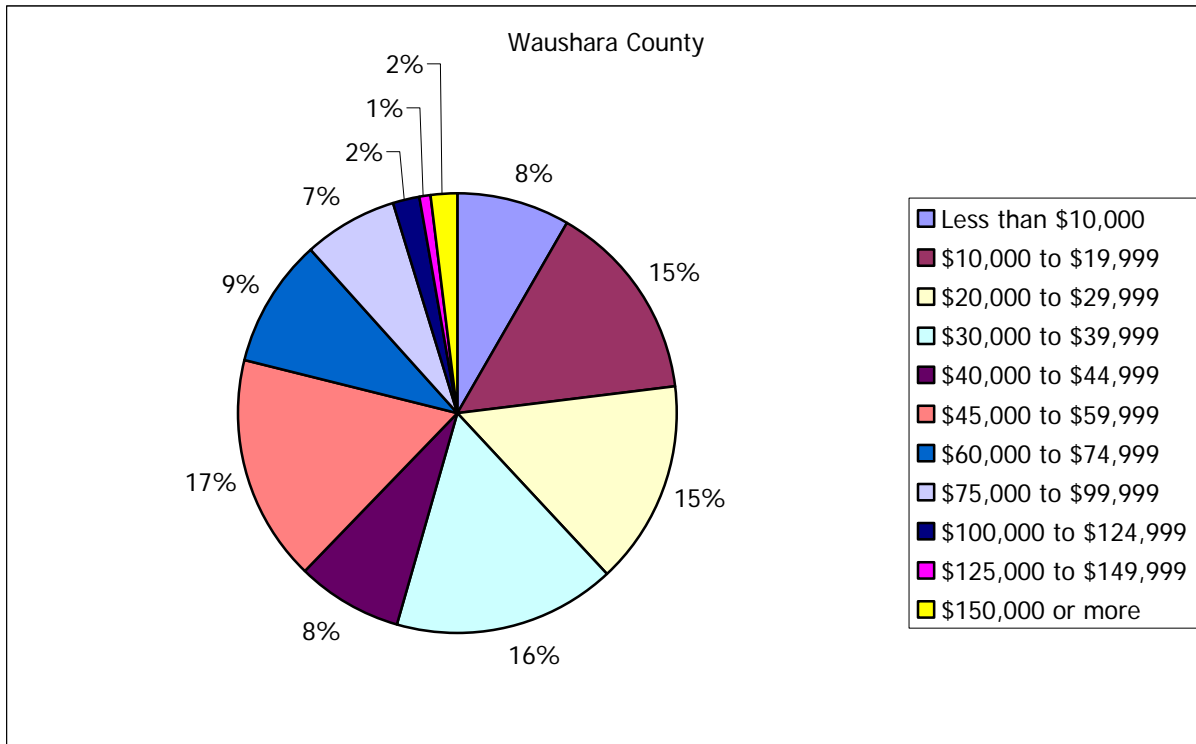
Household Income by Range¹⁴

Median and per capita income figures are often used to compare incomes across communities. Household income by range, however, provides a clearer picture of the distribution of income within a community. This allows communities to target policies, programs, housing and economic development opportunities to better meet the needs of their residents. Table A-15 in Appendix A identifies the number of households in income categories ranging from those with incomes of less than \$10,000 through those with incomes of \$150,000 or more. Figure 1-4 shows the distribution of those households. ***2000 Census information indicates that in 1999 Waushara County had 779 (8.4%) households with incomes below \$10,000. The income range with the largest number and share of households was between \$45,000 to \$59,999 with 1,558 households or 16.7 percent. There were 175 households (1.9%) with incomes of \$150,000 or more.***

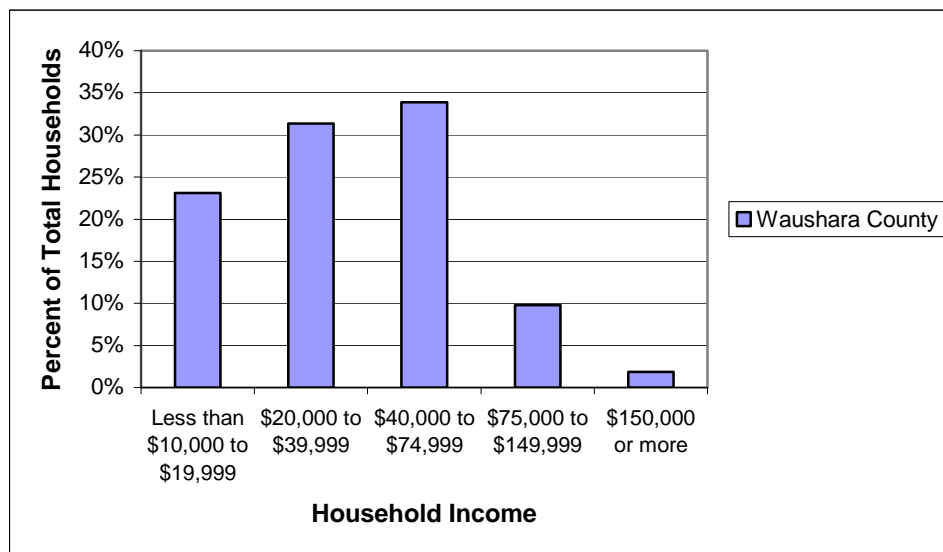
For additional comparison and analysis, the eleven income categories in Appendix A, Table A-15 have been consolidated into five broader income categories and presented in Figure 1-5 as a share of total households with income. ***About eighty-eight percent of households in Waushara County reported incomes below \$75,000 in 1999.*** The county median income for Waushara County is \$37,000, households below this level may be eligible for programs such as housing rehabilitation grants and loans, guaranteed loans for first time home buyers and job training programs designed to help increase skills which should result in increased earnings potential. Some families may also be eligible for school lunch programs.

The percentage of households with incomes below \$20,000 comprised 23.1 percent of all households in Waushara County. In comparison, 19.1 percent of Wisconsin households had incomes less than \$20,000. At the other end of the spectrum, 11.7 percent of county households and 20.3 percent of Wisconsin households had incomes of \$75,000 or more.

¹⁴ U.S. Census, 2000

Figure 1-4. Distribution of Households by Income Range, 1999

Source: U.S. Census, 2000

Figure 1-5. Household Income by Range, 1999

Source: U.S. Census, 2000, STF 3A

Poverty Status¹⁵

The poverty level is determined by the U.S. Census Bureau and based on current cost of living estimates, as adjusted for household size. In 1990, the poverty threshold for a family of four with two children was a household income of \$12,674. By 2000, the poverty threshold for a family of four with two children had risen to \$17,463.

Between 1989 and 1999, both the number and percentage of persons living below the poverty threshold declined in Waushara County and Wisconsin (Appendix A, Tables A-16 and A-18). ***In spite of the decline in poverty, 9.0 percent of Waushara County residents and 8.4 percent of Wisconsin residents still lived below the poverty line in 1999.*** The Town of Richford had the largest share of persons below poverty (22.4%) in the county, while the Village of Lohrville had the least (3.1%) in 1999.

Poverty by age trends varied. Children were more likely to live below poverty than elderly residents during both time periods in Waushara County and Wisconsin. Not only were children more likely to live below poverty, they comprised a greater number and share of total persons in poverty than elderly residents. For example, at the county level, 584 children lived in poverty in 1999 compared to 462 persons 65 and older. The ratio of children to elderly below poverty was even greater at the state level, where 150,166 children lived below poverty compared to 49,245 persons age 65 and older (Appendix A, Table A-17 and A-19).

In 1989, 20.1 percent of children in Waushara County lived in poverty, compared to 13.9 percent of the elderly. By 1999, the share of children living in poverty in Waushara County had decreased to 10.9 percent, while the share of elderly living in poverty had decreased to 10.8 percent (Appendix A, Table A-17 and A-19).

The state had a lower percentage of children and elderly living in poverty in 1989, than the county. In 1989, 9.1 percent of elderly residents were living in poverty, compared to 14.9 percent of children. Poverty levels in Wisconsin declined between 1989 and 1999, so that by 1999, 11.2 percent of children still lived in poverty compared to 7.4 percent of elderly residents.

Between 1989 and 1999, the number of families in poverty declined in both Waushara County and the state. Since the total number of families also increased during this same time period, the share of families living in poverty declined. In 1989, the share of families living in poverty ranged from 10.1 percent in Waushara County to 7.6 percent in Wisconsin. By 1999, the share of families living below poverty had fallen to 5.3 percent in Waushara County and to 5.6 percent in Wisconsin (Appendix A, Table A-16 and Table A-18). In both jurisdictions, the share of families living below poverty was less than the share of total persons living below poverty for both years.

Most discussions regarding poverty tend to focus on children and elderly, as they are considered dependent populations which have little to no ability to change their circumstances. As a result, they are the populations most in need of assistance. However, as the U.S. economy moves from a manufacturing based economy to a service based economy, many individuals find themselves falling into a category called the working poor. These are individuals who are working, but their wages are too low to move them out of poverty.

¹⁵ U.S. Census, 1990; U.S. Census, 2000, STF 3A

Population Forecasts¹⁶

Population projections can provide extremely valuable information for community planning; but by nature, projections have limitations which must be recognized. First, population projections are not predictions. Population projections are typically based on historical growth patterns and the composition of the current population base. Their reliability depends to a large extent on the continuation of those past growth trends. Second, population projections for small communities are especially difficult and subject to more error, as even minor changes in birth, death or migration rates can significantly impact community growth rates. Third, population growth is also difficult to predict in areas which are heavily dependent on migration, as migration rates may vary considerably based on various “push” and “pull” factors both within and outside of the area.

Since migration has played such an important role in Waushara County population growth, migration rates are expected to significantly impact future population growth. An examination of past growth trends indicate that decades of growth occurred during periods of high net in-migration and periods of population decline occurred during periods of low net in-migration. These historic population fluctuations are carried forward in the population forecasts for Waushara County (Table 2-1 and 2-2, Appendix A Table A-20).

Population growth in Waushara County will result in an increase in demand for services and land consumption. The density of settlement, coupled with the amount and location of land consumed for housing, commercial and industrial uses will impact service costs. Additional development will decrease the amount of open space. Development choices will also impact the economic vitality of the agricultural and forestry sectors.

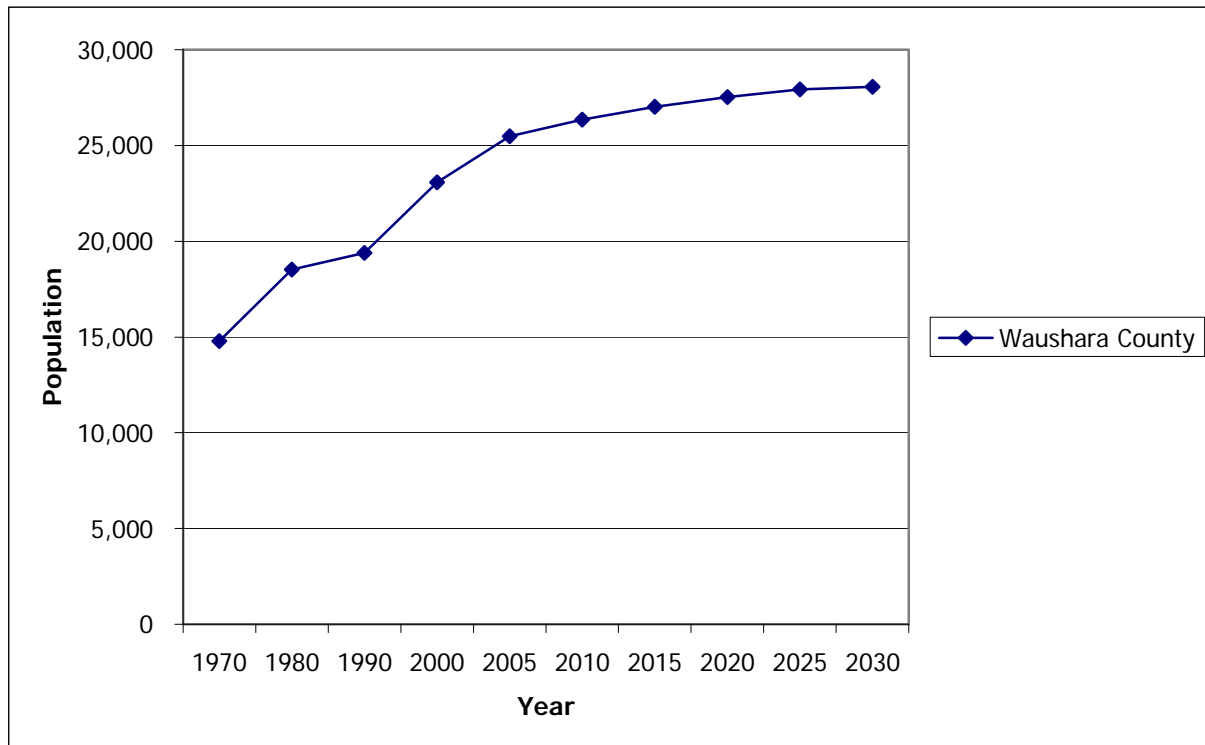
Table A-20, Appendix A and Figure 1-6 presents population estimates for Waushara County through 2030. These population projections are based on a combination of average growth trends over the last four decades, anticipated growth patterns developed by DOA, and anticipated impacts from the new Redgranite Correctional Facility. It is assumed that the largest population gains will occur during the first decade and will taper off during the second decade. However, as noted earlier, growth rates can shift quickly in smaller communities and migration can vary substantially based on factors within and outside of communities. As a result, it is recommended that Waushara County review their population growth every five years to determine if their population change is following anticipated trends or if growth trends are shifting.

Waushara County is expected to grow by 21.6 percent between 2000 and 2030. While Table A-20 indicates that the Village of Redgranite is expected to grow by 110 percent during this time period, these numbers are misleading. The Redgranite Prison was not operational in 2000; therefore as a result the prison population was not included in the 2000 Census. Between 2000 and 2005 the prison became operational; consequently the population of the Village of Redgranite showed a significant increase in 2005. Other communities that are expected to grow significantly between 2000 and 2030 include the Town of Coloma (51.8%), Town of Leon (41.5%) and the City of Wautoma (32.6%). Communities that are expected to lose population during this time period include the Town of Oasis (-16.0%), Village of Plainfield

¹⁶ Source: U.S. Census, 1970, 1980, 1990, 2000; WI DOA, 2004; ECWRPC

(-9.5%), Village of Wild Rose (-9.3%), Town of Poy Sippi (-6.6%) and the Town of Dakota (-2.3%).

Figure 1-6. Population Estimates, 1970 to 2030



Source: U.S. Census, 1970, 1980, 1990, 2000; WI DOA, 2004; ECWRPC

Note: Population estimates include anticipated impact of the Redgranite Prison; Includes correction to 2000 Census.

Population Projections by Age Cohort

Past trends and anticipated national, state and county trends indicate that population growth has not occurred uniformly in all age groups due to fluctuations in fertility rates and differences in migration patterns by age. These variations in growth rates, coupled with the aging of the baby boom population, will impact the population and age distribution within Waushara County.

Wisconsin migration patterns by age indicate that as individuals approach retirement age, many relocate to rural communities. As elderly persons in rural areas age and their health begins to deteriorate, many relocate to urban communities for access to better services and healthcare. However, increases in technology and healthcare have contributed to longer life spans and allowed the elderly to remain more independent. It is unclear at this point how these changes will impact future migration patterns by age. ***Waushara County population projections by age cohort¹⁷ indicate that the number of county residents age 65 and older may almost double between 2000 and 2030, while the number of children may decline by 21 percent*** (Table 1-3). In the future, Waushara County may find themselves balancing the needs of school age children with the needs of their elderly residents.

¹⁷ WI DOA, 2004

Table 1-3. Waushara Population Projections by Age Cohort, 2000 to 2030

Year	Less Than 5 yrs	5 to 19 yrs	20 to 24 yrs	25 to 44 yrs	45 to 64 yrs	65 yrs and Older	Total Population
2000	1,162 5.0%	4,793 20.8%	885 3.8%	5,773 25.0%	6,076 26.3%	4,377 19.0%	23,066 100.0%
2005	1,177 4.6%	4,731 18.4%	1,462 5.7%	6,070 23.6%	7,476 29.1%	4,759 18.5%	25,675 100.0%
2010	1,181 4.4%	4,156 15.7%	1,596 6.0%	5,911 22.3%	8,711 32.8%	4,993 18.8%	26,548 100.0%
2015	1,240 4.6%	3,765 13.8%	1,381 5.1%	6,266 23.0%	8,906 32.7%	5,670 20.8%	27,228 100.0%
2020	1,257 4.5%	3,701 13.3%	1,140 4.1%	6,535 23.6%	8,563 30.9%	6,530 23.6%	27,726 100.0%
2025	1,238 4.4%	3,747 13.3%	1,093 3.9%	6,574 23.4%	7,900 28.1%	7,584 27.0%	28,136 100.0%
2030	1,164 4.1%	3,809 13.5%	1,075 3.8%	6,125 21.7%	7,584 26.8%	8,506 30.1%	28,263 100.0%

Source: Wisconsin Department of Administration, 2004.

Household Forecasts

In previous household forecasts, East Central relied on county and minor civil division (MCD) persons per household (pphh) projections from DOA to adjust future household growth to reflect modifications to population forecasts. During this update, MCD level pphh information was not formally released. As a result, staff found it necessary to develop an alternative methodology for forecasting households at the MCD level. After reviewing a number of potential methodologies, staff selected the two methodologies which provide the best fit for the largest number of communities within the region.

While both household forecasts are available for communities and counties to use for planning purposes, ECWRPC uses the methodology which generates the largest number of projected year round households for sewer service area and long range transportation/land use planning purposes. In instances where neither methodology consistently generates the highest number of households for communities within those sewer service and long range transportation plan study areas, a combination of both methodologies is used. This allows communities to develop the infrastructure to handle the largest anticipated amount of growth. Communities which experience seasonal fluctuations in populations will need to make adjustments to these numbers in the appropriate sections of this planning document.

The actual growth rate and amount of future growth communities experience will be determined by local policies which can affect the rate of growth within the context of county, state and national population growth trends. Since migration plays such a large role in Waushara County growth patterns, growth rates and trends outside of the county will influence the pool of potential residents the county can attract. If communities prefer a slower growth option which puts less pressure on their natural resources and lessens the impact on their community character, communities are welcome to use the lower estimates. Regardless of whether communities prefer a no growth, low growth or high growth option, it is recommended

they adequately prepare for future growth/changes to provide the most cost-effective services possible. Furthermore, individual communities can maximize the net benefits of public infrastructure and services by encouraging denser, efficient growth patterns which maximize the use of land resources while minimizing the impact on the natural resource base.

Based on projected growth patterns and smallest average household size assumptions, the number of households in Waushara County is expected to increase by 28.9 percent between 2000 and 2030¹⁸ (Table 1-4; Appendix A, Table A-22).

Table 1-4. Estimated Households, 2000 to 2030

Waushara County	2000	2005	2010	2015	2020	2025	2030
No. Households	9,336	9,760	10,430	11,030	11,479	11,824	12,023
Persons per HH	2.43	2.48	2.40	2.33	2.28	2.25	2.21

Source: U.S. Census, 2000; ECWRPC

The increase in the number of households is expected to result from in-migration of new households and a continued decrease in household size. Since new households are formed within an existing population when households split into two or more households, the number of households can increase even if the population does not. One major factor contributing to an increase in households nationwide will be the aging of the echo-boom generation. As these children of the baby-boomers move out of their parent's home and form their own household, the increase in the number of new households is expected to be large compared to actual population growth.

Key Findings

Demographic Trends

- Over the past fifty years, the overall population within Waushara County has seen a substantial increase. The population decreased from 1950 (13,920) to 1960 (13,497) before starting a steady increase to a year 2000 population of 23,066.
- Recent Waushara County growth trends from WDOA indicate that between 2000 and 2005 population increase has slowed but continues to outpace the East Central Region and Wisconsin.
- While Waushara County has experienced an overall increase in population, some communities (within the county) are experiencing population losses, as the population is aging and younger people are going elsewhere for jobs.
- Migration has played a greater role in population change in Waushara County than natural increase between 1950 and 2005. Furthermore, the rate of net migration in Waushara County has exceeded the overall Wisconsin net migration rates each decade since 1980, which indicates that Waushara County is attracting residents from other parts of Wisconsin.
- Since natural increase rates were negative, the entire increase in population in Waushara County since 1990 can be attributed to in-migration.
- As the County's population ages, an increase in demands or desires may exist for a wider variety of housing, healthcare, support services and transportation options than are typically available in rural communities.

¹⁸ U.S. Census, 2000; ECWRPC

- The average population density in Waushara County was 37 persons per square mile in 2000.
- The change in population by age cohort between 1990 and 2000 indicates that the County's population is aging.
- Between 1990 and 2000, the median age increased by 3.5 years in Waushara County, as a result the county (42.1) continued to have a higher median age than the state (36.0).

Household Structure

- Household size for Waushara County has been decreasing since 1970. Waushara County had an average household size of 2.5 in 1990 and 2.4 in 2000.
- In 1990 and 2000, the majority of households in Waushara County were family households, and the majority of family households were married couple families.
- The population in Waushara County is less diverse than that of the state. In 2000, whites comprised 96.8 percent of Waushara County's population compared to 88.9 percent of the state's population.

Income Levels

- Access to earning opportunities is a strong determinant in meeting the income needs of residents in both Waushara County and Wisconsin.
- The State of Wisconsin maintained higher median household, family and per capita incomes than Waushara County for both 1989 and 1999.
- 2000 Census information indicates that in 1999 Waushara County had 779 (8.4%) households with incomes below \$10,000. The income range with the largest number and share of households was between \$45,000 to \$59,999 with 1,558 households or 16.7 percent. There were 175 households (1.9%) with incomes of \$150,000 or more.
- About eighty-eight percent of households in Waushara County reported incomes below \$75,000 in 1999.
- Between 1989 and 1999, both the number and percentage of persons living below the poverty threshold declined in Waushara County and Wisconsin. In spite of the decline in poverty, 9.0 percent of Waushara County residents and 8.4 percent of Wisconsin residents still lived below the poverty line in 1999.
- In 1989, 20.1 percent of children in Waushara County lived in poverty, compared to 13.9 percent of the elderly. By 1999, the share of children living in poverty in Waushara County had decreased to 10.9 percent, while the share of elderly living in poverty had decreased to 10.8 percent.
- Between 1989 and 1999, the number of families in poverty declined in both Waushara County and the state.

Population Forecasts

- Population growth in Waushara County will result in an increase in demand for services and land consumption.
- Waushara County is expected to grow by 21.6 percent between 2000 and 2030.

- Waushara County population projections by age cohort¹⁹ indicate that the number of county residents age 65 and older may almost double between 2000 and 2030, while the number of children may decline by 21 percent.

Household Forecasts

- Based on projected growth patterns and smallest average household size assumptions, the number of households in Waushara County is expected to increase by 28.9 percent between 2000 and 2030.

INTERRELATIONSHIPS WITH OTHER COMPREHENSIVE PLAN ELEMENTS

Economic Development

An aging population creates opportunities and challenges. If current migration trends hold true, Waushara County will likely continue to attract baby-boomers. Many of these individuals may have personal wealth and/or good retirement incomes. At the same time, the county will likely continue to have persons age 65 and older living in poverty.

A larger population will likely drive the need for additional goods and services. Local companies and communities may need to find creative ways to attract younger working individuals (25 to 45 years old) to live and work in the planning area to meet workforce needs. At the same time, recruiters should allow elderly who seek employment to continue to remain in the work force.

As people are living longer, many are choosing to work into their traditional retirement years. These individuals often desire more flexibility or part-time employment. Other older individuals may need to earn extra income to afford the basic necessities and/or cover healthcare costs. Some retirees may not be interested in continuing in the workforce, but have the skills, knowledge and desire to serve as mentors and teachers. These individuals may, upon request, desire to volunteer to help communities address housing, literacy, financial education or other local needs. Some may wish to provide expertise to emerging businesses through a SCORE chapter. Since growing local businesses can be as important as attracting outside firms to locate in the area, new entrepreneurs should be encouraged to develop new industries so that job opportunities are available to all residents. Data indicates that earnings are an important component of household income in Waushara County. As a result, communities in the area should work together to build and attract living wage employment opportunities.

Housing

Additional housing will be needed to meet the anticipated increase in the number of households, the needs of seasonal residents and changing demographic trends within communities. The type, tenure and quantity of housing needed will vary based on the age structure, physical needs, income levels and preferred housing choices of the overall population. In all likelihood, communities will need a mixture of housing types, styles and price ranges. If current income structures remain in place, quality housing for low income workers and elderly will be important. New single family as well as multi-family homes will be needed. Some

¹⁹ WI DOA, 2004

conversion of seasonal to year-round residences is anticipated. Existing homes may need to be remodeled or rehabilitated to meet changing needs. Communities will likely need housing for singles, young families and their workforce. A variety of housing will be needed for the elderly and disabled as well. Remodeling or rehabilitation may help elderly or disabled individuals who wish to stay in their existing home to remain in their homes for a longer period. Other individuals may desire other alternatives or need assisted living or skilled nursing facilities. Condominiums, efficiency apartments or community based residential facilities may be best suited for this segment of the population.

Transportation

As communities grow, roads and other infrastructure may be needed to access additional housing, commercial, public and industrial buildings that may be constructed to accommodate the increasing population base. Transportation systems should be monitored for adequacy in meeting increased demands for local and through traffic. Potential changes could include additional lanes or other upgrades to existing roads. Local governments should also consider alternative transportation needs and desires. Increased access to bicycle and pedestrian facilities could provide viable, cost-effective transportation options for residents and increase recreational opportunities. As the elderly population's ability to drive decreases, the need for specialized transportation will increase. If these individuals are to remain in the area, increased access to affordable bus, shared ride taxi service or other transportation alternatives will be necessary to ensure that the elderly can visit healthcare professionals, shop for groceries, and meet other basic needs.

Utilities and Community Facilities

As population demographics change, the overall needs of the county also change. A growing elderly population, for example, may increase the need for additional healthcare or adult daycare facilities. School facilities may need to be upgraded or modified to meet changing educational expectations or to help increase the earnings potential of local residents. An increase in residences may increase the need for police or fire protection. In the future, the county will likely need to increase the number and availability of services targeted towards the elderly while maintaining a balance with services for working age persons and school age children. Counties and communities will also need to balance the demands and needs of year-round and seasonal populations with the costs of those facilities and services. Ideally, improvements and expansions of utilities and community facilities and services should be coordinated with fluctuations in population. While some national recommendations are provided to help determine appropriate levels of service for fire, libraries, schools, open space, recreation and other public services, local governments should tailor services to local conditions to ensure that the basic needs of their citizens are met.

Agricultural Resources

Traditionally many of the farms within Waushara County are small family owned operations. Throughout Wisconsin the numbers of agricultural operations, especially dairy farms, are declining significantly as existing farmers reach retirement age. Currently, few younger individuals are entering the farming profession due to increased operational costs and more stringent regulations. As the population in Waushara County increases, more pressure will be

placed on landowners to convert land from farmland to residential, commercial and industrial development, which will further exacerbate these trends. Since agriculture is important to the economy of Waushara County, the county should consider ways to reverse the decline in agriculture. Increased reliance on locally produced agricultural products would support the local agriculture and food products sectors and help ensure their continued operation, affordability and access. Alternative farming methods, programs and land use regulations could help meet anticipated increase in food demands.

Natural Resources

The critical question with respect to natural resources is how an expanding population base will affect the protection and preservation of natural resources. The increased demand for housing, commercial and industrial development will consume additional land throughout Waushara County. The abundance of natural resources, including wetlands, lakes, streams and forests sustains a portion of local economy. As development occurs, issues regarding open and natural space preservation/enhancement, water quality protection, wildlife habitat management, floodplain management and others will need to be addressed. Increased road construction will also require gravel, sand, and other non-metallic minerals. Deposits throughout Waushara County will need to be identified so that transportation and construction costs can be minimized.

Cultural Resources

Waushara County is rich in historical, archeological, and cultural sites. These sites provide information about early Native Americans, European settlement and the development of the area. Many buildings and areas have significant religious or cultural meaning. Efforts should be made to inventory and map historical, archeological, and cultural sites so that their significance is not destroyed or altered. These sites provide a link with the county's cultural and ethnic heritage. Preserving them would help document the changing demographics and socio-economic characteristics of the area. Historical sites, heritage corridors and museums may also provide economic development opportunities. Moreover, a concerted effort should be made to incorporate historical architectural styles into modern construction to enhance local cultural features and preserve community character.

The latest Census data indicates that the population of Waushara County and Wisconsin is becoming more diverse. As the area's population changes, language barriers and a lack of awareness and understanding between races, cultures, classes and generations can lead to conflict. Positive opportunities for cross-cultural, cross-class and multi-generational interaction can help resolve any issues that may arise as the area's population changes.

Land Use

Additional land will be converted to residential, commercial/industrial and public/institutional uses to accommodate anticipated population and household changes. These changes could alter the pattern of existing development and community character and place additional pressure on natural, cultural and agricultural resources. By recognizing the relationship between the density of settlement and amount and location of land consumed, local governments could minimize conflicts and protect natural and agricultural resources, amenities

and community character. Two basic options for locating new development are within areas of existing infrastructure and development or converting farm, forest or open space lands to other uses. Either option will impact local communities.

Intergovernmental Cooperation

Although larger populations will result in an increased tax base, the offsetting costs for infrastructure, maintenance and services will require local governments and organizations to identify ways to provide cost-effective services to their residents. Where feasible, local governments must cooperate not only to provide adequate infrastructure to meet increased demands, but also to encourage economic development and employ sufficient staff to handle the anticipated service usage increases. Furthermore, a well-informed staff is necessary for local governments to meet the growing needs of the general public. Through effective communication, training and education, local governments will avoid unnecessary duplication of services and provide more streamlined access to information and services.

POLICIES AND PROGRAMS

Growth and development patterns do not occur in a vacuum. Over time, federal, state and local policies have directed the amount and location of development. Federal immigration policies determine the flow of immigrants into the United States, both in terms of numbers and countries of origin. Concepts such as Manifest Destiny combined with expansive federal housing, land and transportation legislation, policies and subsidies such as the Homestead and Railroad Acts, the interstate highway system and IRS codes, etc. have heavily influenced settlement patterns. Additional federal legislation such as the Civil Rights Act, Americans with Disabilities Act (ADA) and Affirmative Action legislation have increased access and opportunities for persons of color and persons with disabilities. Wisconsin has broadened federal Civil Rights and Affirmative Action laws to include additional protected classes. State transportation policies and state land use legislation such as NR121, farmland preservation, natural resource protection and real estate tax codes have influenced growth and settlement. Local attitudes towards growth and accompanying zoning legislation, transportation and utility investments and tax and land subsidies also influence the type and amount of growth and development which occurs in each community.

Policies which impact growth and development have been developed over time by different agencies and different levels of government with varying missions and objectives. The resulting policies and programs are sometimes complementary and sometimes contradictory. It is the interaction of these various policies and market influences that determine actual growth patterns. Although many current federal and state policies and subsidies still encourage expansion, other policies such as the 14 land use goals recently developed by the state also encourage communities to accommodate growth in perhaps a more efficient manner than they have in the past. The recently adopted comprehensive plan legislation encourages communities to develop comprehensive plans, but provides communities with the opportunity to determine their own growth patterns. As a result, the type of development which will occur in the future is still open to debate.

Regional, County and Local Policies

East Central Wisconsin Regional Planning Commission. East Central Wisconsin Regional Planning Commission has developed a regional smart growth plan. As part of the planning process, East Central has identified several key issues:

- How do we plan for continued population growth, which will result in an increase in demand for services and land consumption in the region?
- How do we promote the recognition of the relationship between the density of settlement and amount and location of land consumed for housing, commercial, and industrial uses and the costs of services?
- How do we ensure the economic vitality of the agricultural and forestry sectors in the context of a decrease in the amount of open space?
- How do we address the conflicts that will arise given that the majority of future growth is expected to occur in the urban counties, which is where most of the region's more productive farmland is located? More specifically, how will we address the impact on the farm economy?
- How do we ensure that an increase in urbanization has a positive impact on rural communities?
- Urban counties in the region currently have greater social and economic capital, more government support due to a larger tax base, and greater access to nonprofit services than rural counties. Current trends show the educational and income gap between urban counties and rural counties widening. How do we plan to decrease this gap and promote a healthy, vibrant economy and quality of life for all residents throughout the region?

The core goal for the Issues and Opportunities Section is:

- To promote communities that are better places in which to live. That is, communities that are economically prosperous, have homes at an affordable price, respect the countryside, enjoy well designed and accessible living and working environments, and maintain a distinct sense of place and community.

The intent of this goal is to minimize the negative effects of sprawl development and provide a cost-effective variety of services and infrastructure that will meet the changing demographics of the overall population.

Federal, State and Regional Programs

This section includes information on federal, state and regional programs which were used to develop this chapter. Other programs which influence growth and may impact future socio-economic conditions will be described in pertinent chapters within this plan.

Federal Agencies

United States Department of Commerce

Economics and Statistics Administration (ESA). The Economics and Statistics Administration collects, disseminates and analyzes broad and targeted socio-economic data. It also develops domestic and international economic policy. One of the primary bureaus within the ESA is the U.S. Census Bureau. The majority of information analyzed in this chapter was collected and disseminated by the Census Bureau, which is the foremost data source for economic statistics and demographic information on the population of the United States. The Census Bureau conducts periodic surveys and Decennial Censuses that are used by federal, state, and local officials and by private stakeholders to make important policy decisions. The Bureau produces a variety of publications and special reports regarding the current and changing socio-economic conditions within the United States. It develops national, state and county level projections and also provides official measures of electronic commerce (e-commerce) and evaluates how this technology will affect future economic activity.

State Agencies

Wisconsin Department of Administration (DOA)

Demographic Services Center. The Wisconsin Department of Administration (DOA) Demographic Services Center is responsible for developing annual population estimates for all counties and all minor civil divisions (MCD) in the state. They develop annual estimates of the voting age population by MCD and population estimates by zip code. The Demographic Services Center also produces annual county level housing unit and household estimates. The Demographic Services Center also develops population projections by age and sex for all Wisconsin counties, and produces population projections of total population for all municipalities.

Wisconsin State Data Center (WSDC). The Wisconsin State Data Center is a cooperative venture between the U.S. Bureau of the Census, DOA, the Applied Population Laboratory at the University of Wisconsin-Madison and 39 data center affiliates throughout the state. The U.S. Bureau of the Census provides Census publications, tapes, maps and other materials to the WSDC. In exchange, organizations within WSDC function as information and training resources. DOA is the lead data center and the Applied Population Laboratory functions as the coordinating agency throughout the state. Local data center affiliates, such as East Central, work more closely with communities and individuals within their region.

University of Wisconsin-Madison

Applied Population Laboratory (APL). The Applied Population Laboratory is located with the Department of Rural Sociology at the University of Wisconsin-Madison. They conduct socio-economic research, give presentations and publish reports and chartbooks. They will contract to do specific studies or school district projections. APL also functions as the coordinating agency for the WSDC and the lead agency for the Wisconsin Business/Industry Data Center (BIDC).

Regional Programs

East Central Wisconsin Regional Planning Commission. As the state data center affiliate for the region, East Central receives Census materials and Demographic Service Center publications from DOA, plus additional information and reports from other state agencies. This information is maintained within its library, used for planning purposes and published within East Central reports. Information and technical assistance regarding this data is also provided to local governments, agencies, businesses and the public upon request.

While DOA provides base level population projections for the state, local conditions, such as zoning regulations, land-locked communities, and local decisions regarding land use development can influence the accuracy of these base line projections. As a result, East Central has the authority to produce official population projections for the region. East Central also estimates future household growth.

CHAPTER 2: HOUSING

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CHAPTER 2: HOUSING

INTRODUCTION

A number of factors influence how well the housing stock meets the needs of Waushara County, including the design, placement and density of housing. These characteristics impact the overall appearance and character of the County and its communities by defining its sense of place and encouraging or discouraging social interaction between or amongst residents. These characteristics further influence the overall cost of housing and the cost and efficiency of other plan elements, such as roadways, school transportation, infrastructure which are needed to serve housing units and neighborhoods.

The quality and affordability of housing influences the economic health and well-being of the County. Well designed, decent, safe and affordable housing creates a sense of connection and ownership between residents and their neighborhood and community. Residents with decent, safe affordable housing have more resources available for food, clothing, transportation, health care, savings for college or retirement, and other expenses. They also have the resources necessary to maintain their housing, which contributes to the quality of the community's housing stock and appearance of the community.

INVENTORY AND ANALYSIS¹

This section of the chapter provides a broad brush of housing characteristics for Waushara County, plus identifies why a particular housing variable may be important. Characteristics which are unique to the county or a particular community are noted, as are characteristics that can help identify strengths or opportunities for improvement. Tables are provided in Appendix B for those who may be interested in more detail.

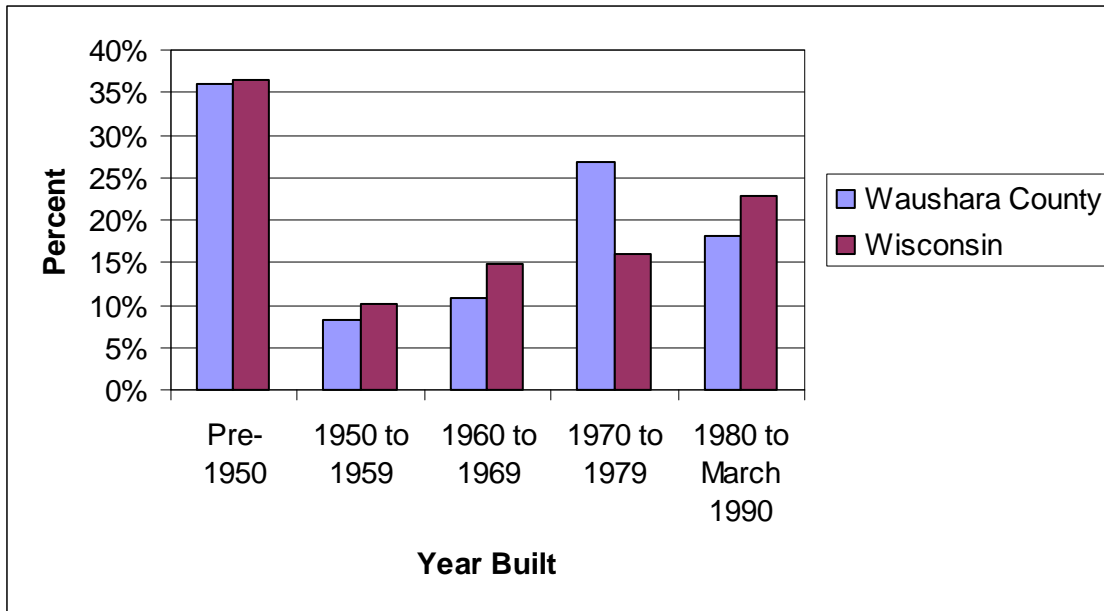
Age of Occupied Dwelling Units

The age of occupied dwelling units reflect the historic demand for additional or replacement housing units, thereby providing historic information regarding settlement patterns, household formation rates, migration trends and natural disaster impacts. The age of units by itself is not an indication of the quality of the housing stock. However, the age of occupied units can provide limited information regarding building construction and material content, as construction techniques and materials change over time.

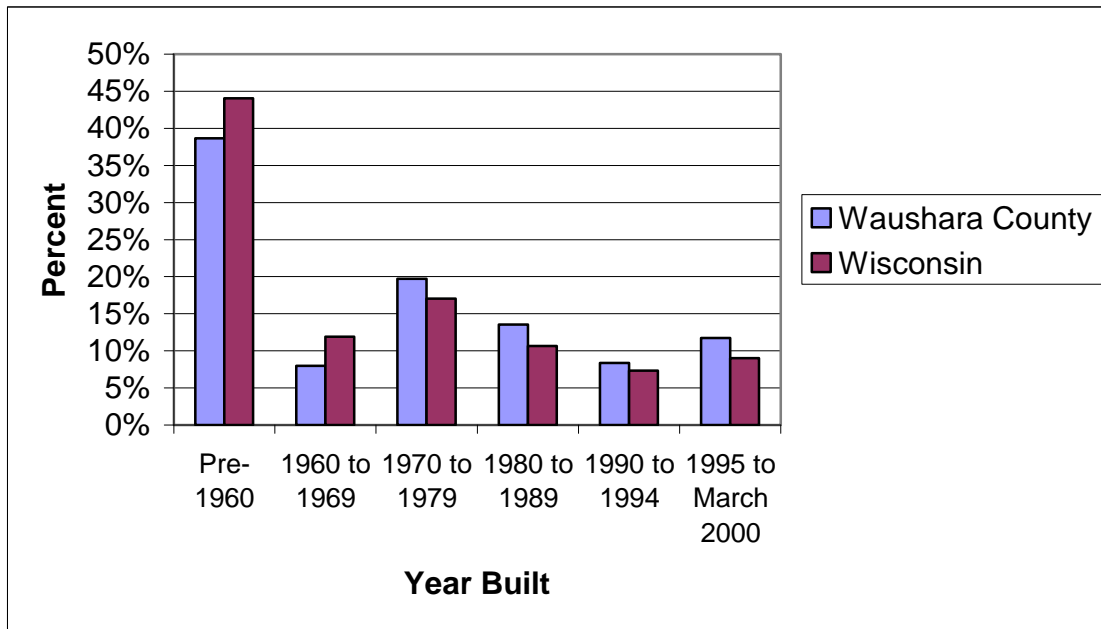
Census information regarding the age of owner-occupied units indicates that Waushara County was well established by 1960 (Appendix B, Tables B-1 and B-2). The number of owner-occupied units rose each decade from 1950 through the 1970's, and then fell sharply in the 1980's (Figure 2-1.). The number of owner-occupied units began rising again in the 1990's, particularly in the latter half of that decade (Figure 2-2).

Waushara County had a slightly lower percentage of owner-occupied units built prior to 1960 than the state. According to the 2000 Census, 38.7 percent of the county's housing stock was built prior to 1960, compared with 44.0 percent of the state's.

¹ U.S. Census, 1990 and 2000, unless otherwise noted.

Figure 2-1. Occupied Dwelling Units by Year Built, 1990

Source: U.S. Census, 1990.

Figure 2-2. Occupied Dwelling Units by Year Built, 2000

Source: U.S. Census, 2000.

Between 1990 and 2000, Waushara County experienced a higher level of growth in owner-occupied units than was indicated in previous Census periods (1960 to 1990) based on the age of structure information provided in the 1990 and 2000 Censuses. Waushara County gained 1,876 new occupied units between 1990 and 2000² or 20.1 percent of their current housing stock.

² U.S. Census 2000.

According to 2000 Census data, the Town of Marion gained a larger number of occupied dwelling units between 1990 and 2000, than any other community in the county. Between 1990 and 2000, 220 units or 24.1 percent of Marion's occupied dwelling units were built during this time period.

Change in Structural Type

Structural type is one indication of the degree of choice in the housing market. Housing choice by structural type includes the ability to choose to live in a single family home, duplex, multi-unit building or mobile home. Availability of units by type is indicative not only of market demand, but also of zoning laws, developer preferences and access to public services. Current state sponsored local planning goals encourage communities to provide a wide range of choice in housing types, as housing is not a 'one size fits all' commodity.

A single person, for example, will have different housing needs than a couple with children. Housing needs also change as we age, lifestyles change, or in the event that one or more members of the household become disabled. Providing a range of housing choices which meets individual household needs and preferences is one way of encouraging individuals to stay in the community and to draw others to locate there.

As with most rural counties, the dominant housing type in Waushara County is single family housing. In 1990, single family housing comprised 80.6 percent of Waushara County's housing stock (Appendix B, Table B-3). In comparison, single family housing only made up 67.7 percent of Wisconsin's housing stock. Less than five percent (4.5%) of the county's housing stock was comprised of duplex and multi-family units. In 1990, the second largest structural type in Waushara County was mobile home, trailer and other (1,827 units/14.9%). Within the Waushara County portion of the City of Berlin (96.3%), and the towns of Hancock (93.6%) and Oasis (94.6%), single family units garnered more than 90 percent of the total housing stock. Communities with the largest share and number of mobile homes, trailer or other included the towns of Dakota (209/32.0%) and Springwater (222/20.0%). Other communities in the county had a smaller number of total housing units and therefore a higher share of mobile homes, trailers and other; these communities included the Village of Lohrville (74/42.5%) and the Town of Warren (94/32.2%).

During the 1990s, conversions, deletions and additions to communities' housing stock resulted in a slightly different composition of housing in 2000. ***By 2000, the share of single family units increased to 82.6% in Waushara County, while the number of mobile homes, trailer and others had decreased to 1,780 units or 13.0% of the total housing units.*** (Appendix B, Table B-3). The share of two or more units in the county declined slightly to 4.4 percent. At the state level, the number and share of single family homes and larger multi-family buildings (those with greater than five units per building) increased between 1990 and 2000, while the number and share of two to four unit buildings and mobile home, trailer and other units decreased. In 2000, single family homes comprised 69.3 percent of the state's housing stock. The second largest housing category was two or more unit housing, which comprised 26.2 percent of Wisconsin's housing stock. Mobile home, trailer and other units comprised 4.5 percent of the State's housing stock.

Communities within Waushara County also experienced a housing composition change between 1990 and 2000. In 2000, the share of single family units in the Waushara

County portion of the City of Berlin dropped to 48.6 percent from a high of 96.3 percent in 1990. Since this portion of the city has a relatively low number of housing units, the addition of 18 multifamily units drastically changed the composition of the housing stock. A surge of single family construction during the 1990's resulted in more communities seeing an increase in the share of single family housing stock in their communities. By 2000, communities whose portion of single family housing exceeded 90 percent included the towns of Bloomfield (91.0%), Deerfield (90.9%), Hancock (92.3%), Mount Morris (91.3%), Oasis (98.1%), Richford (90.4%), Saxeville (90.7%) and Wautoma (93.9%). Generally the cities and villages within Waushara County provided more choice in the form of duplexes and multifamily units, while the towns saw a higher number of mobile homes, trailers and others. The Town of Springwater had the highest number of mobile homes, trailers and others (418 units) while the Village of Lohrville had the largest share (42.1%).

Occupancy Status

Occupancy status reflects the utilization of available housing stock. The total number of housing units includes renter-occupied, owner-occupied and various classes of vacant units. Vacant units include those which are available for sale or rent and those which are seasonal, migrant, held for occasional use or other units not regularly occupied on a year round basis.

For a healthy housing market, communities should have a vacancy rate of 1.5 percent for owner-occupied units and 5 percent for year round rentals. The number of migrant, seasonal and other vacant units will vary depending on the community's economic base.

Tenure

Occupancy rates vary by community and over time. Total occupancy rates increased for Waushara County and the state between 1990 and 2000. In both time periods, jurisdictions with the lowest occupancy rates had the highest percentage of seasonal units (Table 2-1). Both jurisdictions experienced a decrease in the number and share of seasonal units between 1990 and 2000 and an increase in the number and share of occupied units and total units. The combination indicates that additional year round units were built and seasonal units were likely converted to year round residences (Appendix B, Tables B-5 and B-6).

Occupancy rates indicate that Waushara County had a higher percentage of seasonal units than the state as a whole. Both jurisdictions experienced an increase in total occupancy rates and a decrease in the number of seasonal units between 1990 and 2000. Waushara County experienced the largest change.

The majority of occupied units within Waushara County are owner-occupied. Waushara County has a higher percentage of owner-occupied than the state (Table 2-2). Between 1990 and 2000, the share of owner-occupied units increased in both jurisdictions. By 2000, the share of occupied units that were owner-occupied ranged from 83.5 percent in the Waushara County to 68.4 percent in Wisconsin. The share of renter occupied ranged from 16.5 percent in the county to 31.6 percent in the state.

Table 2-1. Occupied and Seasonal Units as a Share of Total Housing Units, 1990 and 2000

Jurisdiction	Total Occupied		Seasonal Percent	
	1990	2000	1990	2000
Waushara County	62.2%	68.3%	31.7%	27.0%
Wisconsin	88.6%	89.8%	7.3%	6.1%

Source: U.S. Census, 1990 and 2000.

In 2000, the highest percentage of occupied housing units were located in the cities and villages of Waushara County and the towns in the eastern tier of the county that have stronger connections to the Fox Cities and Oshkosh for employment. Other communities with higher percentages of occupied housing units included the Town of Plainfield, which is more dependent on farming and the Town of Wautoma.

Table 2-2. Tenure as a Percent of Occupied Units, 1990 and 2000

Jurisdiction	Owner Occupied		Renter Occupied	
	1990	2000	1990	2000
Waushara County	80.3%	83.5%	19.7%	16.5%
Wisconsin	66.7%	68.4%	33.3%	31.6%

Source: U.S. Census, 1990 and 2000.

Vacancy Status

Vacant housing units are units that are livable, but not currently occupied. The vacancy status of units available for purchase or rent is considered to be a strong indicator of housing availability. Generally, when vacancy rates are below 1.5 percent for owner-occupied units and 5 percent for renter-occupied units, housing is considered to be in short supply and additional units are needed. If vacancy rates are at or above standard, the community may have an adequate number of units for rent or for sale. However, additional information, such as choice in housing and housing affordability is needed to determine if the units on the market meet the needs of potential buyers or renters. A higher vacancy rate may be appropriate, particularly for smaller communities, if the additional units provide needed choices within the housing market. If the existing vacancy rate is too high for existing market conditions, then property values may stagnate or decline.

Owner-Occupied Housing

Homeowner vacancy rates indicate that Waushara County had an adequate share of owner-occupied units for sale in 1990, while the state had a tight housing market. Between 1990 and 2000, homeowner vacancy rates fell in Waushara County, but remained stable at the state level (Appendix B, Tables B-7 and B-8). **Countywide, the homeowner vacancy rate was 1.9 percent in 2000, which indicates that the county had an adequate number of homes on the market to meet demand.** The homeowner vacancy rate for Wisconsin remained stable at 1.2 percent, which was just below the standard for both years.

Two Waushara County communities, the Village of Lohrville and the Town of Warren, had no houses for sale in 1990. Other Waushara County communities with tight housing markets

included the towns of Aurora (1.2%), Bloomfield (1.5%), Plainfield (0.7%), Poy Sippi (1.5%), Rose (1.2%) and Saxeville (1.5%). Between 1990 and 2000, the housing market became more constrained in the county. As a result, by 2000, three communities (City Berlin, Village of Hancock and the Town of Richford) had vacancies rates of zero percent, while another ten communities (towns of Aurora – 0.9%, Bloomfield – 0.9%, Coloma - 0.9%, Mount Morris – 1.4%, Oasis – 1.5%, Poy Sippi – 0.9%, Saxeville – 1.1%, Warren – 0.9% and Wautoma - 1.5%) were at or below the homeowner vacancy rate standard of 1.5 percent.

A drop in the vacancy rate is usually related to the increase in the number of owner-occupied units. Since the vacancy rate is a measure of the number of units for sale compared to the number of owner-occupied units, the number of units for sale is expected to rise as the total number of owner-occupied units rise in order to accommodate the growth in households. However, this did not occur in the county in the 1990's. According to the Census in 1990, Waushara County had 153 houses for sale out of 12,246 total housing units and 147 houses for sale in 2000, out of a total of 13,667. It is also necessary to mention that although some communities surpassed the homeowner vacancy rate, the number of units for sale in the individual communities remained small. ***The small number of units coupled with lower vacancy rates means that communities likely had an inadequate number of units on the market to provide choice for prospective homebuyers.***

Rental Housing

In 1990, rental vacancy rates for Waushara County (8.5%) was above the vacancy standard of 5.0 percent, which would seem to indicate that overall the county had more than an adequate supply of housing units for rent (Appendix B, Tables B-7 and B-8). In comparison, the rental vacancy rate for Wisconsin was 4.7 percent.

Between 1990 and 2000, the number of rentals and the rental vacancy rate decreased in Waushara County, whereas the number of rentals and the rental vacancy rate increased at the State level. In 2000, Waushara County and Wisconsin had vacancy rates above 5.0 percent. **The rental vacancy rate for Waushara County, at 6.8 percent, was higher than the state's rental vacancy rate of 5.6 percent.**

Three Waushara Communities (Village of Lohrville and the towns of Oasis and Warren) had no units for rent in 1990, while another ten communities (Village of Redgranite and the towns of Deerfield – 5.0%, Hancock – 3.7%, Leon – 4.2%, Marion – 1.5%, Plainfield – 2.3%, Poy Sippi – 3.8%, Rose - 3.3%, Saxeville – 2.0% and Wautoma – 3.9%) had vacancy rates at or below the rental vacancy standard of 5.0 percent. Combined, the number of units for rent in these 13 Waushara County communities was 17 for an average of 1.3 units per community. Between 1990 and 2000, rental vacancy rates became tighter in Waushara County. As a result, by 2000 four communities (Village of Lohrville and the towns of Coloma, Leon, Oasis and Warren) had no units for rent, while another five communities (Village of Coloma and the towns of Bloomfield – 4.9%, Rose – 4.2%, Saxeville – 2.6% and Springwater – 1.6%) had vacancy rates of less than the rental vacancy standard of 5.0 percent.

As with the number of homes for sale, the number of housing units for rent in Waushara communities was also small. With only a small number of units to choose from, the likelihood that a rental unit will meet the needs of prospective renters are very small.

Seasonal Units

Seasonal units are units intended for use only in certain seasons or for weekend or other occasional use throughout the year. They include properties held for summer or winter sports or recreation such as summer cottages or hunting cabins. They also include time-share units and may include housing for loggers.

Between 1990 and 2000, the number of seasonal units declined in the county and state. The share of vacant units identified as seasonal showed mixed results. The share of vacant units identified as seasonal increased in Waushara County but declined in Wisconsin (Appendix B, Tables B-7 and B-8). ***Between 1990 and 2000, the share of vacant units identified as seasonal increased from 83.9 percent in Waushara County to 85.3 percent in 2000.*** At the state level, the share of vacant units declined from 64.5 percent of all vacant units in 1990 to 60.9 percent in 2000.

Other Vacant

Other vacant units include: migrant housing; units rented or sold, but not yet occupied; and units held for occupancy by a caretaker or janitor and units held for personal reasons of the owner, but not classified as seasonal. At the state and county level, units held for occupancy by a caretaker or janitor and units held for personal reasons of the owner, but not classified as seasonal comprised the largest segment of the other vacant unit category. Migrant housing does exist within Waushara County³ and can be found in the towns of Dakota, Poy Sippi, Richford, Rose, Springwater and Wautoma. The other vacant units listed were a mix of units rented or sold, but not yet occupied and units held for occupancy by a caretaker or janitor and units held for personal reason of the owner.

According to the Census, other vacant units comprised 10.0 percent of all vacant units for the Waushara County in 1990 (Appendix B, Tables B-7 and B-8). Between 1990 and 2000, the number and share of other vacant units fell in the county. By 2000, other vacant units included 8.9 percent of all vacant units in Waushara County. Waushara County reported 463 other vacant units in the 1990 Census. Between 1990 and 2000, the number of other vacant units decreased to 387 in the county.

Owner-Occupied Housing Stock Value

Owner-occupied housing stock values can provide information about trends in property values, housing demand and choice within the housing market. Housing stock values can also help provide prospective new businesses with information regarding how accessible housing will be for their employees.

Median Housing Value Trends: A Broad Historical Perspective

State and county level information indicate that owner-occupied housing values have risen substantially since 1970⁴. The largest growth in median housing values occurred in the 1970's. Between 1970 and 1980, median housing prices more than doubled in response to inflationary

³ Status of Migrant Labor Camps, 2008. Wisconsin Department of Workforce Development Migrant, Refugee, and Labor Services.

⁴ U.S. Census. 1970, 1980, 1990 and 2000.

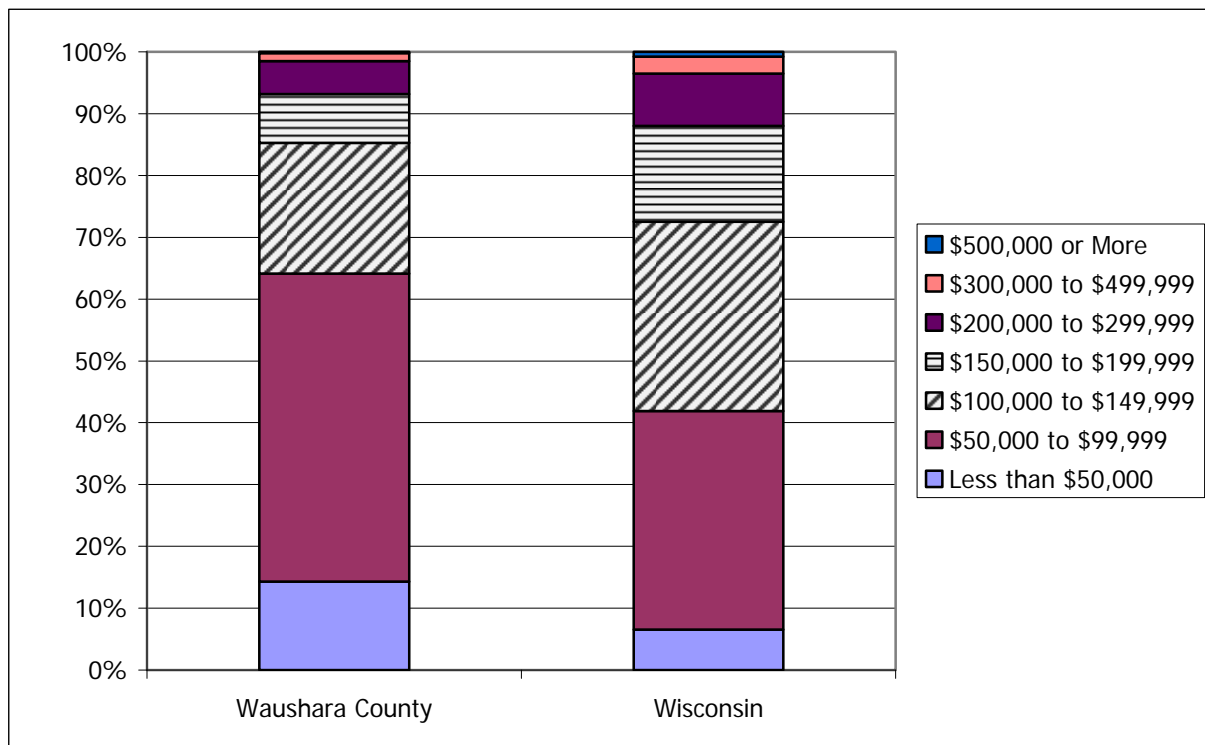
pressures during the late 1970's and increased demand as baby-boomers entered the housing market. Housing prices continued to rise during the 1980's, but at a much slower rate. Housing prices again increased substantially in the 1990's. Lower interest rates and competitive loan products allowed home buyers the opportunity to purchase a higher value home, and the market responded by increasing the average home size for new construction⁵. The number of expected amenities in a home also increased. Communities contributed to the rise in housing prices by increasing minimum lot sizes and minimum square footage. Children of baby-boomers began entering the housing market during this decade, which put additional pressure on the housing market. The increased demand for starter homes and lack of supply drove the value of existing starter homes up substantially.

Current Median Housing Value Trends

By 2000, the median housing value for Waushara County had risen from \$10,600 in 1970 to \$85,100; and the median housing value for Wisconsin had risen from \$17,300 to \$112,200 (Figure 2-3; Appendix B, Table B-9). In 2000, only two Waushara communities had median housing values above the state average of \$112,200; the Waushara portion of the City of Berlin (\$208,300) and the Town of Springwater (\$119,300). Communities with the lowest median housing values included the villages of Hancock (\$56,900) and Redgranite (\$59,100).

Current Values by Price Range

Figure 2-3. Housing Values by Range, 2000



Source: U.S. Census, 2000.

⁵ In 1970, the average size of a new single family home in the U.S. was 1,500 sq. ft. By 2000, the average size of a new single family home in the U.S. was 2,266 sq.ft.

Over 85 percent of the owner-occupied housing stock in Waushara County and 72.5 percent in Wisconsin were valued at less than \$150,000 in 2000. The largest share of owner-occupied units by price range fell within the \$50,000 to \$99,999 range (Appendix B, Table B-9). Fifty percent (49.8%) of Waushara County's owner-occupied housing stock was valued at \$50,000 to \$99,999 compared to a third of the state's owner-occupied housing stock. In Waushara County and Wisconsin, 1.5 percent and 3.5 percent of the owner-occupied housing units were valued over \$300,000, respectively.

Housing Affordability

The relationship between housing costs and household income is an indicator of housing affordability, which is gauged by the proportion of household income expended for rent or home ownership costs. Rental costs include contract rent, plus the estimated average monthly cost of utilities and fuel. Owner costs include payments for mortgages, real estate taxes, fire hazard and flood insurance on the property, utilities and fuels. In 1989, the U.S. Department of Housing and Urban Development (HUD) raised the standard for determining whether rent or home ownership costs comprised a disproportionate share of income from 25 to 30 percent of gross household income. Households spending more than 30 percent of their income for housing may be at risk of losing their housing should they be confronted with unexpected bills or unemployment of one or more workers per household. Communities should be aware that maintenance and repair costs are excluded from this housing affordability formula, as are other outstanding debts, because these items will have policy impacts. Potential homeowners should be aware that these items are excluded from this housing affordability formula, as these items can impact their housing affordability and future financial stability.

Access to affordable housing is not only a quality of life consideration; it is also an integral part of a comprehensive economic development strategy. Communities need affordable housing for workers in order to retain existing companies and attract new companies to the area. Households which must spend a disproportionate amount of their income on housing will not have the resources to properly maintain their housing, nor will they have adequate disposable income for other living expenses, such as transportation, childcare, healthcare, food, and clothing. This in turn not only has a negative impact on the overall economy, it may also heighten resistance to property tax increases, which is a major source of revenue for many Wisconsin communities.

For persons on the bottom end of the economic ladder, affordable housing is particularly important. A recent study by the Hudson Institute and the Wisconsin Housing Partnership⁶ found that the most important factor for individuals to successfully move from welfare to work was their ability to find decent, stable affordable housing.

A review of housing stock values for Waushara County indicated that although housing values were on average lower than the state, many of those units were not affordable for county residents.

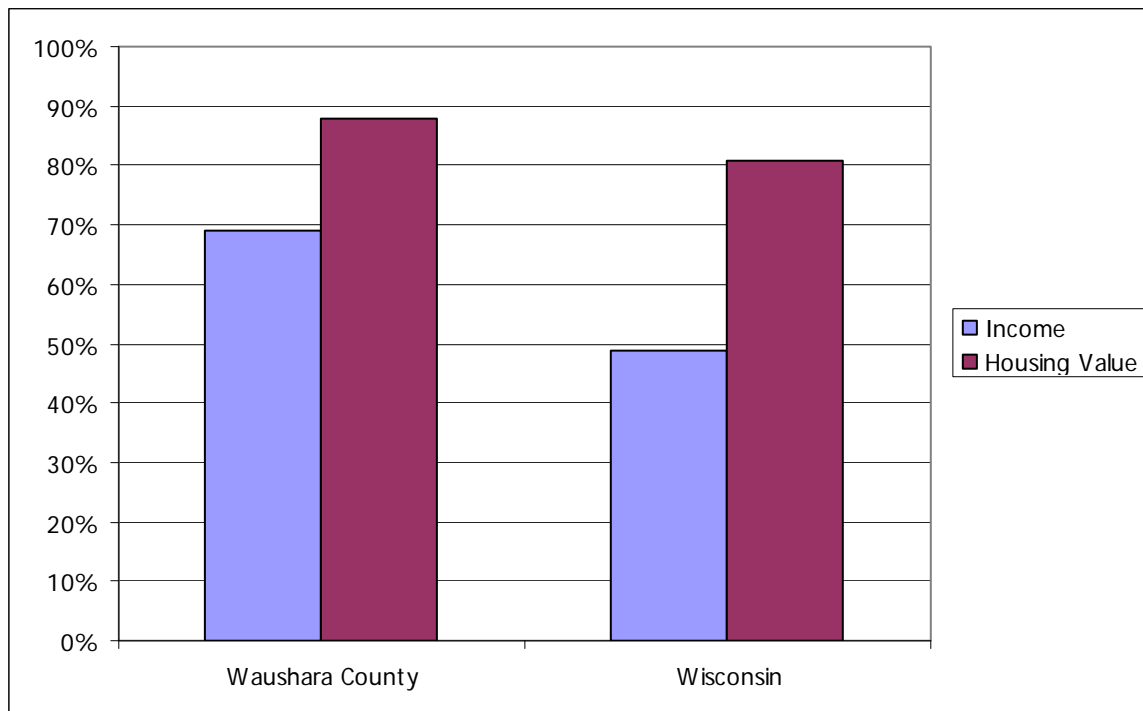
⁶ Rebecca J. Swartz, Brian Miller with Joanna Balsamo-Lilien, Hilary Murrish, 2001. *Making Housing Work for Working Families: Building Bridges between the Labor Market and the Housing Market.*

Owner-Occupied Housing

In 1989, 15.1 percent of homeowners in the state and 17.7 percent of homeowners in Waushara County were paying a disproportionate amount of their income for housing (Appendix B, Table B-10). ***Between 1989 and 1999, housing affordability became a larger issue for homeowners in the state and county. Almost twenty percent (19.7%) of County residents were paying a disproportionate share of their income for housing in 1999, compared to 17.8 percent of state residents*** (Figure 2-5). The change in housing affordability likely resulted from housing prices and values rising faster than incomes (Figure 2-4).

About a third of the homeowners in the Village of Hancock (34.3%) and the towns of Coloma (30.9%) and Richford (34.0%) were paying a disproportionate amount of their income on housing in 1989. By 1999, a higher percentage of homeowners were paying a disproportionate amount of their income on housing. Over a quarter of the homeowners were paying a disproportionate amount of their income on housing in the Waushara County portion of the City of Berlin (40.0%), Village of Coloma (26.5%), and the towns of Bloomfield (26.0%), Mount Morris (31.3%), Oasis (26.6%) and Plainfield (25.5%).

Figure 2-4. Change in Median Housing Values Compared To Change in Median Household Income, 1989 to 1999



Source: U.S. Census, 1990 and 2000.

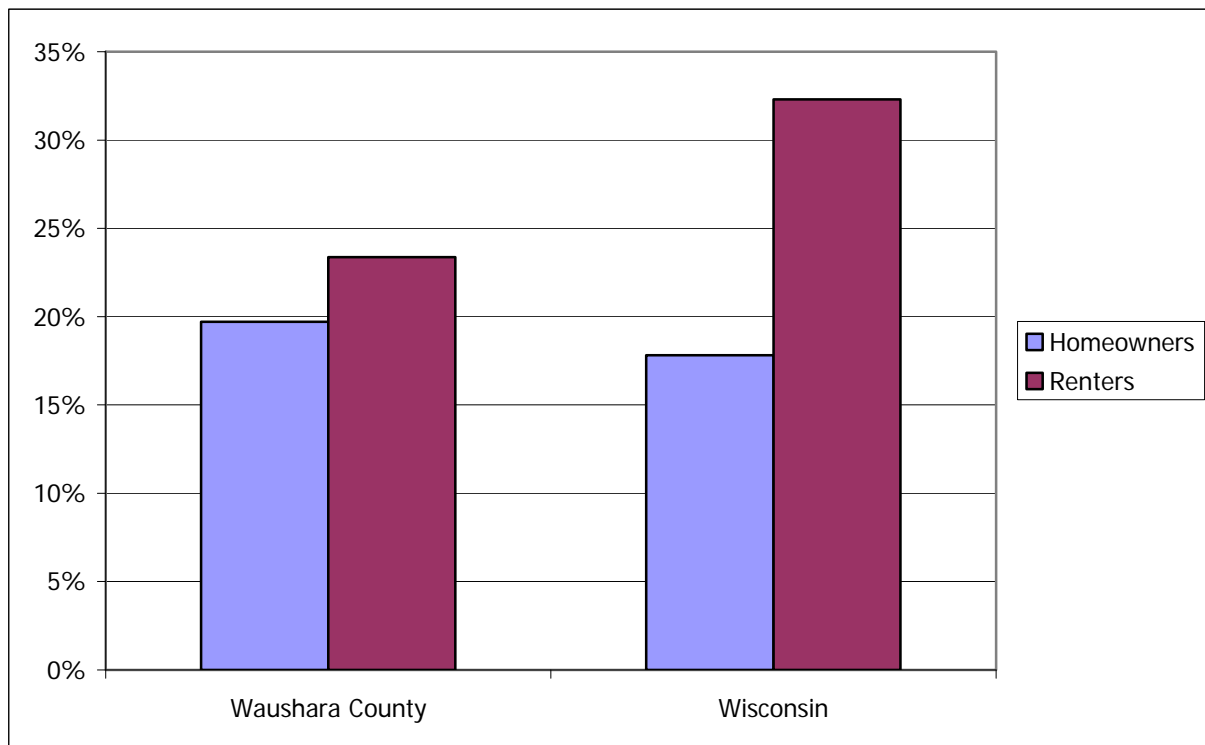
Renter-Occupied Housing

Census data indicates that renters had far greater difficulty finding affordable housing than homeowners. ***In 1989, 36.0 percent of renters in the state and 34.6 percent of renters in the county paid a disproportionate share of their income for housing***, compared to 15.1 percent and 17.7 percent of homeowners, respectively (Appendix B, Table B-10).

Between 1989 and 1999, the number and share of households paying a disproportionate share of their income for rental housing decreased. ***By 1999, the share of renters paying more than 30% of their income for housing had decreased to 23.4 percent of Waushara County residents and 32.3 percent of state residents*** (Figure 2-5).

In 1989, over half the renters were paying a disproportionate share of their income for housing in the Village of Wild Rose (59.4%), and the towns of Coloma (56.5%), Hancock (52.6%) and Warren (61.5%). Between 1989 and 1999, housing became more affordable for renters in Waushara County, however within the following communities, over a quarter of the renters were still paying more than 30 percent of their income on housing: the Waushara portion of the City of Berlin (37.5%), City of Wautoma (26.3%), villages of Lohrville (54.6%) and Redgranite (31.8%) and the towns of Marion (30.7%), Mount Morris (26.1%), Plainfield (26.1%), Poy Sippi (28.6%), and Wautoma (28.2%).

Figure 2-5. Percent of Households for which Housing is Not Affordable, 1999



Source: U.S. Census, 2000.

Housing Conditions

Two Census variables often used for determining housing conditions include units which lack complete plumbing facilities and overcrowded units. Complete plumbing facilities include hot and cold piped water, flush toilet and a bathtub or shower. If any of these three facilities is missing, the housing unit is classified as lacking complete plumbing facilities. The Census defines overcrowding as more than one person per room in a dwelling unit.

By 2000, less than one percent (0.7%) of the occupied units within Waushara County was lacking complete plumbing facilities. Only four communities (towns of Coloma – 2.1%, Plainfield – 3.4%, Richford – 3.6% and the Rose – 2.9%) within the county are

lacking complete plumbing systems in over two percent of the occupied units. ***Slightly more than two percent (2.1%) of the total dwelling units within Waushara County were overcrowded*** (Appendix B, Table B-11)⁷. Census information indicates that most communities within Waushara have some, though minor overcrowding. Communities in which overcrowding was experienced in over four percent of the total dwelling units included the villages of Coloma (4.8%) and Hancock (6.3%) and the towns of Dakota (4.3%) and Richford (6.6%).

Subsidized and Special Needs Housing

Subsidized and special needs housing should be available for individuals who, because of financial difficulties, domestic violence situations, disabilities, age, alcohol and drug abuse problems, and/or insufficient life skills, need housing assistance or housing designed to accommodate their needs. In some instances, extended family structures and finances may allow families or individuals to cope privately with special needs. Two such examples would be when a child cares for an elderly parent in their own home or when a parent cares for a disabled child in their own home. In most instances, however, some form of assistance is needed. The housing needs of these populations vary based on their circumstances, health, economic conditions and success of educational, training, treatment or counseling programs.

Table 2-3 shows the location of federally assisted rental units by type for Waushara County. ***There were a total of 120 federally assisted rental units in the county in 2005.***

Table 2-3. Federally Assisted Rental Units, 2005

County	Jurisdiction	Elderly Units	Family Units	Other Units	Total Units
Waushara	C. Wautoma	32	14	2	48
	V. Coloma	0	12	0	12
	V. Redgranite	21	0	3	24
	V. Wild Rose	16	0	0	16
	T. Poy Sippi	0	20	0	20

Table 2-4. Assisted Living Options, 2005

County	Jurisdiction	Adult Family Home Capacity	Community Based Res. Care Facility Capacity	Residential Care Apartment Units	Total Units
Waushara	C. Wautoma	11	70	53	134
	V. Coloma	0	16	0	16
	V. Redgranite	0	20	40	60
	V. Wild Rose	0	8	0	8

Source: WI Department of Health and Family Services Assisted Living Directories, website, 2005.

⁷ US Census 2000.

Assisted living options in Waushara County are listed in Table 2-4. All elderly housing options listed are located in incorporated communities. This likely reflects the fact that funding agencies are more likely to provide resources and developers are more likely to build these facilities in areas with easy access to health care, transportation, other services and grocery stores. Since many residents in these facilities may have mobility limitations, they may also prefer to be located in an area with easy access to goods and services.

Housing Needs Analysis

As part of the regional planning process, ECWRPC developed a matrix of housing conditions to measure housing stress within the region. This matrix uses a combination of ten Census variables to measure five housing characteristics: housing affordability, housing availability, the prevailing age of units compared to housing values, overcrowding and presence of plumbing facilities. A compilation of these variables show that Waushara County has a minor amount of housing stress (Appendix B, Tables B-12 and B-13). Based on inventory analysis, the largest housing issue facing Waushara County is Rental and Owner Occupied housing affordability.

Housing Affordability

Housing affordability is currently an issue in the county. Renters (23.4%) have a slightly more difficult time affording housing costs than homeowners (19.7%). The need for affordable housing can be addressed by building units which are affordable for residents, subsidizing the housing costs for existing units, and/or increasing incomes to make the existing housing more affordable.

Housing Available for Rent or Sale

Waushara County has an adequate share of units for rent. However, given the small number of units available, Waushara County and the communities located within the county may wish to evaluate the market demand to see if the units for rent provide an adequate choice for those seeking to rent. Homeowner vacancy rates indicate that overall Waushara County has an adequate owner-occupied housing market. Given the number of units for sale in the various communities, some households may be discouraged into moving into some of the communities in Waushara County.

Age of Occupied Dwelling Units and Owner-Occupied Housing Values

This variable compares the percentage of housing stock that was over 40 years of age to the percentage of housing stock that is valued at less than \$50,000. Slightly more than fourteen percent (14.3%) of the housing stock in Waushara County is valued at less than \$50,000. So while 38.7 percent of the housing stock is over 40 years old, it is likely that most of these units are well maintained.

Overcrowding

In 2000, overcrowding affected a small share (2.1%) of the households in Waushara County. Nevertheless, overcrowding could increase if households choose to double up or move to smaller units in an effort to lower their housing costs.

Plumbing

In 2000, units lacking complete plumbing facilities occurred in only 0.7 percent of the total occupied housing units in Waushara County.

Community Input Regarding Housing Needs

Statistical information can only capture a portion of the information necessary to determine housing needs and a community's ability to meet those needs. Market demand and supply characteristics (capacity), socio-economic changes (fluidity) and personal desires and biases (individual choice/NIMBYism⁸) also influence housing needs.

Continuum of Care Needs Assessment

The Continuum of Care⁹ Needs Assessment was a county-wide effort to identify housing resources and to identify and prioritize housing needs of homeless persons within the county. As such, it was a more focused assessment. A number of agencies and individuals were included in this information gathering process including: Waushara County's Department of Human Services, Community Programs, UW-Extension and Job Center; WI Department of Workforce Development Migrant, Refugee and Labor Services; Family Health Medical and Dental Center; All-Area Counseling; CAP Services; and Legal Action of Wisconsin. Individual participants included two homeless members, a representative from the Waushara County Coordinated Community Response Team for domestic violence issues, three persons of Hispanic origin and 11 victims of domestic violence. A variety of needs were identified, including affordable housing, transportation, childcare, education, employment, medical care, counseling/case management, legal services, and others. When these needs were prioritized, affordable permanent housing ranked as the number one need in Waushara County. The need for permanent affordable housing was followed by affordable transitional housing, legal services, case management/assistance with linkage to other community resources, support groups and assistance obtaining employment or training. CAP Services submitted a grant application to request funds to help meet identified needs, and was awarded \$105,025, which will be used to provide affordable housing and support services to victims of domestic abuse in Portage, Waupaca, Waushara and Marquette Counties.

Homelessness

According to the U.S. Department of Housing and Urban Development (HUD) the term "homeless" or "homeless individual or homeless person" includes: (1) an individual who lacks a fixed, regular, and adequate nighttime residence and (2) an individual who has a primary nighttime residence that is: a supervised publicly or privately operated shelter designed to provide temporary living accommodations (including welfare hotels, congregate shelters, and transitional housing for the mentally ill); or an institution that provides a temporary residence for individuals intended to be institutionalized; or a public or private place not designed for, or ordinarily used as, a regular sleeping accommodation for human beings¹⁰.

⁸ NIMBY: Not In My Back Yard

⁹ The Continuum of Care model is a coordinated effort between providers of housing and housing related services to move persons from homelessness into emergency shelter, through transitional housing to long-term affordable housing. The Continuum of Care also works to prevent persons at risk of homelessness from becoming homeless.

¹⁰ The United States Code contains the official federal definition of homeless. In Title 42, Chapter 119, Subchapter 1.

Even though very little information on homelessness is available for Waushara County, it does exist and should be discussed in the context of this plan. ***There are no emergency shelters in Waushara County for the general public.*** The general public must utilize shelters in Stevens Point, Oshkosh or the Fox Cities. However two shelters (Aurora Center and Naomi House) are present in the county. The Aurora Center is owned and operated by United Migrant Opportunity Services (UMOS) for seasonal migrant farm workers and their families. Naomi House is a new facility in Wautoma for pregnant women or women with children who are at risk of becoming homeless. It has a capacity for three families at a time. In 2008, they housed four women and five children.

Twice a year, a point in time survey is compiled by the Waushara County Department of Health and Human Services. ***On January 28, 2009***, the last time a point in time survey was compiled, ***four people were sheltered in an emergency shelter and six people were unsheltered.***¹¹ It should be noted that a point in time survey only includes information on that one day in time.

Foreclosure and eviction rates are an indication of potential homelessness or the need to double up on housing. It should be noted that the filing of an eviction action Summons and Complaint with a court date (in 7 days), meets HUD's definition of homelessness. The filing of a foreclosure case is not an immediate threat of homelessness because of Wisconsin's redemptive period which is either six or 12 months from when the judgment is granted. Additionally a filing does not indicate how many judgments were granted. ***In 2008, there were 169 foreclosure actions filed in Waushara County, which was a 47 percent increase from the 115 that were filed in 2007.*** Evictions also increased between 2007 and 2008. ***In 2008 there were 48 eviction actions or a 41 percent increase from 2007 when a total of 34 eviction actions took place.***¹²

The school district homeless coordinator's report also indicates that more students in Waushara County are homeless. During the 2007/2008 school year, nine students were reported as being homeless. As of February 2009, a total of 12 students have been reported as homeless for the partial school year of 2008/2009.

Other homeless information that has been reported in the county includes: seven transient homeless individuals were served in 2008¹³; and four household lodging vouchers were issued by the county.

Key Findings

Age of Occupied Dwelling Units

- Census information regarding the age of owner-occupied units indicates that Waushara County was well established by 1960.
- Between 1990 and 2000, Waushara County experienced a higher level of growth in owner-occupied units than was indicated in previous Census periods (1960 to 1990) based on the age of structure information provided in the 1990 and 2000 Censuses.

¹¹ Wisconsin Point in Time Form, for Waushara County Department of Human Services, January 28, 2009.

¹² HUD's Emergency Shelter Grant, Transitional Housing Program, Homelessness Prevention Program Grant Application for 2009/2010.

¹³ Waushara County DHS Report for Year 2008.

Change in Structural Type

- As with most rural counties, the dominant housing type in Waushara County is single family housing.
- By 2000, the share of single family units increased to 82.6% in Waushara County, while the number of mobile homes, trailer and others had decreased to 1,780 units or 13.0% of the total housing units.
- Communities within Waushara County also experienced a housing composition change between 1990 and 2000.

Occupancy Status

- Occupancy rates indicate that Waushara County had a higher percentage of seasonal units than the state, as a whole.
- The majority of occupied units within Waushara County are owner-occupied. Waushara County has a higher percentage of owner-occupied than the state.

Vacancy Status

- Countywide, the homeowner vacancy rate was 1.9 percent in 2000, which indicates that the county had an adequate number of homes on the market to meet demand.
- The small number of units coupled with lower vacancy rates means that communities likely had an inadequate number of units on the market to provide choice for prospective homebuyers in 2000.
- The rental vacancy rate for Waushara County, at 6.8 percent, was higher than the state's rental vacancy rate of 5.6 percent.
- Between 1990 and 2000, the share of vacant units identified as seasonal increased from 83.9 percent in Waushara County to 85.3 percent in 2000.

Owner-Occupied Housing Stock Value

- By 2000, the median housing value for Waushara County had risen from \$10,600 in 1970 to \$85,100; and the median housing value for Wisconsin had risen from \$17,300 to \$112,200.
- Over 85 percent of the owner-occupied housing stock in Waushara County and 72.5 percent in Wisconsin were valued at less than \$150,000 in 2000.

Housing Affordability

- A review of housing stock values for Waushara County indicated that although housing values were on average lower than the state, many of those units were not affordable for county residents.
- Between 1989 and 1999, housing affordability became a larger issue for homeowners in the state and county. Almost twenty percent (19.7%) of County residents were paying a disproportionate share of their income for housing in 1999, compared to 17.8 percent of state residents.
- In 1989, 36.0 percent of renters in the state and 34.6 percent of renters in the county paid a disproportionate share of their income for housing. By 1999, the share of renters

paying more than 30% of their income for housing had decreased to 23.4 percent of Waushara County residents and 32.3 percent of state residents.

Housing Conditions

- By 2000, less than one percent (0.7%) of the occupied units within Waushara County was lacking complete plumbing facilities.
- Slightly more than two percent (2.1%) of the total dwelling units within Waushara County were overcrowded in 2000.

Subsidized and Special Needs Housing

- There were a total of 120 federally assisted rental units in Waushara County in 2005.
- Assisted living options within Waushara County are located in the incorporated communities of the City of Wautoma (134 units) and the villages of Coloma (16 units), Redgranite (60 units) and the Village of Wild Rose (8 units).

Homelessness

- There are no emergency shelters in Waushara County for the general public.
- On January 28, 2009, four people were sheltered in an emergency shelter and six people were unsheltered.
- In 2008, there were 169 foreclosure actions filed in Waushara County, which was a 47 percent increase from the 115 that were filed in 2007.
- In 2008 there were 48 eviction actions or a 41 percent increase from 2007 when a total of 34 eviction actions took place.

INTERRELATIONSHIPS WITH OTHER PLAN ELEMENTS

Housing cannot be considered in isolation from other elements. Meeting the housing needs of Waushara County residents requires an adequate supply of reasonably priced land with the appropriate infrastructure, utilities and services, coupled with access to employment opportunities and dependable transportation options. Decisions regarding economic development, transportation, community and public facilities development, environmental quality and land use have an impact on housing choice, supply and affordability. Likewise, decisions made in the housing sector can influence the cost and efficiency of other plan elements.

Economic Development

Affordable housing is an integral part of a comprehensive economic development strategy. Companies are reluctant to relocate to communities without affordable housing for their workers. Existing companies may move out of the area if they cannot attract an adequate labor force. Labor shortages and high turnover rates resulting from a lack of affordable housing reduce service and productivity, increase administration and training costs, thereby discouraging business development and expansion. In addition, households which must spend a disproportionate amount of their income on housing will not have the resources to properly maintain their housing, nor will they have adequate disposable income for other living

expenses, such as transportation, childcare, healthcare, food, and clothing. All this in turn has a negative impact on the overall economy.

Redevelopment of vacant industrial or commercial properties could bring these properties back onto the tax rolls, increase revenue and improve the overall appearance of the community. In some instances, these buildings or locations may be more appropriate for commercial or industrial redevelopment. In other instances, or perhaps in combination with commercial redevelopment, the adaptive reuse of these properties may provide unique housing options and increase the supply of affordable housing, elderly housing and utilize space and structures which may no longer be appropriate for commercial or industrial uses. Apartments above stores can help retail and service establishments supplement their income. Appropriate home based businesses and/or owner-occupied units above or behind retail and service establishments can increase housing affordability, lower transportation costs and perhaps increase access to goods and services.

Transportation

A mix of transportation options is critical to meet personal mobility needs and decrease social isolation for individuals and individual households, particularly for those unable or unwilling to drive. Sidewalks and pedestrian/bicycle trails can provide a healthy, low cost alternative to the automobile for small unincorporated areas where homes, schools, places of business, employment and recreational facilities are in close proximity. For the majority of the county, however, paratransit service or a volunteer driver pool may be needed for those who cannot drive.

A good road network and highway system helps provide access to greater economic opportunities beyond those in the immediate vicinity, which can contribute to housing affordability, provided transportation costs to those areas is not prohibitive. As transportation costs rise, carpooling and vans may be a more cost-effective means of traveling between homes and places of employment.

Utilities and Community Facilities

Affordable housing and upscale employment are linked to education, experience and updating job skills. Financial literacy and life skills also help ensure households make good financial decisions and have the wherewithal to properly maintain their housing unit. As a result, a strong school system which adequately prepares students to meet the demands of the workplace is critical. Adult education, job training, retooling and programs to connect individuals with better economic opportunities also contribute to housing affordability. Programs/agencies which provide counseling, financial and investment literacy, life skills training and support groups/services contribute to household stability.

Good law enforcement, fire and EMS services are important to public and household safety. In turn, housing units and properties must be maintained, as poorly maintained housing may pose a health and/or fire hazard. Cluttered or overgrown drives may also limit emergency access to properties.

Accessible, reliable and affordable electrical and heating sources and services contribute to housing safety and affordability. Accessible, affordable and environmentally safe water and waste disposal sources and services are critical to public safety and housing affordability.

Other community and public facilities such as waste disposal options, recycling facilities, parks, libraries, childcare, eldercare, medical facilities and emergency shelters also contribute to an area's quality of life and the wellbeing of individual households. Communication, cooperation and coordination with the entities that provide these services are important to ensure that county residents have access to these services. New residents may appreciate information regarding the location and accessibility of these services.

Agricultural Resources

As new households are formed, more land will be converted from farms, forests and open space to residential uses. Farmland is also under pressure in many areas of the county from seasonal home development. The amount of land converted will vary depending on the choices made in terms of the density, design and placement of that development.

Choices must be made. Residential land uses have higher property values than farmland, so their expansion is seen as an opportunity to increase tax revenues. Little attention is paid to net tax gains, even though various Farmland Trust studies¹⁴ have shown that the cost of services for other forms of development, particularly single family residential, typically exceeds tax revenues generated by that development, while taxes generated by farmland exceed the cost of services for farmland.

As farmers reach retirement age, many of these individuals see farmland conversion as a quick, easy retirement option, especially in the face of increased conflicts between the realities of farming and the expectation of exurban residents. Modern day industrial farming requires substantial monetary investments, which makes it difficult for young farmers to enter the field. Farming is also under considerable economic pressure, as production costs rise and profits from food sales shift away from farmers to food processing and sales.

Allowing a farmer to develop his land provides housing opportunities and cash benefits for that farmer. However, it also increases the need for additional public services which require additional tax revenues. Nonfarm development may also cause economic, land use and transportation conflicts for the farmer who wishes to maintain or expand his operation.

Natural Resources

Building materials, such as lumber and nonmetallic resources are needed for residential development. The density and location of residential development also impacts the amount of land consumed for development and can fragment ecosystems and place undue pressure on our natural resources. As humans consume more land, the amenities, such as the open space and farm and forest land that attracted initial settlement disappears. Human/animal interaction also increases. Communities must deal with a rising number of complaints about bird feces in parks and on lawns; deer and rabbits damaging trees, shrubs and gardens; and in some

¹⁴ American Farmland Trust, 2004. *Farmland Information Center Fact Sheet: Cost of Community Services Studies.*

instances bears foraging through dumps and garbage cans. Pressure is also placed on fragile wildlife habitats, such as migration corridors.

Many communities within the county have established large minimum lot sizes in an effort to preserve rural character. However, the demand for large lot subdivisions, scattered site housing and seasonal homes is, in reality, fragmenting wildlife habitats and changing the appearance and character of the landscape. If communities have an interest in preserving natural resources and/or their rural character, other implementation tools may better serve that objective.

Cultural Resources

Existing housing stock is an important resource. It provides community character and reflects the historical development of the county. In some instances, the material in some of these units is no longer available. To lose these units is to reduce housing choices and to lose a part of the county's history, cultural and community identity.

Environmental regulations designed to protect the health and safety of individuals such as the lead base paint remediation and asbestos removal rules are extremely costly to implement. These regulations make it cost prohibitive to retain historical features on affordable properties, which are not on the historic register and/or eligible for the historic register, yet contain period features. However, removing these historical features destroys the home's character and lowers its potential market value.

Land Use

An adequate supply of reasonably priced land is a critical component for affordable housing. How much land is required depends on the density, design and placement of residential development. Density, design and placement of residential development not only impacts the amount of land consumed for development, it also impacts the effectiveness and efficiency of public services (law enforcement, fire, roads, etc.), the cost of public and social services, the quality of the environment, the ease of access to goods and services and the mobility of those unable or unwilling to drive automobiles.

Residential, commercial and industrial demand for land increases the value of that land. As land prices rise, converting that land from farm, forest and open space becomes more attractive; and long term consequences such as farm and forest land shortages, loss of wildlife habitat, increased public costs, changes in community character and lack of open space are often not considered.

Intergovernmental Cooperation

All levels of government influence housing supply, availability, location, choice and access. Interaction between government, nonprofit and private sectors can facilitate or discourage housing affordability, choice and access.

POLICIES AND PROGRAMS

Regional, County and Local Policies

East Central recently completed a regional comprehensive plan. Five core housing goals have been identified:

- To help ensure that an adequate supply of affordable housing in the region exists to support economic development efforts and ensure that every household has access to shelter.
- To work with others to increase housing options, so that housing choices better reflect the need of individual households.
- To support the preservation and rehabilitation of the existing housing stock within the region.
- To promote increased coordination and cooperation between governments, and between public, nonprofit and private sectors to increase housing affordability, choice and access within the region.

Housing is designed to foster community and neighborhood cohesion and available housing choices are integrated with community facilities and multimodal transportation.

In January 2004, East Central adopted the report, *Overcoming Barriers to Affordable Housing in the East Central Region*. This report is a compilation of input from urban and rural residents, who identified barriers to affordable housing in their communities and suggested potential solutions that local citizens, county and local governments, developers and other housing providers can use to address these issues. Some of the identified issues and potential solutions which are pertinent to residents in Waushara County include senior housing issues, farm worker and migrant housing issues, absentee landlords, income and economic development barriers and access to funding, to name a few. This report is available online at: www.eastcentralrpc.org and through the ECWRPC office. Communities and agencies are encouraged to review the options presented and choose the best option or combination of options which best serve the needs of their residents and clients. Communities and individuals from the private and nonprofit sectors are encouraged to develop additional solutions and share those solutions with others to help improve the quality of life for all residents in our communities.

CAP Services is a regional community action program which aids low income persons in attaining economic and emotional self-sufficiency. They use a number of strategies to reach this goal, including advocacy, administering programs and grants, developing resources and partnering with public, private and other nonprofit or community groups. CAP Services provides a number of services in Waushara County. They also work closely with other agencies. For example, CAP Services partners with the Waushara County Habitat for Humanity to make more efficient use of nonprofit resources. During the 2005 Continuum of Care application process, CAP Services met with a number of agencies and individuals to identify and prioritize housing needs within Waushara County. These agencies included: the Waushara County Department of Human Services, Community Programs, UW-Extension and the Job Center; the WI Department

of Workforce Development Migrant, Refugee and Labor Services; Family Health Medical and Dental Center; All-Area Counseling; and Legal Action of Wisconsin. These agencies plan to meet on a quarterly basis to discuss how best to meet the needs of the area's homeless, including the Hispanic/Latino population.

Waushara County has a number of departments which impact access to housing and housing services for residents. Some departments such as the Departments of Aging, Human Services, UW-Extension and the Veteran's office provide information and support for residents. Other departments such as Land Records, Public Health, Register of Deeds and Zoning and Land Conservation engage in administrative functions such as enforcing codes and zoning ordinances and collecting fees. These administrative functions can aid or hinder the housing needs of residents within Waushara County communities.

Waushara County administers and enforces the uniform dwelling code (UDC) within the majority of the county. Exceptions are the City of Wautoma and the Town of Warren. Some communities in the state have found that enforcing the state's uniform dwelling code is not necessarily compatible with preserving some of their existing and historical housing stock. Many of these structures are decent, safe and affordable, but they do not conform to the UDC. This potential conflict can be resolved by adopting a separate building code for older structures which protects the characteristics of those structures while also protecting the health and safety of residents.

Federal, State and Regional Programs

Funding and technical assistance for housing programs are available from several federal, state and regional agencies. A listing of these programs follows.

Federal Agencies

United States Department of Agriculture

Rural Development Housing Programs. USDA Rural Development offers a variety of housing products including single family, multi-family and farm labor housing products. Assistance can be in the form of a loan, grant or technical assistance. Information about individual products can be obtained from the USDA Rural Development website at: <http://www.rurdev.usda.gov/rhs>. Website information is provided in English and Spanish. Information can also be obtained from the state USDA Rural Development office, which is located in Stevens Point. Their phone number is: (715) 345-7615.

United States Department of Housing and Urban Development

Brownfield Economic Development Initiative Grant. This grant can be used for brownfield sites (converting old industrial to residential). BEDI and Section 108 funds must be used in conjunction with the same economic development project, and a request for new Section 108 loan guarantee authority must accompany each BEDI application. Funds can be used to benefit low-moderate income persons, prevent/eliminate slum and blight, and address imminent threats and urgent needs (usually follow the same guidelines as CDBG). More specifically, funds can be used for land writedowns, site remediation costs, funding reserves, over-collateralizing the Section 108 loan, direct enhancement of the security of the Section 108

loan, and provisions of financing to for-profit businesses at below market interest rates. The maximum grant amount is \$1 million, and the minimum BEDI to Section 108 ratio is 1:1. For more information, contact David Kaminsky in HUD's Office of Economic Development at (202) 708-0614 ext. 4612 or visit the web site at: <http://www.hud.gov/offices/cpd/economicdevelopment/programs/bedi/index.cfm>.

Community Development Block Grant (small cities). Small cities, towns, and villages with populations of less than 50,000 are eligible to apply for this grant. Funds are used for housing and neighborhood improvement activities for low to moderate income households, including rehabilitation, acquisition, relocation, demolition of dilapidated structures, and handicap accessibility improvements. The Small Cities Community Development Block Grant is administered by states. For more information, visit the Wisconsin Department of Commerce Bureau Housing website at: <http://commerce.wi.gov/housing/cd-boh-Community-Development-Block-Grant-CDBG.html>, or contact Caryn Stone at (608) 267-3682.

Fair Housing Assistance Program (FHAP). The federal fair housing law makes it illegal to discriminate in housing based on race, color, national origin, religion, sex, disability or familial status (i.e., the presence of children) in the sale, rental, or financing of housing. The State of Wisconsin also makes it illegal to discriminate based on age, marital status, lawful source of income and sexual orientation. FHAP provides funds to states to conduct intake of fair housing complaints, investigate complaints, counsel those who believe they have been denied equal access to housing and do systemic investigations. The program also provides outreach and education to consumers, advocates and the general public and technical assistance and training for real estate agents, property owners and managers and other members of the housing industry. General information about the FHAP can be obtained from the HUD website: <http://www.hud.gov/offices/fheo/partners/FHAP/index.cfm>. For local information and assistance, Waushara County residents and officials should initially contact the Wisconsin Department of Workforce Development Equal Rights Division Civil Right Bureau. Visit their website at: <http://www.dwd.state.wi.us/er/> or contact LeAnna Ware at: (608)266-1997.

Multi-family Housing Programs. HUD offers a number of multi-family programs through the state. These programs fund facility purchases, construction, rehabilitation, lead based paint abatement¹⁵, energy conservation and accessibility improvements. For more information, visit the Wisconsin Department of Commerce Bureau Housing website at: <http://commerce.wi.gov/housing/#HomePrograms> or contact CAP Services ((920) 787-3949), as CAP Services administers many of these programs in Waushara County.

Public Housing Programs. HUD offers a number of public housing programs for the development/redevelopment or management of public housing authorities, rental assistance through the Section 8 program and some limited homeownership opportunities. General information can be found at: <http://www.hud.gov/progdesc/pihindx.cfm>. Waushara County currently has no public housing authority.

Single Family Housing Programs. HUD offers a number of single family home programs, including homebuyer education and counseling, downpayment assistance, rehabilitation, weatherization, mortgage insurance and reverse mortgages. For general information, visit HUD's website at: <http://www.hud.gov/offices/hsg/sfh/ins/singlefamily.cfm>. Some of these

¹⁵ Home Lead Assessments are only performed after a child has been poisoned.

products, such as FHA loans, are available through approved lending institutions. Access to HUD single family home programs can also be obtained through WHEDA or the Wisconsin Department of Commerce Bureau Housing. Information about products WHEDA provides can be found on WHEDA's website at: <http://www.wheda.com/root/WhedaProducts/Residential/Default.aspx?id=182>, or you may contact: Arlene Scalzo at: 1-800-334-6873 Ext. 623 for information. For information about products provided through the state Bureau of Housing, visit the Wisconsin Department of Commerce Bureau Housing website at: <http://commerce.wi.gov/housing/#HomePrograms> or contact: Betty Kalscheur at (608) 267-6904. CAP Services also administers some single family home programs in Waushara County. The local phone number for CAP Services is (920) 787-3949. Their website address is: http://www.capserv.org/pages/About_Us.html.

Special Needs Programs. HUD also funds programs for special need populations through the state. Information regarding emergency shelter/transitional housing programs or housing opportunities for people with AIDS can be found at the Wisconsin Department of Commerce Bureau Housing website at: <http://commerce.wi.gov/housing/#HomePrograms> or by contacting Judy Wilcox at: (608) 266-9388. The state strongly encourages joint emergency shelter/transitional housing (ESG/THS) grant applications. CAP Services has willingly served as the grant writer for ESG and THS grant applications for Waushara County agencies.

Federal Financial Institutions Examination Council

Community Reinvestment Act. Through the Community Reinvestment Act (CRA), banks/financial institutions help meet the credit/investment needs of their markets with the primary purpose of community development. This is in part accomplished through direct grants/investments or loans to nonprofits or agencies to develop affordable housing. Direct loans are also given to individual households of which a certain percentage must go to low to moderate income households. More information can be obtained from their website: <http://www.ffiec.gov/cra/default.htm> or from your local financial institution.

United States Department of Veterans Affairs

Home Loan Guaranty Service. The Veterans Administration provides a variety of benefits for eligible veterans and their dependents. Housing products include low cost loans for purchase, construction or repair of owner-occupied housing. General information can be obtained from the Veteran's Affairs website at: <http://www.homeloans.va.gov/index.htm>. Two Waushara County websites provide information for veterans and their dependents: <http://www.co.waushara.wi.us/veterans.htm> and <http://www.visitwaushara.com>. The Waushara County Veterans Service Office can also be contacted at (920) 787-0446 for information about specific programs.

National Organizations

National Association of Home Builders (NAHB). The National Association of Home Builders is a trade organization that represents the building industry. They provide information and education about construction codes and standards, national economic and housing statistics, a variety of housing issues, jobs within the housing industry and information about local builders who are members of their organization. Visit their website at: <http://www.nahb.org/> for more information.

National Low Income Housing Coalition (NLIHC). NLIHC is a national advocacy group which conducts research on low income housing issues, provides information and data on a variety of housing or housing related issues affecting low income families and publishes reports and data regarding low income housing issues and legislation. Their mission is to end the affordable housing crisis for low income families. Information about NLIHC and its activities can be found at: <http://www.nlihc.org/>. NLIHC also has a number of state partners. Wisconsin has two State Coalition Partners, the Wisconsin Partnership for Housing Development, Inc. and Housing For All. For information about the Wisconsin Partnership for Housing Development, visit their website at: <http://www.wphd.org/> or call their Madison office at: (608) 258-5560. For information about Housing For All, contact Brian Peters of Independence First at: (414) 291-7520.

United Migrant Opportunity Services (UMOS). UMOs works with federal, state and local agencies, employers, for profit and nonprofit agencies to meet the housing needs of migrant workers. Call: (920) 787-4617 for information about services and programs in Waushara County. UMOs also operates an emergency shelter in Aurora for a portion of the year. When the Aurora Center Emergency Shelter is open, it can be reached at: (920) 361-1266. Otherwise, persons needing shelter should call (800) 279-8667 for assistance. Information about UMOs's housing programs can also be found on their website at: http://www.umos.org/social_services/housing_overview.aspx.

State Agencies

University of Wisconsin - Extension

Family Living Program. The family living program provides assistance to families through Waushara County. Some of these programs include financial education and parent education.

Homeowner Resources. UW-Extension provides a number of publications and materials to aid homeowners. Topics include home care, home maintenance and repair, life skills, financial information, gardening, landscaping, pest control, etc. These publications may be obtained through the Waushara County UW-Extension office, or accessed online at: <http://www.uwex.edu/ces/house/> or through <http://infosource.uwex.edu/>.

Housing – Ownership and Renting. UW-Extension provides a website which includes information on home maintenance and repair, a seasonal newsletter, and Rent Smart, which is a tenant education program. This website is located at: <http://www.uwex.edu/ces/house/housing/renting.cfm>. Publications are also included in Spanish.

Housing Specialist. Dr. Marc Smith is the state UW-Extension Housing Specialist. He is located in the UW-Madison School of Human Ecology. His position priorities include assistance with the following topics: local housing policies, homeownership training, housing needs assessment, post-purchase support and housing program evaluation. He can be reached at: (608) 262-2831.

Wisconsin Department of Agriculture, Trade & Consumer Protection (DATCAP)

Consumer Protection. DATCAP publishes a number of resources for renters, landlords and homeowners. Some of these are short fact sheets; others, such as “The Wisconsin Way: A Guide for Landlords and Tenants”, are longer publications. These publications can be found on DATCAP’s website at: <http://www.datcp.state.wi.us/cp/consumerinfo/cp/factsheets/index.jsp>.

Wisconsin Department of Commerce

Bureau of Housing. This department helps to expand local affordable housing options and housing services by managing a number of federal and state housing programs and providing financial and technical assistance. Visit their website at: <http://commerce.wi.gov/housing/> for additional information. The Bureau of Housing also administers WIFrontDoor, which is a collaborative program with WHEDA and the WI Department of Health and Family Services. This website, located at: <http://www.wifrontdoorhousing.org/>, is a searchable statewide data base designed to help connect those looking for affordable housing with those providing housing and housing services. The website is searchable by location, unit size, availability, accessibility and cost of rent. Landlords and property managers can list their properties; they are also responsible for updating information about their properties. Renters can search for housing and services to fit their needs.

Migrant, Refugee and Labor Services. This department coordinates services for migrants, foreign-born residents and their families and employers who hire foreign and Limited English Proficient workers. Information regarding these services and contact information can be found at: <http://dwd.wisconsin.gov/migrantsandrefugees/>.

Wisconsin’s Focus on Energy

Focus on Energy. This public private partnership offers a variety of services and energy information to energy utility customers throughout Wisconsin. To learn about the programs and services they offer, visit their website at: <http://www.focusonenergy.com>.

Wisconsin Historical Society

Historic Preservation. The Wisconsin Historical Society offers technical assistance and two tax credit programs for repair and rehabilitation of historic homes in Wisconsin. One tax credit program provides state tax credits; the other program provides federal tax credits. The Wisconsin Historic Society also provides grants to local governments and nonprofit organizations for conducting surveys and developing historic preservation programs. For additional information, visit: <http://www.wisconsinhistory.org/hp/>

Wisconsin Housing and Economic Development Authority (WHEDA)

WHEDA Foundation. The WHEDA Foundation awards grants to local municipalities and nonprofit organizations through the Persons-in-Crisis Program Fund to support the development or improvement of housing facilities in Wisconsin for low-income persons with special needs. Special needs is defined as homeless, runaways, alcohol or drug dependent, persons in need of protective services, domestic abuse victims, developmentally disabled, low-income or frail elderly, chronically mentally ill, physically impaired or disabled, persons living with HIV, and

individuals or families who do not have access to traditional or permanent housing. For more information, visit WHEDA's web site at: <http://www.wheda.com/root/AboutWheda/FoundationGrants/Default.aspx?id=72>, or contact: Arlene Scalzo at: 1-800-334-6873 Ext. 623.

WHEDA Multi-family Products. WHEDA offers a number of multi-family home products, including tax credits, tax exempt bond funding, construction, rehabilitation and accessibility loans, asset management and tax credit monitoring services. For information about this program, visit WHEDA's web site at <http://www.wheda.com/programs/grants/about.asp>, or contact: Diane M. Schobert at: 1-608-266-0191.

WHEDA Single Family Products. WHEDA offers a number of single family home products, including home improvement or rehabilitation loans, homebuyer assistance and homebuyer education. For information about this program, visit WHEDA's web site at <http://www.wheda.com/programs/grants/about.asp>, or contact: Arlene Scalzo at: 1-800-334-6873 Ext. 623.

Wisconsin Affordable Assisted Living. WHEDA and the Wisconsin Department of Health and Family Services have partnered to create affordable assisted living for low-income seniors. Through this partnership, housing costs are reduced and assistance is provided to help access the Medicaid program to pay for services. Information regarding elderly statistics, available services, and consumer links to directories of adult day care programs, adult family homes, community based residential facilities (CBRFs) and residential care apartment complexes (RCACs) can be found at: <http://www.wiaffordableassistedliving.org/>.

Regional Programs

CAP Services, Inc. CAP Services is one of 16 community action programs in the state of Wisconsin. CAP Services offers a number of community based programs in Waushara County, including family services, housing, housing assistance, business development and preschool. CAP Services is a state-designated CHDO (Community Housing Development Organization), which means they have access to certain restricted funds set aside to meet housing needs within communities. The local phone number for CAP Services is: (920) 787-3949. Information about CAP Services can also be found on their website: <http://www.capserv.org/pages/byCounty.html>.

CHAPTER 3: TRANSPORTATION

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CHAPTER 3: TRANSPORTATION

INTRODUCTION

Waushara County is comprised of a transportation system that is made up of local roads, sub-regional collector streets and arterial streets and highways. Interstate 39, found in the western part of Waushara County, provides north-south vehicular movement through the center of the state, while STH 21, another popular transportation corridor traverses east-west through the county, providing access from Oshkosh to I-39, I-90/I-94 and the western part of the state. Although private vehicles are the primary mode of transportation in Waushara County, there are several biking and pedestrian opportunities available to the residents and visitors.

INVENTORY AND ANALYSIS

This chapter provides an inventory of the existing transportation, pedestrian, cycling, trucking, and airport facilities in Waushara County. In addition, a summary of the existing transportation plans, policies and funding sources associated with these facilities are discussed.

Streets and Highways

The primary transportation system consists of a hierarchal network of state, and county highways as well as other local roads and streets that pass through or near the County. ***The entire transportation network in Waushara County is comprised of 1,331 miles of local roads, county highways, interstate and state highways (Table 3-1). County highways compromise about a quarter (25.1%) of the road network.***

Table 3-1. Waushara County Road Network

	Total	IH Miles	Percent of Total	STH Miles	Percent of Total	CTH Miles	Percent of Total	Local Miles	Percent of Total
County Total	1,331.35	18.9	1.4%	113.4	8.5%	333.6	25.1%	865.5	65.0%

Source: WisDOT 2008

The hierarchy of the road network calls for each roadway to be classified according to its primary function, ranging from its ability to move vehicles (i.e., a freeway) to its ability to provide direct access to individual properties (i.e., a local street). The three general categories of functional classification used by transportation officials include arterials, collectors, and local roads.¹ Because traffic volumes are typically a good indicator of a roadway's appropriate functional classification, the Wisconsin Department of Transportation (WisDOT) conducts traffic counts at key locations throughout the state on a regular rotating basis. Displayed as average annual daily traffic (AADT), these counts are statistically adjusted to reflect daily and seasonal fluctuations that occur on each roadway.² The most recent counts in Waushara County were conducted in 2000, 2003 and 2006. When a significant difference in the two counts is encountered, it can generally be explained by a road closure, detour, or similar circumstance that temporarily disrupts the normal flow of traffic (Exhibit 3-1).

¹ WisDOT. 2002. *Facilities Development Manual: Procedure 4-1-5*.

² WisDOT. 2000, 2003 2006. *Wisconsin Highway Traffic Volume Data*.

Principal Arterials

Principal arterials serve interstate and interregional trips. These routes generally serve all urban areas with populations greater than 5,000. These roadways are most important in terms of commerce and the transport of goods and services. Rural principal arterials are further subdivided into 1) Interstate highways and 2) other principal arterials. ***There are two principal arterials in Waushara County.*** A summary is provided below, more detail is provided in the individual community plans.

- ***I-39, rural interstate, provides north-south linkage between the south central part of the state, Madison and Beloit and the north central part of the state, Wausau and northern Wisconsin.*** On a larger scale I-39, along with USH 51, transects central Wisconsin connecting Wisconsin with Upper Michigan and Illinois. I-39 is bisected by a number of principal arterials, including I-90 and I-94 to the south and USH 10 to the north. Access points are available at the villages of Coloma, Hancock and Plainfield. Average annual daily traffic (AADT) counts were taken at a number of locations within Waushara County in 2006. South of STH 21 (13,000), between STH 21 and CTH V (13,100), between CTH V and STH 73 (14,400) and north of STH 73 (13,400). Generally, AADT counts on I-39 increase as traffic flows north through Waushara County.
- ***STH 21, rural principal arterial – other, provides for east-west movement between Oshkosh and I-39, I-90/I-94 and the western side of the state.*** It enters the eastern part of Waushara County in the Town of Aurora, traversing the southern tier of the county before departing in the Town of Coloma. Average annual daily traffic (AADT) counts were taken in a number of locations in both 2000 and 2006. Most recent AADT counts show traffic volumes of 6,200 near the eastern border of the Town of Aurora to 6,900 on the west side of STH 49. Traffic volumes to the west of the Village of Redgranite were 6,100 in 2006. AADT counts picked up in the Wautoma area, with the convergence of STH 22 and 73, reaching a high of 11,300 in downtown Wautoma. Exiting the City of Wautoma, AADT counts west of the city averaged 6,600 in 2006. Continuing a westward movement, AADT counts in the Town of Richford averaged 3,900 east of CTH B and 4,700 west of CTH B in 2006. Entering the Coloma area, AADT counts picked up hitting a high of 7,200 in the Village before leaving on the western end. AADT counts were 4,800 on the western side of Waushara County prior to entering Adams County.

Minor Arterials

In conjunction with the principal arterials, minor arterials serve other population centers and major traffic generators providing intra-regional and inter-area traffic movements. ***There are three minor arterials within Waushara County.*** A summary is provided below, more detail is provided in the individual community plans.

- ***STH 73*** provides north to northwesterly access through the center of the state. Intersecting USH 151 east of Columbus, this road travels north through the counties of Dodge and Green Lake before entering Waushara County. Within Waushara County it connects the City of Wautoma to the Village of Plainfield and provides access to I-39. Upon leaving the county it goes through the northeast corner of Adams County and then heads toward Wisconsin Rapids in Wood County. AADT counts taken in 2006 indicate a count of 3,800 taken in the Town of Marion north of CTH F; a count of 9,600 east of the City of

Wautoma; 6,000 at the western edge of the city; 2,200 north of CTH O in the Town of Oasis; 6,700 east of I-39 and 3,700 west of I-39.

- **STH 22** provides north-south access through the center of the state. Originating north of Madison, it traverses through Colombia and Marquette counties before entering Waushara County. Within Waushara County it travels through the City of Wautoma and the Village of Wild Rose before leaving the county. After entering Waushara County it continues on towards the cities of Waupaca, Shawano and Oconto. AADT counts taken in 2006 indicate 1,400 vehicles in the Town of Dakota; 3,100 vehicles south of the Village of Wild Rose and 3,000 vehicles north of CTH P.
- **STH 49** provides northwesterly access from USH 41, south of Fond du Lac, through the communities of Ripon and Berlin before entering Waushara County. Within Waushara County the highway traverses the eastern tier towns of Aurora, Poy Sippi and Bloomfield. After leaving Waushara County it intersects with USH 10 until Waupaca where it continues north to STH 29 in Shawano County. AADT counts taken in 2006 indicate traffic counts of 3,900 north of Berlin; 2,600 south of the unincorporated community of Poy Sippi; and 2,100 north of Poy Sippi.

Major Collectors

Major collectors provide service to moderate sized communities and other intra-area traffic generators. Major collectors often link those generators to nearby larger population centers or higher function routes. ***Many of the county highways are classified as major collectors.*** A summary is provided below, more detail is provided in the individual community plans.

- **5th Avenue** is considered a major collector between CTH V in the Village of Hancock to STH 73 west of the Village of Plainfield. No AADT counts were collected on this road in 2000.
- **CTH V** travels northeast from the intersection of STH 21 at the Adams-Waushara County line to the Village of Hancock where it turns east and continues into the Town of Deerfield. CTH V is considered a major collector from STH 21 to the intersection of CTH GG. AADT counts were completed in 2000. Traffic counts between Chicago Avenue and Buttercup Avenue were 670.
- **CTH C** provides an east-west travel corridor from Adams County through the center of the towns of Hancock and Deerfield before angling toward the City of Wautoma. This entire route is considered a major collector and provides a linkage from the Village of Hancock through the towns of Hancock, Deerfield and Wautoma to the City Wautoma. AADT counts were collected in 2000 west (1,300) and east (390) of I-39. AADT counts increased in the Town of Deerfield to 790 before CTH B and increased again to 2,400 before entering the City of Wautoma.
- **CTH CH** provides a north-south travel corridor from the City of Westfield in Marquette County to the Village of Coloma in Waushara County. CTH CH is considered a major collector through the Town of Coloma. AADT counts taken north of the Adams County line in 2000 were 460.

- **CTH GG** is considered a major collector between 5th Avenue and 7th Avenue. It channels traffic to CTH V from the eastern portion of the Town of Hancock. AADT counts were not collected for this portion of CTH GG in 2000 or 2006.
- **Main Street (Village of Hancock)** provides a northern travel corridor, splitting the Village east and west. AADT counts collected in 2006, just north of East School Street, indicated 970 vehicles per day on an average.
- **CTH BB** begins at the Village of Plainfield's northeast corner and continues north until Alp Avenue where the road curves northeast and enters into Portage County. AADT counts in 2006 were 820.
- **CTH P** provides linkage between the Village of Plainfield, through the towns of Oasis and Rose, to STH 22 north of the Village of Wild Rose. AADT counts east of the Village of Plainfield were 1,700 in 2006, there were no other traffic counts taken during 2006.
- **CTH J** intersects STH 73 in the Town of Oasis, and then travels north before it intersects CTH P, running a short way with the highway before continuing north out of Waushara County. CTH P provides access to the Town of Almond and STH 54 in Waupaca County. CTH J is considered a major collector between CTH P and the Waupaca County line. AADT counts taken in 2000 indicated an average of 410 vehicles per day.
- **STH 152** from STH 21/73 in the City of Wautoma, northeast to the intersection of CTH W and CTH G in the Town of Mount Morris. STH 152 provides access between the City of Wautoma and the unincorporated community of Mount Morris and the surrounding lakes. AADT counts in the Twin Lakes area were 1,400 in 2000.
- **Division Street (City of Wautoma)** between the intersection of STH 21/22 on the west side of the city and STH 21/22 on the east side. This route serves as a bypass of Wautoma's downtown business district. An AADT taken in 2000 recorded 2,400 vehicles on the west end.
- **CTH A** intersects STH 22 north of the Village of Wild Rose and travels east to CTH E in the Town of Saxeville. CTH A and E join and continue north for about 2-1/2 miles before splitting. CTH A turns east at this point, connecting with STH 49 in the Town of Bloomfield. CTH A is considered a major collector for its entire length. One AADT count (1,700) was taken in 2006 east of STH 22; the remaining counts were taken in 2000. AADT counts were taken east of STH 22 (1,800), west of CTH E (1,200) and west of STH 49 (900). Generally AADT counts increased from east to west.
- **CTH H** from the Village of Wild Rose east to CTH W. Continuing easterly through the Town of Springwater, it proceeds through the northern half of the towns of Leon and Poy Sippi. CTH H is considered a major collector for its entire length. AADT counts taken in 2000 indicate an average daily traffic volume of 1,600 (Town of Springwater) east of CTH G; 370 west of CTH EE; 500 between CTH EE and E (Town of Leon); 500 west and 420 east of STH 49 (Town of Leon).

- **CTH G** from the unincorporated community of Mount Morris north to CTH H. AADT counts averaged 470 in 2000.
- **CTH W** from the unincorporated community of Mount Morris northwest to CTH EE, then north into the towns of Leon and Saxeville until the intersection with CTH A. Only one AADT count was taken on this section of CTH W in 2000. A count of 580 is recorded south of CTH A and north of Aspen Court.
- **21st Lane** from STH 152/CTH S intersection south to STH 21 in the Town of Marion. AADT counts were recorded south of Buttercup Avenue and north of Hickory Lane in 2000 (600).
- **CTH F** travels southeast from STH 73 (east of the City of Wautoma) through the towns of Marion and Warren before entering Green Lake County. AADT counts taken in 2000 indicate that traffic volumes were 1,700 east of the STH 73/CTH F intersection decreasing slightly to 1,500 in the Spring Lake area.
- **CTH E** provides north-south travel through Waushara County from CTH F south of the Village of Redgranite, through the Village of Redgranite, and the towns of Leon and Saxeville before entering Waupaca County and heading toward the City of Waupaca. CTH E is considered a major collector throughout its entire length in Waushara County. AADT counts taken in 2000 indicate a count of 920 north of Redgranite; 690 south of the Leon/Saxeville town line; 660 south of CTH A (Town of Saxeville); 990 in the segment of road where CTH A and E are combined; and finally 540 north of CTH A (Town of Saxeville).
- **CTH EE** from the Village of Redgranite north through the Town of Leon terminating at CTH W. AADT counts taken in 2000 indicate a count of 1,300 north of the Village of Redgranite; 710 north of CTH H and 530 south of CTH H.
- **CTH XX** from STH 21 in the Town of Aurora north to the unincorporated community of Borth (Town of Poy Sippi). AADT counts collected in 2000 indicate that an average of 560 vehicles used this road per day.
- **CTH D** from STH 49 through the unincorporated community of Borth (Town of Poy Sippi) to the Winnebago County line. AADT counts taken in 2000 indicated that on an average 850 vehicles used this road east of STH 49 and that 1,400 vehicles used this road east of Borth.
- **CTH I** from CTH H east of Tustin (Town of Bloomfield), then north to STH 49. AADT counts taken in 2000 indicated that on an average 390 vehicles used this segment of the road north of Tustin and that 540 vehicles used this road between STH 49 and CTH HH.

Minor Collectors

Minor collectors collect traffic from local function roads and provide links to all remaining smaller communities, locally important traffic generators, and higher function roads. All developed areas should be within a reasonable distance of a collector road. ***Many of the***

county highways are classified as minor collectors. A summary is provided below, more detail is provided in the individual community plans.

- **CTH CC (Town of Coloma)** extends from Adams County to CTH CH. CTH CC is classified as a minor collector from 4th Avenue to CTH CH. AADT counts in 2000 were 320 in this segment of the road.
- **4th Avenue (Town of Coloma)** from CTH CC south to the county line (Marquette County).
- **CTH FF** extends from the Village of Coloma north to the Village of Hancock. The road is a minor collector along its entire route. AADT counts taken north of the Village of Coloma in 2000 were 340.
- **South Main Street (Village of Hancock)** is considered a minor collector from East North Lake Street (CTH V) south to Moors Street. This small segment of road (0.1 miles) collects traffic from East South Lake Street and South Main Street. AADT counts taken in 2006 at the intersection of South Main Street and East South Street indicated that 580 vehicles used this segment of road on an average daily basis.
- **East South Lake Street (Village of Hancock)** from South Main Street southeast to Beechnut Lane. Like South Main Street listed above, East South Lake Street is a continuation of CTH FF which routes traffic south to the Village of Coloma. AADT counts taken on CTH FF just south of CHT FF and Beechnut Drive in 2006 indicated that 380 vehicles used this segment of road on an average daily basis.
- **CTH O** extends east from CTH G in Adams County to STH 22, south of the Village of Wild Rose. Within Waushara County segments classified as a minor collector include the portion from the Waushara County line east to 5th Avenue and the portion from CTH B to STH 22. AADT counts were taken in the following locations in 2000; west of I-39 (780), between CTH BB and STH 73 (290), and west of STH 22 (450).
- **CTH V** is classified as a minor collector from CTH GG by the Village of Hancock to CTH B in the Town of Deerfield. AADT counts were 160 in 2000.
- **CTH B** from STH 73 in the Town of Oasis north to CTH C in the Town of Deerfield. Then continuing south through the Town of Deerfield and the Town of Richford towards Montello in Marquette County. AADT counts in 2006 were recorded as 420 vehicles per day south of STH 73 and 230 vehicles per day north of CTH C. AADT counts of 180 were recorded north of STH 21, and 130 at Czech Road in the Town of Richford.
- **10th Drive (Town of Oasis)** from CTH P to North Huron Road. No traffic counts were taken on this road in either 2000 or 2006.
- **Apache Avenue (Town of Oasis)** between 10th Drive and CTH J. No traffic counts were taken on this road in either 2000 or 2006.
- **CTH J (Town of Oasis)** from CTH P to STH 73. An AADT count of 330 was taken north of Apache Avenue in 2000.

- **10th Court (Town of Richford)** from Czech Road north to CTH JJ. This road collects traffic around the Curtis Lake area. AADT counts in 2000 were 80.
- **Czech Road (Town of Richford)** from CTH B to 10th Court. No traffic counts were taken on this road.
- **CTH JJ** from CTH B in the Town of Richford to STH 22 in the Town of Dakota. AADT counts were taken in 2000 east of CTH B (230) and west of STH 22 (360).
- **CTH AA** from CTH P in the Town of Rose north to the Portage County line. An AADT count of 160 was recorded on this segment of the road in 2000.
- **CTH Y** from CTH J in the Town of Dakota north to STH 21. An AADT of 250 was recorded south of STH 21 in 2000.
- **CTH YY** from STH 22 in the Town of Dakota east to STH 73 in the Town of Marion. An AADT count of 380 was recorded in 2000 west of STH 73.
- **CTH K** from CTH A in the Town of Springwater to CTH W. An AADT count of 870 was taken just north of CTH A.
- **CTH W** from CTH K (Town of Springwater) to CTH A (Town of Saxeville). AADT counts were taken in 2000; a count of 520 was taken between North Long Lake Road and Apache Avenue (Town of Springwater) and another count of 410 was taken in the north of CTH A (Town of Saxeville).
- **Archer Lane (Town of Springwater)** from 22nd Avenue to 24th Lane. An AADT count of 310 was taken in 2000.
- **24th Avenue (Town of Springwater)** from Archer Lane to Aspen Avenue. This segment of road is approximately 0.2 miles long. AADT counts were not recorded on this road in 2000 or 2006.
- **Aspen Avenue (Town of Springwater) and Aspen Court (Town of Saxeville)** from 24th Avenue to CTH W. No AADT counts were recorded on this road in 2000 or 2006.
- **CTH S** from STH 21 in the Town of Marion to STH 152 in Mount Morris. An AADT count of 460 was taken in 2000, north of STH 21.
- **CTH EE (Village of Lohrville)** from CTH N to STH 21. No AADT counts were taken in 2000 or 2006 on this segment of road.
- **CTH N** connects the Redgranite/Lohrville area with Neshkoro in Marquette County, passing through the unincorporated community of Spring Lake. It extends from CTH E in Redgranite through Lohrville and exits the Town of Marion a short distance north of Neshkoro. This collector is often used in conjunction with CTH F to bypass the congested lakes area. In 2000, AADT counts ranged from 570 south of CTH F to 350 north of CTH F.

- **CTH TT (Town of Saxeville)** is considered a minor collector from CTH W to the CTH A, CTH E and CTH EA intersection. No AADT counts were taken in 2000.
- **CTH NN (Town of Saxeville)** from CTH E east to the intersection with CTH M. It provides a route to STH 49. AADT counts were not recorded in 2000.
- **CTH A** from STH 49 in the Town of Bloomfield northwest into the Town of Saxeville and Waupaca County. An AADT count of 540 was recorded in 2000.
- **CTH M** in the Town of Bloomfield from STH 49 west to the Town of Saxeville. An AADT count of 230 was recorded at the Bloomfield town line.
- **CTH HH (Town of Bloomfield)** from STH 49 in West Bloomfield east to CTH I. An AADT count of 250 was recorded in 2000 on this segment of road.
- **CTH XX** from the City of Berlin to STH 21 in the Town of Aurora. This entire roadway is considered a minor collector within the Town of Aurora except for a section between the southern and northern intersections with 34th Road. Several AADT counts were taken along CTH XX. A count of 2,100 was recorded north of Berlin and south of CTH X, while a count of 540 was taken at the southern most CTH XX and 34th Road intersection.
- **34th Road (Town of Aurora)**. This road travels in a southwest-northeasterly direction with both of its termini on CTH XX. Since 34th Road provides a more direct route between Berlin and STH 21, this section receives more traffic than CTH XX.
- **CTH X (Town of Aurora)** from STH 49 to CTH XX.

Local Function Roads

Local function roads provide access to adjacent land and provide for travel over relatively short distances. All roads not classified as arterial or collector are local. These roads provide access to residential, recreational, commercial, and industrial uses within the area. WisDOT does not generally conduct official traffic counts for local function roads; however, these roads typically will carry fewer than 200 vehicles per day.

Every two years all jurisdictions in Wisconsin are required to rate the condition of their local roads and submit the information to WisDOT. The surface condition rating of each roadway is updated in the State's computer database, the Wisconsin Information System for Local Roads (WISLR). The WISLR database is available to all jurisdictions via the internet and can be used to develop a capital improvement and maintenance program. The WISLR analysis is based, in most cases, on the PASER road rating method.³

PASER pavement management system (PMS) has been developed and improved over the years by the Transportation Information Center (TIC) at the University of Wisconsin – Madison in cooperation with WisDOT and others. In general, PASER rates paved roadway surfaces on a scale of 1 to 10, with 1 being a road that needs to be reconstructed and 10 being a newly

³ WISLR. 2007. *Wisconsin Information System for Local Roads*. <https://trust.dot.state.wi.us/wislr/>.

constructed road.⁴ Unpaved roads are rated on a scale of 1 to 5, with 1 being a road that needs rebuilding and 5 being a brand new road.⁵ This inventory provides the basis for developing a planned maintenance and reconstruction program and helps the town to track necessary improvements. Prompt maintenance can significantly reduce long-term cost for road repair and improvement. Table 3-3 and Appendix C provide a breakdown and display of the PASER ratings, conditions and maintenance needs.

Table 3-2. PASER Ratings and Maintenance Needs

Paved Road Rating	Condition	Needs
9 & 10	Excellent	None
8	Very Good	Little maintenance
7	Good	Routine maintenance, crack filling
6	Good	Sealcoat
5	Fair	Sealcoat or nonstructural overlay
4	Fair	Structural improvement - recycling or overlay
3	Poor	Structural improvement - patching & overlay or recycling
2	Very Poor	Reconstruction with extensive base repair
1	Failed	Total reconstruction
Gravel Road Rating	Condition	
5	Excellent	Little maintenance
4	Good	Routine maintenance
3	Fair	Regarding, ditch & culvert maintenance, additional gravel
2	Poor	Additional aggregate, major ditch & culvert maintenance
1	Failed	Complete rebuild and/or new culverts

Source: Transportation Information Center, UW-Madison; 2000, 2001, and 2002

Table 3-3 provides a summary of the total miles of county highway in Waushara County by PASER rating. All county highways are paved. ***Roughly half (51.7% or 172.21 miles) of the county highways are in excellent to very good condition and require little maintenance.*** Another 41.1 percent (136.97 miles) of county highways are in good condition, requiring only routine maintenance, crack filling and sealcoating. The remainder of the county highways (24.19 miles or 7.3%) are considered to be in fair condition and will require sealcoating or nonstructural overlays. There are no county highways rated less than 5.

⁴ Transportation Information Center. 2000, 2001, and 2002. *PASER Manuals: Asphalt, Brick & Block, Concrete, and Sealcoat.*

⁵ Transportation Information Center. 2001 and 2002. *PASER Manuals: Gravel and Unimproved Roads.*

Table 3-3. Total Miles of County Highways by PASER Rating

Road Rating	Waushara County	
	Miles	Percent
10	18.24	5.5%
9	13	3.9%
8	140.97	42.3%
7	86.45	25.9%
6	50.52	15.2%
5	24.19	7.3%
4	0	0.0%
3	0	0.0%
2	0	0.0%
1	0	0.0%
Not Rated	0	0.0%
Total	333.37	100.0%

Source: Wisconsin Information System for Local Roads (WISLR); 2008.

Rustic Roads

The Rustic Roads System was created by the State Legislature in 1973 to help citizens and local units of government preserve scenic lightly traveled country roads for the leisurely enjoyment of bicyclists, hikers, and motorists.⁶ They offer excellent opportunities to travel through an attractive rustic area. The scenic qualities of these roads are protected by agreement with bordering property owners and by implementing roadside maintenance practices that allow wildflowers and other native flora to extend to the edge of the pavement. ***The WisDOT lists two roads in Waushara County that are in the Rustic Roads program.***

- **Rustic Road 48 (26th Road)** is a 2.1 mile road that begins at CTH H and runs northwest to CTH W in the Town of Saxeville.
- **Rustic Road 102** forms a loop off of STH 21 beginning at Cumberland Avenue and ending at 9th Avenue in the Town of Richford, just east of the Village of Coloma.

Several other town roads within Waushara County may have the potential of being listed as a Wisconsin Rustic Road.

Truck Transportation

There are several designated truck routes within Waushara County.

- **I-39, rural interstate**, provides north-south linkage between the south central part of the state, Madison and Beloit and the north central part of the state, Wausau and northern Wisconsin.

⁶ WisDOT. 2005. *Wisconsin's Rustic Roads: A Positive Step Backward*.
<http://www.dot.state.wi.us/travel/scenic/rusticroads.htm>.

- **STH 21** is the primary truck transportation route in Waushara County and provides direct access to Oshkosh and the Fox Cities to the east. STH 21 also provides access to western destinations in Wisconsin including the I-39/USH 51 corridor, I90, and I94.
- **STH 73** provides north to northwesterly access through the center of the state. It connects the Waushara County communities of the City of Wautoma and Plainfield with Princeton to the southeast and Wisconsin Rapids to the northwest.
- **STH 22** provides north-south access through the center of the state. It connects the Waushara County communities of the City of Wautoma and the Village of Wild Rose with Montello to the south and Waupaca to the north.
- **STH 49** provides north-south movement through the center of the state. It connects the Waushara County communities of the City of Berlin and the unincorporated communities of Auroraville, Poy Sippi and West Bloomfield with Ripon to the south and Waupaca to the north.
- **STH 152** considered a 65 foot restricted truck route from STH 21/73 in the City of Wautoma northeast to the intersection of CTH W and CTH G in the Town of Mount Morris.

There are two major corridors passing through Waushara County.⁷

- ***The Cranberry Country Corridor (STH 21) stretches 100 miles across the state from east to west (Oshkosh to Tomah).*** This corridor connects the Fox Valley to I39, southern Minnesota, South Dakota and beyond.
- ***The Wisconsin River Corridor (I-39/US 51) stretches 260 miles linking north central Wisconsin to south central Wisconsin and Illinois.*** This corridor provides critical economic links for industrial and commercial communities in north central Wisconsin (i.e. Wausau, Wisconsin Rapids, Stevens Point and Marshfield).

Railroads

Rail service to Waushara County was discontinued several decades ago. The nearest rail service is available at Stevens Point, which is a division headquarters for the Canadian National railroad. Other rail lines include the Union Pacific, which passes through southern Marquette County, and the Canadian Pacific Railway, which has a major yard facility in Portage. All three lines generally connect Chicago with the Twin Cities and points westward. Amtrak utilizes the Canadian Pacific line to provide passenger service. In addition to Portage, station stops include Columbus, Wisconsin Dells, and Tomah.

Waterways

There are no commercial ports in Waushara County. The nearest commercial port is located in Green Bay. Passenger ferries are located in Manitowoc and Milwaukee. Both ports offer passage across Lake Michigan to Lower Michigan.

⁷ Draft Connections 2030 Long Range Multimodal Transportation Plan

Several municipalities and Waushara County operate recreational boat facilities throughout the county. County facilities include the following:

- Otto Brey County Park, Town of Aurora – Boat launch and parking
- STH 49, Town of Aurora – Parking and walk-in access
- Pony Creek Park, CTH H, Town of Bloomfield – Parking and walk-in access
- 11th Avenue, Town of Deerfield – Parking and walk-in access
- 12 Avenue/Marl Lake County Park, Town of Deerfield – Boat launch and parking
- 22nd Avenue, Town of Marion – Boat launch and parking
- CTH WW, Town of Mount Morris - Boat launch and parking
- North Huron Road, Town of Oasis - Boat launch and parking
- Curtis Lake County Park/10th Court to Curtis Lake Road, Town of Richford - Boat launch and parking
- Kusel Lake County Park, 24th Lane, Town of Springwater - Boat launch, parking and walk-in access

Pedestrian Facilities

Walking is emerging as an important exercise as well as mode of transportation. The *Wisconsin Pedestrian Policy Plan 2020* outlines statewide and local measures to increase walking throughout the state as well as promote pedestrian safety and comfort. Pedestrians, by definition, are anyone who travels by foot. In addition, this definition has been extended to disabled persons who require the assistance of a mobility device. Pedestrian traffic can be difficult along highways where sidewalks are not present, safety measures are absent, or traffic volume is heavy.

Waushara County has several pedestrian opportunities. Hiking trails are located at several county parks. The county also operates the Bannerman Trail. A trailhead is located in downtown Redgranite on the south side of STH 21. The trail provides recreational opportunities for pedestrian activities as well as cross-county skiing, bicycling, and snowmobiling. The trail utilizes the former railroad grade that served quarries located in the Redgranite/Lohrville area. The seven mile trail terminates at STH 73 north of Neshkoro. The Ice Age National Scenic Trail is a thousand-mile-long footpath located entirely within Wisconsin. It is one of only eight National Scenic Trails in the County. Approximately 60 percent of Wisconsin residents live within 20 miles of the Ice Age Trail.⁸ A portion of the Ice Age Trail passes through western Waushara County (See Exhibit 3-1). The trail provides recreational opportunities through the Chaffee Creek and Mecan River State Fishery areas and the Greenwood State Wildlife Area (Town of Hancock).

Most of the town roads in Waushara County have limited shoulder areas, and the posted speed limits are 45 miles per hour or greater. These conditions often hamper safe pedestrian travel. The relatively low density development and lack of sidewalks do not facilitate increased pedestrian mobility. The centralization of goods and services often requires residents to use motor vehicles for routine trips.

⁸ Ice Age Park and Trail Foundation; <http://www.iceagetrail.org/faqs.htm>

Cycling Opportunities

Over 1,000 miles of highly scenic low volume roads provide abundant opportunities for bicycling in Waushara County. As such, ***Waushara County has established a planned interconnected system of bicycle routes throughout the county.***⁹ The rolling topography offers several challenges for bicyclists of all fitness levels. The routes follow existing town roads and county trunk highways. Bicycle routes range in distance from 23 to 35 miles in length and offer several rest stops at municipal and county parks as well as local tourist attractions. The following routes are offered in the county and are shown on Exhibit 3-2.

- ◆ Route 1 – Plainfield to Oasis totals 30.1 miles and provides a relatively flat, easy ride past Waushara Gardens, many Christmas tree plantations and large center-pivot irrigation systems.
- ◆ Route 2 – Hancock to Deerfield totals 26.9 miles and provides a range of topography from flat to rolling. Route highlights include Pine and Fish Lakes, Greenwood State Wildlife Area, Marl Lake County Park and the Hancock State Experimental Farm.
- ◆ Route 3 – Coloma to Deerfield totals 23.6 miles and provides a relatively short, rolling tour of southwest Waushara County. Points of interest include the Mekan River crossing, Coloma Community Park and the Mekan Springs area.
- ◆ Route 4 – Wild Rose to Rose totals 22.8 miles and provides a quiet ride on some of the area's least traveled roads. Highlights include Robert's Park, Wild Rose Millpond, Pine River crossings and tree lined Alp Court.
- ◆ Route 5 – Wild Rose to Saxeville Covered Bridge totals 30.3 miles that leads the biker through some of the most scenic areas of the county.
- ◆ Route 6 – Wautoma to Mount Morris and White River totals 27.7 miles. The steep climbs make this route one of the most challenging in the county. Highlights include the White River Lower Millpond, White River Crossing and Lake Alpine Park.
- ◆ Route 7 – Wautoma to Richford and Dakota totals 35.5 miles. Highlights include Mekan River crossings, Upper and Lower White River Millpond and Bird Creek Park.
- ◆ Route 8 – Pony Creek to Tustin and West Bloomfield totals 25.7 miles and is somewhat flat. Highlights include Pony Creek County Park, Lake Poygan, Clark's Millpond and the unincorporated villages of West Bloomfield and Tustin.
- ◆ Route 9 – Poy Sippi to Pine River totals 25.8 miles and provides a challenge with some relatively steep grades. Beautiful views of Pine River along with millponds in both Poy Sippi and Pine River provide tour highlights.
- ◆ Route 10 – Redgranite to Aurora Marshland totals 23.2 miles and offers spectacular views of marshlands and the Aurora Millpond and dam.

⁹ Waushara County Parks Department. 2007. *Bike Routes*. http://www.co.waushara.wi.us/bike_routes.htm.

Roadways with traffic volume less than 1,000 vehicles per day are considered generally safe for bicycling. Roadways meeting this criterion that are located within a primary bicycle corridor identified by WisDOT provide potential linkages between existing bicycle trails and are considered to be part of an interconnected statewide bicycle route network. Currently, the Bannerman Trail is the only multi-use recreational trail within Waushara County.

WisDOT has made several recommendations for bicycle traffic for Waushara County in the *Wisconsin State Bicycle Transportation Plan 2020*.¹⁰

Airports

The four airports most convenient to area residents that provide scheduled commercial air service are: Central Wisconsin Regional Airport in Mosinee, Outagamie County Regional Airport in Appleton, Dane County Regional Airport in Madison, and Austin Straubel Airport in Green Bay. Other airports/airfields offering a lesser range of services include those in Oshkosh, Stevens Point, Wisconsin Rapids, Wautoma, Waupaca, and Wild Rose.

Two Basic Utility airport facilities are located in Waushara County. A Basic Utility (BU) airport is capable of handling single engine piston aircraft and smaller twin engine aircraft. Basic Utility airport facilities are sub-classified as class B (BU-B) and class A (BU-A) according to the gross weight and wingspan of the aircraft. These aircraft typically seat up to six persons and are used for private corporate travel, charter flying, recreational flying, and crop dusting. The ***Wautoma Municipal Airport*** is a BU-B facility located southwest of the City of Wautoma in the Town of Dakota. The airport has two paved runways measuring 1,190 feet and 3,300 feet in length and a turf runway measuring 2,280 feet. Aircrafts with gross weights of less than 12,500 pounds and wingspans less than 49 feet can be accommodated at this airport. Besides serving local air needs, the airport is utilized by pilots attending the annual EAA fly-in in Oshkosh. The ***Wild Rose Idlewild Airport*** is BU-A facility. The airport can accommodate aircraft with gross weights less than 6,000 pounds and wingspans less than 49 feet. A helipad is also located at the Wild Rose Community Memorial hospital for “flight for life” emergencies.¹¹

Several private airports are located throughout Waushara County. Private facilities are generally characterized by short (2,500 to 3,000 feet) turf covered runways. Private runways primarily provide services for recreational flyers.

Transit and Transportation Facilities for the Disabled

There is no scheduled bus service within the county. However, the Department of Aging administers two programs on a county-wide basis that serve the elderly and disabled residents of Waushara County. These two programs are a volunteer driver program and a mini-bus program. The mini-bus program is based in the City of Wautoma and provides transportation for both medical and personal trips. Other members of the public can also utilize the mini-bus if space is available.¹²

¹⁰ WisDOT. 1998. *Wisconsin State Bicycle Transportation Plan 2020*.

¹¹ WisDOT. 1999. *Wisconsin State Airport System Plan*.

¹² Baugrud, P. 2005. Personal Communication. Waushara County Aging and Disability Resource Center.

Current and Future Transportation Projects

*The following nine transportation projects are listed in Waushara County.*¹³

- CTH E Pine River Bridge Rehabilitation – Town of Leon (2010)¹⁴
- CTH XX Fox River Bridge Rehabilitation – City of Berlin (2010)¹⁴
- CTH XX – STH 21 to CTH D Resurface (2009)¹⁴
- STH 21 – Cambridge Street Road Maintenance – City of Wautoma (2011)^{14,13}
- STH 22 – Main Street Road Maintenance – Village of Wild Rose (2011)¹⁴
- STH 49 – Poy Sippi to Fremont Road Maintenance (2010)^{14, 13}
- STH 49 – Auroraville to Waupaca, Mosquito Creek Bridge Replacement (2010)^{14, 13}
- STH 73 – Wautoma to Plainfield, Construction/Pavement Replacement (2011)^{14, 13}
- STH 73 – Princeton to Wautoma, Road Resurface (2010 – 2013)¹³

County trunk and state highways comprise the Federal Aids Secondary System, thus qualifying them for federal aid for capital projects involving construction or repair. Waushara County is responsible for routine maintenance on these roadways. Maintenance of roads such as town roads and city/village streets not on the state or county system rests with the local jurisdiction. Table 3-1 indicates both county and local roadway mileage. To assist communities and counties with the cost of constructing and maintaining these roads, the state provides general transportation aids (GTA) which are available based on lane mileage and aidable local costs. Aidable local costs generally include the local share of all road and street construction and construction materials. The rate-per-mile is statutorily specified and will be \$2,015 in 2009.¹⁵ It should be noted that road spending fluctuates, especially for larger municipalities, and depends on the number and types of projects that have been allocated for that year. Cities and villages also have more costly facilities, such as curb and gutter, storm sewer, and sidewalks which raise the cost per mile above town spending amounts.

Key Findings

Streets and Highways

- The entire transportation network in Waushara County is comprised of 1,331 miles of local roads, county highways, interstate and state highways. County highways compromise about a quarter (25.1%) of the road network.
- There are two principal arterials in Waushara County. I-39, rural interstate, provides north-south linkage between the south central part of the state, Madison and Beloit and the north central part of the state, Wausau and northern Wisconsin. STH 21, rural principal arterial – other, provides for east-west movement between Oshkosh and I39, I90/I94 and the western side of the state.
- There are three minor arterials within Waushara County listed by the WisDOT: STH 73, STH 49 and STH 22.
- Many of the county highways within Waushara County are classified as either major or minor collectors.

¹³ WisDOT. 2008. *Wisconsin 2008-2013 Six Year Highway Improvement Program*.

¹⁴ 2009 – 2012 Statewide Transportation Improvement Program Final, Jan. 2009. WisDOT.

¹⁵ WisDOT. 2005. *General Transportation Aids*. <http://www.dot.wisconsin.gov/localgov/highways/gta.htm>

- Roughly half (51.7% or 172.21 miles) of the county highways are in excellent to very good condition and require little maintenance.

Other Transportation Modes

- The WisDOT lists two roads in Waushara County that are in the Rustic Roads program: Rustic Road 48 (26th Road) and Rustic Road 102.
- There are several designated truck routes within Waushara County: I-39, STH 21, STH 73, STH 22, STH 49 and STH 152.
- There are two major corridors passing through Waushara County. The Cranberry Country Corridor (STH 21) and the Wisconsin River Corridor (I-39/US 51).
- Rail service to Waushara County was discontinued several decades ago.
- There are no commercial ports in Waushara County. Several municipalities and Waushara County operate recreational boat facilities throughout the county.
- Waushara County has established an interconnected system of bicycle routes throughout the county.
- The four airports most convenient to area residents that provide scheduled commercial air service are: Central Wisconsin Regional Airport in Mosinee, Outagamie County Regional Airport in Appleton, Dane County Regional Airport in Madison, and Austin Straubel Airport in Green Bay.
- Two Basic Utility airport facilities are located in Waushara County: the Wautoma Municipal Airport and the Wild Rose Idlewild Airport.
- There is no scheduled bus service within the county.

Current and Future Transportation Projects

- Nine transportation projects are listed in Waushara County: CTH E Pine River Bridge Rehabilitation; CTH XX Fox River Bridge Rehabilitation; CTH XX; and STH's 21, 22, 49 (two projects) and STH 73 (two projects).

INTERRELATIONSHIPS WITH OTHER COMPREHENSIVE PLAN ELEMENTS

Economic Development

Providing a quality transportation system is important to the economic success of Waushara County. Businesses need to assess the transportation system as to its ability to ship and receive goods and provide access and increase visibility for customers. Employee access to the business facility is also crucial, especially if the jobs offered will be in the lower-wage category. These jobs are frequently filled by second wage-earners in the household or by persons with limited job options, including untrained persons with disabilities or young people. These groups of people are frequently not able to drive or cannot afford reliable transportation. Service occupations, which employ over 20 percent of people in the county, encompass such jobs.

Additionally, it is important to remember that different businesses have different transportation requirements. For example, retail businesses in the villages or the City of Wautoma may value on-street parking and pedestrian accommodations more than service businesses elsewhere in the County. Businesses which are located along major transportation corridors will require off-street parking.

Housing

Housing plays a strong role in transportation since either the origin or the destination of most trips is the home. When new residential developments are planned, it is important to consider how the new development will affect the transportation infrastructure, community accessibility, and the safety of the area. Affordable housing, including mixed income development, should be located in a manner that facilitates transportation access to services and employment. Consideration to both pedestrian and bicycling facilities should be given in all housing developments.

Utilities and Community Facilities

Joint and/or coordinated planning of public and transportation facilities is essential. The location of schools is closely related to transportation. Ideally, primary and secondary schools should have safe pedestrian and bicycle access. Trip distances should be minimized to reduce the need for school busing and automobile transportation to the school. Access to public transportation can also help minimize transportation costs for the school district. Colleges and universities can also benefit greatly by having public transit available by reducing the need for parking space and by making the campus more accessible to a broader range of students including local, low-income, and disabled students.

Similar to schools, it is important that government buildings as well as human services be located with access to public transportation. Coordinating transportation planning with sewer service area planning helps minimize the overall cost of providing infrastructure.

Agriculture Resources

The transportation system provides access and mobility for rural residents and the farming community. Farmers utilize the transportation system to both transport goods to market and to provide mobility between their various farming operations. State and county highways throughout Waushara County provide farmers in the county access to both local and regional markets. When considering possible highway expansion projects, the impact on existing farming operations, especially as it relates to the creation of split parcels of agricultural land, must be considered. Access to these parcels may require unsafe highway crossings by farm equipment, or ultimately the loss of use of this land for agricultural purposes.

Natural Resources

Transportation decisions can both positively and negatively impact the environmental quality of the area. Development and subsequent transportation improvements on state and county highway corridors or other potential projects may impact the area's natural resources (wetland areas and forestland). Loss of wetlands, which act as a natural buffer to filter nutrients and other pollutants, can be harmful to the wildlife habitat, including endangered species, and groundwater recharge. Finally, sprawl leads to longer travel times, which could result in increased air quality issues due to automobile emissions.

Cultural Resources

Early Native American habitation, the geological landscape, and the area's historic buildings are significant to the local history. It is imperative that as growth occurs and transportation projects are proposed, sensitivity be given to both the identified resources and to the areas where other historic and cultural resources may exist. Since the identity and integrity of the community depends on the preservation of these unique features, the impact from expanded transportation corridors and new land development must be kept to a minimum. Consideration should also be given to the impact of future transportation projects on the cultural identity of the historic downtown areas.

Land Use

Transportation, as with other planning elements, has a strong connection to land use. While transportation's primary purpose is to serve land use, land use patterns are dependent upon the condition and effectiveness of the transportation system. Expanded arterials, such as US 10, spur development by attracting development in proximity to new interchanges. Secondly, the traffic may be relocated if county highways or local roads are bisected or re-routed. Existing businesses may be negatively impacted as the former traffic flows for economic survival.

The efficient movement of vehicular traffic provides a quicker connection from one place to another. The expansion of STH 21 from two lanes to four lanes may reduce travel times from the Fox Cities to Waushara County and other areas. However, the increased accessibility may create additional development pressure as people are able to move further from urban centers without significantly increasing travel time to work and shopping.

Intergovernmental Cooperation

Transportation systems go beyond municipal boundaries. Regional development patterns and municipal land use policies affect the transportation network. This network must efficiently move people and goods from one place to another. The transportation system is made up of local roads, collector and arterials, none of which stop at municipal borders but continue from one community to another. An efficient transportation system can not be dependent on the decisions of one community but instead upon the input and cooperation of many different entities working together. For instance the possible expansion of STH 21 would affect many jurisdictions throughout the County. Each of these jurisdictions, along with the State of Wisconsin, would have input into the expansion of these transportation corridors. The resulting expansion will not only impact the local jurisdictions that it passes through, but could also impact the economics of the state as goods and people are more quickly and efficiently transported.

POLICIES AND PROGRAMS

State, Regional, County, and Local Policies

State of Wisconsin

Wisconsin State Highway Plan 2020. Wisconsin's State Trunk Highway system, consisting of approximately 11,800 miles of roads, is aging and deteriorating at the same time traffic congestion is increasing. In response to this critical issue, WisDOT, in partnership with its stakeholders, has developed the *Wisconsin State Highway Plan 2020*, a 21-year strategic plan that considers the highway system's current condition, analyzes future uses, assesses financial constraints, and outlines strategies to address its preservation, traffic movement and safety needs.¹⁶ The plan is updated periodically to reflect changing transportation technologies, travel demand, and economic conditions in Wisconsin. According to the Wisconsin State Highway Plan 2020, STH 21 from Oshkosh to I-39/U.S. 51 has been identified as a potential major project. Potential projects are subject to environmental analysis and legislative approval; they will be re-evaluated in future state highway transportation plans.

This plan also stressed the need to develop a safe inter-modal transportation system which can accommodate alternate forms of transportation, including designating specific state and county highways capable of safely accommodating bicycle transportation. Specific accommodations recommended in the plan include the use of designated bicycle lanes in urban areas, widening traffic lanes to allow for bicycle travel, and paving shoulders to allow for increased bicycle use.

Connections 2030 Long Range Multimodal Transportation Plan – Draft. A draft of the Connections 2030 Long Range Multimodal Transportation Plan was released in the fall of 2008. The plan address all forms of transportation; integrates transportation modes; and identifies policies and implementation priorities to aid transportation decision makers when evaluating program and project priorities over the next 20 years. The plan is organized around transportation themes rather than modes. The seven themes are to (1) Maintain Wisconsin's transportation system; (2) Promote transportation safety; (3) Foster Wisconsin's economic growth; (4) Provide mobility and transportation choice; (5) Promote transportation efficiencies; (6) Preserve Wisconsin's quality of life; and (7) Promote transportation security. Corridor management will be one of the main tools that WisDOT will use to achieve the plans goals. Two corridors are found in Waushara County: the Cranberry Country Corridor and the Wisconsin River Corridor. The Cranberry Country Corridor links the Fox Valley and I-94 to locations west in southern Minnesota, South Dakota and beyond. The corridor also serves the Wisconsin River flowage, Waushara County and Winnebago County tourism/recreation areas. The Wisconsin River Corridor is a critical tourist corridor that connects the population centers in Illinois and southern Wisconsin to major recreation areas on the north.

Wisconsin State Bicycle Transportation Plan 2020. The *Wisconsin State Bicycle Transportation Plan (WSBTP) 2020* specifically addresses the future needs of bicycle transportation. Two primary goals exist in the plan: to double the number of bicycle trips made by 2010 and to reduce the number of motor vehicle-bicycle crashes by 10 percent by 2010. To achieve these goals, objectives for engineering, education, enforcement and encouragement were identified. These included not only the need for the construction of an expanded network

¹⁶ WisDOT. 1999. *Wisconsin State Highway Plan 2020*.

of transportation facilities that allows for safe bicycle travel, but also for the promotion of education to advance vehicle driver awareness of bicyclists (drivers licensing and bicycle safety courses). Finally, tips to promote the utility and ease of bicycle transportation were identified as well as the mandate to increase the enforcement of reckless driving behavior by motorists and bicyclists alike.

The *WSBTP* provides suggestions for both intercity (rural) and urban/suburban bicycle facilities. For the purposes of the *WSBTP*, urban areas were defined as villages or cities with populations of 5,000 persons or greater. Providing paved shoulders for bicycle accommodations along rural highways and the widths of these shoulders are determined by ADT, percentage of trucks, and curves and hills (see Wisconsin Rural Bicycle Planning Guide, Appendix A, Road Evaluation Method).

Wisconsin State Airport System Plan 2020. The *Wisconsin State Airport System Plan 2020* provides a framework for the preservation and enhancement of a public-use airport system which will meet future aviation demands for the state. It provides an inventory of existing public-use airport facilities; and categorizes them according to their current services, projected use, and future scheduled maintenance and construction projects. Based on existing conditions and projected improvements that are listed within airport master or layout plans, forecasts are made for future airport classifications. No projected changes have been made in the status of Waushara County's airport classifications. Several improvements have been completed in recent years at the Wautoma Municipal Airport. These have included taxing and runway expansion; entrance repairs, hanger improvements, etc. The 5-year Airport Improvement Program¹⁷ indicates that a number of projects are planned at the Wautoma and Wild Rose Airports. These include seal coating, constructing a terminal building, runway expansion, and a land acquisition at the Wautoma Municipal Airport. In admission site improvements are planned for the Wild Rose Idlewild Airport.

Regional

East Central Wisconsin Regional Planning Commission. East Central Wisconsin Regional Planning Commission has adopted a regional smart growth plan. As part of this planning process, East Central has adopted five core transportation goals:

- To act to help ensure that the negative effects of sprawl development on our regional transportation system are minimized by encouraging new development to locate where adequate services and facilities exist.
- To work with all levels of government and organizations throughout the region to pursue adequate funding for transportation projects and programs which meet short term and long term needs.
- To help ensure that the regional transportation network links economic centers and efficiently moves people and freight throughout the region.
- To help maintain and continue the balance between transportation and the environment through efficient and consistent transportation and land use planning.

¹⁷ <http://www.dot.wisconsin.gov/projects/state/docs/air-5yr-plan.pdf>

- To help ensure that alternative modes of transportation to the automobile exist and mobility options for all are efficient.

In 2002, East Central prepared a *STH 21 Corridor Study* that examined the corridor from Oshkosh to the Town of Rushford in Winnebago County. While this study looked at only a small portion of STH 21, it did address the long term needs of the entire corridor. According to the study, "In the future it may be desirable to construct STH 21 as a four lane expressway to Interstate 90/94".

County

Zoning. The *Waushara County Zoning Code* sets standards for access driveways and streets. Sec. 58.828. regulates access driveways (access permits, spacing standards, and number and width of driveways per land use) while Sec. 42-81 regulates street design within subdivisions.

The county zoning ordinance (Sec. 42-81) requires all roads within subdivisions to be built to certain standards. This is important to the continued success of the transportation network.

Highway Department. The Waushara County Highway Department provides maintenance on county highways found in the area. It also provides roadway and ditch maintenance for the towns within the county on a contract basis. The County does not have an officially adopted transportation plan or Capital Improvement plan. However, it is the policy of the County to evaluate the county road system in the spring of the year and set a specific roadway maintenance schedule for the coming year.

Federal, State and Regional Programs

Federal Agencies

Surface Transportation Program – Rural (STP-Rural). This program allocates federal SAFETEA-LU funds to complete a variety of improvements to rural local highways and roadways. To be eligible, two conditions must be met: the road must be located outside of an urban area and must be classified as at least a rural major collector. Project proposal applications are accepted only in odd numbered years. More information can be found at <http://www.dot.wisconsin.gov/localgov/highways/stp-rural.htm>.

Surface Transportation Program – Urban (STP-U). This program allocates federal funds to complete a variety of improvements to federal-aid-eligible roads and streets in urban areas. More information can be found at <http://www.dot.wisconsin.gov/localgov/highways/stp-urban.htm>. Berlin is an urban area that qualifies for STP-Urban and a portion of this is located in Waushara County.

State of Wisconsin

General Transportation Aid. Road maintenance is in part funded by disbursement of the State Transportation Fund. The largest portion comes from General Transportation Aids. The State provides an annual payment to each county and municipality, which augments the local government's cost for activities such as road construction, crack and pothole filling, snow removal, and other related transportation maintenance. Disbursements from the account are

determined by the total mileage of local roads within the municipality or by a formula based on historic spending. This information must be reported annually. More information can be found at <http://www.dot.wisconsin.gov/localgov/highways/gta.htm>.

Local Roads Improvement Program (LRIP). This program provides funding to improve or replace seriously deteriorating county highways, town roads, and city or village streets. New roads are not eligible. LRIP funds pay up to 50% of total eligible costs while the remaining amount must be matched by the local government. The program has three basic programs: County Highway Improvement (CHIP); Town Road Improvement (TRIP); and Municipal Street Improvement (MSIP). Additional discretionary funds are available for high cost projects. More information can be found at <http://www.dot.wisconsin.gov/localgov/highways/lrip.htm>.

Connecting Highway Aids (CHA). The CHA program assists municipalities with costs associated with increased traffic and maintenance on roads that connect segments of the State Trunk Highway system. Over 120 municipalities receive quarterly payments on a per lane mile basis. There are no connecting highways currently located in Waushara County. More information can be found at <http://www.dot.wisconsin.gov/localgov/highways/connecting.htm>.

Flood Damage Aids. This program provides funds to assist local units of government to improve or replace roads or roadway structures that have sustained major damage from flooding. The program helps defray costs for damaged streets, highways, alleys, or bridges which are not associated with the State Trunk Highway System. More information can be found at <http://www.dot.wisconsin.gov/localgov/highways/flood.htm>.

Rural and Small Urban Area Public Transportation Assistance Program. This program allocates federal funds to local units of government to provide both capital and operating costs for public transit services which operate within rural areas. All municipalities with populations less than 50,000 are eligible. More information can be found at <http://www.dot.wisconsin.gov/localgov/transit/ruralsmall.htm>.

Wisconsin Employment Transportation Assistance Program (WETAP). This program is designed to provide transportation for low-income workers to jobs, training centers, and childcare facilities through enhanced local transportation services. Funding is provided by a combination of federal, state, and local funds. This program provides a crucial link to allow low-income workers to remain in the workforce. More information can be found at <http://www.dot.wisconsin.gov/localgov/transit/wetap.htm>.

Local Transportation Enhancement Program (TE). This program provides funds that increase multi-modal transportation within a region while enhancing the community and the environment. Eligible projects include multi-use recreational trails, landscaping, or the preservation of historic transportation structures. Funds cover up to 80% of the total eligible project costs. More information can be found at <http://www.dot.wisconsin.gov/business/econdev/te.htm>.

The Bicycle and Pedestrian Facilities Program (BPFP). This program funds projects that that construct or plan for bicycle or bicycle/pedestrian facilities. For information on this program, go to www.dot.wisconsin.gov/localgov/aid/bike-ped-facilities.htm.

Transportation Economic Assistance Grant Program (TEA Grant). This program provides a 50% state grant to local governments, private businesses, and consortiums for road, rail, harbor, and airport projects that are necessary to help attract employers to Wisconsin. These grants have a performance-based incentive and successful funding requires that businesses and industries created by the grant program retain and expand local economies in Wisconsin. More information can be found at <http://www.dot.wisconsin.gov/business/econdev/tea.htm>.

County Elderly and Disabled Transportation Assistance Program. County governments are eligible for funds to establish a transit program for elderly and disabled citizens. The program allows for flexibility in various transportation options to their clients. County governments must provide a 20% match in funds. More information can be found at <http://www.dot.wisconsin.gov/localgov/transit/countyelderly.htm>.

Exhibit 3-1

Functional Class and Average Annual Daily Traffic Volume

Exhibit 3-2

Waushara County Bike Routes

CHAPTER 4: UTILITIES AND COMMUNITY FACILITIES

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CHAPTER 4: UTILITIES AND COMMUNITY FACILITIES

INTRODUCTION

One responsibility of a county is to maintain a certain level of community services. To achieve it, they must continuously maintain, upgrade, and expand existing facilities in a cost-effective manner based on future growth projections and the desires of the community. The involvement of the community in the planning process illustrates the importance that the board places on maintaining a high level of public services and facilities. The following section provides an inventory of some of the services and facilities available in the community. The analysis of facilities is based on generalizations and predictions and is no substitute for detailed engineering or architectural studies, which should be completed before municipal funds are expended on specific projects. The size of community facilities along with the cost of providing services is directly related to land use, development patterns, and the existing and future densities of development. See Exhibit 8-1, Existing Land Use Map, and Exhibit 4-1 and 4-2, Utilities and Community Facilities, which illustrate the location of the various items discussed below.

INVENTORY AND ANALYSIS

This section describes the existing utilities and community facilities within Waushara County.

Wastewater Collection and Treatment

Private on-site wastewater treatment systems (POWTs) serve a majority of Waushara County. Public wastewater treatment is available in the Cities of Wautoma and Berlin; the villages of Coloma, Hancock, Plainfield, Wild Rose and Redgranite; and through the Silver Lake Sanitary District (City of Wautoma and parts of the towns of Dakota, Marion, Wautoma and Mount Morris), the Poy Sippi Sanitary District No. 1 (unincorporated village of Poy Sippi and part of the Town of Leon), Joint Towns of Poygan and Poy Sippi Sanitary District (part of the towns of Poy Sippi and Poygan – Winnebago County), and the North Lake Poygan Sanitary District (parts of the towns of Bloomfield and Wolf River – Winnebago County). For more information please see the Community and Public Facilities Element of the individual plans.

Typically, individual systems are designed for each household or business based on the site's soil characteristics and capabilities. However, in some cases, a community, or 'cluster' system, may be used to serve more than one household. In rare cases, some existing development may have only a privy or no system at all. On-site systems, depending on the type and maintenance frequency, can function for 15 to 30 years and can cost-effectively treat wastes in rural areas not served by public sewers.

Beginning in 2000, Waushara County began an inspection program for POWTs. Newer POWTs built since 2000 are inspected every three years. Additional systems are included in the inspection program as they are replaced, or if there has been an improvement of over 25% of existing buildings and/or structures. Waushara County does not allow holding tanks systems for new construction, although they are an option for replacement situations. The Comm 83 rules do allow the use of holding tanks for new construction, however, individual counties and

municipalities can continue to enforce such a ban at their discretion. The allowance of private on-site treatment systems will certainly be needed to accommodate new and existing development within the rural portions of the planning area.

As of October of 2008 the State of Wisconsin has created new requirements that will greatly affect POWTs. This change requires that by 2011 all counties in the state have a complete inventory of every POWTs in their area. By 2013 all POWTs will need to be part of the same inspection program that POWTs built since 2000 are a part of.

Stormwater Management

Stormwater runoff and management have recently gained more attention as an environmental concern due to flooding and surface water quality issues. When the impacts of stormwater management are considered from a regional perspective, the potential for damage is tremendous. Although an individual development may not seem to have a significant impact on the natural drainage system, the cumulative impacts of development and urbanization can influence natural system functions. According to studies by the Center for Watershed Protection, as little as 10% impervious cover (concrete, asphalt, buildings, etc.) can negatively impact fish habitat. Moreover, if 25% of an area is impervious, the natural functions of a watershed become overloaded and stream quality can become permanently degraded.¹

Drainage Districts

The Waushara County Drainage Board administers and oversees the drainage of agricultural lands. It regulates various land practices used to remove excess water from farmlands and raises issues regarding the impacts of scattered rural development and the cumulative impacts on water quality flowing to and through their legal drains. In addition, county drainage boards are authorized to assess costs to a landowner for any adverse impacts on downstream water quality that can be directly attributed to that landowner. Landowners must receive drainage board approval before undertaking any action which could potentially affect a drainage system.

Drainage districts usually require a 20 foot vegetated strip on both sides of any ditch, which is to be used as a maintenance corridor, or any applicable stream within the watershed. Row cropping is prohibited within this corridor. These requirements can be coordinated with soil and water conservation plans required under the Farmland Preservation program².

Eight drainage districts have been established within Waushara County. The only active district is the Marion-Warren district.

Stormwater Systems

Stormwater systems consisting of storm sewer, inlets, curb and gutter are limited in Waushara County and are generally found in the incorporated communities of Wautoma, Redgranite, Wild Rose, Hancock, Coloma, etc. Storm sewer systems are also found along limited highway segments to improve stormwater flow.

¹ *Site Planning for Urban Stream Protection*. 2004. Center for Watershed Protection.

² *Guide to Community Planning in Wisconsin*. 1999. Ohm, B.W.

Surface Water Quality Monitoring and Prevention

Several different methods can be used to control and reduce the amount of stormwater runoff into local waterways. These methods can be implemented at a localized, town-wide, or regional level.

Watershed Planning. A watershed is an interconnected area of land draining from surrounding ridge tops to a common point such as a lake or stream confluence with a neighboring watershed.³ This approach allows stakeholders on an individual water body to collectively focus their interests on improving the water quality in one area.

Land Conservation Techniques. Land conservation techniques are used to provide physical barriers and improvements and may include legislative actions to change the physical environment and reduce current levels of runoff. These techniques can include cluster or conservation subdivisions, setbacks, buffers, and land acquisition.

Aquatic Buffers. An aquatic buffer is an area along a shoreline, wetland, or stream where development is restricted or prohibited.⁴ Natural vegetation is highly encouraged in the buffer area. If properly designed, buffers can physically protect waterways from future disturbance or encroachment. Furthermore, buffers can protect surface water quality by removing nutrients and silt from stormwater runoff.

Site Design Techniques. Site design techniques can be applied to all developments. Every development should incorporate three main goals: reduce the amount of impervious cover, increase the amount of lands set aside for conservation, and utilize pervious areas for more effective stormwater treatment.⁵ Techniques that can be used to achieve these goals include reduction in lot sizes, building narrower streets, planting rain gardens, creating bioretention ponds, etc.

Stormwater Best Management Practices (BMPs). Best Management Practices (BMPs) is a general term used to describe a broad range of structural controls that may be utilized by agricultural, residential, and commercial developments to control and reduce the amount of erosion caused by stormwater.² These practices may be used to reduce pollutant loads, maintain groundwater recharge areas, protect stream quality, and limit development within the 100-year floodplain.

Water Supply

The County is served by municipal water systems and private wells. Municipal water systems are located in the cities of Wautoma and Berlin; and the villages of Coloma, Hancock, Plainfield, and Redgranite. There are no municipal water systems available in the villages of Wild Rose and Lohrville. As such, ***groundwater is the source of drinking water throughout the county.*** As with many other locations in Wisconsin, a high concentration of minerals in the soil substrate creates “hard” water. Iron, one mineral which contributes to

² *Site Planning for Urban Stream Protection*. 2004. Center for Watershed Protection.

³ *The Watershed Approach*. 2004. Wisconsin Department of Natural Resources.

⁴ *Aquatic Buffers*. 2004. Center for Watershed Protection.

⁵ *Better Site Design*. 2004. Center for Watershed Protection.

hardness, is found at extremely high levels.⁶ Elevated nitrate levels have been detected in water samples within the county. See the Agricultural, Natural and Cultural Resource Chapters of the individual community plans for more information.

Solid Waste and Recycling

Waushara County currently subsidizes waste management within the county. ***The County operates nine waste collection sites and contracts with Waste Management of Wisconsin, Inc. and Onyx Waste Services to haul waste and recyclables,*** respectively that are collected at the sites (Exhibit 4-1). ***Residents are able to utilize any of the waste collection sites within the county.*** All non-recyclable wastes are hauled to Valley Trail Landfill in Berlin, Wisconsin. Wastes generated by commercial establishments are not accepted at the sites. Most commercial businesses and some rural residents also have curbside pickup. It is the policy of Waushara County to pay tipping charges for municipal, commercial, and rural residents that choose to have curbside pickup. The county also provides partial compensation for municipalities (cities and villages) to help them finance the hauling portion of waste disposal. The County does not pay tipping charges for foundry sand, demolition materials, rolloff containers, or compactors. The drop-off sites are open on Wednesdays from 12:00 PM to 4:00 PM and Saturdays from 10:00 AM to 4:00 PM year round; and Sundays from 12:00 PM to 3:00 PM during the months of June, July and August.⁷

All waste management sites in Waushara County accept recyclable materials.

Recyclables are sent to Paper Valley Recycling in Menasha (paper) and Resource Management in Chicago (co-mingled). Waste oil is subcontracted by Superior Services to Jacobus in Madison. Iron and tin collected by Superior Services is subcontracted to Fox Valley Metal in Oshkosh. Subsidized by the County, residents receive no payment for these materials. Materials that are collected include: glass, tin, aluminum, plastic, newsprint, cardboard, magazines, office paper, yard waste, scrap iron, waste oil, batteries, and tires.

Waushara County currently works with Waupaca County to provide a disposal option for household hazardous waste. County residents bring their household hazardous waste to a Waupaca County Processing and Transfer Facility located in Manawa. This program runs from May through October with regular hours of operation. Residents pay a fee for disposing of these hazardous items, but Waushara County helps to reduce costs by contributing grant money towards the program.

Electricity

Adams-Columbia Electric Co-op, Alliant-Wisconsin Power & Light, Pioneer Power & Light Company, and Wisconsin Electric Power Company (WE Energies) provide electric power to Waushara County (Exhibit 4-1).⁸ Adams-Colombia Electric Cooperative is a rural electric distribution cooperative serving approximately 36,156 member/customer in parts of 12 central Wisconsin counties⁹. Alliant Energy is an energy-service provider with subsidiaries

⁶ Summers, W.K. 1981. *Geology and Groundwater Resources of Waushara County, Wisconsin*. United States Geological Survey Report 1809-B.

⁷ Schuman, S. 2005. Personal Communication. Waushara County Parks, Recreation, and Solid Waste Department. Director.

⁸ Waushara County 2005, Utility Data by WPS

⁹ Adams-Colombia Electric Cooperative website: www.acecwi.com. Accessed November 20, 2008.

serving approximately one million electric and over 400,000 natural gas customers. Wisconsin Power and Light, the company's Wisconsin utility subsidiary, serves 456,000 electric and 182,000 natural gas customers. Alliant Energy is headquartered in Madison, Wisconsin.¹⁰ Pioneer Power & Light Company is a private utility located in Westfield Wisconsin. WE Energies serves about 1.1million electric customers within Wisconsin and Michigan's Upper Peninsula.¹¹

Natural Gas

Wisconsin Gas Company and Alliant/Wisconsin Power & Light provide natural gas service to Waushara County (Exhibit 4-1).¹² Wisconsin Gas Company is a subsidiary of WE Energies. The company serves approximately 583,300 gas customers in Wisconsin.¹³ **WE Energies** has pipelines that intersect the county. According to Wisconsin Public Service, there is no gas service in the Town of Bloomfield.

Power Generation Plants and Transmission Lines

ANR Pipeline Company (ANR) operates several gas pipelines within Waushara County. It operates one of the largest interstate natural pipeline systems, delivering natural gas to both Canada and the United States. It maintains about 10,600 miles of pipeline.¹⁴

American Transmission Company (ATC) owns and maintains a number of transmission lines in Waushara County (Exhibit 4-1). ATC began operations on January 1, 2001, as the first multi-state transmission only utility. They own 9,350 circuit miles of transmission lines and wholly and jointly own 500 substations.¹⁵ ***According to ATC, transmission systems throughout Zone 1 (includes Waushara County) are overloaded and experiencing low voltages.***¹⁶

Koch Pipeline Company LP operates a pipeline within Waushara County. Koch Pipeline Company, a subsidiary of Koch Industries, is based in Wichita Kansas. It owns or operates crude oil, refined petroleum products, chemical and natural gas liquids.

Telecommunications Facilities

According to information obtained from Waushara County, there are a number of towers scattered throughout the county (Exhibit 4-1). These towers serve a variety of purposes including storm warnings, cellular phone communications and cable television.

¹⁰ <http://www.alliantenergy.com>

¹¹ http://www.we-energies.com/home/we_keyfacts.htm. Accessed December 9, 2008.

¹² Waushara County 2005, Utility Data by WPS

¹³ http://www.business.com/directory/energy_and_environment/natural_gas_utilities/wisconsin_gas_company/profile/

¹⁴ <http://www.anrpl.com>

¹⁵ www.atcile.com. Accessed November 20, 2008.

¹⁶ ATC. 2008. *10-Year Assessment 2008*.

Telephone

Century Kendall, Century-Midwest WI, CenturyTel Central, SBC Communications and Union Telephone all provide service to Waushara County.¹⁷ Century Midwest WI, Century Kendall and CenturyTel Central are subsidiaries of CenturyTel, Inc. CenturyTel is the nation's seven largest local exchange company whose focus is on geographically clustered markets in rural areas and small cities.¹⁸ SBC Communications formally known as Southwestern Bell acquired AT&T Corporation in 2005. AT&T is the largest communications holding company in the world by revenue.¹⁹ Union Telephone is based out of Plainfield, Wisconsin.

The advancement of telecommunication technologies, such as cell phones, has greatly increased the need for towers to provide receiving and sending capabilities. The number of telecommunications towers in the United States currently exceeds 77,000; this number could double by 2010.²⁰ The federal government recognized this need with the passage of the Telecommunications Act of 1996. Currently, the Waushara County Zoning Ordinance regulates the placement of cell towers within the county.

Internet

Due to the proliferation of internet service providers (ISP), area residents can also choose from several national and local ISPs. The Athena Group, Wild Blue, Dotnet, Union Telephone Company and CenturyTel are among some of the providers who supply internet service to Waushara County. High speed DSL internet access is available through CenturyTel and Charter Communications to some residents. Services are accessed via a local phone line. The availability of high speed access may change as ISPs increase coverage areas or if state and federal regulations or involvement change.

Cemeteries

According to the United States Geologic Survey (USGS) there are 43 public and private cemeteries within Waushara County (Exhibit 4-2). Cemetery data along with other data is gathered by the USGS and included on quad maps that they publish. Smaller cemeteries, which are more difficult to identify, may not be included in this inventory. More detailed information on cemeteries is included in the Community and Public Facilities chapters of the individual plans.

The ownership and maintenance of the cemeteries within Waushara County varies between public organizations and public entities. According to the state statutes, if the authority (organization, family or individual) who owns or manages a cemetery fails to care for it for a period of five or more years, then the municipality where the cemetery is located is required to take over the control, management and care of the cemetery.²¹ In this manner, some municipalities acquire the management and care of cemeteries; in other instances, the cemetery has always been under public ownership.

¹⁷ East Central Wisconsin Regional Planning Commission, *Milestone Report #1, State of the Region. 2003.*

¹⁸ <http://ir.centurytel.com/>. Accessed December 2, 2008.

¹⁹ <http://www.att.com>. Accessed December 4, 2008.

²⁰ Wind Turbines and Birds: Putting the Situation in Perspective in Wisconsin. 2004. Sagrillo, M.

²¹ *Wisconsin State Statutes, Chapter 157.*

Childcare Facilities

Public involvement at the state level in the role of childcare falls largely under the supervision of the Wisconsin Department of Workforce Development's Office of Childcare (OCC). One of the OCC's primary areas of responsibility is the oversight of the Wisconsin Shares program, which is a childcare subsidy program.

The Wisconsin Shares program is administered by local counties, tribes and Wisconsin Works (W-2) agencies. The program assists families whose incomes are less than 200% of poverty to pay for childcare services. Parents choose the type of care and share the cost through co-payment. In order to be eligible for reimbursement, childcare providers must be licensed by the State, certified by county or tribal government, or operated by a public school. Research indicates that public dollars play a large financial role in the provision of childcare in the state, and in both urban and rural counties. Table 4-1 identifies available information on the number of regulated childcare facilities in the area. These figures are for licensed childcare providers only. A license is required for those who provide care for four or more children under the age of 7 at any one time.

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Table 4-1. Childcare Facilities

Provider	Regulation Type	City	Capacity
Kathy's Clubhouse	Licensed Family	Almond	8
Little Blessings Christian Daycare	Licensed Group	Berlin	22
Tiny Tots Daycare	Licensed Family	Berlin	8
UMOS-Aurora Center	Licensed Group	Berlin	70
Kopach Family Daycare	Licensed Family	Coloma	8
Lor's Kinder Kare	Licensed Family	Coloma	8
Diane's Little Treasures Daycare	Licensed Family	Neshkoro	8
Trina's Little Critters Daycare	Licensed Family	Plainfield	8
UMOS-Plainfield Center	Licensed Group	Plainfield	60
Wendy's Little Ones	Licensed Family	Plainfield	8
Little Lambs' Haven	Licensed Family	Redgranite	8
Little Rascals Daycare	Certified	Redgranite	6
Little Sprouts Discovery Center	Licensed Group	Redgranite	60
UMOS-Spring Lake Center	Licensed Group	Redgranite	96
Country Kids Preschool	Licensed Group	Saukville	24
Beckies Daycare	Licensed Family	Wautoma	8
Dancing Star Daycare	Licensed Family / Certified	Wautoma	8
Deb's Den	Licensed Family	Wautoma	8
Jessica's Daycare	Certified	Wautoma	6
Little Peanuts	Licensed Family	Wautoma	6
Little Tykes Family Daycare	Licensed Family	Wautoma	8
Little World of Wonders Daycare	Licensed Family	Wautoma	8
Peek-a-boo Daycare	Licensed Family / Certified	Wautoma	8
Sweet Peas	Licensed Family	Wautoma	8
Village of Learning Inc	Licensed Group	Wautoma	34
Wautoma Early Learning Center	Licensed Group	Wautoma	20
Day Dreams Family Child Care	Licensed Family	Wild Rose	8
Happy Hearts Family Daycare	Certified	Wild Rose	6

Source: Mid-Wisconsin Child Care Resource & Referral, 2008

²² Wisconsin State Statutes 48.65.

ChildCare Resource & Referral, Inc. works with counties and the State in monitoring childcare provision and has reported that the highest demand for care is for full-time, first shift (6 AM to 6 PM) hours. ***The Mid-Wisconsin ChildCare Resource & Referral, Inc. and CAPSELL Services works with Waushara County.***

UMOS is a non-profit, community-based organization which provides housing and other services to underserved populations.²³ Within Waushara County, migrant workers utilize these programs. ***UMOS operates a housing complex, Head Start program, and childcare facilities in Plainfield and Aurora.*** The licensed facilities provided childcare for 130 children in 2008.²⁴

According to the Mid-Wisconsin ChildCare Resource & Referral agency, a need exists in Waushara County for additional childcare, especially for children of non-traditional workers such as second shift. It should be noted that the available capacity versus number of children 12 years old and under may not be representative of the need, since not all children in this age category require licensed childcare. Some children come from families in which the primary caregiver is not employed outside of the home, while other people may seek childcare near their place of employment or utilize unlicensed facilities or family and friends for childcare needs.

Elderly Services

Waushara County Department of Aging offers several programs to area senior citizens. In 2007, these programs provided almost 4,000 individuals with assistance.²⁵ ***The Waushara County Coordinated Transportation System offers rides to not only senior citizens but also to veterans, and human service clientele on Medical Assistance.*** Transportation is provided by either mini-bus or volunteers. While transportation for medical appointments is provided almost exclusively by volunteer drivers, the mini-bus offers rides for not only medical appointments but also for grocery shopping and other personal errands. This program has been successful and may need to expand to serve the increasing number of senior citizens.

Meals along with activities and fellowship are provided to seniors at eight locations throughout Waushara County. All sites are open from Monday through Friday unless indicated otherwise. Participants must be age 60 or older, but a spouse and/or caregiver any age are welcome to participate as well. Locations include the Wautoma-Waushara Senior Center (W8220 Cottonville Avenue in the Town of Dakota), the Wild Rose Community Center (500 Wisconsin Avenue), the Redgranite Civic Center (202 Pine River Street), the Plainfield Senior Center (114 W. Clark Street), the Hancock Community Building (420 Jefferson Street), the Coloma Community Center (155 Front Street; Monday, Wednesday, Thursday and Friday), and The House Next Door in Poy Sippi (W2306 Prospect Street; Tuesday and Thursday). Meals are served at the Saxeville Town Hall (W4022 Archer Avenue; Monday and Wednesday)²⁶. Meals are also delivered to individual residences. Currently, the county provides this service to nearly 1,000 senior citizens²⁷.

²³ UMOS. 2006. *Welcome to UMOS*. <http://www.umos.org>.

²⁴ Mid-Wisconsin Child Care Resource & Referral, 2008 .

²⁵ Waushara County Department of Aging Services. 2007. *Waushara County Department of Aging Services Summary*.

²⁶ Communication with the Aging and Disability Resource Center, November 21, 2008.

The Aging & Disability Resource Center of Green Lake, Marquette and Waushara Counties provides information and assistance on aging, long term care, disabilities, and other related topics. A grant written in 2007, and extended through 2010 has allowed the expansion of services and the development of this tri-county consortium.²⁸

A trained benefit specialist is available to help seniors and their families find information on public programs such as Social Security, Medicare, and other related programs. This individual not only provides guidance by thoroughly explaining all available options, but also assists seniors with completing all required paperwork for these programs. The benefit specialist offers flexible hours at meeting locations which include the office, local senior centers, and personal residences. Since this program is supervised by an attorney, legal help is available to seniors with an appeal process if they are denied claims or assistance.

According to the Aging and Disability Resource Center, transportation remains an issue within the county.

The **Wautoma-Waushara Senior Center** is located at W8220 Cottonville Avenue in the Town of Dakota. The center serves as a meal site for the Waushara County Department of Aging meal program each weekday. ***The center offers a wide range of social and educational activities for seniors including bingo, card tournaments, crafts, and others.*** Several field trips are organized each year to Wisconsin casinos, museums, and other destinations.

Residential Care Facilities

The Wisconsin Department of Health and Family Services (DHFS) regulates' adult care facilities. Several types of residential services exist for the elderly. These include Residential Care Apartment Complexes (RCACs), Adult Family Homes (AFHs), Community Based Residential Facilities (CBRF), and adult day cares.

RCACs provide independent apartment living options for individuals in groups of five or more. Apartments must have a lockable entrance and exit; a kitchen with a stove (or microwave); and individual bathroom, sleeping, and living areas. Individuals can receive no more than 28 hours of supportive services (transportation, housekeeping, recreation), personal assistance (dressing, bathing, etc.), or nursing care per week. They are appropriate only for individuals who require in-depth health monitoring by health care professionals²⁸.

AFHs are designed to provide care for up to four persons and allow the opportunity for residents to receive specialized care. AFHs can specialize in residents of advanced age or persons with dementia, Alzheimer's, or physical disabilities.²⁷

In Wisconsin, CBRFs provide housing for five or more residents. The minimum age for CBRF residency is 18. CBRFs provide housing for both individuals who can live independently and for those who require care.²⁸

²⁷ DHFS. 2006. *Adult Family Homes – Introduction*.
http://dhfs.wisconsin.gov/rl_DSL/AdultFamilyHomes/AFHintro.htm

²⁸ DHFS. 2006. *Community Based Residential Facilities (CBRFs) – Introduction*.
http://dhfs.wisconsin.gov/rl_dsl/CBRF/CBRFintro.htm.

An Adult Day Care Facility provides services for adults who need assistance with daily activities in a group setting. Adult day care may be provided in home, a specialized facility, or other community facility (i.e., churches). Unlike other elderly services, adult day care facilities provide services for only a portion of the day; these services are usually provided during normal business hours. ***There is an adult day care facility in Wautoma called Adult Day Services Living Environmental. Cooperative Care, based out of Wautoma and Redgranite, provides in-home personal and home care services to elderly and disabled residents.*** The profits from this member owned cooperative are divided up between all the members who worked in that year. ***Facilities for Waushara County are located in Wautoma and Redgranite*** (Table 4-2).

Table 4-2. Elderly Care Facilities

Facility	Waushara County	
	Number	Capacity
Residential Care Apartment Complexes (RCAC)	3	93
Adult Family Homes (AFH)	5	19
Community Based Residential Facilities (CBRF)	8	106
Adult Day Care Facilities (ADC)	1	40
Total	17	258

Source: Wisconsin Department of Health and Family Services, 2008.

Although the elderly population is healthier and living longer than in the past, assistance will likely be needed at some point in their lives. The type of assistance preferred should be identified with input from potential users. ***The overall capacity for adult care facilities serving the planning area is 258 persons.*** By 2030, about 30 percent of the population in Waushara County is projected to be age 65 or older.²⁹ As the population ages, it can be assumed that a growing proportion of senior citizens may need additional facilities to meet their recreational, medical, and everyday necessities. In addition, more focus is being placed on allowing individuals to remain in their personal residences. Additional staff may be needed to provide care and assistance to senior citizens who wish to remain in their homes.

Police Service

Waushara County Sheriff Department

The Waushara County Sheriffs Department provides around the clock law enforcement services as needed. The sheriff's department has two vehicles patrolling the entire county from 5:00 AM to 5:00 PM, while three patrol vehicles work in the county the remainder of the day. ***Response times within the county vary depending on the location***

²⁹ Wisconsin Department of Administration, 2004.

*of patrol vehicles. New in 2008, the Sheriff's department provides boat patrol for all lakes within Waushara County.*³⁰

The Waushara County Sheriff's Office is located on Division Street in Wautoma. The Hancock and Poy Sippi fire departments serve as satellite headquarters each Saturday afternoon. This increases the officers' visibility and availability to county residents who do not live near the sheriff's office.³¹ The department employs 25 full-time sworn officers. Other employees include 25 correction officers, eleven E911 dispatchers, one emergency management specialist, and two secretaries. The emergency management specialist coordinates the emergency disaster response programs for both natural and manmade disasters. One police liaison officer is employed by the department; he serves as liaison officer for schools in Wautoma, Redgranite, and Wild Rose.

Several specialized units, including drug enforcement and canine units, are operated by the Waushara County Sheriff's Office. Cooperative agreements exist with other multi-jurisdictional drug units in East Central Wisconsin. Several employees have been trained in latent print examination (fingerprint analysis).³² In 2000, the County instituted an enhanced county-wide 911 system. The County is now working with Green Lake County, CenturyTel and other county agencies on a wireless 911 project.

A common method used to assess the level of service that is being provided locally is to compare the number of employees per 1,000 residents served with averages for other law enforcement agencies statewide. However, it should be noted that the number of employees per 1,000 residents served is related to a variety of factors including crime level, geographic coverage, size of agency, and budgetary issues.³³ As of October 31, 2006, for a police department serving a community of 25,000 to 49,999 residents, the state average was 1.74 sworn employees per 1,000 residents served. ***For a sheriff's office (includes most jail personnel), the state average was 1.77 sworn employees per 1,000 residents served. The Waushara County Sheriff's Office employs 1.1 officers per 1,000 population. This is below the state average.***

Plans exist to upgrade several facilities. In 2003, a joint effort to develop an interoperability plan was initiated between county and local jurisdictions. The plan includes improving radio coverage; ensuring communication with all other agencies; decreasing reliance on telephone cable; and upgrading to digital equipment by 2008. Additionally, all equipment upgrades identified in the 2007 Radio Improvement Project were purchased and installed.³⁴ Video cameras will also be added to patrol cars within the next 10 years. New cameras for crime scene investigations and specialized equipment for latent prints examination are also budgeted in future fiscal years.

The Waushara County Sheriff's Department maintains a TRIAD program to educate and raise senior and retired citizens' awareness of safety related issues. The TRIAD meets monthly and includes a different topic or issue at each meeting.

³⁰ K. Moser, Town of Springwater Clerk, December 5, 2008.

³¹ *Waushara County Sheriff Department Annual Report*, 2003. Waushara County Sheriff Department.

³² Waushara County Sheriff's Department. 2000. Personal Communication

³³ Office of Justice Assistance Statistical Analysis Center. 2003. *Crimes and Arrests in Wisconsin*.

³⁴ *Waushara County Sheriff's Department Annual Report*, 2007.

Municipal Police Departments

Municipal police department exist in the villages of Coloma, Hancock, Plainfield, Redgranite, Wild Rose, the Town of Marion and the cities of Wautoma and Berlin.

Village of Coloma

The Coloma Police Department provides law enforcement protection to the Village. Hours of service vary but are coordinated with the Waushara County Sheriff Department, who provides backup service to the Village, as needed. The Police Department is staffed by on fulltime police chief and two officers. Police protection is also provided to the Town of Coloma by the Village of Coloma Police Department for about 40 hours per month. The department shares a facility with the Coloma Volunteer Fire-Rescue-EMS Department. The facility was constructed in 2002, and is located in the village industrial park at 383 Industrial Drive. Currently the facility is meeting the needs of the police department, and there are no plans for expansion at this time.³⁵

Village of Hancock

Police protection for the village is provided by one full-time officer whose office is located in the Community Center.³⁶

Village of Plainfield

Law enforcement in the Village is provided by the Plainfield Police Department and is located at 114 W. Clark Street. Currently the department maintains two full-time and four part-time employees.³⁷

Village of Redgranite

The Village of Redgranite's police department provides protection 20 hours per day to its residents. The department employs three full-time and three part-time employees who utilize one squad car. Based on a municipal population of 1,129 people (excludes prison), the Village provides 2.66 officers per 1,000 population, which is above the state average. However, the village's police department does respond to calls at the prison and it may be necessary to take the prison population into account when calculating the level of service. The day shift extends from 7:00 A.M. to 3:30 P.M., and the night shift coverage is from 6:00 P.M. to 2:30 A.M. Back up and service when officers are off duty is provided by the Waushara County Sheriff's Department. Equipment for the police department includes a squad car and a fully equipped radio system.³⁸

Village of Wild Rose

The Village of Wild Rose employs two law enforcement officers, the Chief of Police and a second police officer, that are further supported by the Waushara County Sheriff's Department.³⁹

³⁵ Village of Coloma Draft Comprehensive Plan

³⁶ Village of Hancock Existing Conditions Report – Volume 2. Prepared by ECWRPC

³⁷ Village of Plainfield Draft Comprehensive Plan

³⁸ Village of Redgranite Comprehensive Plan, adopted June, 20, 2006. Prepared by ECWRPC.

³⁹ Village of Wild Rose Comprehensive Plan, adopted July 11, 2007. Prepared by ECWRPC.

City of Wautoma

Police protection is provided by five full-time Law Enforcement Officers (LEO)⁴⁰, who supply 24-hour service for the city. The City of Wautoma provides 2.4 sworn officers per 1,000, which is above the state average. A school liaison officer is supplied by the County to the Wautoma Area School District. The police department moved into their current facility at city hall in 1992. Office space for the police chief, officers and clerical are available in the building. While jail space is not provided, it is available at the county jail in Wautoma. The City owns one marked squad car, which is replaced yearly, and two unmarked cars. Recently Wautoma replaced its communication equipment through a grant from the Homeland Security Program. The police department feels that its facility and equipment is adequate to meet its current as well as future needs. The Waushara County Sheriff's Department provides backup support for the city.⁴⁰

City of Berlin

The Berlin Police Department is located on the main floor of the Berlin City Hall building at 108 North Capron Street. The patrol division provides police service 24 hours a day, 7 days a week.⁴¹

Town of Marion

The Town of Marion has one full time officer that patrols 40 hours per week throughout the year. Local lakes are also patrolled approximately 20 hours per week by the town police boat during the summer months and holidays. Currently the residents are happy with the level of police protection and there are no plans to upgrade it at this time. The Waushara County Sheriff's Department provides backup for the Town of Marion at other times.⁴²

Correctional Facilities

According to the Wisconsin Adult Jail Report 2003, total adult admissions to state jails increased by 30 percent from 2001 to 2003, while Waushara County jails have decreased by 20.1 percent in the same time period..⁴³

The average daily population (ADP) or average number of inmates held each day during one year is based upon a combination of admissions and the average length of stay. Waushara County reported an ADP of 87 in 2003 which is a 42 percent decrease from 2001. Generally, when the ADP reaches 80 percent of maximum capacity, the facility is considered to be overcrowded. Setting the standard below maximum capacity allows for flexibility in managing seasonal populations, weekend arrests, and other special situations. ***There are three correctional facilities in Waushara County; the Waushara Huber Facility, the Waushara County Jail and the Redgranite Correctional Institution.***

⁴⁰ City of Wautoma Comprehensive Plan, adopted June 12, 2006. Prepared by ECWRPC.

⁴¹ City of Berlin website: <http://www.1berlin.com/>

⁴² Town of Marion Comprehensive Plan, adopted November 14, 2006. Prepared by ECWRPC.

³⁸ Office of Justice Assistance Statistical Analysis Center. 2003. *Crimes and Arrests in Wisconsin*.

⁴³ *Wisconsin Adult Jail Populations*, 2003. Office of Justice Assistance.

The **Waushara Huber Facility** is located in Wautoma. The facility is housed in the former county jail on Park Street and has a maximum capacity of 36 inmates. Inmate populations for the Huber facility fluctuate seasonally.

The **Waushara County Jail** is located in Wautoma. The current facility was opened in January 2000 and has a maximum capacity of 153 inmates. The jail employs 29 security staff and other employees. In 2002, the ADP of the facility was 135 inmates (88.2%).

The **Redgranite Correctional Institution** is located in the Village of Redgranite. This facility is situated north of downtown and west of CTH EE on an 89-acre parcel. This medium security facility was opened in January 2001. With recent expansions, the prison has a maximum capacity of 990 inmates. Currently, the facility is over capacity with 1,013 inmates.⁴⁴ The prison employs 182 security staff and 94 other employees.

Fire Protection

Waushara County is comprised of eleven Fire Department/Districts. These include Plainfield, Hancock, Coloma, Wild Rose, Wautoma, Neshkoro, Saxeville/Springwater, Redgranite, W. Bloomfield, Poy Sippi, and Berlin (Exhibit 4-2).

The Insurance Service Office (ISO) of Wisconsin, through the use of the Fire Suppression Rating Schedule, evaluates the adequacy of fire protection within the state for municipal fire protection.⁴⁵ The schedule provides criteria to be used by insurance grading engineers in assessing the physical conditions of municipalities relative to fire hazards and rating municipalities' fire defenses. Ratings obtained under the schedule are widely used to establish base rates for fire insurance. While ISO does not presume to dictate the level of fire protection services that a municipality should provide, reports of evaluation results published by its Municipal Survey Office generally outline any serious deficiencies found through the evaluation.

Over the years, these findings have come to be used as a guide to municipal officials planning improvements to local fire protection services.

The grading is obtained by ISO based upon its analysis of several components of fire protection, including fire department equipment, alarm systems, water supply systems, fire prevention programs, building construction, and the distance of potential hazard areas from the fire station. In rating a community, total deficiency points in the areas of evaluation are used to assign a numerical rating of 1 to 10, with a 1 representing the best protection and 10 representing an essentially unprotected community. Many towns and villages in the more rural areas typically have ratings of class 8 through 10 (Table 4-3).

⁴⁴ *Offenders Under Control Report*, 2008. Wisconsin Department of Corrections.

⁴⁵ ISO. 2006. *Fire Suppression Rating Schedule*. <http://www.iso.com/products/2400/prod2404.html>.

Table 4-3. ISO Ratings

Fire Department	Coverage Area	Class
Coloma FD	V. & T. Coloma, T. Richford (partial)	6, 6/9
Hancock FD	V. & T. Hancock, T. Deerfield (partial)	7/9
Plainfield FD	V. & T. Plainfield, T. Oasis	6/9
Redgranite FD	V. Redgranite, T. Marion (partial), T. Mt. Morris (partial) T. Leon (partial), T. Warren (partial), V. Lohrville	5, 5/9
Wild Rose FD	V. Wild Rose, T. Rose, T. Springwater (partial) T. Wautoma (partial), T. Mt. Morris (partial)	8, 8/9
Poy Sippi FD	T. Poy Sippi, T. Saxeville (partial), T. Leon (partial), Tustin	8/9
Saxeville/Springwater FD	T. Saxeville (partial), T. Springwater (partial)	8/9
W. Bloomfield	T. Bloomfield	9/9
Wautoma Area FD	T. Dakota, T. Deerfield (partial), T. Marion, T. Mt. Morris, T. Richford (partial), C. Wautoma	5, 5/9
Berlin FD (Green Lake Co.)	C. & T. Berlin, T. Seneca, T. Aurora, T. Rushford, T. Nepeukum (partial), T. Warren (partial)	4,4/9
Neshkoro F.D. (Marquette Co.)	V. Neshkoro, T. Crystal Lake, T. Neshkoro, T. Marion (partial)	9

Source: Milestone Report #1; State of the Region, ECWRPC 2003. Waushara County, 2008. Coloma FD, 2009.

The standards for fire station location utilized by the National Board of Underwriters are given in Table 4-4. These standards are based on the density of development in the station service area.⁴⁶ Since the towns constitute a relatively low-density rural area, a four to six mile service radius is the recommended standard.

Table 4-4. Recommended Density/Distance Standards for Fire Protection

Land Use	Suggested Service Radius	
	Engine or Pumper	Ladder
	Company	Company
Commercial/Industrial	.75 - 1.0 miles	1.0 miles
Res. Med./High Density		
(<100' bet. Structures)	2.0 miles	3.0 miles
Res. Scattered		
(>100' bet. Structures)	3.0 - 4.0 miles	3.0 miles
Res. - Rural Low Density	4.0 - 6.0 miles	-

Source: American Planning Association, 1988

⁴⁶ American Planning Association. 1988. 1988 Small Town Planning Handbook.

Health Care Facilities/Emergency Medical Services

There is one hospital located within Waushara County; the Wild Rose Community Memorial Hospital in the Village of Wild Rose. General information about the Wild Rose Community Memorial Hospital and other hospitals located within a reasonable distance and most likely utilized by Waushara County residents are listed in Table 4-5.

Emergency medical services for the county are provided by the Waushara County EMS.⁴⁷ EMS administrative offices are located at 230 W. Park Street in Wautoma and provide municipal and county ambulance service. The department also operates a permanent service center in Poy Sippi and alternating service centers in Coloma and Plainfield. The district service centers are located within the fire departments in each community. Both the Coloma and Poy Sippi service centers have live in crew quarters for staff.

The agency provides 24-hour service for emergency calls. Although the department owns five ambulance rigs, only four are in active service at any given time. Two rigs are located in the City of Wautoma, and one rig is housed in Poy Sippi. One rig alternatives regularly between Plainfield and Coloma. Two emergency response paramedic units SUVs are also operated for rescues within rough terrain. Response time varies and depends on where the ambulance is located and where the service is required.

All 80 full-time and part-time staff members are certified EMTs. The Wautoma Division provides intermediate/basic man defibrillations with advanced airway, while the Poy Sippi Division provides basic AED with all skills.

Since the EMS headquarters share facilities with the Department of Human Services, preliminary plans have been made to relocate the headquarters to a new location; no specific sites have been determined.⁴⁸ Preliminary plans have also been drafted to remodel the Plainfield district center. The EMS Department constantly updates medical rescue equipment such as defibrillators, monitoring equipment, and extraction devices. Vehicles are replaced on a regular basis. Two new ambulances were added to the fleet in June 2005.

The various fire districts and local fire departments within the county also have First Responders on staff that can assist with the basic and advanced medical emergencies. Depending on the location, ***First Responders are usually able to arrive at the emergency scene either ahead of the ambulance or at approximately the same time.***

The towns of Aurora and Warren contract with the City of Berlin for emergency medical services for areas within their individual towns that are near the City of Berlin. Service to the remaining area of both towns is provided by the Waushara County EMS.

⁴⁷ Town of Wautoma Comprehensive Plan 2025, 2006. East Central Wisconsin Regional Planning Commission.

⁴⁸ Gramse, R. 2008. Building and Grounds Superintendent. Personal Communication

Table 4-5. Area Hospitals, Level of Service

	Adams Co. Memorial, Friendship	Wild Rose Comm. Mem., Wild Rose	Riverview Hosp. Assoc., WI Rapids	Berlin Memorial, Berlin	Divine Savior, Portage	St. Michael's, Stevens Point	Mercy Medical Center, Oshkosh	Aurora Medical Center, Oshkosh
Beds Set Up & Staffed	25	25	69	25	52	122	172	71
Level of Service:								
Adult Med-Ser, Acute	1	1	1	1	2	1	1	1
Orthopedic	2	2	2	2	2	2	1	2
Rehab & Phy. Med.	2	2	2	5	2	5	1	5
Hospice	4	2	4	5	5	3	4	2
Acute Long-Term Care	5	5	5	5	5	5	4	5
Other Acute	5	5	5	5	5	5	5	5
Pediatric, Acute	2	2	2	2	2	1	5	1
Obstetrics	5	5	1	1	1	1	1	1
Psychiatric	5	5	2	5	5	1	1	5
Alcoholism/Chem. Dep.	5	3	2	5	2	2	2	5
ICU/CCU:								
Med.-Sur.	5	5	2	2	1	2	2	2
Cardiac	5	5	2	2	5	2	2	2
Pediatric	5	5	2	2	5	2	2	5
Burn Care	5	4	5	5	5	5	2	5
Mixed IC	5	5	1	1	5	1	1	1
Step-Down (Sp. Care)	5	5	2	5	1	1	2	2
Neonatal Interm/IC	5	5	5	5	5	1	4	1
Other	5	2	5	5	5	5	5	5
Subacute	5	2	5	5	5	5	1	5
Other Inpatient	5	5	5	5	5	5	5	5

1 = Provided-Distinct Unit, 2 = Provided-Not Distinct Unit, 3 = Available in Network, 4 = Contracted, 5 = Service Not Provided

Source: 2006 Wisconsin Hospital Guide, Office of Health Care Information, State of Wisconsin

Libraries

Residents within the county have access to a good selection of libraries. These libraries are located in Coloma, Hancock, Pine River, Plainfield, Poy Sippi, Redgranite, Wautoma and Wild Rose. Residents are towns near the county line may also utilize libraries within other counties. For example, residents from the Town of Aurora, utilize the Berlin Public Library. The libraries are part of the Winnefox Federated Library System. The federated library system is designed to provide expanded library service to more people without making additional large expenditures. The libraries receive the majority of their revenue from the local

municipalities and county based on resident usage. Any town, city or village resident has access to the materials in any county-supported library within Waushara County. Besides other services listed below, the libraries offer their patrons Internet service. Table 4-6 provides relevant information for the Hancock, Plainfield and Wautoma Public Libraries.

Table 4-6. Public Library Statistical Data

	Library Type	Municipal Population 2007	Additional Service Population	Total Service Population 2007	Annual Hours Open	Total Staff	Library Materials Total
Waushara							
Coloma	Municipal Library	471	1,276	1,747	1,716	1.60	\$9,013
Hancock	Municipal Library	441	898	1,339	1,508	1.13	\$7,050
Pine River	Joint Library	2,486	247	2,733	1,560	1.15	\$6,091
Plainfield	Municipal Library	884	1,105	1,989	1,540	1.33	\$9,560
Poy Sippi	Municipal Library	967	862	1,829	1,404	0.73	\$5,123
Redgranite	Municipal Library	2,076	1,150	3,226	1,248	0.90	\$4,231
Wautoma	Municipal Library	2,109	6,608	8,717	2,600	3.20	\$22,285
Wild Rose	Municipal Library	730	2,826	3,556	2,264	2.20	\$11,013
Waushara Total		10,164	14,972	25,136	13,840	12.24	\$74,366

	Book and Serial Volumes Owned	Audio Materials	Video Materials	Other Material	Periodical Subscriptions	E-Books	Electronic Audio Materials (downloadable)
Waushara							
Coloma	10,136	998	1,897	31	51	8,825	2,745
Hancock	7,795	563	2,270	37	45	8,825	2,745
Pine River	12,214	1,099	2,551	21	50	8,825	2,745
Plainfield	15,946	962	1,923	0	45	8,825	2,745
Poy Sippi	11,551	604	2,568	86	15	8,825	2,745
Redgranite	13,360	509	1,873	0	20	8,825	2,745
Wautoma	20,318	2,389	4,598	400	107	8,825	2,475
Wild Rose	11,949	1,155	3,439	1,042	40	13,391	0
Waushara Total	103,269	8,279	21,119	1,617	373	75,166	18,945

Source: Wisconsin Department of Public Instruction, 2007

Service targets for libraries are based on quantitative standards contained in the Wisconsin Library Standards. Reported for each standard is the effort required to achieve basic, moderate, enhanced or excellent levels of service. These standards are based on the population served and vary for a community in regard to municipal population versus service population.

Table 4-7. Library Service Levels

Libraries	Population	Staff FTE	Volumes (Print)	Periodical Received	Audio Record.	Video Record.	Hours Open/Wk	Material Expend.	Collection Size
Coloma	Municipal Service	Excellent Enhanced	Enhanced <Basic	Excellent Moderate	Excellent Enhanced	Excellent Enhanced	Moderate Enhanced	<Basic <Basic	Excellent Basic
Hancock	Municipal Service	Excellent Enhanced	<Basic <Basic	Excellent Enhanced	Excellent Enhanced	Excellent Excellent	Basic Moderate	<Basic <Basic	Enhanced Basic
Pine River	Municipal Service	<Basic Basic	<Basic Basic	<Basic Moderate	Moderate Excellent	Moderate Excellent	Basic <Basic	<Basic <Basic	<Basic Moderate
Plainfield	Municipal Service	Enhanced Basic	Enhanced Moderate	Moderate Moderate	Excellent Enhanced	Excellent Enhanced	Basic Enhanced	<Basic <Basic	Enhanced Moderate
Poy Sippi	Municipal Service	<Basic <Basic	Moderate Basic	<Basic <Basic	Enhanced Enhanced	Excellent Excellent	Basic Moderate	<Basic <Basic	Moderate Basic
Redgranite	Municipal Service	<Basic <Basic	<Basic Basic	<Basic <Basic	<Basic Basic	Moderate Enhanced	<Basic <Basic	<Basic <Basic	<Basic Basic
Wautoma	Municipal Service	Enhanced <Basic	Basic <Basic	Moderate Basic	Excellent Enhanced	Excellent Excellent	Excellent Moderate	Enhanced <Basic	Moderate <Basic
Wild Rose	Municipal Service	Excellent Moderate	Enhanced <Basic	Moderate <Basic	Excellent Enhanced	Enhanced Excellent	Enhanced Enhanced	Enhanced <Basic	Enhanced Basic

Source: Public Library Service Data, 2007; Wisconsin Public Library Standards, 4th edition, 2005.

Service targets for libraries within Waushara County vary from less than basic to excellent based on the criteria that are being looked at (Table 4-7). In addition to the criteria listed in Table 4-7, a library should employ a certified library director to perform board-designated duties for no fewer than 25 hours per week and support the director's continuing education for at least 20 contact hours per year. No library within Waushara County employs a certified library director. Countywide, a higher level of service is provided for audio and video recordings held. On an average, libraries within the county provide an enhanced to excellent level of service for both audio and video recordings held. While lower service levels are achieved for volumes held in print (basic to enhanced for the municipal population and less than basic for the service population) and material expenditures (less than basic for both municipal and service population).

Education

Primary and Secondary Education

Nine school districts are found within Waushara County. These include the Almond-Bancroft, Omro, Tri-County Area, Westfield, Wautoma Area, Wild Rose, Waupaca, Weyauwega-Fremont, and the Berlin Area school districts (Exhibit 4-2).

Almond-Bancroft School District

The Almond-Bancroft School District operates a total of three schools: the Almond High School (grades 6-12, Almond), Almond Elementary (grades 1-5, Almond), and the Bancroft Elementary School (pk-k, Almond). ***The Almond-Bancroft School District includes a small portion of the towns of Oasis and Rose.*** The district is comprised of 67.4 staff members, 481 students, and a pupil to teacher ratio of 11.5.⁴⁹ ***It has seen a declining enrollment at all levels since the 2003-2004 school year. Therefore, it is anticipated that the schools will be able to continue to serve the enrollment of the district's population for the near future.*** However, it may be necessary to provide updates at the schools in the future based on technological advances.

Tri-County Area School District

The Tri-County Area School District operates a total of three schools: the Tri-County High School (grades 9-12, Plainfield), Tri-County Middle School (grades 5-8, Plainfield), and the Tri-County Area Elementary School (pk-4, Plainfield). ***The Tri-County Area School District includes the towns of Plainfield, Oasis (partial), Rose (partial), Hancock, Deerfield (partial) and the villages of Plainfield and Hancock.*** The Tri-County School District is comprised of 92.0 staff members, 717 students, and a pupil to teacher ratio of 13.2.⁵⁰ ***The district is experiencing a declining enrollment at all levels. Therefore, it is anticipated that the schools will be able to continue to serve the enrollment of the area's population for the near future.***⁵¹ However, it may be necessary to provide updates at the schools in the future based on technological advances.

Westfield School District

The Westfield School District operates six schools: the Westfield Area High School (grades 9 – 12, Westfield), Westfield Area Middle School (grades 7 – 8, Westfield), Coloma Elementary School (4 year old K – 6, Coloma), Neshkoro Elementary (K – 6, Neshkoro), Oxford Elementary School (K – 6, Oxford) and the Westfield Elementary (Early Childhood, K – 6, Westfield). Students within the Town of Richford attend the Coloma Elementary School and the Westfield Area Middle and High Schools⁵². ***The Westfield School District includes the towns of Coloma, Richford (partial), Dakota (partial) and Marion (partial).*** It has a total of 175.8 staff members, 1,325 students, and a pupil to teacher ratio of 13.5.⁵³ All schools are being maintained by the district and no improvements are planned at this time other than general maintenance. According to the district, ***enrollment has remained stable at the elementary schools. Therefore, it is anticipated that the schools will be able to continue to serve the district's enrollment for the near future.***⁵⁴ However, it may be necessary to provide updates at the schools in the future based on technological advances.

⁴⁹ Wisconsin Taxpayers Alliance. 2008. *School Facts 08*.

⁵⁰ Wisconsin Taxpayers Alliance. 2008. *School Facts 08*.

⁵¹ Connie Hamilton, District Secretary, person communication 11/24/08.

⁵² <http://www.westfield.k12.wi.us>. Accessed December 2, 2008.

⁵³ Wisconsin Taxpayers Alliance. 2008. *School Facts 08*.

⁵⁴ Personal conversation with the Westfield Area School District, December 2, 2008.

Wautoma Area School District

The Wautoma Area School District operates three schools within the City of Wautoma and one elementary school in the Village of Redgranite. ***The Wautoma Area School District serves the towns of Richford (partial), Deerfield (partial), Dakota (partial), Wautoma (partial), Marion (partial), Warren (partial), Leon (partial), Mount Morris (partial); the City of Wautoma; and the villages of Redgranite and Lohrville.*** The district has a total of 197.4 staff members, 1,486 students, and a pupil to teacher ratio of 13.0.⁵⁵ According to the district, ***enrollment is declining at all schools;*** there are no additions or renovations to any of the schools planned at this time⁵⁶. ***Therefore, due to declining enrollment and school capacities, it is anticipated that the schools will be able to continue to serve the district's anticipated enrollment for the foreseeable future.*** However, it may be necessary to provide updates at the schools in the future based on technological advances.

Wild Rose School District

The Wild Rose School District operates a total of four schools: Wild Rose High School/Middle School (grades 9-12/6-8, Wild Rose); Wild Rose Elementary (pre-k thru 5, Wild Rose); and Pleasant View Elementary School (k-5, Pine River, Exhibit 4-2).⁵⁷ ***The Wild Rose School District includes the towns of Rose (partial), Springwater, Saxeville (partial), Leon (partial), Mount Morris (partial), and Wautoma (partial); and the Village of Wild Rose.*** The district is comprised of 88.9 staff members, 734 students, and a pupil to teacher ratio of 13.1.⁵⁸ According to the district, ***a declining enrollment is being experienced at all levels. Therefore, it is anticipated that the schools will be able to continue to serve the enrollment of the district for the near future.*** However, it may be necessary to provided updates to the schools in the future based on technological advances.⁵⁹

Waupaca School District

The Waupaca School District operates a total of five schools: Waupaca High School (grades 9-12, Town of Farmington); Waupaca Middle School (grades 6-8, Waupaca); Waupaca Learning Center (grades prek-5, Waupaca), Chain O' Lakes Elementary School (grades K-2, Town of Farmington), and the Waupaca Accelerated Learning Center (WALC, grades 9-12, Waupaca).⁶⁰ ***The district encompasses a small portion of the Town of Saxeville.*** It has a total of 320.8 staff members, 2,420 students, and a pupil to teacher ratio of 13.2.⁵⁸ According to the district, ***a declining enrollment is being experienced at all levels. Therefore, it is anticipated that the schools will be able to continue to serve the enrollment of the district for the near future.*** However, it may be necessary to provided updates to the schools in the future based on technological advances. ***The district does not have any plans for any major improvements to their schools at this time.***

⁵⁵ Wisconsin Taxpayers Alliance. 2008. *School Facts 08*.

⁵⁶ Personal conversation with the Wautoma Area School District, December 2, 2008.

⁵⁷ Wild Rose School District, 2006. Philosophy of Education. <http://www.wildrose.k12.wi.us>.

⁵⁸ Wisconsin Taxpayers Alliance. 2008. *School Facts 08*.

⁵⁹ Olson, C. 2005. Personal Communication. District Administrator. Wild Rose School District.

⁶⁰ Poeschl, D. 2008. Personal Communication. District Administrator. Waupaca School District.

Weyauwega-Fremont School District

The Weyauwega-Fremont School District includes part of the northeast quarter of the Town of Saxeville. The administrative offices are located at 410 E. Ann Street in Weyauwega. The district operates a total of five schools on three campuses. Weyauwega-Fremont High School (grades 9-12, Weyauwega), Weyauwega-Fremont Middle School (grades 6-8, Weyauwega), Weyauwega Elementary (k-5, Weyauwega) and Fremont Elementary (k-4, Fremont). The Weyauwega-Fremont School District includes the towns of Saxeville (partial) and Bloomfield (partial). It is comprised of 128.7 staff members, 1,010 students, and a pupil to teacher ratio of 14.6.⁵⁸ ***Enrollment has declined by approximately 25 students annually in recent years. Due to declining enrollments, there are no planned upgrades to any district facility at this time.***⁶¹

Berlin Area School District⁶²

The Berlin Area School District's administrative offices are located at 295 E. Marquette Street in Berlin. The district operates a total of four schools: Berlin High School (grades 9-12, Berlin), Berlin Middle School (grades 6-8, Berlin), Clay Lamberton Elementary (k-5, Berlin) and Poy Sippi Elementary (k-4, Poy Sippi). ***The district includes the towns of Saxeville (partial), Bloomfield (partial), Poy Sippi (partial), Aurora (partial), Leon (partial) and Warren (partial); and the City of Berlin (Waushara County).*** The district is comprised of 212.3 staff members, 1,667 students, and a pupil to teacher ratio of 14.0.⁶³ ***According to the district, enrollment at the high school has remained steady in recent years and the building has excess capacity. There are no planned upgrades at this time. The Berlin Middle School is nearing capacity; at this time, however, the district has no plans to expand the facility. The Clay Lamberton and Poy Sippi elementary schools have been seeing declining enrollment in recent years. Due to declining enrollment and the capacity of the buildings, these schools should adequately meet enrollment needs of the district for a number of years.*** However, it may be necessary to provide updates at the district schools in the future based on technological advances.⁶⁴

Omro School District

The Omro School District operates a total of four schools; Omro High/Middle School (grades 9-12/6-8, Omro), H.B. Patch Elementary (k-1, Omro), and Omro Elementary (2-5, Omro). ***The district includes a few properties in the towns of Aurora and Poy Sippi. Enrollment at H. B. Patch Elementary has been declining in recent years.*** However, ***within the district as a whole, enrollment has been gradually increasing in recent years, but existing facilities should be adequate capacity for future growth within the next ten years.*** School administrators will reassess facility needs if housing construction increases within the Omro area.⁶⁵

⁶¹ Harlan, F.J. 2006. Personal Communication. District Administrator. Weyauwega-Fremont School District.

⁶² Town of Aurora Comprehensive Plan, June 2007. East Central Wisconsin Regional Planning Commission.

⁶³ Wisconsin Taxpayers Alliance. 2008. *School Facts 08*.

⁶⁴ Runice, J. 2005. Personal Communication. District Administrator. Berlin Area School District.

⁶⁵ Amundson, P. 2006. Personal Communication. District Administrator. Omro School District.

Institutions of Higher Education

There are no institutions of higher education in Waushara County. However, UW-Oshkosh (Oshkosh), UW-Stevens Point (Stevens Point), Lawrence University (Appleton), and Ripon College (Ripon) are within an hour's drive of the area. UW – Fox Valley (Menasha) is a two-year university offering freshman and sophomore level classes. Students can earn an associate's degree, or credits are transferable to all four-year UW system schools.

Vocational Technical Colleges

The state is covered by 16 multi-county vocational technical and adult education districts which are organized on a regional basis and financed primarily by local property taxes.⁶⁶ These districts tend to follow school district boundaries rather than county lines. ***Waushara County is part of the Mid State District in the northwestern portion of the county, the Madison Area District in the southern portion, the Moraine Park District in the southeastern portion, and Fox Valley District in the central and northeastern portion of the county.*** Fox Valley Technical College has a local facility in Wautoma. Curricula in the technical schools are usually geared toward an area's particular needs. Typically a student may choose from among a two-year highly technical associate degree program, a two-year vocational program, a one-year vocational program, and a short-term program.

Community Theaters

Several small theaters are located in City of Wautoma and the towns of Saxeville, Mount Morris and Coloma. These theaters schedule a diverse calendar of events throughout the year including musical concerts, talent shows, the Wautoma Queen Pageant, and theatrical performances. Audiences are attracted from throughout Waushara County and central Wisconsin. The general public can rent the facilities for private events.⁶⁷

Other Municipal Buildings

Buildings and Maintenance Garages

The Waushara County Buildings and Grounds Department is responsible for the Courthouse, Jail, and North and South Annexes and associated property. The Buildings and Grounds Department is comprised of six employees; two housekeepers, one technician, two part-time custodians and a Superintendent. Contracted services are responsible for cleaning two buildings. Prisoners from Huber Jail provide snow removal assistance in winter.⁶⁸

While the courthouse building is in good shape structurally, some departments are seeing a need for additional storage.⁶⁹ The **North Annex** on Park Street, across the street from the courthouse, accommodates the Emergency Management (EMS) and Human Services departments. This building was formerly utilized as the County Highway Garage until it was remodeled in 1994. ***Generally, concerns with the North Annex Building have been noted***

⁶⁶ Wisconsin Department of Instruction. 2006. *Wisconsin Technical College Districts*. <http://dpi.wi.gov/lbstat/techcmap.html>.

⁶⁷ McComb-Brush Performing Arts Center. 2006. <http://www.mccombbruchspac.com>.

⁶⁸ *Annual Report, Buildings and Grounds Department*, 2007. Waushara County Buildings and Grounds Department

⁶⁹ Gramse, R. 2008. Building and Grounds Superintendent. Personal Communication

in regard to heating and ventilation. Additionally, the EMS department has outgrowth its space and a new location is being explored (Health Care Facilities/Emergency Medical Services). The South Annex, or old Normal Building, houses a portion of the Human Services Department. ***This building is outdated, and in need of a number of major improvements.*** Prior to the change in the economy, plans were being made to demolish this building and improve parking needs around the courthouse. The **jail** space includes the jail and administrative offices. The building is about 8 years old and was built to be easily expanded in the future. ***At this time, no improvements or expansions are needed at the jail.***

Parks and Recreation

The Waushara County area is a popular recreational retreat. Waushara County's natural resources and outdoor recreational facilities provide a wide range of active and passive recreational activities. The abundance of natural lakes, forests, parks, recreational trails, and other amenities provide year-round recreational opportunities.

Parks

Waushara County

Waushara County's park system is comprised of 15 sites containing a total of 761 acres (Table 4-8, Exhibit 4-2). Mt. Morris County Park, which contains 383 acres, is one of the largest county-operated parks in the state. Kusel Lake Park, 92 acres, and Sorenson Natural Area, 71 acres, are other sizable parcels. The county park system is considered to primarily provide active recreational opportunities. Mt. Morris County Park, which remains largely in its natural state, and Sorenson Natural Area, presently undeveloped, are exceptions. The county park system is considered to primarily provide active recreational opportunities. County recreational facilities are described below.⁷⁰

Several years ago, the County looked at ways to integrate its adjacent 48-acre West Point quarry tract into the property and also assessed other options for the two parcels. The West Point site is also currently being leased out to a diving club. The location of the two sites on the Bannerman Trail and possible tie-ins with similar quarries in Redgranite, Berlin, and Montello may offer potential for historical interpretation. With this in mind, it was felt there might be interest by DNR and/or State Historical Society (SHS) in managing the two sites. Since neither has expressed serious interest in pursuing this option, thoughts have been given to selling these properties.

⁷⁰ Waushara County Outdoor Recreational Plan. April 2006. East Central Wisconsin Regional Planning Commission.

Table 4-8. County Owned Park and Recreational Land, 2006

Park/Recreational Site	Location	Acres
Lake Huron County Park (b)	T. Oasis	2
Marl Lake County Park (b)	T. Deerfield	24
County Shooting Range (d)	T. Wautoma	5
Curtis Lake County Park (b)	T. Richford	1
Waushara County Fairgrounds	Wautoma	35
Sorenson Natural Area	T. Deerfield	71
Bannerman Trail (7 miles)	Redgranite/Lohrville/ Marion	63
Flynn's Quarry Property	T. Marion	40
Lake Alpine County Park	T. Marion	17
Otto Brey County Park	T. Aurora	6
Mt. Morris County Park	T. Mt. Morris	383
Willow Creek County Park	T. Mt. Morris	1
Big Hills Lake County Park	T. Mt. Morris	5
Kusel Lake County Park (a)	T. Springwater	92
Pony Creek County Park ©	T. Bloomfield	16

(a) 33 ac. owned by the county; 59 ac. leased from the town.

(b) town owned; leased by county for development & maintenance

(c) owned by state; county has permanent easement

(d) owned by state; county has land use agreement

Mt. Morris County Park

Located on CTH W in the Town of Mount Morris, Mt. Morris County Park's 383 acres comprise over half the parkland in the county park system. Mt. Morris itself, the granite monadnock on which the park is located, is one of the most prominent features in Waushara County. Facilities include a shelter house, tables and grills, three restroom buildings, play equipment, drinking water, two tennis courts, basketball goals, volleyball courts, a fenced ball diamond and concession stand. The northern slope of Mt. Morris is leased out as a ski hill complex. The parking area at Nordic Mountain serves as a trailhead for 9.6 km. of county-maintained cross-country ski trails. About three-fourths of the trail is in Mt. Morris County Park while the remainder is in adjacent Willow Creek County Park and adjacent private lands. ***Existing ski/hiking trails need continual improvement and maintenance. A second shelter is needed to accommodate picnickers and group activities.***

Willow Creek County Park

This one-acre site provides walk-in access to Willow Creek, a class I trout stream. A small parking area off the entrance road into Nordic Mountain Ski Hill serves the park. A restroom building and picnic facilities are available. The park is on a loop of cross-country ski trail that originates at the Nordic Mountain parking lot. ***Existing ski/hiking trails need continual improvement and maintenance. Interest in lighting the cross-country ski trails should be explored.***

Lake Alpine County Park

This 17-acre county park lies about a quarter mile north of STH 21 midway between Wautoma and Redgranite in the central portion of the county. Recreational facilities include a shelter,

restrooms, boat ramp, picnic facilities, a variety of play apparatus, drinking water and volleyball courts. A portion of the shoreline is used for swimming. ***Parking is considered generally adequate while the restrooms are considered inadequate. A larger flush type restroom building is needed. Horseshoe pits need to be installed.***

Kusel Lake County Park

Kusel Lake is one of the county's most fully developed and heavily used parks. Facilities near the water's edge include a boat launch, play equipment, picnic facilities, shelter building with restrooms, and parking. A portion of the shoreline is used for swimming. ***Parking capacity in this area is considered inadequate while erosion control along the shoreline remains an ongoing problem.*** Upland development includes an additional shelter/restroom, other picnic facilities, two tennis courts, basketball goals, play equipment, security lights, and a large parking area. Drinking water is available in both areas. The lower parking area serves as the trailhead for 8.8 km. of County-maintained ski trail, consisting of three loops through the park and adjacent Camp Luwisomo land. The County continues to work with the U.S. Fish and Wildlife Service on an ongoing prairie restoration project.

Bannerman Trail

Bannerman Trail supplies about seven miles of linear recreational opportunities for hikers, bicyclists, and snowmobilers. The trail utilizes the abandoned railroad right-of-way that once linked the quarries of Redgranite and Lohrville with the nation's rail system. The trail extends from the south side of Bannerman Avenue in downtown Redgranite to STH 73 north of Neshkoro. ***Waushara County has expressed an interest in working with the Village to pursue opportunities to provide off-street parking near the Redgranite trailhead. Necessary repairs to trail surfaces need to be made.***

Otto Brey County Park

Otto Brey County Park occupies a six acre site on the southern shore of the Auroraville Millpond in the Town of Aurora. The park features a softball field and a large shelter suitable for local functions. Other facilities include restrooms, playground equipment, picnic facilities, a boat ramp with a fishing/boarding pier, and a paved parking area along Cottonville Court. ***Because of the millpond's shallow gradient, additional boat ramp improvements are still needed.***

Pony Creek County Park

Development of Pony Creek County Park was encouraged by the WDNR, which granted a permanent easement to the land in 1991. Since its development, this 16-acre site has become one of the most heavily used parks in the county. Located west of Tustin where Pony Creek drains into Lake Poygan, the park has been designed to provide an extensive shoreline fishing area. Development consists of a paved parking area; parking area fencing; a park sign; benches, picnic tables, and grills; restrooms; a shelter; electrical service; a shoreline path; and a handicapped drinking fountain. ***Future plans call for the installation of playground equipment and development of a nature trail and boardwalk. Existing parking has been found to be inadequate during peak bank fishing.***

Marl Lake County Park

Located in the west central portion of Waushara County between Wautoma and Hancock on CTH C, Marl Lake County Park occupies a 24-acre wooded site leased from the Town of Deerfield on the west side of 12th Avenue. Facilities include a paved boat ramp, a shelter, restroom facilities, picnic facilities, play equipment, and drinking water. Park visitors use a portion of the shoreline for swimming. ***Erosion control remains a problem in this area. Because parking capacity is limited, parked vehicles often infringe on adjacent lawn areas. Electrical service needs to be installed. Lights with light pollution shades and outlet(s) are needed in the shelter. The restrooms building needs renovation; a power vent needs to be installed.***

Curtis Lake County Park

Curtis Lake County Park in the Town of Richford serves the southwestern portion of Waushara County. The one-acre site fronts the east shore of Curtis Lake, a relatively pristine 33-acre body of water located about a mile south of CTH JJ on 10th Court. Development consists of a boat ramp, restrooms, a swing set, and picnic facilities. The natural beach, although not officially designated for swimming, is popular with park visitors. ***Additional land is needed to more effectively develop and utilize this site. The parking, picnic area needs to be expanded. A small shelter is needed in the picnic area and a boarding pier should be installed.***

Lake Huron County Park

Located four miles east of Plainfield in the Town of Oasis, Lake Huron County Park serves residents in the northwestern portion of the county. The 1.5-acre park functions primarily as a boat access site to Lake Huron, widely regarded as one of the county's finest lakes. Facilities include a boat ramp, restroom building, and picnic equipment.

Big Hills Lake County Park

Located in the Town of Mt. Morris in the north central portion of Waushara County, Big Hills Lake County Park occupies a 5-acre parcel at the southwest end of Big Hills Lake. An undeveloped portion of the site is located away from the lake west of CTH WW. Facilities adjacent to the lake include a boat ramp, a paved parking area, a restroom building, a merry-go-round, and picnic equipment. Dusk-to-dawn lighting is available.

Sorenson Natural Area

Purchased about five years ago, this 71-acre site in the Town of Deerfield is located on the north shore of Hartford (Lyman's) Lake, a 9-acre kettle pond some 27 feet deep. The County intends to limit development of this site so that its natural character is preserved. Walk-in access to the lake and a boarding pier is provided but use of the lake will be limited to canoes, kayaks, and other non-motorized craft. Sorenson Natural Area lies within the identified corridor of the Ice Age Trail and could provide modest overnight camping facilities for trail users without compromising the beauty and natural setting the site provides. An extensive trail system for hiking and snowshoeing is presently available. Other site improvements include a well and septic system.

Restrooms should be constructed; existing hiking/snowshoe trails should be improved and basic campsites should be considered.

Flynn's Quarry County Recreational Property

Flynn's Quarry is a 40-acre County-owned recreational property that surrounds a former granite quarry on CTH N near the Village of Lohrville. Near vertical rock walls surrounding a deep 3-acre quarry pond make the parcel one of the county's most unique recreational properties. Remnants of two former mine buildings are found on the site along with a number of abandoned artifacts, which are submerged on the floor of the quarry. While the steep rock walls and deep pond create some safety problems, cliff diving and scuba diving are unique recreational experiences traditionally enjoyed by visitors to the site. However, ***vandalism and after-hours use have created long-term problems for the County in managing this parcel.*** At the present time, Flynn's Quarry is leased to a dive shop for site management. Public use for scuba activities is arranged through Precision Sports Shop in Oshkosh.

Waushara County Shooting Range

The County has a land use agreement with DNR to maintain a five-acre site on CTH C west of Wautoma as a public shooting range. Facilities include five shooting stations (three different distances) with rear bunkers. Lateral bunkers would be needed to bring the range up to safety standards. The entrance road from CTH C into the range requires routine grading. Although more restrictive hours have been set, the need for short-term staffing should be assessed on an annual basis. ***Lateral bunkers are needed.***

Waushara County Fairgrounds

There are about 35 acres of recreational land available at the Waushara County Fairgrounds in Wautoma. The fairgrounds include the typical complement of livestock, exhibition, and concession buildings. The grandstand, with its upgraded seating, fronts a ½-mile dirt track, which is used for harness racing. Other facilities available at the fairgrounds include picnic equipment, restrooms, shelter house, and drinking water. Among the more recent improvements are perimeter fencing, a new show ring, and a livestock building. Other improvements include an upgrade of the fairground's electrical system and lighting, extension of city water, and the extension of the midway. ***Restroom facilities, although updated, continue to remain inadequate for major events such as the county fair. A covered grandstand, lighting of horse area, and tree planting should be considered/provided.***

Recreational Needs⁷⁰

Three factors are assessed to determine how well the recreational needs of Waushara County residents are being met: the amount of recreational land available, its location, and the supply of existing recreation facilities. As a first step, surpluses and deficiencies in open space acreage for both active and passive recreational activities are identified and a determination is made of how well various public and private agencies are fulfilling their responsibilities in providing recreation land. The location of parks is then assessed to determine how well each area of the county is served. Finally, an analysis of specific recreation facilities existing in the county is made to determine which facilities are not available or in short supply.

Based on this analysis, needs for new county parks or additional recreation facilities can be identified.

Various recreation standards are used as a basis for determining recreation needs. Those adopted by the East Central Wisconsin Regional Planning Commission in its March 1977 *Outdoor Recreation and Open Space Plan* are used as indicators of recreational need in Waushara County.

Recreational Land Needs

To determine the overall need for park and recreational land in Waushara County, the standard utilized is that ***a minimum of 100 acres of open space or outdoor recreational land should be available for every 1,000 persons.*** This area should be comprised of:

- ***70 acres of passive recreational open space.*** This acreage includes national, state, and county forests, wildlife areas, hunting preserves, and other lands which have development limited to that needed to accommodate extensive recreational activities such as hiking, nature study, cross-country skiing, hunting and fishing.
- ***30 acres of active recreational open space.*** This acreage includes portions of state and other regional parks and county parks designed to accommodate intensive recreational activities such as picnic areas, campgrounds, swimming beaches, ballfields, and play areas. Also included are privately operated facilities such as campgrounds and golf courses that are open to the general public.

As a second standard, ***a minimum of 10 additional acres of land should be available for every 1,000 residents to meet local day-to-day needs.*** This land, which includes local parks and school sites, is not counted when assessing the adequacy of the county's supply of outdoor recreational land. ***Applying these standards to Waushara County's current resident and seasonal population estimates indicated a peak demand in 2000 of 11,533 acres of recreation land – 8,073 for passive use and 3,460 for active use. When applied to the county's population projections, land needs increase to over 14,000 acres by the year 2030*** (Table 4-9).

Table 4-9. Waushara County Open Space Demand

Year	Resident Population	Seasonal Population	Total Population	Demand (acres)		Total
				Passive	Active	
2000	23,066	92,264	115,330	8,073	3,460	11,533
2010	26,349	105,396	131,745	9,223	3,952	13,175
2020	27,518	110,072	137,590	9,631	4,128	13,759
2030	28,051	112,204	140,255	9,818	4,208	14,026

Source: ECWRPC Population Projections, 2004.

Comparing existing and projected demand with the existing supply of outdoor recreational land suggests that Waushara County presently has and will continue to have an overall surplus of land available (Table 4-10). DNR holdings account for nearly three-quarters of the total acreage. Nearly all of this land is considered to provide passive recreational opportunities, however, and although the result is a substantial surplus in the amount of passive open space acreage in the county, a deficiency of over 2,100 acres of active recreational land presently exists. This

deficiency is projected to increase to about 2,900 acres by the year 2030 if additional land is not developed for active recreational activities.

Table 4-10. Waushara County Open Space Needs

Year	Demand			Supply			Surplus or Deficiency		
	Passive	Active	Total	Passive	Active	Total	Passive	Active	Total
2000	8,073	3,460	11,533	23,134	1,341	24,475	15,061	-2,119	12,942
2010	9,223	3,952	13,175	23,134	1,341	24,475	13,911	-2,611	11,300
2020	9,631	4,128	13,759	23,134	1,341	24,475	13,503	-2,787	10,716
2030	9,818	4,208	14,026	23,134	1,341	24,475	13,316	-2,867	10,449

Source: ECWRPC, 2006.

Jurisdictional Responsibility for Meeting Land Needs

Standards have also been developed to help gauge how well various levels of government as well as the private sector are doing in meeting their responsibility of providing outdoor recreational facilities. These guidelines suggest that, ***of the total 100 acres of open space that should be available for each 1,000 residents, federal and state governments are responsible for providing 80 acres; the County and local jurisdictions, 15 acres; and the private sector, five acres. Based on these guidelines, the State and private sectors are fulfilling their obligation in providing recreational land, while the County lags slightly behind*** (Table 4-11).

Table 4-11. Waushara County Land Use Needs by Jurisdiction (2000-2030)

Jurisdiction	Ex. Acres Provided	Recommended Acres Provided				Surplus or Deficiency			
		2000	2010	2020	2030	2000	2010	2020	2030
State/Federal	18,800	9,226	10,540	11,007	11,221	9,574	8,260	7,793	7,579
County/Local	1,580	1,730	1,976	2,064	2,104	-150	-396	-484	-524
Private Sector	4,095	577	659	688	701	3,518	3,436	3,407	3,394
Total	24,475	11,533	13,175	13,759	14,026	12,942	11,300	10,716	10,449

Source: ECWRPC, 2006.

Lakes

Waushara County's 136 lakes, 96 of which are named, comprise about 7,000 acres of surface water.^{70,71} Thirty-six Waushara County lakes have ramp access, nine have road access, three have walk-in access, and two are accessible from their outlet streams. The lakes provide a diversity of recreational opportunities including boating, swimming, and fishing. Many of the lakes within the area have public access. More information is presented in the Natural Resources element of this plan and within the individual community plans. County Facilities are listed below.

- Otto Brey County Park, Town of Aurora – Boat launch and parking
- STH 49, Town of Aurora – Parking and walk-in access
- Pony Creek Park, CTH H, Town of Bloomfield – Parking and walk-in access
- 11th Avenue, Town of Deerfield – Parking and walk-in access
- 12 Avenue/Marl Lake County Park, Town of Deerfield – Boat launch and parking

⁷¹ Wisconsin DNR. 1970. *Surface Water Resources of Waushara County*.

- 22nd Avenue, Town of Marion – Boat launch and parking
- CTH WW, Town of Mount Morris - Boat launch and parking
- North Huron Road, Town of Oasis - Boat launch and parking
- Curtis Lake County Park/10th Court to Curtis Lake Road, Town of Richford - Boat launch and parking
- Kusel Lake County Park, 24th Lane, Town of Springwater - Boat launch, parking and walk-in access

Church and Youth Camps

Waushara County has long been a popular area for churches and other organizations to develop camps and retreats for members and their children. ***There are several of these facilities located throughout the county, collectively occupying nearly 2,000 acres of land.*** While the facilities they provide are generally not available to the public, the county benefits from goods and services they obtain from local vendors. In recent years, some of these camps have been sold off.⁷²

School and Town Forests

Three school forests and a town forest provide 819 acres of passive open space in Waushara County. These facilities include the Tri-County School Forest (230 acres), the Wild Rose School Forest (128 acres), the Coloma School Forest (40 acres) and the Town of Rose Forest (421 acres).

Campgrounds

Fifteen private and one public (Village of Hancock) campgrounds are located throughout Waushara County. These facilities occupy an estimated 250 acres and provide an estimated 1,700 camping sites. Most of the campgrounds offer a diversity of recreational activities including swimming, boating, and fishing.

Snowmobile Trails

About 285 miles of state-funded snowmobile trails are available in Waushara County. The public trail network and 50 miles of interconnected privately maintained club trails are readily accessible to all portions of the county and link up with trails of surrounding counties as part of a statewide system. Most of the public trails operate on wintertime easements which cross private property.⁷⁰ A notable exception is the previously discussed Bannerman Trail between Redgranite and Neshkoro. Snow permitting, the public snowmobile trail system has a major impact on county's economy during the winter months. ***The private trails within the county are maintained by the Aurora SnoBlazers, Berlin River Riders, Coloma Pathfinders, Eureka Belt Busters, Metz Ridgerunners, Mid State Snow Drifters, Neshkoro River EZ Riders, Tri-County Sno Drifters, Poy Sippi Hillclimbers, and Richford Ridge Riders.***

Sportsman's Clubs and Conservation Organizations

Over a dozen parcels in the county are owned by a variety of sportsmen's and conservation groups. These sites total an estimated 800 acres and accommodate a variety of

⁷² ECWRPC. 2006. *Waushara County Outdoor Recreation Plan*.

uses including trap and other shooting ranges; a snowmobile club; hunting and fishing grounds, areas set aside for preservation; and, in the case of private hunting clubs, hunting opportunities on a fee basis. Some of the hunting clubs also provide overnight accommodations. Depending on the activities each site provides and the user groups it serves, it can make a noticeable contribution to the local economy. Because some of these lands provide public recreational opportunities at times, they also help reduce use pressure on public land holdings.

Golf Courses

There are three golf courses located in Waushara County. The following golf courses are located within the County: the Waushara Country Club, Two Oaks North Golf Course and Marl Links. Waushara Country Club, located on STH 21 east of Wautoma, has recently been expanded to a 27-hole facility. Although the course is semi-private, guests are always welcome. Two Oaks North Golf Course is located near the City of Wautoma on CTH F in the Town of Marion. This 18-hole public course provides a golfing experience amid a scenic, peaceful, countryside setting. Marl Links, a par 3 course located near Marl Lake in the Town of Deerfield, is also available for public play. The courses offer challenging opportunities for golfers of all skill levels.⁷⁰

Post Office

There are twelve Post Offices in Waushara County. Their locations are listed below. Delivery is based upon individual Post Office locations.

- US Post Office, 122 S Pearl Street, Berlin, WI 54923⁷³
- US Post Office, 145 N Front Street, Coloma, WI 54930
- US Post Office, 127 W North Lake Street, Hancock, WI 54943
- US Post Office, 110 W North Street, Plainfield, WI 54966
- US Post Office, 130 E Bannerman Avenue, Redgranite, WI 54970
- US Post Office, 108 W Main Street, Wautoma, WI 54982
- US Post Office, 801 Main Street, Wild Rose, WI 54984
- US Post Office, Main Street, Pine River, WI
- US Post Office, W4655 Portage Street, Saxeville, WI 54976
- US Post Office, 616 Main Street, Poy Sippi

Key Findings

Wastewater Collection and Treatment

- Private on-site wastewater treatment systems (POWTs) serve a majority of Waushara County.
- Public wastewater treatment is available in the Cities of Wautoma and Berlin; the villages of Coloma, Hancock, Plainfield, Wild Rose and Redgranite; and through the Silver Lake Sanitary District (City of Wautoma and parts of the towns of Dakota, Marion, Wautoma and Mount Morris), the Poy Sippi Sanitary District No. 1 (unincorporated village of Poy Sippi and part of the Town of Leon), Joint Towns of Poygan and Poy Sippi Sanitary District (part of the towns of Poy Sippi and Poygan – Winnebago County), and the North Lake

⁷³ Not located in Waushara County but utilized by County residents.

Poygan Sanitary District (parts of the towns of Bloomfield and Wolf River – Winnebago County).

Stormwater Management

- Eight drainage districts have been established within Waushara County. The only active district is the Marion-Warren district.
- Stormwater systems consisting of storm sewer, inlets, curb and gutter are limited in Waushara County and are generally found in the incorporated communities of Wautoma, Redgranite, Wild Rose, Hancock, Coloma, etc.

Water Supply

- The County is served by municipal water systems and private wells. Municipal water systems are located in the cities of Wautoma and Berlin; and the villages of Coloma, Hancock, Plainfield, and Redgranite.
- Groundwater is the source of drinking water throughout the county.

Solid Waste and Recycling

- The County operates nine waste collection sites and contracts with Waste Management of Wisconsin, Inc. and Onyx Waste Services to haul waste and recyclables.
- Residents are able to utilize any drop-off site within the county.
- All waste management sites in Waushara County accept recyclable materials.

Electricity

- Adams-Columbia Electric Co-op, Alliant-Wisconsin Power & Light, Pioneer Power & Light Company, and Wisconsin Electric Power Company (WE Energies) provide electric power to Waushara County.

Natural Gas

- Wisconsin Gas Company and Alliant/Wisconsin Power & Light provide natural gas service to Waushara County.

Power Generation Plants and Transmission Lines

- ANR Pipeline Company (ANR) operates several gas pipelines within Waushara County.
- American Transmission Company (ATC) owns and maintains a number of transmission lines in Waushara County. According to ATC, transmission systems throughout Zone 1 (includes Waushara County) are overloaded and experiencing low voltages.
- Koch Pipeline Company LP operates a pipeline within Waushara County.

Telecommunications Facilities

- According to information obtained from Waushara County, there are a number of towers scattered throughout the county.
- Century Kendall, Century-Midwest WI, CenturyTel Central, SBC Communications and Union Telephone all provide service to Waushara County.
- Due to the proliferation of internet service providers (ISP), area residents can also choose from several national and local ISPs.

Cemeteries

- According to the United States Geologic Survey (USGS) there are 43 public and private cemeteries within Waushara County.

Childcare Facilities

- Public involvement at the state level in the role of childcare falls largely under the supervision of the Wisconsin Department of Workforce Development's Office of Childcare (OCC).
- The Mid-Wisconsin ChildCare Resource & Referral, Inc. and CAPSELL Services works with Waushara County.
- UMOS is a non-profit, community-based organization which provides housing and other services to underserved populations. UMOS operates a housing complex, Head Start program, and childcare facilities in Plainfield and Aurora.

Elderly Services

- The Waushara County Coordinated Transportation System offers rides to not only senior citizens but also to veterans, and human service clientele on Medical Assistance.
- Meals along with activities and fellowship are provided to seniors at eight locations throughout Waushara County.
- The Aging & Disability Resource Center of Green Lake, Marquette and Waushara Counties provides information and assistance on aging, long term care, disabilities, and other related topics.
- The Wautoma-Waushara Senior Center (in the Town of Dakota) offers a wide range of social and educational activities for seniors including bingo, card tournaments, crafts, and others.
- The Wisconsin Department of Health and Family Services (DHFS) regulates' adult care facilities.
- There is an adult day care facility in Wautoma called Adult Day Services Living Environmental. Cooperative Care, based out of Wautoma and Redgranite, provides in-home personal and home care services to elderly and disabled residents.
- Facilities for Waushara County are located in Wautoma and Redgranite.
- The overall capacity for adult care facilities serving Waushara County is 258 persons.

Police Service

- The Waushara County Sheriffs Department provides around the clock law enforcement services as needed.
- Response times within the county vary depending on the location of patrol vehicles.
- New in 2008, the Sheriff's department provides boat patrol for all lakes within Waushara County.
- The Waushara County Sheriff's Office is located on Division Street in Wautoma.
- The Hancock and Poy Sippi fire departments serve as satellite headquarters each Saturday afternoon.
- For a sheriff's office (includes most jail personnel), the state average was 1.77 sworn employees per 1,000 residents served. The Waushara County Sheriff's Office employs 1.1 officers per 1,000 population. This is below the state average.
- Municipal police department exist in the villages of Coloma, Hancock, Plainfield, Redgranite, Wild Rose, the Town of Marion and the cities of Wautoma and Berlin.
- There are three correctional facilities in Waushara County; the Waushara Huber Facility, the Waushara County Jail, and the Redgranite Correctional Facility.

Fire Protection

- Waushara County is comprised of eleven Fire Department/Districts. These include Plainfield, Hancock, Coloma, Wild Rose, Wautoma, Neshkoro, Saxeville/Springwater, Redgranite, W. Bloomfield, Poy Sippi, and Berlin.

Health Care Facilities/Emergency Medical Services

- There is one hospital located within Waushara County; the Wild Rose Community Memorial Hospital in the Village of Wild Rose.
- Emergency medical services for the county are provided by the Waushara County EMS. EMS administrative offices are located at 230 W. Park Street in Wautoma and provide municipal and county ambulance service. The department also operates a permanent service center in Poy Sippi and alternating service centers in Coloma and Plainfield.
- Since the EMS headquarters share facilities with the Department of Human Services, preliminary plans have been made to relocate the headquarters to a new location; no specific sites have been determined. Preliminary plans have also been drafted to remodel the Plainfield district center.
- First Responders are usually able to arrive at the emergency scene either ahead of the ambulance or at approximately the same time.
- The towns of Aurora and Warren contract with the City of Berlin for emergency medical services for areas within their individual towns that are near the City of Berlin.

Libraries

- Residents within the county have access to a good selection of libraries. These libraries are located in Coloma, Hancock, Pine River, Plainfield, Poy Sippi, Redgranite, Wautoma and Wild Rose.
- Service targets for libraries within Waushara County vary from less than basic to excellent.

Education

- Nine school districts are found within Waushara County. These include the Almond-Bancroft, Omro, Tri-County Area, Westfield, Wautoma Area, Wild Rose, Waupaca, Weyauwega-Fremont, and the Berlin Area school districts.
- The Almond-Bancroft School District includes a small portion of the towns of Oasis and Rose. The district has seen a declining enrollment at all levels since the 2003-2004 school year. Therefore, it is anticipated that the schools will be able to continue to serve the enrollment of the district's population for the near future.
- The Tri-County Area School District includes the towns of Plainfield, Oasis (partial), Rose (partial), Hancock, Deerfield (partial) and the villages of Plainfield and Hancock. The district is experiencing a declining enrollment at all levels. Therefore, it is anticipated that the schools will be able to continue to serve the enrollment of the area's population for the near future.
- The Westfield School District includes the towns of Coloma, Richford (partial), Dakota (partial) and Marion (partial). Enrollment has remained stable at the elementary schools. Therefore, it is anticipated that the schools will be able to continue to serve the district's enrollment for the near future.
- The Wautoma Area School District serves the towns of Richford (partial), Deerfield (partial), Dakota (partial), Wautoma (partial), Marion (partial), Warren (partial), Leon (partial), Mount Morris (partial); the City of Wautoma; and the villages of Redgranite and Lohrville. Enrollment is declining at all schools. Due to declining enrollment and school capacities, it is anticipated that the schools will be able to continue to serve the district's anticipated enrollment for the foreseeable future.
- The Wild Rose School District includes the towns of Rose (partial), Springwater, Saxeville (partial), Leon (partial), Mount Morris (partial), and Wautoma (partial); and the Village of Wild Rose. A declining enrollment is being experienced at all levels. It is anticipated that the schools will be able to continue to serve the enrollment of the district for the near future.
- The Waupaca School District encompasses a small portion of the Town of Saxeville. A declining enrollment is being experienced at all levels. Therefore, it is anticipated that the schools will be able to continue to serve the enrollment of the district for the near future. The district does not have any plans for any major improvements to their schools at this time.
- The Weyauwega-Fremont School District includes part of the northeast quarter of the Town of Saxeville. Enrollment has declined by approximately 25 students annually in recent years. Due to declining enrollments, there are no planned upgrades to any district facility at this time.
- The Berlin Area School District includes the towns of Saxeville (partial), Bloomfield (partial), Poy Sippi (partial), Aurora (partial), Leon (partial) and Warren (partial); and the City of Berlin (Waushara County). Enrollment at the high school has remained steady in recent years and the building has excess capacity. There are no planned upgrades at this time. The Berlin Middle School is nearing capacity, however, the district has no plans to expand the facility. The Clay Lamberton and Poy Sippi elementary schools have been seeing declining enrollment in recent years. Due to declining enrollment and the capacity of the buildings, these schools should adequately meet enrollment needs of the district for a number of years.
- The district includes a few properties in the towns of Aurora and Poy Sippi. Enrollment at H. B. Patch Elementary has been declining in recent years. However, within the district as

a whole, enrollment has been gradually increasing in recent years, but existing facilities should be adequate capacity for future growth within the next ten years.

- There are no institutions of higher education in Waushara County.
- Waushara County is part of the Mid State District in the northwestern portion of the county, the Madison Area District in the southern portion, the Moraine Park District in the southeastern portion, and Fox Valley District in the central and northeastern portion of the county.

Community Theaters

- Several small theaters are located in City of Wautoma and the towns of Saxeville, Mount Morris and Coloma.

Other Municipal Buildings

- While the courthouse building is in good shape structurally, some departments are seeing a need for additional storage.
- Generally, concerns with the North Annex Building have been noted in regard to heating and ventilation.
- The South Annex building is outdated, and in need of a number of major improvements.
- At this time, no improvements or expansions are needed at the jail.

Parks and Recreation

- Waushara County's park system is comprised of 15 sites containing a total of 761 acres.
- Existing ski/hiking trails need continual improvement and maintenance at the Mount Morris County Park. A second shelter is needed to accommodate picnickers and group activities.
- Existing ski/hiking trails need continual improvement and maintenance at the Willow Creek County Park. Interest in lighting the cross-country ski trails should be explored.
- Parking is considered generally adequate while the restrooms are considered inadequate at Lake Alpine County Park. A larger flush type restroom building is needed. Horseshoe pits need to be installed.
- Parking capacity in this area is considered inadequate while erosion control along the shoreline remains an ongoing problem at Kusel Lake County Park.
- Waushara County has expressed an interest in working with the Village to pursue opportunities to provide off-street parking near the Redgranite trailhead of Bannerman Trail. Necessary repairs to trail surfaces need to be made.
- Because of the millpond's shallow gradient, additional boat ramp improvements are still needed at Otto Brey County Park.
- Future plans call for the installation of playground equipment and development of a nature trail and boardwalk at Pony Creek County Park. Existing parking has been found to be inadequate during peak bank fishing.
- Erosion control remains a problem at Marl Lake County Park. Because parking capacity is limited, parked vehicles often infringe on adjacent lawn areas. Electrical service needs to be installed. Lights with light pollution shades and outlet(s) are needed in the shelter. The restrooms building needs renovation; a power vent needs to be installed.

- Additional land is needed to more effectively develop and utilize the Curtis Lake County Park. The parking, picnic area needs to be expanded. A small shelter is needed in the picnic area and a boarding pier should be installed.
- Restrooms should be constructed; existing hiking/snowshoe trails should be improved and basic campsites should be considered at Sorenson Natural Area.
- Vandalism and after-hours use have created long-term problems for the County in managing Flynn's Quarry.
- Lateral bunkers are needed at the Waushara County Shooting Range.
- Restroom facilities, although updated, continue to remain inadequate for major events such as the county fair. A covered grandstand, lighting of horse area, and tree planting should be considered/provided.
- Three factors are assessed to determine how well the recreational needs of Waushara County residents are being met: the amount of recreational land available, its location, and the supply of existing recreation facilities.
- A minimum of 100 acres of open space or outdoor recreational land should be available for every 1,000 persons; 70 acres of passive recreational open space and 30 acres of active recreational open space.
- A minimum of 10 additional acres of land should be available for every 1,000 residents to meet local day-to-day needs.
- Applying these standards to Waushara County's current resident and seasonal population estimates indicated a peak demand in 2000 of 11,533 acres of recreation land – 8,073 for passive use and 3,460 for active use. When applied to the county's population projections, land needs increase to over 14,000 acres by the year 2030.
- Of the total 100 acres of open space that should be available for each 1,000 residents, federal and state governments are responsible for providing 80 acres; the County and local jurisdictions, 15 acres; and the private sector, five acres. Based on these guidelines, the State and private sectors are fulfilling their obligation in providing recreational land, while the County lags slightly behind.
- Waushara County's 136 lakes, 96 of which are named, comprise about 7,000 acres of surface water.

Church and Youth Camps

- There are several church and youth camps located throughout the county, collectively occupying nearly 2,000 acres of land.

School and Town Forests

- Three school forests and a town forest provide 819 acres of passive open space in Waushara County.

Campgrounds

- Fifteen private and one public (Village of Hancock) campgrounds are located throughout Waushara County.

Snowmobile Trails

- About 285 miles of state-funded snowmobile trails are available in Waushara County.

- The private trails within the county are maintained by the Aurora SnoBlazers, Berlin River Riders, Coloma Pathfinders, Eureka Belt Busters, Metz Ridgerunners, Mid State Snow Drifters, Neshkoro River EZ Riders, Tri-County Sno Drifters, Poy Sippi Hillclimbers, and Richford Ridge Riders.

Sportsman's Clubs and Conservation Organizations

- Over a dozen parcels in the county are owned by a variety of sportsmen's and conservation groups.

Golf Courses

- There are three golf courses located in Waushara County.

Post Office

- There are twelve Post Offices in Waushara County.

INTERRELATIONSHIPS WITH OTHER COMPREHENSIVE PLAN ELEMENTS

Economic Development

Rising health care costs directly impact a company's ability to compete in a global market. High quality, affordable, and accessible health care that is available to all residents is important to the vitality of the area. As the area's residents become older, the importance of healthcare will increase. Residents who live and work in healthy communities are more active, have fewer health problems, and are more productive. Studies have shown that productivity for working parents increase if they have access to safe, reliable, quality daycare for their children.

A vital, safe, clean and healthy environment is an economic draw for new industry and residents. It aids in the retention of existing residents and businesses. Parks or green space add to the local economy by maintaining or increasing property values; providing a place where local citizens can socialize, play sports or relax; and promoting healthy active lifestyles that encourage physical activity. In addition, local parks and recreational facilities draw visitors to an area. These visitors spend money at local restaurants, motels and other businesses.

A good educational system has the ability to respond to an ever-changing job market, to educate or retain residents, and to form partnerships between businesses and schools.

Citizens, businesses and industries need accessible, reliable gas and electric services. To enable economic growth and open up new markets and opportunities for diverse and innovative services, access to fast, reliable, cost-effective, and cutting edge telecommunications must be available.

Housing

Preplanning can save municipalities time and money. Infill of housing units or reuse of existing buildings in areas that already have the needed infrastructure in place, such as streets, sewer,

water, emergency services and schools, saves taxpayers the cost of extending these services to new areas.

Housing developments should be provided with infrastructure that promotes healthy community lifestyles. It is important that housing, businesses and schools be interconnected with a network of sidewalks, green space and parks to encourage active lifestyles. Schools, parks, and libraries should be located in or near existing residential areas within walking distance for both children and adults. Parks and green space not only promote more active lifestyles but may increase housing values in the area.

However economically expedient or convenient it may seem at the time, housing should not be located in floodplains, areas of high groundwater, or other areas that are susceptible to flooding. Not only does this ill-conceived practice increase insurance costs, but it may also increase the cost to install basements and on-site sewage systems.

Transportation

A well maintained, efficient and safe transportation network provides access for emergency service providers (police, fire and ambulance) and ensures a timely response. By incorporating pedestrian and bicycling facilities into the design of a transportation system, options other than the motor vehicle are made available and active healthy lifestyles that rely less on driving can be promoted.

The siting of a local park, recreational facility, school, library, solid waste or recycling facility may have an impact on the adjoining transportation network or facility. These facilities often result in additional vehicular and pedestrian traffic, increasing the likelihood that new roads, signalized intersections and pedestrian facilities will need to be built. The siting of facilities that attract birds and other wildlife, such as parks, solid waste or recycling centers, can adversely impact the safety of nearby transportation systems, including air traffic.

Agricultural Resources

Preplanned development leads to the efficient use of public infrastructure and reduces the extent of sprawl, which contributes to the consumption of the rural countryside. Educating local officials and citizens about local land use decisions and their implications for farming is essential if farmland and the ability to grow or raise food are to be preserved.

Natural Resources

The ability to accommodate growth while protecting the natural environment is essential if our quality of life is to be maintained or improved. The quality of the surface and groundwater resources is linked to the proper siting, installation and maintenance of individual on-site wastewater treatment systems. Improper treatment can result in the discharge of excessive human waste and bacteria into the groundwater system, which in turn can contaminate public and private water supplies. The cumulative impacts of development and well density can not only affect the level of aquifers but also the rate at which the aquifer is recharged due to increased amounts of impervious surface. Additionally, improperly abandoned wells provide a direct link between the upper and lower aquifers and can be the cause of leakage between the two.

Parks, recreational areas, and other open space preserve and protect green areas for future generations to enjoy. They protect wildlife habitat within our communities, enhance water and air quality, lower heating and cooling costs, help control stormwater runoff, enhance property values, contribute to the vitality of a community, and encourage active lifestyles.

Cultural Resources

Cultural and historical resources often help to determine and define a community's identity. Renovating or preserving an existing historic structure or building and reusing it not only enhances the area, but is often coveted by future tenants. Forming partnerships between public and private sectors to encourage development or redevelopment in already developed areas can make better use of existing public infrastructure and allow for ideas to become reality. Historic buildings can often be creatively converted to restaurants and other business and residential uses. Reuse of these buildings contributes to the tax roll as they are in close proximity to existing facilities; eliminates the need to expand infrastructure to new areas; cuts down on urban sprawl and the consumption of farm and open land; and saves taxpayers money. Cemeteries preserve the history of a community or area and are invaluable in the search for individual family history. In addition to their historical significance, they also contribute to the green space within a community.

Land Use

Preplanned development leads to an efficient use of an area's resources, reduces urban sprawl, utilizes existing public infrastructure, and helps to eliminate land use conflicts. Concerns regarding the siting of solid waste and recycling facilities; gas, electric and telecommunications facilities; cemeteries; schools; and other public facilities are often raised by local citizens. However, education of local citizens and officials may result in a better general understanding of the issues and an acceptance of a solution that ultimately benefits everyone. Compact development in more urban areas reduces the cost to install public and private infrastructure and deliver public services (garbage pickup, sewer, water, emergency, electric, gas, and telecommunication, and elderly services, etc.).

Comm 83 regulations (affecting private on-site systems) have brought about state-level concerns regarding the promotion of "sprawl" development patterns and the ability to develop in or near sensitive areas. While the county has adequate groundwater supplies, well density in both urban and rural areas can impact the level of the aquifers. The rate at which they are recharged is influenced by the amount of impervious surface. Therefore when making land use decisions, it is imperative that the cumulative impacts of development on natural resources be examined carefully.

Intergovernmental Cooperation

Forming partnerships between schools, park departments, libraries, non-profits and others benefits the community and saves the local taxpayer money. In some instances, if these facilities are located near each other, additional cost savings and avoidance of duplicative services can be realized.

POLICIES AND PROGRAMS

The provision of public and private utilities and community facilities is governed at federal, state, regional, and local levels. Given the breadth of topics discussed in this chapter, the policy background is provided for those areas most relevant to the comprehensive planning process.

Regional, County and Local Policies

Regional

East Central Wisconsin Regional Planning Commission. East Central has adopted a regional smart growth plan. As part of this planning effort, East Central has adopted six Public and Community Facilities goals:

- Support opportunities for the sustainable and safe management of solid waste and recycling, collection, processing and disposal activities working in a cooperative, regional manner.
- Support efforts to provide electric, gas and telecommunication services to meet industrial and residential needs while being environmentally conscientious.
- Support the provision of efficient quality emergency and non-emergency services in a timely cost-effective manner within the region.
- Work cooperatively to protect and preserve current park, open space, recreational facilities, programs and plan for new facilities, while providing for and balancing the needs of various community groups with the needs of the general public in a financially responsible manner.
- Support a collaborative regional forum to create and implement a strategic policy framework for the continuum of care for the health and well being of the residents of the region.
- Support a variety of meaningful educational options and opportunities for all students.

County

Waushara County Zoning Ordinance. The Waushara County Zoning Ordinance regulates many of the public facilities referenced in this chapter. The following chapters contain relevant information.⁷⁴

Chapter 30, Parks and Recreation, regulates land, structures and properties owned or leased by the County. This chapter specifies the laws associated with public usage of county parks. Topics discussed include, but are not limited to, park hours, permissible activities, safety standards, and police protection.

Chapter 38, Solid Waste, regulates solid waste and recycling activities in the county. Zoning ordinances are intended to preserve and protect environmental resources, to safeguard public health, and promote county-wide recycling initiatives. This section establishes hours for county waste collection facilities, delineates recycling guidelines, and discusses proper disposal techniques for solid waste.

Chapter 54, Utilities, regulates private on-site wastewater treatment systems within the unsewered portions of the County. This section regulates the proper siting, design, installation, inspection, and maintenance of private on-site wastewater systems (POWTS). The prerequisites

⁷⁴ Waushara County Zoning and Land Conservation Department. 2006. *Code of Ordinances: Waushara County, Wisconsin*.

necessary for the essential protection of the public health and the environment are the same everywhere. To a lesser extent, POWTS are also regulated by the Health and Sanitation Zoning Ordinance contained within Chapter 22. This ordinance declares that improper disposal of sewage and effluents are a public health hazard.

Chapter 54 is augmented by Comm 87 and Comm 83. Comm 87 requires that all new private on-site wastewater treatment systems be inspected at installation. Comm 83 specifies that all new POWTS must be inspected and maintained by a licensed certified professional. All new or replacement systems must be inspected every three years. POWTS should also be pumped out as mandated by their normal usage. Individual owners are now required to execute a verified affidavit and restrictive covenant running with the land which verifies that the POWTS serving the property is under such a maintenance program. Comm 83 requires that the service providers submit these forms on behalf of the POWTS owner within 30 days of the service. Records are kept on file with individual counties for a period of six years.

Chapter 58, Zoning, establishes the general zoning practices for unincorporated areas of Waushara County. Chapter 58 regulates cell tower heights (58-825), airport height limitations (58-236) and Wireless Communication Facilities (58-236). Cell towers are permitted as conditional uses according to the Waushara County zoning ordinances. Cell towers can be placed anywhere in the county with the exception of shoreland, wetland, or floodplain areas or the Wautoma airport height limitation zone. Although not specifically included in the Waushara County Zoning Codes, additional restrictions could be placed on communication towers.

Waushara County Outdoor Recreation Plan. The Waushara County Outdoor Recreation Plan discusses longstanding goals and objectives, inventories existing park and recreation needs and opportunities, and presents recommendations and an action program for addressing the system's growth and development. The current plan was adopted in April 2006.

Waushara County Solid Waste Plan Update. The Waushara County Solid Waste Plan Update 1999 inventories current waste management activities, projects future waste volumes, and discusses alternatives that the county may want to consider as they proceed into the future.⁷⁵

Federal, State and Regional Programs

Federal Agencies

United States Environmental Protection Agency (USEPA)

Water Pollution Control Act. The Federal Water Pollution Control Act (1977), more commonly known as the Clean Water Act, established the basic structure for regulating discharges of pollutants into surface waters. Effluent standards for wastewater treatment plants and other industrial facilities were established by this landmark legislation. The legislation also provided grants to communities to assist with planning and construction of upgraded facilities. Today, increasing levels of growth and changing treatment standards have caused more recent expansions and improvements of these systems.

⁷⁵ Waushara County Parks, Recreation, and Solid Waste Department. 1999. *Solid Waste Plan Update*.

National Pollutant Discharge Elimination System (NPDES) Storm Water Program. The Clean Water Act also established the National Pollutant Discharge Elimination System (NPDES) Storm Water Program. The comprehensive two-phased program addresses the non-agricultural sources of stormwater discharges which adversely affect surface water quality. A NPDES permitting mechanism requires the implementation of controls designed to reduce the volume of stormwater runoff and the level of harmful pollutants in stormwater runoff.

Safe Drinking Water Act (SDWA). Drinking water standards are set by the USEPA. The Safe Drinking Water Act (SDWA) requires the USEPA to set primary standards, while individual public water systems must ensure that they are met. Drinking water standards apply to public water systems which supply at least 15 connections or 25 persons at least 60 days of a calendar year. Standards have been set for 90 chemical, microbiological, radiological, and physical contaminants. Non-enforceable guidelines are also set for secondary standards for contaminants that may cause cosmetic effects such as poor taste or odors.

United States Department of Agriculture

Rural Emergency Responders Initiative. The Rural Emergency Responders Initiative can be utilized to strengthen the ability of rural communities to respond to local emergencies. Public bodies and non-profit organizations are eligible to receive funds. Eligible projects include the purchase of equipment, vehicles or buildings for the following types of projects: fire protection, rescue/ambulance, civil defense/early warning systems, communication systems, training facilities, and several other projects. More information can be found at http://www.rurdev.usda.gov/rhs/cf/Emerg_Responder/rural_emergency_responders_initi.htm.

Water and Waste Grant and Loan Program. The Water and Waste Grant and Loan Program offers grants and loans to communities with populations of up to 10,000. The funds are utilized to develop water and wastewater systems, including water supply, storage, waste disposal and storm drainage in rural areas. Eligible projects involve the original construction, modification or extension of existing projects. More information can be found at <http://www.usda.gov/rus/water/programs.htm>.

Community Facilities Grant Program. The Community Facilities Grant Program provides assistance to rural communities in the development of essential community facilities. Eligible applicants include public entities with populations less than 20,000. Grant funds may be used to purchase equipment or construct, enlarge, or improve facilities associated with health care, public safety, or community and public services. More information can be found at http://www.rurdev.usda.gov/rhs/cf/brief_cp_grant.htm.

Federal Emergency Management Administration (FEMA)

FEMA offers several annual grant awards to fire departments. Eligible project costs include equipment, supplies, training, emergency work (evacuations, shelters, etc.), and mobilization/demobilization activities. All municipal jurisdictions with a population of less than 50,000 are eligible to receive funding. Recipients must provide a 10 percent match for all project costs. FEMA also operates disaster relief programs. For additional information see <http://www.fema.gov>.

Other Federal Agencies

Federal regulation of telecommunications, radio, and television towers is currently under the auspices of the **Federal Communications Commission (FCC)**, the **Federal Aviation Administration (FAA)**, and the **Occupational Safety and Health Administration (OSHA)**. The FCC issues licenses for new telecommunication facilities by determining the overall need, coordinates frequencies, and regulates tower placement. Communication towers must be located at the most central point at the highest elevation available. The FAA regulates tower height, coloring, and lighting to ensure aircraft safety. OSHA regulates the occupational exposure to non-ionizing electromagnetic radiation emitted from radio, microwave, television, and radar facilities.

State Agencies and Associations

Public Service Commission (PSC). Public utilities in Wisconsin are regulated by the PSC, an independent regulatory agency. The PSC sets utility rates and determines levels for adequate and safe service. More than 1,400 utilities are under the agency's jurisdiction. PSC approval must be obtained before instituting new rates, issuing stock or bonds, or undertaking major construction projects such as power plants, water wells, and transmission lines.

Wisconsin Department of Agriculture, Trade, and Consumer Protection (DATCP)

Rural areas are governed by several non-point pollution prevention programs. Small-scale drains are prevalent throughout Waushara County. Administrative rules relating to agricultural runoff include NR-151, ATCP-50, NR-88, and ATCP-48. The first two regulations govern the total suspended solids (TSS) loadings; a 20 percent reduction is required by 2008 and 40 percent reduction by 2013. The latter two regulations pertain to the daily operations and functions of agricultural drainage districts. Primary responsibility for planning for, administering, and enforcing drainage district regulations resides with the county drainage board.

Wisconsin Department of Commerce

COMM 83 is a health and safety code that sets standards for private on-site wastewater treatment system (POWTS). COMM 83 provides a technical and administrative framework for enforcing POWTS related issues. This legislation regulates traditional septic and mound systems as well as delineates alternative options in which soil conditions and other factors limit the use of these traditional methods of private domestic wastewater treatment. The updated code prescribes specific effluent standards for POWTS.

Community Development Block Grant – Public Facilities (CDBG – PF). The Community Development Block Grant – Public Facilities (CDBG – PF) is a versatile tool that allows local units of government to finance public works projects. Projects must enhance the economic vitality of a community by undertaking public investment that contributes to overall community and economic development. Funds can be allocated to a wide array of infrastructure and public building projects, excluding buildings for the conduct of government. Typically, funded projects include improvements or construction of municipal sewer systems, wastewater treatment plants, municipal water systems, and other related projects. More information can be found at <http://www.commerce.state.wi.us/CD/CD-bcf-cdbg-pf.html>.

Community Development Block Grant Public Facilities for Economic Development (CDBG – PFED). The Community Development Block Grant Public Facilities for Economic Development (CDBG – PFED) helps underwrite municipal infrastructure development that retains or promotes business development by creating employment opportunities. Eligible projects include water and sewer systems and roads that are owned by a special purpose unit of government. All local governmental units with populations of less than 50,000 are eligible for funding. More information can be found at <http://www.commerce.state.wi.us/CD/CD-bcf-cdbg-pfed.html>.

Wisconsin Fund. The Wisconsin Fund provides grants to homeowners and small commercial businesses to repair, rehabilitate, or replace an existing private on-site wastewater treatment system (POWTS). Since 1978, the program has provided \$77 million in assistance. Waushara County residents living in areas not serviced by municipal sewer systems are eligible to participate if the annual household income is less than \$45,000. Small businesses with gross revenues totaling less than \$362,700 are also eligible. Waushara County provides assistance to county residents to prepare grant applications. A portion of the funds is used to develop more environmentally friendly systems. More information can be found at <http://www.commerce.state.wi.us/SB/SB-WisconsinFundProgram.html>.

Wisconsin Department of Natural Resources

Federal legislation such as the Clean Water Act has served as the impetus for state legislation. Areawide Water Quality Management under Section 208 and the Facility Planning Grant Program under Section 201 mandated the preparation of sewer service area plans for urban areas. These principles have been embodied into Chapters NR-121 and NR-110 of the Wisconsin State Statutes respectively. NR-121 specifies the standards and processes for initiating and continuous areawide wastewater treatment management planning. As provided by NR-121, the WDNR's role is to review and approve every sewer service area plan and its amendments, taking into account water quality impacts and cost-effectiveness. NR-110 regulates site-specific facility planning and sanitary sewer extensions. Decisions regarding the extension or expansion of wastewater collection facilities are made primarily at the local level.

Wisconsin Solid Waste Management Program. Begun in the 1970s, the Wisconsin Solid Waste Management Program regulates existing landfills and provides assistance to local governments. The program delineates all environmental regulations and standards that landfills must adhere to including construction specifications, water monitoring requirements, and sanitary procedures. The program inventories and licenses all operating and proposed solid waste facilities. Periodic updates are performed to ensure that environmental protection standards are the most current based on data collection.

Wisconsin Act 335. In 1989, Wisconsin Act 335 was passed. This law governs the recycling programs within the state. Recycling programs for all commercial and residential entities were mandated under this legislation. The intent of the legislation is to divert recyclable material and various household hazardous wastes from landfills. Municipal governments are responsible for arranging residential programs, and the WDNR oversees and supports these efforts.

NR-809. Drinking water standards are also maintained at a state level. NR-809 regulates the design, construction, and proper operation of public water systems. The WDNR also assures that regulated contaminants are adequately monitored.

Knowles-Nelson State Stewardship. The Knowles-Nelson State Stewardship Fund is a land acquisition program for the State of Wisconsin. Created by the state legislature in 1989, \$60 million dollars per year is utilized to purchase lands for parks and other recreational purposes. An important component of the program is the cooperation between the DNR and local governments and non-profit organizations. The program offers a 50 percent grant match to create parks, hiking trails, hunting grounds, and other facilities. The funds can also be utilized for facilities improvements such as road construction and capital acquisition projects (picnic equipment, playgrounds, etc.). More information can be found at <http://dnr.wi.gov/org/caer/cfa/lr/stewardship/stewardship.html>.

Clean Water Fund Program (CWFP). The Clean Water Fund Program (CWFP) offers loans and hardship grants to any town, village, city, county utility district, public inland lake protection & rehabilitation district, metropolitan sewerage district or federally recognized American Indian tribe or band to construct or modify municipal wastewater systems or construct urban storm water best management practices. More information can be found at <http://dnr.wi.gov/org/caer/cfa/BUREAU/CleanWaterFund.pdf>.

Safe Drinking Water Loan Program (SDWLP). The Safe Drinking Water Loan Program (SDWLP) offers loans to any city, village, town, county, sanitary district, public inland lake protection & rehabilitation district, or municipal water district to construct or modify public water systems to comply with public health protection objectives of the Safe Drinking Water Act. More information can be found at <http://dnr.wi.gov/org/caer/cfa/EL/Section/drinkingwater.html>.

Wisconsin Pollutant Discharge Elimination System (WPDES) Storm Water Program. The NPDES program is administered by the WDNR through NR-216. The Wisconsin Pollutant Discharge Elimination System (WPDES) Storm Water Program regulates stormwater discharge from construction sites, industrial facilities, and selected municipalities. Recent Phase II requirements will require six minimum control measures to be addressed by communities and other local entities: public education, public participation, illicit discharges, construction site pollutant control (≥ 1 acre in size), post construction site stormwater management, and pollution prevention. More information can be found at <http://dnr.wi.gov/org/water/permits/wpdes.htm>.

Well Compensation Program. The Well Compensation Program provides grants to owners of contaminated private water supplies that serve a residence or are used for livestock. Contamination can not be bacterial in nature. Eligibility is determined based on annual family income. More information can be found at <http://dnr.wi.gov/org/caer/cfa/Grants/wellcomp.html>.

Department of Public Instruction (DPI)

The Wisconsin Constitution as it was adopted in 1848 provided for the establishment of district schools that would be free to all children age 4 to 20. Subsequent laws allowed a property tax to be collected to fund school programs. Today, the Department of Public Education (DPI) oversees the operations of school systems and sets state standards for educational curricula, teacher certification standards, and other educational programs.

Wisconsin Community Action Program Association (WISCAP)

Rural Community Assistance Program (RCAP). Rural Community Assistance Program (RCAP) offers training and technical assistance to small (under 10,000), rural, low income communities, sanitary districts, and isolated rural areas for problems related to water and wastewater system development. More information can be found at http://www.wiscap.org/rcap_what_is_rcap.htm.

Board of Commissioners of Public Lands (BCPL)

State Trust Fund Loan Program. The State Trust Fund Loan Program offers loans to municipalities, lake districts, metropolitan sewerage districts and town sanitary districts for a wide variety of municipal purposes. More information can be found at <http://bcpl.state.wi.us/>.

Wisconsin Rural Water Association

The Wisconsin Rural Water Association offers rural communities with populations of less than 10,000 grants, loans, and technical assistance for approved Rural Utility Service, Clean Water, Safe Drinking Water and Brownfield projects. More information can be found at <http://www.wrwa.org>.

Regional Agencies

East Central Wisconsin Regional Planning Commission (ECWRPC). ECWRPC acts in an advisory and regulatory role for Sewer Service Area (SSA) Plans. ECWRPC has prepared detailed long range plans for 26 wastewater treatment plants to address growth and ensure water quality within the region. These plans were developed and administered by East Central through an agreement with the Wisconsin DNR. ECWRPC also acts in an advisory capacity to WDNR and provides recommendations on various plan updates, amendments, facilities plans, and sewer extensions.

Exhibit 4-1

Utilities

Exhibit 4-2

Community Facilities

CHAPTER 5: AGRICULTURE, NATURAL, AND CULTURAL RESOURCES

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CHAPTER 5: AGRICULTURAL, NATURAL, AND CULTURAL RESOURCES

INTRODUCTION

Agricultural, natural, and cultural resources give definition to a community and strongly affect its quality of life. For communities in Waushara County, a tapestry of working farms interwoven with large stands of woodlands and wetlands continue to dominate the rural landscape and help shape the area's identity and culture. The County's natural features such as topographic relief, lakes, streams, wetlands and soils also have a significant bearing on historic and contemporary land use, development patterns and contribute to a strong heritage of outdoor recreational pursuits. Fishing, swimming, hunting, and other outdoor activities are important quality of life past-times. The area's lakes and other scenic landscape features provide attractive home sites for many permanent and seasonal residents. At the same time, many of these environmental elements have limiting conditions that make them less than ideal for supporting particular types of activity or development. Understanding the relationship between these environmental characteristics and their physical suitability to accommodate specific types of activity or development is a key ingredient in planning a community's future land use.

INVENTORY AND ANALYSIS

This chapter provides an inventory of existing agricultural, natural, and cultural resources. In addition, existing policies associated with these resources are discussed.

Agricultural Resources

Waushara County as a whole has had a farming history and tradition that have attracted residents to the area. Waushara County farmers produce a variety of feed and cash crops. Farming and other agricultural activities contribute significantly to the local economy. As with elsewhere in rural Wisconsin, these trends are changing as new developments encroach on productive farmland. The suburbanization trend is of great concern to both farmers and residents of the County. This section will look at important farmland classifications, agricultural land cover and farmland losses, and sales between 1990 and 1997. The UWEX Program on Agricultural Technology Studies is currently finalizing an updated *Wisconsin Town Land Use Databook; Town-Level Farming and Land Use Trends* from 2002 - 2007. This document is to be published in early 2009 and will provide a more comprehensive view of Waushara County's agricultural trends.

Agricultural Land Cover

Agricultural land cover includes row crops (corn, peas, potatoes, snap beans, soybeans and other row crops); forages (hay and hay/mix); and grassland (timothy, rye, pasture, idle, Conservation Reserve Program land, grass and volunteer grasses).¹ ***Agricultural land cover, which includes row crops, forages, and grassland, comprised over 56 percent of the total area of Waushara County*** (Table 5-1).¹

¹ Jackson-Smith, D., and E. Finnin. 2001. *Wisconsin County Agricultural Trends in the 1990s*.

Table 5-1. Percent of Land Cover, 1991–1993

	Row Crop	Forages	Grassland	Total Farmland
Waushara County	26.6%	9.0%	20.4%	56.0%

Source: UWEX Program on Agricultural Technology Studies, 1999

While 56 percent of the land in Waushara County is farmland, within the individual towns the percentage varies. Towns with a larger share of total farmland include Oasis (81.8%), Hancock (66.3%), Deerfield (66.0%) and Plainfield (63.8%). On the other end, ***towns with a smaller share of total farmland are usually areas with a higher number of lakes*** and include the towns of Springwater (40.4%), Leon (42.7%) and Mount Morris (45.7%). A further breakdown of total farmland includes row crops, forages and grassland. Row crops, within the individual towns, ranges from a high of 45 percent (T. Oasis) to a low of 13.3 percent (Town of Leon). Forages or hay and hay mix cover a smaller land area in the county than row crops and grassland. ***Higher shares of land in forage are generally found in the eastern part of the county*** and include the towns of Aurora (14.9%), Poy Sippi (21.2%) and Bloomfield (20.5%). Exceptions are the towns of Oasis (19.0%) and Hancock (11.6%). ***Towns with lower land area in forages generally have a larger percentage of land in grassland.*** Grassland in the county varies from a high of 36.9 percent in the Town of Coloma to a low of 3.1 percent in the Town of Aurora. (For more information please see Agricultural, Natural and Cultural Resource Chapters of the individual town plans.)

Farmland Losses

Farm and farmland losses are the result of economic pressures within agriculture as well as competition for agricultural lands from residential and recreational development. Within the state and nation there has been a steady decline in the number of farms and farmland acreage. Trends have indicated that, while the number of farms has declined, the acreage per farm has increased. While this may be a state trend, it was not true for Waushara County. Between 1990 and 1997, the average farm size decreased from 291 acres to 278 acres. (For more information please see Agricultural, Natural and Cultural Resource Chapters of the individual town plans.)

In 1997, an estimated 710 farms existed within Waushara County. This represents a net gain of one farm from 1990 (Table 5-2). Individual towns within Waushara County experienced both significant gains and considerable losses in respect to the total number of farms between 1990 and 1997. During this time period, the largest gain occurred in the Town of Oasis. The total number of farms doubled in Oasis, increasing from 27 farms in 1990 to 54 farms in 1997. Other towns experiencing gains included Aurora (6), Bloomfield (11), Dakota (5), Hancock (8), and Springwater (1). At the other end of the spectrum, farm losses occurred in the towns of Rose (19), Wautoma (9) Warren (1), Plainfield (3), Mount Morris (1), Marion (9), Deerfield (1) and Coloma (1).

In 1997 Waushara County recorded 1.2 farms per square mile.² Farms per square mile varied greatly for Waushara County towns. The Town of Bloomfield with the largest total

² UWEX Program on Agricultural Technology Statistics. 1999. *Wisconsin Land Use Databook: Town-level Farming and Land Use Trends 1990-1998, Waushara County.*

number of farms (81) in 1997 had an estimated number of 2.3 farms per square mile. On the other hand, the towns of Springwater and Marion with a total of 17 farms in 1997 had an estimated number of 0.5 farms per acre.

Following trends in other areas, dairy farms within Waushara County have declined since 1990 (Table 5-2). ***In 1990, there were 232 in Waushara County; by 1997, the County lost 101 dairy farms.*** The loss in dairy farms represented a loss of 43.5 percent countywide during this time period. Only one town (Richford) saw a gain in dairy farms; the Town gained one dairy farm, between 1990 and 1997. Generally, towns experienced losses in the number of dairy farms between 1990 and 1997. In 1990, the number of dairy farms varied from a high of 39 in the Town of Bloomfield to a low of two in the towns of Hancock and Plainfield. By 1997, the number of dairy farms in Waushara County towns' ranged from a high of 22 in Bloomfield to a low of one in Hancock and Plainfield. ***The major losses in the number of dairy farms generally occurred in the towns that had the largest numbers of farms.*** Therefore the Town of Bloomfield with 39 dairy farms in 1990 lost 17 dairy farms between 1990 and 1997.

Table 5-2. Trends in Farm Numbers, 1990 – 1997

	Estimated Farms				Dairy Farms			
	1990	1997	% Change	Per sq. mile (1997)	1990	1997	% Change	Per sq. mile (1997)
Waushara County	709	710	0.10%	1.2	232	131	-43.50%	0.2

Source: UWEX Program on Agricultural Technology Studies, 1999

Although the total number of farms increased, the total amount of farmland decreased. ***Between 1990 and 1997, 9,066 acres (4.4%) of farmland were lost countywide*** (Table 5-3). Only one town experienced an increase in the acres of farmland on the tax roll. During this time period, the Town of Oasis had 381 acres added to its tax roll. Largest losses were experienced by the towns of Deerfield (1,092 acres) and Marion (930 acres).

Table 5-3. Loss of Farm Acres, 1990 – 1997

	Farmland (Acres)		Percent Change	% of County Taxed as Farmland (1997)
	1990	1997		
Waushara County	206,263	197,197	-4.40%	54.10%

Source: UWEX Program on Agricultural Technology Studies, 1999

When agricultural land is sold in the State of Wisconsin, information is collected by the Wisconsin Department of Revenue regarding whether the land is going to remain in agricultural use. It should be noted that the Wisconsin Department of Revenue only collects information on larger parcels. In 1990 a "large" parcel was 20 acres in area and in 1997 a large parcel was increased to 35 acres in area. ***Between 1990 and 1997, 974 parcels encompassing 43,438 acres was sold in the County*** (Table 5-4). ***Approximately 78 percent (33,881 acres) of this land remained in agricultural use, while 22 percent (9,558 acres) was converted to other uses.*** The largest, in excess of 3,000 acres of farmland per town, was

sold in the towns of Bloomfield (3,357 acres), Hancock (3,574 acres) and Poy Sippi (3,377 acres) between 1990 and 1997. Of this amount, about a quarter (21.6%) was converted to other uses; Bloomfield (1,069), Hancock (282 acres) and Poy Sippi (877 acres).

Table 5-4. Farmland Sales, 1990 – 1997

	No. Parcels Sold	Remain Agricultural	Converted to Other	Total Acres
Waushara County	974	33,881	9,558	43,439

Source: UWEX Program on Agricultural Technology Studies, 1999

Farmland Soils

Waushara County's farmland contributes to the quality of life, provides an open agricultural landscape, and adds to the economy of the area. A classification system rating the suitability of a specific area based on soil type and condition was developed by the U.S. Department of Agriculture.³ These classifications in order of importance are: 1.) prime farmland, 2.) unique farmland, 3.) farmlands of statewide importance, 4.) farmlands of local importance, and 5.) other lands. Table 6-5 and Exhibit 6-1 summarize the distribution of available farmland in these categories.

Prime farmland, as defined by the U.S. Department of Agriculture is "the land that is best suited for food, feed, forage, fiber, and oilseed crops" when managed according to acceptable farming methods. These lands may be cultivated, pasture, woodland, or other land, however the land cannot be built-up, urbanized, or a water area. Prime farmland produces the highest yields with minimal inputs of energy and economic resources with the least damage to the environment. Criteria used to determine prime farmland include an adequate and dependable supply of moisture from precipitation or irrigation, few or no rocks, high permeability, gently sloping terrain (0 to 6%) and a low erodibility. Prime farmland is not frequently flooded during the growing season or saturated with water for long periods of time. Soils that have a seasonal high water table may qualify as prime farmland if this limitation is overcome by drainage measures.

Unique farmland is defined as land other than prime farmland that is used to produce specific high-value food or fiber crops. It has a moisture supply, either from stored precipitation or irrigation systems, and combines favorable factors of soil quality, growing season, temperature, humidity, drainage, elevation, aspect or other conditions. Examples of specialty crops that typically require a high management and investment level include apple orchards, lettuce, carrots, celery, and cauliflower.

Farmlands of statewide importance are lands in addition to prime and unique farmland that are important to the State of Wisconsin for crop production.

Farmlands of local importance are lands in addition to the previous three categories which are important to Waushara County for crop production.

Other lands are areas which have little value for producing crops.

³ USDA. 1993. *USDA Handbook 18: Soil Survey Manual*.

According to the above criteria, ***the highest percentage of land within the County is considered unique farmland.*** Within the County, 39.3 percent (160,170 acres) is classified as unique farmland. Of this total approximately 49,095 acres needs to be drained before the land can be utilized. Unique farmland is located throughout Waushara County, but is less predominant to the west of the outer moraine in the towns of Coloma, Hancock and Plainfield. Local importance farmlands are the second most abundant category of farmland (20.4%) with a total of 83,051 acres. These farmlands are scattered throughout the County, but are less common in the eastern tier of the County in the towns of Bloomfield, Poy Sippi and Aurora. ***Prime farmland accounts for 18 percent (73,361 acres) of the land in the Waushara County.*** It is predominant in the eastern tier of the County in the towns of Aurora, Poy Sippi and Bloomfield and between the inner and outer moraine in the Town of Oasis. Approximately 12 percent (47,713 acres) of land is considered other lands, while 8.7 percent (35,449 acres) of the land is classified as State importance farmlands (Table 5-5, Exhibit 5-1). The remaining 8,190 acres are classified as water. (For more information please see Agricultural, Natural and Cultural Resource Chapters of the individual town plans.)

Table 5-5. Important Farmland Classes

Farmland Class	Waushara County	
	Acres	Percent
Prime Farmland	73,361	18.0%
Unique Farmland	160,170	39.3%
State Importance	35,449	8.7%
Local Importance	83,051	20.4%
Other Lands	47,713	11.7%
Water	8,190	2.0%
Total	407,933	100.0%

Source: USDA-NRCS, 1982, Waushara County, 2003.

Natural Resources

This section will describe the general soils' associations of Waushara County together with the soils' suitability for on-site waste disposal, septage spreading, the potential for building site development and steep slopes. It will also explain the water resources of the area including watersheds and drainage; lakes, ponds and quarries; rivers and streams; floodplains; wetlands and groundwater. Wildlife, parks, open space, recreational and mineral resources will also be touched upon.

Soils

Soils provide the physical base for development and agriculture within a community. Knowledge of their limitations and potential difficulties is important in evaluating crop production capabilities and other land use alternatives such as residential development, and utility installation. The criteria considered by the Natural Resource Conservation Service (NRCS) in establishing the severe rating of soils include wetness, shrink-swell potential, bearing strength, susceptibility to flooding, land spreading, slope steepness, and frost action.⁴ Severe

⁴ U.S. Department of Agriculture Soil Conservation Service. 1989. *Soil Survey of Waushara County, Wisconsin*.

soil limitations do not necessarily exclude areas from being developed, but instead indicate that more extensive construction measures must be taken to prevent environmental and property damage.

Soils are classified according to their associations, which are a grouping of similar soil types based on geographic proximity, physical characteristics, and permeability. There are eight major soil associations within Waushara County.

Plainfield-Okee-Richford Association soils are sloping to steep sandy soils located on moraines, hills, and terraces. Plainfield soils are rapidly permeable and excessively drained, while Okee and Richford soils are moderately permeable and somewhat excessively drained. Slopes range from 6 to 30 percent. While some of the Richford soils are used for cropland, most acreage in this association is used for woodlands. These soils are especially suited for pine species. This association is found in the central part of the county, from the outer moraine east through the area of drumlins and pitted outwash plans, stopping short of the area that includes the former lake plain.

Plainfield-Richford-Boyer Association soils are nearly level and gentle sloping soils that are well drained to excessively drained sandy soils located on outwash plains and terraces. Most acreage in this association is used as irrigated cropland; a few areas are suitable for woodlands. Soil erosion and very rapid permeability are the main concerns with this association. This association is found in the western part of the county from the outer moraine east and through the towns of Marion, Dakota and Mount Morris.

Kingsville-Meehan Association soils are nearly level and gently sloping soils that are poorly drained sandy soils located on glacial outwash plains, glacial depressions, and lake basins. Most of the acreage in this association is used as cropland; some areas are used as pasture or woodlands. Many of the areas are drained and used as irrigated cropland. The main concerns of this association are wetness and low available water capacity. This association is found in the western corner of the County in the towns of Plainfield and Hancock, and through the central portion of the County in the towns of Richford, Dakota, Wautoma, Springwater, Mount Morris and Leon.

Houghton-Adrian-Willette Association soils are nearly level poorly drained, mucky soils; located in depressions of outwash plains, glacial lake basins, and moraines. Most of the acreage in this association is used for water tolerant native vegetation; however a few areas can be drained and used for specialty crops. The main management concerns are wetness, subsidence when the soils are drained, and a short growing season caused by cold air flowing into depressions. This association is found in the central portion of the County in the towns of Richford, Dakota, Wautoma and Mount Morris and in the eastern tier of the County in the towns of Warren, Leon, Saxeville, Aurora, Poy Sippi and Bloomfield.

Hortonville-Symco-Manawa Association soils are nearly level to sloping, well drained to somewhat poorly drained, silty, loamy, sandy soils, located on moraines and in glacial lake basins. The majority of acreage in this association is used for cropland with some areas used as pasture or woodlands. The majority of soils in this association are poorly suited for septic absorptions fields. Soil erosion is the only major management concern for this association. This association is found in the eastern tier of the County in the towns of Warren, Leon, Saxeville, Aurora, Poy Sippi and Bloomfield.

Plainfield-Pearl-Leola Association soils are moderately well drained sandy soils which are nearly level to gently sloping. These soils are found in glacial outwash plains. The soils within this association range from well to moderately drained (Plainfield and Pearl) to poorly drained (Leola). Most of the acreage in this association is used as irrigated cropland with some areas used as pasture or woodlands. The main concerns of this association are low available water capacity, soil blowing and wetness. This association is found in the western corner of the County in the towns of Plainfield and Hancock and a small area in the Town of Dakota.

Poy-Zittau-Poygan Association soils are somewhat poorly to poorly drained, clayey and silty soils which are nearly level and gently sloping. These soils are found in depressions and drainageways in glacial lake basins and on moraines. Most of the acreage in this association is drained and used as cropland. Some areas are used as pasture or woodlands. The major management concerns are wetness and the low or moderate available water capacity. This association is found in the eastern tier of the County in the towns of Warren, Aurora, Poy Sippi and Bloomfield.

Morocco-Kingsville-Keowns Association soils are nearly level and gently sloping, to poorly drained, sandy and silty soils, located in drainageways and depressions in glacial lake basins. Most of the acreage in this association is used as cropland; however some areas are used as pasture or woodlands. The Morocco and Keowns soils are suited to trees, but the Kingsville soils are poorly suited to this use due to wet conditions during the growing season. The main management concerns are wetness, low available water capacity, and hazard of soil blowing in the areas of the Morocco and Kingsville soils. This association is found in small areas in the eastern tier of the County in the towns of Leon, Bloomfield, Warren and Marion.

On-Site Waste Disposal

Exhibit 5-2 identifies suitability for on-site waste disposal options based on an evaluation of soil characteristics. This map is not intended to serve as a substitute for on-site soil investigations, but rather as an indicator of reasonable expectations for soils underlying a site.

Evaluation of the soil data indicates that the vast majority of the soils in the County (78%) are rated suitable for conventional or at-grade in-ground pressure or mound systems (Table 5-6). Generally, soils near streams and rivers are the least suitable for on-site waste disposal. Areas with high groundwater or characterized by poorly drained soils are also more likely to be unsuitable for on-site systems.

Over three-quarters of the soils in Waushara County are capable of supporting private on-site wastewater disposal systems. ***About 59 percent of the area in the County is suitable for conventional systems; while another 19.2 percent is suitable for at-grade, in-ground pressure and mound systems.*** The remaining 0.1 percent (58 acres) of the soils in the County is rated unsuitable for on-site systems due primarily to wet soil conditions and low permeability. Water features account for 2 percent of the surface area Waushara County. Essentially, areas in the eastern part of the County in the former lake bottom are less suitable for on-site septic systems. The other major area of less suitable materials is found in the northwestern corner of the County to the west of the outer moraine. (For more information please see Agricultural, Natural and Cultural Resource Chapters of the individual town plans.)

Table 5-6. Soil Limitations for On-Site Waste Disposal

	Conventional		At-Grade ¹		Holding Tank ²		Unsuitable		No Rating		Water		Total Acres
	Acres	Percent	Acres	Percent	Acres	Percent	Acres	Percent	Acres	Percent	Acres	Percent	
Waushara County	239,768	58.8%	78,302	19.2%	31,415	7.7%	50,199	12.3%	58	0.0%	8,190	2.0%	407,933

¹Includes in-ground pressure and mound systems.

²Includes new technology systems producing 10⁴ or less coliform fecal units (cfu) per 100ml.

Source: USDA-NRCS, 1982, Waushara County, 2003.

Building Site Development

The USDA-Natural Resource Conservation Service has evaluated soil characteristics and rated soil potential for building site development based upon wetness, shrink-swell potential, bearing strength, susceptibility to flooding, slope steepness, and frost action. The ratings range from low to very high potential. Typically, areas near flowages and in wetlands have the lowest ratings. Exhibit 5-3 identifies soil potential for building site development. ***Just over one third of the area within County (34.8%, 141,989 acres) has soils that are considered to have a very high suitability for building site development***, while an additional 22.8 percent (93,197 acres) have a medium suitability (Table 5-7). Approximately 40.3 percent (164,557 acres) of the county is rated very low or is not rated for building site developments. Water accounts for two percent of the area. Generally very low ratings are found in the eastern tier of the county in the area of the former lake basin, other areas near flowages and wetlands are scattered throughout the county. The greatest concentration of areas of very high suitability is found to the west of the outer moraine and in the area between the inner and out moraine in the western part of the county. (For more information please see Agricultural, Natural and Cultural Resource Chapters of the individual town plans.)

Table 5-7. Soil Potential for Building Site Development

	Very High		Medium		Very Low, No Rating		Water		Total Acres
	Acres	Percent	Acres	Percent	Acres	Percent	Acres	Percent	
Waushara County	141,989	34.8%	93,197	22.8%	164,557	40.3%	8,190	2.0%	407,933

Source: USDA-NRCS, 1982, Waushara County, 2003.

Septage Spreading

The Waushara County Land Conservation Office has evaluated soil characteristics for the suitability of septage spreading based on groundwater depths, permeability, soil texture, slope, wetness, and soil depths (Exhibit 5-4). The ratings range from none or slight to severe. Soils rated slight are relatively free of limitations that affect the intended use or have limitations that are easily overcome. Soils with moderate limitations can normally be overcome with corrective planning, careful design, and good management. Soils rated severe have physical limitations which are severe enough to make the use of the soil doubtful for the proposed use. Septage spreading cannot occur within 300 feet of rivers and streams or within 1,000 feet of lakes unless they are incorporated into the soil within 72 hours of application. Spreading rates need to be based on current soil tests, on-site vegetation, and a septic nutrient test.

Only 28.5 percent (116,303 acres) pose a slight risk to no limitations for septage spreading throughout the County. Approximately 29 percent (118,864 acres) are listed as having a moderate risk, while 40.2 percent (164,043 acres) of the soils in Waushara County are considered a severe risk for septage spreading (Table 5-8). The greatest concentration of areas of none to slight limitations is found to the west of the outer moraine and in the area between the inner and out moraine in the western part of the county. (For more information please see Agricultural, Natural and Cultural Resource Chapters of the individual town plans.)

Table 5-8. Soil Limitations for Septage Spreading

	None to Slight		Moderate		Severe		No Rating		Water		Total Acres
	Acres	Percent	Acres	Percent	Acres	Percent	Acres	Percent	Acres	Percent	
Waushara County	116,303	28.5%	118,864	29.1%	164,043	40.2%	533	0.1%	8190	2.0%	407,933

Source: USDA-NRCS, 1982, Waushara County, 2003.

Geography and Topography (Scenic Resources)

The local communities in the Waushara County are defined by diverse topographical features.⁵ ***Evidence of several phases of the Wisconsin Glacier can be found in the County.***⁶ ***The western edge of the County is a flat outwash plain.*** A narrow moraine is located on the eastern boundary of this outwash plain extending through the Villages and Towns of Coloma, Hancock and Plainfield. This moraine ridge creates a groundwater divide separating the County's groundwater flow east and west. ***Central Waushara County (City of Wautoma, Village Wild Rose and surrounding Towns) gradually flattens to a rolling plain as you move eastward across the County. The eastern third of the County is a gently rolling lake plain.*** The southeastern areas of Waushara County were once occupied by Lake Oshkosh and are characterized by relatively flat to gently rolling plains. The glacial plain areas of Waushara County have expansive deposits of red clay and organic-rich soils.⁷ This combination has resulted in expansive wetlands and valuable agricultural areas.

As a result of glacial activity, land relief within Waushara County is quite varied.⁸ ***Within Waushara County, land relief is approximately 390 feet, from a low of 750 feet above sea level near Poygan Marsh to a high of 1,137 feet at the Nordic Mountain Ski Hill (a granite monadnock located in the Town of Mount Morris).***

Steep Slopes

Exhibit 5-5 indicates areas that have slopes greater than 12 percent. ***Less than ten percent (9.2%, 37,698 acres) of the County is classified as having slopes in excess of 12 percent*** (Table 5-9). ***Steep slopes are scattered throughout Waushara County and are generally found in conjunction with moraines, drumlins, and other glacial features.***

⁵ WDNR, *Ecological Landscapes of Wisconsin*; 2001

⁶ Dutch, S. 2003. *Lake Oshkosh Drainage*. <http://www.uwgb.edu/dutchs/geolwisc/geohist/wi12ka.htm>

⁷ Attig, J., et al. 2005. *Glacial Lakes Wisconsin and Oshkosh: Two Very Different Late-Glacial Ice-Marginal Lakes*. http://gsa.confex.com/gsa/2005NC/finalprogram/abstract_86950.htm

⁸ USGS. 1984. *USGS 7.5 Minute Quadrangle Maps*.

Table 5-9. Steep Slopes

	0-12 Percent		>12 Percent		No Rating, Water		Total Acres
	Acres	Percent	Acres	Percent	Acres	Percent	
Waushara County	361,512	88.6%	37,698	9.2%	8,722	2.1%	407,933

Source: USDA-NRCS, 1982, Waushara County, 2003.

Water Resources

Water resources are sources of water that are useful or potentially useful to humans. Water is important because it is needed for life to exist. Water is used for household, agricultural, recreational, industrial and environmental activities.⁹ Essentially all these uses require fresh water.

Watersheds and Drainage

The WDNR has divided the state into 24 hydrological based geographic management units (GMUs) or basins. Each GMU is further divided into smaller units based on smaller sub-watersheds. The Wisconsin DNR has completed several reports analyzing water quality for designated GMUs.¹⁰

Surface water drainage for Waushara County is located within the Central Wisconsin River Basin, the Upper Fox River Basin and the Wolf River Basin. The Central Wisconsin River Basin (4,021 square miles) includes twenty-nine different sub-watersheds (four within Waushara County). The Upper Fox River Basin covers 2,090 square miles and is comprised of fifteen different sub-watersheds. The Wolf River Basin covers a large area, draining over 3,600 square miles and fifteen sub-watersheds within portions of eleven counties, draining the northeast portion of the state to the Winnebago Pool Lakes in Winnebago County. ***Waushara County is divided into ten sub-watersheds*** (Exhibit 5-5).

- **The Big Roche-A-Cri Sub-watershed** (Central Wisconsin River Basin) drains a large portion of the County's northwest corner into the Big Roche-A-Cri Creek. The Big Roche-A-Cri Creek is a 2.5 mile hardwater trout stream located northwest of the Village of Hancock. Wind erosion is severe in this sub-watershed and it is rated high for stream and wind erosion controls.
- **The Little Roche-A-Cri Sub-watershed** (Central Wisconsin River Basin) is situated in the southwest part of Waushara County. This Sub-watershed lists the Town of Hancock as a priority area for wind erosion control.
- **The Fourteenmile Creek Sub-watershed** (Central Wisconsin River Basin) is situated in northwest Waushara County. Ditching and drainage for agricultural uses have significantly reduced what were once extensive wetlands in the northern portions of this sub-watershed. Water quality concerns for this sub-watershed are high nitrate levels, stream pasturing, and water draw for agricultural uses.

⁹ Wikipedia, http://en.wikipedia.org/wiki/Water_resources, 2/16/07.

¹⁰ WDNR. 2002. *State of the Basin Reports*. <http://dnr.wi.gov/org/gmu/stateofbasin.html>

- **The Sevenmile & Tenmile Creeks Sub-watershed** (Central Wisconsin River Basin) is a maze of ditches and laterals that were created to drain lowland areas for agricultural activities. Large areas of land are being maintained by the State as grassland ecosystems. This sub-watershed ranks as a high priority watershed. Water quality is impacted by grazing and pivot irrigation systems. Soil erosion due to wind and water is a major concern for this sub-watershed.
- **The Mekan River Sub-watershed** (Upper Fox River Basin) is located in the southwest corner of the County and encompasses 69 square miles. Many of the tributary streams of the Mekan River support high quality cold water fisheries. Agriculture, forestland, and wetland comprise the majority of land use within the Mekan River sub-watershed.
- **The White River Sub-watershed** (Upper Fox River Basin) is generally located in central Waushara County and encompasses 106 square miles. There are a number of streams within this sub-watershed that are classified as exceptional water resources. Large wetland complexes including the White River Marsh State Wildlife Area, Wautoma Swamp, and the Lunch Creek Wetlands fall within this sub-watershed.
- **Fox River/Berlin Sub-watershed** (Upper Fox River Basin) encompasses a small area in the southeast corner of the county consisting of 41 square miles. Agriculture is the primary land use. Sedimentation from agriculture is the largest contributor of non-point pollution. This sub-watershed is a major contributor of phosphorus to the Lake Winnebago Pool Lakes. A calcareous fen, a rare groundwater driven wetland type, is located in this watershed near Berlin.
- **The Pine River and Willow Creek Sub-watershed** (Wolf River Basin) is the southernmost sub-watershed within the Wolf River Basin. This sub-watershed ranked high priority for streams and medium priority for groundwater. The Pine River and Willow Creek drain the center two-thirds of Waushara County.
- **The Waupaca River Sub-watershed** (Wolf River Basin) lies almost entirely in Portage and Waupaca Counties with a small part of the southwester portion of the watershed located in Waushara County (towns of Springwater and Rose). In 1993 this sub-watershed was selected as a priority watershed and a watershed plan was prepared by WDNR, DATCP, NRCS, UW Extension, Portage County Land Conservation Department, Waupaca County Land & Water Conservation Department, and Waushara County Land Conservation Department. The greatest overall water quality threat is excess nitrates entering groundwater.
- **The Little River and Alder Creek Sub-watershed** (Wolf River Basin) is known as the Walla Walla Creek sub-watershed lies in portions of Waupaca, Waushara and Winnebago Counties. Animal waste, soil loss, and excess nutrient loading are critical influences to surface and groundwater within this sub-watershed and is ranked number one in the Waupaca County Animal Waste Management Plan.

Lakes, Ponds and Quarries

The majority of lakes within Waushara County are natural and of glacial origin. Sandy soils readily allow for the percolation of precipitation into the ground rather than overland flow directly to surface waters. This results in a continual recharge of the shallow aquifer underlying the county and surrounding region.¹¹ ***There are 136 lakes and/or impoundments found within Waushara County.*** See Appendix D, Table D-1 for a detailed list of the County's lakes, ponds and springs. According to the WDNR's website, Lake Poygan is the fourth largest lake in the state, while the Lohrville and Redgranite quarries are the fifth and third, respectively deepest lakes in the state.

Lakes can be described as drainage, seepage, spring, or drained lakes. The vast majority of Lakes within Waushara County are classified as seepage lakes. Seepage lakes do not have an inlet or an outlet and are recharged by precipitation and runoff supplemented by groundwater. Seepage lakes commonly reflect groundwater levels and can fluctuate seasonally.

The second most common type of lake in Waushara County are drainage lakes. These lakes have both an inlet and an outlet; the main water source is stream drainage. Drainage lakes, in which one-half of the maximum depths are dependant on a dam, are considered to be artificial lakes or impoundments.

Waushara County has a small number of spring lakes, primarily scattered throughout north central and south central Waushara County (Towns of Springwater, Saxeville, Mount Morris, Leon, Dakota, and Richford). Spring lakes have an outlet, but have no inlet. The primary source of water is groundwater flowing into the bottom of the lake from inside and outside the immediate surface drainage area. Spring lakes are the headwaters of many streams.

Waushara County has one listed drained lake (located in Mount Morris). Drained lakes have no inlet, but have a continuously flowing outlet. Drained lakes are not groundwater fed. The primary source of water is from precipitation and direct drainage from the surrounding land. Water levels fluctuate depending on the supply of water.

Rivers and Streams

There are forty-six named river/streams in Waushara County totaling approximately 584 miles (See Appendix D, Table D-2). A number, of them are classified as Outstanding and Exceptional Water Resource rivers and streams. ***The most prominent rivers/ streams within Waushara County are the Mekan River, White River, Pine River and Willow Creek.***

The Mekan River stretches across southwest Waushara County, originating from the Mekan Springs (located in the Town of Richford). This river is classified as a Class I trout stream for about 6.6 miles and is classified as a Class II trout stream for another 10 miles. Northern stretches of the Mekan River (above the community of Richford) are considered as Outstanding Resource Waters with the remainder being considered as Exceptional Resource Waters.

¹¹ WDNR. 1970. *Surface Water Resources of Waushara County.*

The White River flows to the south through central Waushara County. It is classified as a Class I trout stream and an Exceptional Resource Water above the White River Flowage. The River flows through large wetland complexes including the White River Marsh State Wildlife Area (located in Green Lake and Marquette Counties).

Willow Creek Drains much of Waushara County to the southeast. The upper one-third is considered a Class I trout stream while the middle one-third is considered a Class II trout stream. The head waters for Willow Creek originate from springs and the outlet of Silver Lake located in the Town of Springwater.

The Pine River is a 28 mile tributary to the southwest corner of Lake Poygan; it is divided between the Upper and Lower Pine River. The Lower Pine is a highly productive Class I trout stream, but is degraded by power dams which fluctuate water levels and surface discharge of warm water. The upper portions of the river (Upper Pine) are not influenced by power dams with tributaries that are listed as Exceptional Resource Waters.

There are several unnamed creeks throughout the County. In addition, agricultural ditches have been constructed throughout Waushara County to drain excess water from agricultural fields.

Section 303(d) of the Clean Water Act requires the State to prepare a list of impaired water bodies that will remain so even after the application of technology-based standards typically applied to point sources of pollution. Currently, Waushara County has one creek, Carpenter Creek, and three bodies of water on the 303d list: Kusel, Silver, and Big Hills Lake.

Floodplains

Areas susceptible to flooding are considered unsuitable for development due to potential health risks and property damage. Flood Insurance Rate Maps for the unincorporated portions of Waushara County identify areas lying within the unincorporated parts of the county.¹²

These floodplains are generally associated with The County's stream corridors with large concentrations of floodplain areas located in eastern Waushara County (Exhibit 5-5). Table 5-11 indicates the total number of acres and overall percentages of land which are within the 100-year floodplain. ***Ten percent (40,725 acres) of the land within the County lie in a floodplain.*** (For more information please see Agricultural, Natural and Cultural Resource Chapters of the individual town plans.)

Table 5-10. Floodplains

	Acres	Percent
Waushara County	40,725	10.0%

Source: FEMA, 1985, Waushara County, 2001

Waushara County has adopted a floodplain ordinance requiring certain land use controls in designated flood hazard areas, thus making residents eligible to participate in the Federal Flood Insurance Administrative Flood Insurance Program. The program requires all structures that

¹² FEMA. 1985. *Flood Insurance Rate Maps*.

are constructed or purchased in designated flood areas utilizing loans from federally insured banks to be insured by a flood insurance policy.

Wetlands

Wetlands act as a natural filtering system for nutrients such as phosphorous and nitrates. More importantly, wetlands also serve as a natural buffer protecting shorelines and stream banks from erosion. Wetlands are essential in providing wildlife habitat, flood control, and groundwater recharge. Consequently, local, state, and federal regulations place limitations on the development and use of wetlands and shorelands. The Shoreland/Wetland Ordinance adopted by Waushara County regulates development within 1,000 feet of the ordinary high water elevation mark of navigable lakes, ponds, or flowages or 300 feet from the ordinary high water elevation mark of navigable rivers or streams. The U.S. Army Corps of Engineers has authority over the placement of fill materials in virtually all wetlands two acres and larger or adjacent to navigable waters. The Wisconsin Department of Natural Resources and United States Department of Agriculture also have jurisdiction over wetlands within Wisconsin. The U.S. Department of Agriculture incorporates wetland preservation criteria into its crop price support programs. Prior to placing fill or altering wetland resources, the appropriate agencies must be contacted to receive authorization.

The wetlands surveyed according to the Wisconsin Wetlands Inventory Map are shown on Exhibit 5-6.¹³ They were identified on aerial photographs by interpreting vegetation, visible hydrology, and geography based on the U.S. Fish and Wildlife Service.

Wetlands are scattered throughout the County and are generally associated with the County's stream corridors and lake shorelines. Eastern Waushara County has the largest concentration of wetlands. Table 5-12 indicates the number of acres and the percentage of wetlands within Waushara County. Not including small tracts of wetlands (less than five acres); ***approximately 15 percent (59,964 acres) of Waushara County is classified as wetlands.*** The amount and variety of wetlands have moderate limitations on the future growth and development of the area. (For more information please see Agricultural, Natural and Cultural Resource Chapters of the individual town plans.)

Table 5-11. Wetlands

Community	Acres	Percent
Waushara County	59,964	14.7%

Source: WDNR, 2004; Waushara County, 2008.

Groundwater

In Waushara County, groundwater occurs mostly in the alluvium and glacial drift of the Quaternary Age and in the sandstone of the Cambrian Age. Precipitation in the form of either rain or snow is the largest contributor to recharge of the groundwater aquifers. Recharge is generally greatest in spring when water from melting snow and heavy rains saturates the ground and percolates to the water table. If discharge (the drawing out and use of groundwater) is greater than recharge, the elevation where the groundwater is extracted will

¹³ WDNR. 1979. *Wisconsin Wetland Inventory Maps*.

fall and a local depression in the water table will result. Lower water levels cause the pumping lifts to increase and may reduce the yields of some of the wells.

Groundwater within the county occurs under both water table and artesian conditions. Water in the unconsolidated beds of sand and gravel is generally unconfined and occurs under water table conditions. Confined or artesian conditions exist locally where the water in the sand and gravel deposits is confined by layers of silt or clay.

A groundwater divide, located west and parallel to the topographic divide, cuts diagonally through Waushara County. It extends from Marquette County, through the towns of Hancock and Coloma, the Village of Hancock, and east of the Village of Plainfield to the Portage County line.¹⁴ East of this divide, groundwater moves southeasterly toward the Wolf and Fox Rivers. West of this divide groundwater moves westerly toward the Wisconsin River.

According to the well water information obtained from the Central Wisconsin Groundwater Center in Stevens Point, some private wells located in Waushara County contain nitrate levels that are higher than the EPA Safe Drinking Water Act standards of 10 mg/L.¹⁵ These standards apply to municipal water sources only, but are strongly suggested thresholds for private systems. Nitrates originate in both agricultural and residential fertilizers, human sewage, and farm animal waste. Excessive levels of nitrates in drinking water have caused serious illness or death in infants less than six months of age. Pregnant women are also advised not to drink water in which nitrate levels exceed the EPA standards. Due to sandy soils within the County, there is potential for groundwater contamination in the shallower aquifers. However, this potential is greatly reduced in the deeper aquifers. Table 5-12 lists the results of water sample tests conducted between 1990 and 2001.¹⁶ For conversion purposes, 1 part per million (ppm) is the same concentration as 1 mg/L. ***Ninety-six wells within Waushara County exceeded the 10 ppm threshold level for nitrate. The majority of homes within Waushara County are served by private wells.***

Table 5-12. Nitrate Levels (ppm) in Waushara County Wells

	None Detected	0.1 - 2.0 ppm	2 -10 ppm	10 -20 ppm	> 20 ppm
Waushara County	273	277	193	53	43

Source: Central Wisconsin Groundwater Center, UW – Stevens Point, 2001.

Although groundwater is found at varying depths throughout the area, the majority of groundwater in Waushara County is found in depths greater than six feet (Table 5-13 and Exhibit 5-5). ***Groundwater depths of less than two feet are found in just over a quarter (25.8%, 105,049 acres) of the land area***, an additional 13.2 percent (53,787 acres) of the area has groundwater depths of 2 to 6 feet. Groundwater depths exceed 6 feet in 58.9 percent (240,374 acres) of the County. The remaining 2.1 percent (8,723 acres) in the County has either no rating or is surface water. In general, there is a strong correlation

¹⁴ Geology and Ground-Water Resources of Waushara County, Wisconsin, Geological Survey Water-Supply Paper, 1809-B. Map of Waushara County, Wisconsin, Showing Configuration of Water Table, July 1957 and Location of Wells, Springs, and Streamflow-Measurement Sites.

¹⁵ USEPA. 2005. *List of Drinking Water Contaminants & MCLs*. <http://www.epa.gov/safewater/mcl.html>.

¹⁶ Central Wisconsin Groundwater Center. 2001. *UWEX Private Well Project: Waushara County*.

between areas of high groundwater and wetlands. A greater concentration of higher groundwater is generally found in the eastern part of the county. (For more information please see Agricultural, Natural and Cultural Resource Chapters of the individual town plans.)

Table 5-13. Depth to Groundwater

	< 2 Feet		2-6 Feet		> 6 Feet		No Rating		Water		Total Acres
	Acres	Percent	Acres	Percent	Acres	Percent	Acres	Percent	Acres	Percent	
Waushara County	105,049	25.8%	53,787	13.2%	240,374	58.9%	533	0.1%	8,190	2.0%	407,933

Source: USDA-NRCS, 1982. Waushara County, 2005.

According to the *Wisconsin Administrative Code, Chapter ATCP 30 Atrazine, Pesticides; Use Restrictions*, atrazine prohibition areas have been established throughout Waushara County. In the prohibition areas no person can apply, mix or load any atrazine product, except under special conditions. The Department of Agriculture has determined these areas based on well samples. These areas are monitored, and if atrazine is not applied, the levels may diminish and may be removed from the list. ***There are five Atrazine Prohibition Areas within Waushara County*** (Table 5-14, Exhibit 5-1).

Table 5-14. Waushara County Atrazine Prohibition Areas

Name	Township / Range	Sections Numbers
Town of Hancock (PA 93-70-01)	T19N / R08E	4, 5, 8, and 9
Town of Saxeville (PA 93-70-02)	T20N / R12E	31 and portions of 30 and 32
Town of Plainfield (PA 94-70-01)	T20N / R08E	14 & 15 portions of 10, 11, 22, & 23
Town of Warren (PA 96-70-01)	T18N / R12E	20, & portions of 16, 17, 18, 19, 21, 28, 29, & 30
Towns of Rose, Springwater, Mount Morris & Wautoma (PA 04-70-01)	T19-20N / R10-11E	1, 6, 7, 12, 13, 18, 31, 36 and portions of 2, 25, & 26

Source: Wisconsin Department of Agriculture, Trade and Consumer Protection, Register, March 2005

Natural Springs and Artesian Wells

There are a number of natural springs and artesian wells scattered throughout Waushara County. A natural spring can occur when an impermeable layer (usually consisting of clay) forces the water table to the surface or when water-bearing crevasses in fractured rock intersect the surface. An artesian well is created when a well is drilled into a confined aquifer which is recharged from a source located at a higher elevation.¹⁷ The majority of springs within Waushara County are gravity depression springs, generally located in the eastern portions of the County.

Groundwater Planning

Water quality and quantity have been a concern for Waushara County communities. Low lake levels throughout Waushara County underscore a more pressing problem: groundwater quantity

¹⁷ Wisconsin Department of Natural Resources, Source Water Springs and Natural Wells
<http://dnr.wi.gov/org/water/dwg/OpCert/HTML/chapter2/sw2a.htm>,

and quality preservation. Communities throughout East Central Wisconsin have been challenged with a number of issues ranging from potable water supply shortfalls to contamination issues such as elevated arsenic and radium levels. A prolonged drought coupled with increased water demands may be contributing to a declining water table. The anticipated population increases, agricultural irrigation demands, and growing recreational demands will continue to place significant demands on Waushara County's groundwater resources.

With an ever increasing demand on current groundwater supplies, local communities must assess how local and county-wide land use decisions will continue to affect groundwater quantity and quality. Identifying soil characteristics, water table levels, and groundwater susceptibility is just a beginning step in this process. Other underlining geological characteristics such as bedrock, groundwater flow direction, private well information, community groundwater pumping rates, and water table depth will be essential in understanding the current status of groundwater. Moreover, the abundance and quality of surface water is directly tied to groundwater supplies. Many streams and lakes rely on groundwater as their primary source of water; thus, local lake levels are directly tied to groundwater levels. Human impacts such as high capacity wells, irrigation systems, and others also place demands on groundwater supplies.

Additional information and technical expertise is available from several governmental and academic agencies statewide. The Center for Land Use education has completed several case studies and groundwater planning assistance documents for local communities. Additional information can be found at <http://www.uwsp.edu/cnr/landcenter/groundwater/index.html>.

Wildlife Resources

Wildlife Habitat

Waushara County falls within the following ecological landscapes¹⁸:

- **Central Sand Plains** is located in western Waushara County, occurring on a flat, sandy lake plain, and supports agriculture, forestry, recreation, and wildlife management. This Ecological Landscape formed in and around what was once Glacial Lake Wisconsin, which contained glacial meltwater extending over 1.1 million acres at its highest stage.
- **Central Sand Hills** encompasses the majority of Waushara County and is located at the eastern edge of what was once Glacial Lake Wisconsin. The landforms in this Ecological Landscape are a series of glacial moraines that were later partially covered by glacial outwash. The area is characterized by a mixture of farmland, woodlots, wetlands, small kettle lakes, and cold water streams, all on sandy soils. The mosaic of glacial moraine and pitted outwash throughout this Ecological Landscape has given rise to extensive wetlands in the outwash areas, and the headwaters of coldwater streams that originate in glacial moraines.
- **Southeast Glacial Plains** is located in the eastern portions of Waushara County, and are made up of glacial till plains and moraines. Most of this Ecological Landscape is composed of glacial materials deposited during the Wisconsin Ice Age.

¹⁸ WDNR, 2002. *Ecological Landscapes of Wisconsin*

The majority of the County falls within the Central Sand Hills ecological landscape, while the eastern portion of the County falls within the Southeast Glacial Plains ecological landscape and the western portion of the County falls within the Central Sand Plains. Together, these ecological landscapes support numerous habitat types throughout Waushara County for a varied and abundant wildlife and fish community. Habitats found within Waushara County include streams, lakes, rivers, woodlands, marshes, open wet meadows, and fallow/abandoned farmland. White-tailed deer and small mammals such as opossum, raccoon, gray and fox squirrels are abundant in wooded areas. Lakes and streams support diverse warm and cold water fisheries. Wetlands attract waterfowl during spring and fall migrations as well as during the nesting season. Other wildlife found in the area include grassland and wetland birds, cottontail rabbits, mink, otter, muskrats, red fox, and a wide variety of songbirds and similar passerines.

Rare, Threatened and Endangered Species and Natural Communities

The Wisconsin Department of Natural Resources maintains a database of rare, special concern, threatened, and endangered species and natural communities in Waushara County.¹⁹ In order to protect these communities from harm, their exact locations are not released to the public; however, Waushara County has access to this database. When a development proposal is presented to the county, the WDNR database is consulted prior to granting approval. Before development, precautions should be taken to minimize adverse impacts which could disturb potential habitats for these flora and fauna (Exhibit 5-6). A list of the rare, threatened, and endangered species and natural communities is included in Appendix D (Table D-3).

Exotic and Invasive Species

Non-native species commonly referred to as exotic or invasive species have been recognized in recent years as a major threat to the integrity of native ecosystems, habitats, and the species that utilize those habitats. Invasive species disrupt native ecosystems by out-competing native plants and animals for valuable resources such as food and space. The resulting competition between native and invasive species has the potential to completely displace native species. Invasive species are found in both aquatic and terrestrial habitats. The WDNR updates a list of plant and animal invasive species in Wisconsin. This list can be found on the Department's website at: <http://dnr.wi.gov/invasives/>. Human livelihood and quality of life are greatly altered by invasive species; they hamper boating, swimming, fishing, and other water recreation; place an economic burden on local communities in eradication and control costs; and in some instances present a potential fire hazard. Prior to introduction of any non-native fish or wildlife, a permit from the WDNR is required pursuant to Wisconsin Statutes 29.736 and 29.745.

Woodlands

Originally, the majority of Waushara County contained vegetation consisting of a mixture of oak forest species interspersed with pine forests and oak openings with an understory of prairie grasses. Waushara County once encompassed substantial areas of wetland conifers, lowland hardwoods, wet meadows with lowland shrubs, and marshes. Currently, upland forest areas are characterized by an oak-hickory association. Pine species are found throughout much of

¹⁹ WDNR. 2005. *Natural Heritage Inventory Program*. <http://dnr.wi.gov/org/land/er/nhi/>.

the county, while the wetland conifers have been replaced largely by shrub wetlands, general agriculture, and urban areas. Woodlands are found in large stands as well as scattered throughout the Town. **Woodlands comprise about 46 percent of the total land area in Waushara County** (Exhibit 5-6). The majority of wetlands, especially along stream corridors, are predominantly forested. Generally areas in the western part of the County; west of the outer moraine and between the inner and outer moraine and in the eastern part of the county are less forested.

Forests and woodlands can be classified into one of two categories: general (unplanted) woodlands and planted woodlands. General woodlands are naturally occurring forests and hedgerows. Planted woodlands are tree plantations in which trees are found in rows; these areas include orchards, timber tracts, Christmas tree production and other general uses. **There are 140,879 acres of general woodlands and 44,851 acres of planted woodlands in Waushara County.** These woodlands should be considered as prime wildlife habitat areas; efforts to protect them from encroaching development should be evaluated (Table 5-15).

Table 5-15. Woodlands

Community	General Woodlands		Planted Woodlands		Total Woodlands		Total Acres
	Acres	Percent	Acres	Percent	Acres	Percent	
Waushara County	140,879	34.5%	44,851	11.0%	185,730	45.5%	407,914

Source: ECWRPC, 2005.

The Forest Crop Law of 1927 (FCL) and the Woodland Tax Law of 1954 (WTL) were established to encourage sound forestry practices on private lands. In 1985, the Managed Forest Law (MFL) replaced both the FCL and WTL.²⁰ Enrollment in the FCL closed in 1986, and renewal in the program is not permitted. The last WTL contract expired in 2000. The MFL ensures the growth of future commercial crops while balancing individual property owner objectives and society's need for compatible recreational activities, forestry aesthetics, wildlife habitat, erosion control and protection of endangered resources. **In 2008, a total of 41,102 acres were actively managed within Waushara County under the MFL, while a total of 1,233 acres were managed under FCL** (Table 5-16).

**Table 5-16. Managed Forest Law
And Forest Crop Law Lands**

Waushara County	Acres	Percent
Managed Forest Law	41,102	22.2%
Forest Crop Law	1,233	0.7%

Source: WDNR, 2008.

Parks, Open Space, and Recreational Resources

Public open space such as parks and parkways are important to the quality of life within a community. These lands serve many purposes including outdoor recreation and education; buffers between different land uses; flood and stormwater management; habitat preservation; air and surface water quality improvements; protection of groundwater recharge areas; and

²⁰ WDNR. 2005. *Managed Forest Law*. <http://dnr.wi.gov/org/land/forestry/ftax/mfl.htm>.

aesthetics. They can also enhance the value of nearby properties. (See Utilities & Community Facilities Chapter)

Wisconsin Department of Natural Resources (WDNR) and Public Lands

Since 1876, the State of Wisconsin has been acquiring land to meet conservation and recreation needs. Public lands managed by the Wisconsin Department of Natural Resources provide many opportunities and public spaces to hunt, fish, hike, canoe, or watch or photograph wildlife. All Wildlife Areas are open to a full range of traditional outdoor recreational uses. These include hunting, fishing, trapping, hiking, nature study, and berry picking. Dog training or trialing (hunting dog competitions) may be allowed by permit. A limited number of properties allow additional outdoor recreation at designated locations; like camping, bicycling, horseback riding, and snowmobiling.

State Fishery Areas (SFAs) protect important waterways in Wisconsin by providing a natural buffer from agricultural practices and urban runoff. SFAs often preserve and manage the headwaters or springs of streams which serve as the biological base for fish and other aquatic life. SFAs also increase the availability of public access to navigable waterways throughout the state. ***The WDNR owns approximately 19,736 acres within Waushara County.*** State owned and managed lands are briefly described below (for detailed descriptions, visit the WDNR website at <http://dnr.wi.gov/>):

State Wildlife Areas:

- ***Greenwood Wildlife Area*** lies on the edge of a pitted outwash plain creating a flat sandy topography and a wooded hilly moraine comprised mostly of oak trees. This area is an important wintering area for a local population of Giant Canada geese. A larger portion of the area, that was once farmed heavily, has been restored to prairie that provides important habitat for grassland dependant species.
- ***Poygan Marsh Wildlife Area*** is over 3,600 acres in size located in east central Waushara County on the western shore of Lake Poygan. Most of the area is open marsh or bottomland timber, with the Pine River, Pumpkinseed Creek and Willow Creek flow through the wildlife area terminating in Poygan Lake.
- ***Lunch Creek Wetlands*** (State Natural Area No. 333) contains one of the most diverse and species rich sedge meadows in Wisconsin. This area is situated within a mainly undisturbed watershed, an uncommon occurrence in Wisconsin. This large wetland complex is free of exotic species and dominated by fern and sedge meadow communities containing a total of 115 plant species.
- ***Mecan Springs*** (State Natural Area 370) protects a large Clearwater springs which are the headwaters to the Mecan River. The Mecan River system contains some of the finest trout streams in central Wisconsin and supports excellent natural trout reproductions. Fen vegetation is present in the saturated soils of the Mecan Springs area.
- ***Karner Blue Meadow*** (State Natural Area No. 327) features a dry sand prairie that is home to a strong population of the federally endangered Karner blue butterfly. The Karner blue is restricted to habitats that contain wild lupine, the larval butterfly's only

food plant. The natural area borders Bonneville Lake, a 15-acre seepage lake surrounded by marshy vegetation that supports a diverse aquatic invertebrate fauna, including several species of dragonflies.

- **Upper Fox Headwaters** (State Natural Area No. 265) is made up of three distinct units: Zinke Lake, Upper Chaffee Creek Meadow, and Caves Creek. This area contains a large wetland complex of fen, wet-mesic, and wet prairie with over 100 native plant species present.
- **Plainfield Tunnel Channel Lakes** (State Natural Area No. 226) includes Sherman Lake, Second Lake, and Plainfield Lake. This State Natural Area provides specialized habitat for Falsetto's Locoweed, one of the rarest plants found in Wisconsin. This plant is found only on the fluctuating shorelines of lakes in Wisconsin's Central Sands Ecological landscape areas and nowhere else on earth. This area protects three lakes in a string of 13 lakes and ponds lying in a "tunnel channel" created by a meltwater river flowing beneath the glacial ice. The lake basins were created from buried blocks of ice left behind when the tunnel collapsed.
- **Bohn Lake** (State Natural Area No. 530) is a 13 acre, 24 foot deep hardwater seepage lake that is part of a geologically significant tunnel channel. The Bohn Lake shoreline fluctuates anywhere from four to six feet depending on the hydrologic cycle and in some dry years contains little water. In wet years, abundant vegetation grows in distinctive concentric rings around the lake due to its fluctuating nature. Each ring has a different combination of species.
- **Bass Lake Fen** (State Natural Area No. 178) features a 20 acre calcareous fen located on the underdeveloped shore of Bass Lake. The fen is exceptionally diverse with many small springs, openings, and ponds providing a calcium-rich habitat that supports 125 species of plants. To the east the fen grades into sedge meadow and two communities are bordered on the north by tamarack swamp and on the south by shrub-carr.

State Fishery Areas:

- **Big Roche-A-Cri Fishery** provides public access to approximately 493 acres. This public fishery extends along the majority of the Big Roche-A-Cri Creek corridor. The Creek is an important fishery, with the head water areas classified as a Class I trout stream.
- **Mecan River Fishery Area** is composed of the Mecan River and three tributaries: Chaffee Creek, Wedde Creek, Little Pine Creek. These streams are high quality trout waters. State ownership is fragmented along the stream corridors, with substantial public access near the headwaters in southwestern Waushara County. Portions of the Wisconsin Ice Age Trail traverse through the Mecan River Fishery area. Zinke Lake is included in this fishery area.
- **Pine River Fishery Area is composed of the Pine River and seven tributaries:** Lower Pine, Jones, Davis, Clayton, Upper Pine, Kaminski, and Little Silver Creeks. Humphrey Creek, while not mentioned as one of the seven tributaries on the WDNR website, is a tributary to Pine River and is part of the fishery area. These streams are quality trout waters that are generally crystal clear. State ownership is fragmented

along the stream corridors, with substantial public access following the Pine River as it flows through much of northern Waushara County.

- ***Willow Creek Fishery Area is composed of Willow Creek and three tributaries: Rattlesnake, Thorstad (Bruce) and Cedar Spring Creek.*** These streams are high quality trout waters that are generally crystal clear. State ownership is fragmented over ten miles of stream corridors with substantial public access within the Willow Creek's watershed where it originates in north central Waushara County.
- ***White River Fishery Area is composed of the White River and four tributaries: Soules Creek, Lunch Creek, Bowers Creek, and the West Branch of the White River.*** These streams are high quality trout waters that are generally crystal clear. State ownership is fragmented along the stream corridors with substantial public access in the headwaters area in south-central and southwestern Waushara County. The White River Fishery Area is about 27 miles in length, and is a tributary of the Fox River.
- ***Carter Creek Fishery Area is located in the Town of Hancock.*** It was created in 1961 and contains about 205 acres.
- ***Pony Creek Fishery Area is located in the Town of Bloomfield.*** It was created in 1961 and encompasses 20 acres at the mouth of Pony Creek and Lake Poygan. It's considered a shallow water fishery and was purchased for fishery habitat protection. Species likely to utilize this area include pan fish, large mouth bass and northern pike.²¹

WDNR Managed Lands:

The State owns/manages a number of areas in Waushara County. These areas are scattered throughout the County and in some cases are easements to the State Fishery, Natural Areas, and the County's water resources. The following are WDNR owned/managed lands that help protect the State Fishery and Natural Areas within the County.

- Extensive WL Habitat
- Ice Age Trail
- Leach Natural Resource Center
- Statewide Natural Area
- Statewide Public Access
- Wild Rose Fish Hatchery
- REM-Carter Creek
- REM-Little Silver Creek
- REM-Pine River
- REM-Pony Creek
- REM-Thorstad Creek

Environmental Corridors

Environmental corridors are continuous systems of open space created by the natural linkage of environmentally sensitive lands such as woodlands, wetlands, and habitat areas that provide

²¹ K. Karnke, WDNR. Personal conversation 7/31/09.

important travel ways for a variety of wildlife and bird species. These features are sensitive natural resources; preserving the corridors from development protects habitat and keeps non-point source pollution to a minimum, thus ensuring that high quality groundwater and surface water is maintained and habitat is not impaired.

As stated above the WDNR manages almost 20,000 acres within Waushara County, preserving the County's wild life, invaluable habitat and water resources. It is important that development is directed away from these significant resources and there environmental corridors as well as other privately owned natural corridor areas which are scattered throughout the County.

Mineral Resources

Non-metallic Mineral Resources. Non-metallic mineral resources include all mined minerals other than those mined as a source of metal. Economically important non-metallic minerals include building stone, lime, sand, gravel, and crushed stone. ***There are nineteen active non-metallic mining sites in Waushara County*** (Table 5-17 & Exhibit 5-6).

Table 5-17. Non-metallic Mining Sites

Operator	Total Acres	Location	
		Community	Section number
Amon, B.R. & Sons	8	T. Wautoma	15
Bruan, David	1	T. Aurora	28
Faulks Bros.	11.5	T. Saxeville	21
Gelhar, A.F.	4.5	T. Bloomfield	9
Gelhar, A.F.	4	T. Saxeville	12
Gelhar, A.F.	4	T. Bloomfield	11
Henriksen, Russel	7.5	V. Redgranite	6
Hudziak, David	1.6	V. Wild Rose	25
Jorgensen, Gary	2.8	T. Leon	2
Kelley S & G	4.9	T. Wautoma	15
Kelley S & G	4.9	T. Wautoma	22
Kraemer Company	14.7	T. Plainfield	13
Kraemer Company	24.8	T. Hancock	22
Michels Materials	45	T. Oasis	36
Michels Materials	18	T. Wautoma	23
Northeast Asphalt	18	T. Richford	1
Oakfield Stone Co.	1	V. Lohrville	18
Sebor/CAM Const.	34.8	T. Hancock	27
Stafford Excavating	4.1	T. Deerfield	36

Source: Waushara County Zoning, 2008.

Metallic Mineral Resources. Metallic mineral mining refers to mining of mineral deposits that contain recoverable quantities of metals such as copper, zinc, lead, iron, gold, silver, and others. ***There are no metallic mineral resource sites in Waushara County.***

Solid and Hazardous Waste

The Wisconsin Department of Natural Resources has inventoried the past and current sites which have been used for solid and/or hazardous waste disposal.²² The list includes active,

Table 5-18. Waste Disposal Sites

Facility Name	Location		
	Township	Range	Section Number
V. Plainfield	T20N	R08E	12
Raebe Flying (Pesticides)	T20N	R08E	10
T. Aurora	T18N	R13E	18
T. Bloomfield	T20N	R13E	8
T. Bloomfield	T20N	R13E	26
V. Coloma	T18N	R08E	23
Art Johnson (Demo)			
C. Wautoma	T18N	R10E	1
WDNR - Deer Pit	T18N	R10E	11
Baum Oil Co.	T19N	R08E	10
V. Hancock	T19N	R08E	11
Ed Fadrowski/Menard's	T19N	R12E	20
T. Leon	T19N	R12E	30
Chicago Pickle Co.	T18N	R11E	12
T. Marion	T18N	R11E	22
T. Mount Morris	T19N	R11E	23
T. Poy Sippi	T19N	R13E	18
T. Rose	T20N	R10E	4
V. Wild Rose	T20N	R10E	35
T. Saxeville	T20N	R12E	21
T. Saxeville	T20N	R12E	21
Camp Wild Rose LF	T20N	R11E	29
Springwater/WR Landfill	T20N	R11E	8
T. Warren	T18N	R12E	17
V. Lohrville	T18N	R12E	18
V. Redgranite	T18N	R12E	6
Waushara County Hwy Dept.	T19N	R10E	14
C. Wautoma	T19N	R10E	22
C. Wautoma	T19N	R10E	22
Kirk Minn. Co.	T19N	R10E	13
Milty Wilty Drive-in	T18N	R10E	1
The Old Dump Grounds	T19N	R11E	21
Joel Vandenhout	T20N	R12E	24
State of Wisconsin	T20N	R11E	32
City of Wautoma Dump	T18N	R10E	3
V. Redgranite	T18N	R12E	7

Source: WDNR, 1999. *Registry of Waste Disposal Sites in Wisconsin*

²² Wisconsin Department of Natural Resources. 1999. *Registry of Waste Disposal Sites in Wisconsin*.

inactive, and abandoned landfills and collection sites. Inclusion of a site on the Registry does not mean that environmental contamination has occurred, is occurring, or will occur in the future. Instead, the document is intended to be utilized as a general information resource and planning tool. The list has been updated by WDNR and County staff; generally sites have been removed from the list that are not considered to be of a concern or could not be located.

There are thirty-six sites in Waushara County that are listed on the WDNR's registry of active, inactive and abandoned sites where solid waste or hazardous wastes were known or likely to have been disposed (Table 5-18, Exhibit 5-6).

Air Quality

Air quality, particularly good air quality, is often taken for granted. Clean air is vital to maintain public health. Sound local and regional planning can minimize negative impacts to the air. Development patterns can impact automobile use. As communities become more spread out, the use of automobiles increases dramatically, resulting in more emissions and subsequent decreases in air quality. As residential development moves into rural areas, there are increased conflicts between non-farm residents and agricultural operations that emit odors and dust. Emissions from certain industrial uses also have the potential to impact air quality.

There are no areas in Waushara County which exceed the limits of the National Ambient Air Quality Standards (NAAQS) for ozone, particulates, or carbon monoxide. The nearest ozone monitoring sites are in Brown and Outagamie Counties.²³

Cultural Resources

Cultural resources, like natural resources are valuable assets which should be preserved. These resources define a community's unique character and heritage. Included in this section is an inventory of historic buildings, sites, structures, objects, archeological sites and districts.

State and National Register of Historic Places.

The Wisconsin Historical Society's Division of Historical Preservation (DHP) is a clearing house for information related to the state's cultural resources including buildings and archaeological sites. A primary responsibility of the DHP is to administer the State and National Register of Historic Places programs. The National Register is the official national list of historic properties in the United States that are worthy of preservation. The program is maintained by the National Park Service in the U.S. Department of the Interior. The State Register is Wisconsin's official listing of state properties determined to be significant to Wisconsin's heritage. The inventory is maintained by the DHP. Both listings include sites, buildings, structures, objects, and districts that are significant in national, state, or local history. Sites are chosen based on the architectural, archaeological, cultural, or engineering significance.

The following three items are listed on the National Register for Waushara County.

- ***Alanson M. Kimball House – Town of Leon***
- ***Waushara County Courthouse, Waushara County Sheriff's Residence and Jail – City of Wautoma***
- ***Whistler Mound Group – Village of Hancock***

²³ U.S. Environmental Protection Agency. 2007. *County Air Quality Report – Criteria Air Pollutants*.

Mr. Kimball was a United States Representative for the 6th Congressional District of Wisconsin from 1875 to 1877²⁴. He died in Pine River and is interred at the Pine River Cemetery. The Waushara County Courthouse, Sheriff's Residence and jail. The jail was built in 1908 and was used until 1977. The Sheriff's Residence and jail are open to the public. The Whistler Mound archaeological site (ca.500-1500 AD) is located within Whistler Indian Mounds Park in the Village of Hancock and was entered onto the National Register of Historic Places in 1993. It was listed because of its potential to yield information important to the understanding of prehistory. Specifically, the site helps to answer questions regarding the origins, affiliations, functions, and spatial significance of mounds constructed by indigenous peoples during the Late Woodland stage. During this period people began to settle in large villages and use bows and arrows to hunt.

The National Register is not a static inventory. Properties are constantly being added, and, less frequently, removed. It is, therefore, important to access the most updated version of the National Register properties. This can be found by accessing the DHP website (<http://www.wisconsinhistory.org/histbuild/register/index.html>) or by contacting the DHP at (608) 264-6500.

Architecture and History Inventory (AHI)

In order to determine those sites that are eligible for inclusion on the National Register, the DHP frequently funds historical, architectural, and archaeological surveys of municipalities and counties within the state. Surveys are also conducted in conjunction with other activities such as highway construction projects. While a minimal amount of this type of survey work has been done in Waushara County. ***A number of properties within Waushara County are included in the Architecture and History Inventory.***

While inclusion in this inventory conveys no special status, rights, restrictions, or benefits to owners of these properties. It simply means that some type of information on these properties exists in the DHP's collections. As is often the case, some of these properties may no longer exist. AHI is primarily used as a research and planning tool. Like the National Register, this is not a static inventory. Properties are constantly being updated. Information can be found on the DHP web site (<http://www.wisconsinhistory.org/ahi/search.asp?cnty=WS>).

Archaeological Sites Inventory (ASI)

An inventory similar to the AHI exists for known archaeological sites across the state: the Archaeological Sites Inventory (ASI). Due to the sensitive nature of archaeological sites, information as to their whereabouts is not currently made available on-line. This information is distributed only on a need-to-know basis. Archaeological sites are added to ASI as they are discovered; discovery is a continual process. For technical assistance and up to date information on sites within a given area, contact the DHP at (608) 264-6500.

Wisconsin Historical Markers

Wisconsin historical markers identify, commemorate and honor important people, places, and events that have contributed to the state's rich heritage. The Wisconsin Historical Markers

²⁴ http://en.wikipedia.org/wiki/Alanson_M_Kimball.

Program is a vital education tool, informing people about the most significant aspects of Wisconsin's past. The Society's Division of Historic Preservation administers the Wisconsin Historic Markers Program. Applications are required for all official State of Wisconsin historical markers and plaques.²⁵

According to the Wisconsin Historical Society, three historical markers or plaques are located within Waushara County:

- **Sir Henry Wellcome** – Town of Oasis
- **Whistler Mound Group and Enclosure** – Town of Hancock
- **The Auroraville Fountain** – Town of Aurora

The Sir Henry Wellcome Birthplace is located on CTH J. Wellcome was a Wisconsin born, naturalized Briton who in 1932 was knighted by King George of England in recognition of his contributions to the medical sciences. The Whistler Mound Group and Enclosure is described in more detail above under State and National Register of Historic Places. The Auroraville Fountain is a natural spring well or artesian well that was bored in 1867 by John Keneister of Auroraville. Originally the fountain was built in a wooden trough, but it was replaced with a copper vat from a burned out cheese factory in 1927. The Works Project Administration built the ornate stone enclosure around the copper vat in 1936.

Museums/Other Historic Resources

Museums protect valuable historic resources for community enjoyment. Residents are welcome to learn from the exhibits and amenities they have to offer. ***There are a number of museums in and near Waushara County***²⁶.

- **Waushara County Museum** is housed in the former county jail in Wautoma. The Waushara County Historical Society maintains several exhibits detailing the genealogy, antiques, and the history of the sheriff's department. The original doors and bars of the jail cells have been preserved. Other nearby museums are located in the Oshkosh and Appleton areas.
- **Pioneer Museum** is located in the Village of Wild Rose. This museum encompasses the Victorian era home of Elisha and Jane Stewart, Pioneer Hall (bank and drug store), a country school, barn and carriage house.
- **Woodland Indian Mounds** in Whistler Park. These historic earthen structures were constructed by Woodland Indians during the period of 650 to 1200 AD.
- **Quarry Park** in Redgranite. In 1995, this popular quarry site was designated as a village park. Remains of some of the old quarry works can still be seen from the walking path that surrounds the quarry.
- **Hancock Public Library** in the Village of Hancock is a fully restored historic firehouse.
- **Berlin Historical Society Museum** is located in Berlin, Wisconsin.
- **Clark Schoolhouse** located in Riverside Park in Berlin. The little white school house was built in 1863 and was moved to its present location in 1963.

²⁵ Wisconsin Historical Markers of the Wisconsin Historical Society.
<http://www.wisconsinhistory.org/hp/markers/index.asp>. Accessed 10/28/08

²⁶ <http://www.explorewisconsin.com/countypages/waushara.asp>

Local History²⁷

The earliest inhabitants of Waushara County were Native Americans. Considerable evidence of their civilization has been found in the county. A total of 332 mounds, 49 camp and village sites, two spirit stones, two cemeteries, and several other archeological sites have been identified within the County²⁸. For more detail, please see the individual community plans.

On October 18, 1846, the Menominee Tribe ceded their land, including Waushara County, to the U.S. Government. In 1848, Isaac and William Warwick, the first white settlers to the area, built a log cabin in the Town of Marion. During the winter of 1848 to 1849, Philip Green settled on the site of the former Village of Wautoma. Other settlers soon followed. By 1849 a crude dirt road was built between Berlin (Strong's Landing) and Wautoma (Shumway Town). The 1849 road roughly corresponds with present day CTH F. The community of Sacramento, located on the south side of the Fox River, was platted in either 1849 or 1850 and a post office was established for the community in 1852. During 1849 and 1850, other settlers began gathering and making settlements in other parts of what is now Waushara County. ***On February 15, 1851, the Wisconsin Legislature established Waushara County and selected Sacramento as the county seat.*** The county originally consisted of a single town, the Town of Waushara. ***In 1852, Waushara County was organized for judicial purposes and in September 1854 the county seat was moved to Wautoma.***

Ethnic Origin

In 2000, the most common ancestry identified by Waushara County residents was German (Table 5-19; Appendix D, Table D-4). ***Thirty-eight percent (38.0%) of Waushara County residents claimed German ancestry.*** The highest concentration of individuals claiming German ancestry was in the Town of Bloomfield (51.8%). The other towns

Table 5-19. Top 5 Ancestries

	Ancestry	Total Population in Sample	Percent of Population
Waushara County	German	8,805	38.0%
	Unclassified or Not reported	4,629	20.0%
	Polish	1,681	7.3%
	Irish	1,101	4.8%
	United States or American	1,055	4.6%
	Total Population	23,154	100.0%

Note: Includes individuals who only reported one ancestry and the first response listed for those who reported multiple ancestries.

Source: U.S. Census, 2000 STF 3A

²⁷ Reetz, E. 1981. *Come Back in Time: Vol. 1.*

Stertz, N. 1996. *Auroraville, Wisconsin.*

http://www.wisconsinhistory.org/turningpoints/tp-061/?action=more_essay

²⁸ Fox, G., and E.C. Tagatz. *The Wisconsin Archeologist, Indian Remains in Waushara County, Volume 15, October 1916 No. 3.*

along the eastern tier of the county and within the immediate vicinity also had more than forty percent of their residents claiming German Ancestry (T. Poy Sippi - 44.0%, T. Aurora – 49.2%, C. Berlin – 45.6%, T. Saxeville – 41.9% and T. Leon – 43.9%). Other towns with an excess of forty percent included the Town of Richford (45.6%) and the Town of Dakota (44.2%).

Several residents (20.0% Waushara County) could not identify or chose not to report their ancestry. Over a quarter of the residences in five communities in Waushara County could not or chose not to identify their ancestry (T. Coloma – 28.6%, V. Coloma – 28.4%, T. Richford – 27.9%, T. Warren – 25.4%, C. Wautoma – 27.4%). The second most common ancestry identified by Waushara County residents was Polish. Approximately 7.3 percent of Waushara County residents claimed Polish ancestry.

Research has shown that there is a high correlation between those communities with Pennsylvania German ancestry and those communities with concentrations of Amish population.²⁹ ***Within Waushara County, Amish settlements include 52 households, 291 people, and an average household size of 5.6 persons*** (Appendix D, Table D-5). Thirty-three percent are employed in farming, 23 percent in dairying and 51 percent in woodworking. According to a power point presentation given by UW-Extension³⁰ in 2000, the Town of Richford had the largest number of Waushara County residents over the age of 5, who speak a Germanic language at home (51 to 100). It further states that “The Amish speak a Germanic language at home” and that “Only in the Towns of Richford, Coloma, Dakota and Aurora do youth (age 5 – 17) speak a Germanic Language at home).

Key Findings

Agricultural Resources

Agricultural Land Cover

- Agricultural land cover, which includes row crops, forages and grassland, comprised over 56 percent of the total area of Waushara County (1991-1993).
- Towns with a smaller share of total farmland are usually areas with a higher number of lakes.
- Higher shares of land in forage are generally found in the eastern part of the county.
- Towns with lower land area in forages generally have a larger percentage of land in grassland.

Farmland Losses

- In 1997, an estimated 710 farms existed within Waushara County. This represents a net gain of one farm from 1990.
- In 1997 Waushara County recorded 1.2 farms per square mile.
- In 1990, there were 232 dairy farms in Waushara County; by 1997 the county lost 101 dairy farms.

²⁹ UW Madison Applied Population Lab

³⁰ *Waushara County Demographic Overview, 2008*; as presented by UW-Extension Waushara County. Source data: Wisconsin Department of Administration.

- The major losses in the number of dairy farms generally occurred in the towns that had the largest numbers of farms.
- Between 1990 and 1997, 9,066 acres (4.4%) of farmland were lost in Waushara County.
- Between 1990 and 1997, 974 parcels encompassing 43,438 acres was sold in the County. Approximately 78 percent (33,881 acres) of this land remained in agricultural use, while 22 percent (9,558 acres) was converted to other uses.

Farmland Soils

- The highest percentage of land within the County is considered unique farmland.
- Prime farmland accounts for 18 percent (73,361 acres) of the land in the Waushara County.

Natural Resources

Soils

- About 59 percent of the area in the County is suitable for conventional systems; while another 19.2 percent is suitable for at-grade, in-ground pressure and mound systems.
- Just over one third of the area within County (34.8%, 141,989 acres) has soils that are considered to have a very high suitability for building site development.
- Only 28.5 percent (116,303 acres) pose a slight risk to no limitations for septage spreading throughout the County.

Geography and Topography

- Evidence of several phases of the Wisconsin Glacier can be found in the County.
- The western edge of the County is a flat outwash plain.
- Central Waushara County (City of Wautoma, Village Wild Rose and surrounding Towns) gradually flattens to a rolling plain as you move eastward across the County.
- The eastern third of the County is a gently rolling lake plain.
- Within Waushara County, land relief is approximately 390 feet, from a low of 750 feet above sea level near Poygan Marsh to a high of 1,137 feet at the Nordic Mountain Ski Hill (a granite monadnock located in the Town of Mount Morris).
- Less than ten percent (9.2%, 37,698 acres) of the County is classified as having slopes in excess of 12 percent.
- Steep slopes are scattered throughout Waushara County and are generally found in conjunction with moraines, drumlins, and other glacial features.

Water Resources

Watersheds and Drainage

- Surface water drainage for Waushara County located within the Central Wisconsin River Basin, the Upper Fox River Basin and the Wolf River Basin.
- Waushara County is divided into ten sub-watersheds: Big Roche-A-Cri Creek, Little Roche-A-Cri Creek, Fourteenmile Creek, Sevenmile & Tenmile Creeks, Mecan River, White River, Fox River/Berlin, Pine River and Willow Creek, Waupaca River, Little River and Alder Creek (Walla Walla).

Lakes, Ponds, and Quarries

- There are 136 lakes and/or impoundments found within Waushara County.

Rivers and Streams

- There are forty-six named river/streams in Waushara County. The most prominent rivers/ streams within Waushara County are the Mekan River, White River, Pine River and Willow Creek.

Floodplains

- Ten percent (40,725 acres) of the land within the County lie in a floodplain.

Wetlands

- Approximately 15 percent (59,964 acres) of Waushara County is classified as wetlands.

Groundwater

- A groundwater divide, located west and parallel to the topographic divide, cuts diagonally through Waushara County. It extends from Marquette County, through the towns of Hancock and Coloma, the Village of Hancock, and east of the Village of Plainfield to the Portage County line.
- East of this divide, groundwater moves southeasterly toward the Wolf and Fox Rivers.
- West of this divide groundwater moves westerly toward the Wisconsin River.
- Ninety-six wells within Waushara County exceeded the 10 ppm threshold level for nitrate. The majority of homes within Waushara County are served by private wells.
- The majority of homes within Waushara County are served by private wells.
- Groundwater depths of less than two feet are found in just over a quarter (25.8%, 105,049 acres) of the land area.
- There are five Atrazine Prohibition Areas within Waushara County.

Wildlife Resources

- The majority of the County falls within the Central Sand Hills ecological landscape, while the eastern portion of the County falls within the Southeast Glacial Plains ecological landscape and the western portion of the County falls within the Central Sand Plains.
- Woodlands comprise about 46 percent of the total land area in Waushara County.
- There are 140,879 acres of general woodlands and 44,851 acres of planted woodlands in Waushara County.
- In 2008, a total of 41,102 acres were actively managed within Waushara County under the MFL, while a total of 1,233 acres were managed under F CL.

Parks, Open Space and Recreational Resources

- The WDNR owns approximately 19,736 acres within Waushara County
- State Wildlife areas within Waushara County include: Greenwood Wildlife Area, Poygan Marsh Wildlife Area, Lunch Creek Wetlands, Mekan Springs, Karner Blue Meadow, Upper

Fox Headwaters, Plainfield Tunnel Channel Lakes, Bohn Lake and the Bass Lake Fen State Natural Area.

- State Fishery Areas within Waushara County include: the Big Roche-A-Cri, Mekan River, Pine River, Willow Creek, White River, Carter Creek and the Pony Creek Fishery Areas.
- The State owns/manages a number of areas in Waushara County. These areas are scattered throughout the County and in some cases are easements to the State Fishery, Natural Areas, and the County's water resources.

Mineral Resources

- There are nineteen active non-metallic mining sites in Waushara County.
- There are no metallic mineral resource sites in Waushara County.

Solid and Hazardous Waste

- There are thirty-six sites in Waushara County that are listed on the WDNR's registry of active, inactive and abandoned sites where solid waste or hazardous wastes were known or likely to have been disposed.

Air Quality

- There are no areas in Waushara County which exceeds the limits of the National Ambient Air Quality Standards (NAAQS) for ozone, particulates, or carbon monoxide.

Cultural Resources

- The following three items are listed on the National Register for Waushara County: Alanson M. Kimball House – Town of Leon; Waushara County Courthouse, Waushara County Sheriff's Residence and Jail – City of Wautoma; and Whistler Mound Group – Village of Hancock.
- A number of properties within Waushara County are included in the Architecture and History Inventory.
- According to the Wisconsin Historical Society, three historical markers or plaques are located within Waushara County: Sir Henry Wellcome – Town of Oasis; Whistler Mound Group and Enclosure – Town of Hancock; and The Auroraville Fountain – Town of Aurora.
- There are a number of museums in and near Waushara County.
- The earliest inhabitants of Waushara County were Native Americans. Considerable evidence of their civilization has been found in the county.
- On February 15, 1851, the Wisconsin Legislature established Waushara County and selected Sacramento as the county seat. In 1852, Waushara County was organized for judicial purposes and in September 1854 the county seat was moved to Wautoma.
- In 2000, the most common ancestry identified by Waushara County residents was German. Thirty-eight percent (38.0%) of Waushara County residents claimed German ancestry.
- Within Waushara County, Amish settlements include 52 households, 291 people, and an average household size of 5.6 persons.

INTERRELATIONSHIPS WITH OTHER COMPREHENSIVE PLAN ELEMENTS

Wisconsin's important agricultural base is strongly integrated with its natural resources. Complex agricultural patterns are mixed with the state's natural features to form a patchwork of different land uses. Natural resource issues and concerns are closely linked to activities taking place on agricultural lands, not only adjacent to one another, but in the area. Soil erosion from farm fields and surface water runoff of crop nutrients and agricultural chemicals can impact the quality of streams, rivers, and lakes. Leaching of pesticides and nutrients has the potential to impact underground aquifers and affect drinking water supplies. There is a growing concern, especially in areas where rural residential development is occurring, about the impact of livestock farming on air quality. However, it is important to note that individual farming operations differ in management practices and vary widely in their contribution to these environmental problems.

Although agricultural activities can have negative impacts on the environment, they can also provide positive benefits. People value the open agricultural landscape and the benefits of maintaining wildlife habitats. Other benefits include nutrient recycling and enhanced water recharge.

The long, rich history of farming in Wisconsin has led to the creation and exposure of many of the state's archaeological sites. In the County it is not uncommon to find evidence of native villages and burial mounds. Architecturally distinctive homes, barns, or entire farmsteads can reflect a significant time period, be associated with a notable person, reflect ethnic building types and construction practices, or represent an example of a once important agricultural specialty.

Economic Development

Agriculture, natural and cultural resources should be considered when developing an economic development plan. It is important to remember that farming is still an important segment of Waushara County's rural economy. There may be specific economic development strategies that could help improve the well-being of local farmers; as long as financial conditions remain difficult, farmers will continue to find alternative uses for their land. Natural resources can provide a positive economic benefit to the area through recreational uses and overall aesthetics. However, protection and impact to the area's natural resources should be considered whenever a new business or development is proposed.

Cultural and natural elements provide opportunities for enhanced quality of life for current residents and can be a valuable tool to bring new workers and employers to the area. Historic preservation can be used to enhance unique qualities found in many of Waushara County's communities and towns.

Housing

Agriculture and natural resources need to be considered when planning for the housing element. Most new residential construction is occurring on agricultural land or adjacent to significant natural resources such as a lake, stream, river, wetland, steep slope, or woods. Although these natural features provide aesthetically pleasing views for new homeowners, residential encroachment has detrimental impacts to the natural resource base. In many areas,

housing development patterns have been rather haphazard. Scattered housing patterns have resulted in high costs to local communities in the form of lost farmland, increased demand for public services, and conflicts between homeowners, farmers, environmentalists, and recreationalists. Demand for home sites also drives land costs upward, reducing the ability of farmers to buy land to either begin farming or expand existing operations.

Existing older housing stock provides community character and reflects the historical development of the area. Older neighborhoods often offer the best opportunities for low income housing that can be rehabilitated using community improvement programs. Abandoned historic industrial buildings and old schools can be retrofitted and preserved to provide unique and attractive affordable housing for the community.

Transportation

Transportation planning should consider the transportation needs of the area. Transportation is critical to the agricultural community because it provides access to suppliers, processors, haulers, and other support industries. The transportation network also allows goods to be brought to local, regional, national, and international markets. An efficient transportation network can increase income levels for Wisconsin farmers. Additionally, when planning for transportation, it is important to consider how rural residential developments and expanding agricultural operations will affect the transportation infrastructure and safety of the local area. Development and subsequent transportation improvements may impact the County's natural resources, wetland areas, and farmland adjacent to existing highway corridors. To minimize this impact, Waushara County and its communities should monitor these situations and consider development techniques that offer greater environmental protection.

When transportation corridors are expanded or proposed, care should be taken to minimize the effects on historical and cultural resources. Sensitivity must be shown for historic buildings and markers as well as archaeological sites and objects. The integrity and identity of a community is dependent on the preservation of its historic character and distinctive natural features. For example, the identity and aesthetics of a historic neighborhood can easily be threatened by a street widening project that removes large trees and narrows street terraces.

Utilities and Community Facilities

Planned development leads to an efficient use of public infrastructure and reduces the amount of sprawl, which leads to the consumption of the rural landscape and other natural resources. Educating local officials and citizens about how local land use decisions impact the agricultural industry is important if the ability to grow and raise food is to be preserved. Diminishing farmland also affects a community's ability to land spread bio-solids, a byproduct of the wastewater treatment process. As large areas of farmland in close proximity to suburban areas decrease, communities must travel longer distances to dispose of this waste, thereby increasing the cost of sewage disposal.

Similar to farmland, our natural resources are limited and are being consumed at an alarming rate. Fossil fuel emissions lead to persistent health and environmental problems; regional haze; acidification of surface waters and forests; mercury in fish and other wildlife; acidic damage and erosion to buildings and other materials; ozone damage to forests; and eutrophication of water bodies. Renewable energy, or an alternative energy source, is created from sustainable natural

resources. Corn and other cellulose products can be used to produce ethanol for alternative fuel vehicles. Wind energy provides an alternative to coal and natural gas boilers.

To maintain our quality of life, it is essential that not only is growth accommodated but that it be done while protecting our natural environment. The quality of the region's surface and groundwater resources are linked to the proper siting, installation, and maintenance of individual on site wastewater systems. Improper treatment and discharge of human waste and bacteria can contaminate public and private water supplies. The impact of increased development and associated impervious area can adversely affect groundwater quality and quantity.

Public buildings such as city or town halls, county courthouses, schools, water treatment plants, water towers, libraries, and fire stations are often architecturally significant landmarks in a community and are an important element of the community's character. Even when these buildings have outgrown their original use, they are often converted into a community center, senior center, housing or another productive use due to the community's attachment to them.

Land Use

Land use is an integral part of all the elements in the plan. County residents value the preservation of agricultural land and the natural resources. There is a need to protect the rural atmosphere while allowing for controlled orderly development. Opportunities for historical preservation should also be considered in all future planning, zoning, and development decisions.

Intergovernmental Cooperation

Many agricultural and natural resource issues go beyond local boundaries. Watersheds and other ecosystems, economic conditions, transportation patterns, and housing can impact regions as a whole. Air and water pass over the landscape so that one jurisdiction's activities can affect other jurisdictions located downwind or downstream. Regional development patterns and neighboring municipal land use policies also affect land price, availability of land, and the economic performance of local farms in adjoining towns. Unless towns, cities, villages, and counties communicate and coordinate effectively, it will be difficult to control growth in agricultural areas that preserves farmland and protects natural resources.

Preserving a community's heritage allows people to connect with the past. Unfortunately, little has been done in Waushara County to establish a base of historically significant buildings and other features. The Wisconsin Historical Society's Division of Historic Preservation provides funding to local governments and non-profit organizations. These funds can be sought independently or collectively with neighboring communities to fund architectural and historical surveys. Communities should work together to utilize existing local expertise on not only the history of the area, but also on historic preservation issues.

POLICIES AND PROGRAMS

State, Regional, County, and Local Policies

Wisconsin Administrative Code. Comm 83, revised during the 1990s to add provisions for new wastewater treatment system technologies and land suitability criteria, came into effect on July 1, 2000. Unlike the code it replaced, the new rules prescribe end results – the purity of wastewater discharged from the system – instead of specific characteristics of the installation. This rule provides land owners with more on-site wastewater treatment options, while at the same time protecting natural resources and groundwater. Within Waushara County, holding tanks are banned for new construction and are not allowed for replacement systems unless the property cannot support any other on-site sewage disposal systems.

NR-103, Water Quality Standards for Wetlands, establishes water quality standards for wetlands.

NR-115, Wisconsin's Shoreland Management Program, requires counties to adopt zoning and subdivision regulations for the protection of all shorelands in unincorporated areas.

NR-116, Wisconsin's Floodplain Management Program, requires municipalities to adopt reasonable and effective floodplain zoning ordinances.

NR-117, Wisconsin's City and Village Shoreland-Wetland Protection Program, establishes minimum standards for city and village shoreland-wetland zoning ordinances.

NR-135 was established to ensure that nonmetallic mining sites are properly abandoned. This law promotes the removal or reuse of nonmetallic mining refuse, removal of roads no longer in use, grading of the nonmetallic mining site, replacement of topsoil, stabilization of soil conditions, establishment of vegetative groundcover, control of surface water flow and groundwater withdrawal, prevention of environmental pollution, development and reclamation of existing nonmetallic mining sites, and development and restoration of plant, fish and wildlife habitat if needed to comply with an approved reclamation plan.

NR-243, Animal Feeding Operations, purpose of this chapter is to implement design standards and accepted manure management practices for concentrated animal feeding operations. This chapter also establishes the criteria under which the department may issue a notice of discharge or a permit to other animal feeding operations which discharge pollutants to waters of the state or fail to comply with applicable performance standards and prohibitions in [ch. NR 151](#).

Wisconsin State Statutes.

Wis. Stats. S. 93.90 and rule ATCP 51, Livestock Facility Siting Law regulates the siting of new and expanded livestock operations. The statute limits the exclusion of livestock facilities from agricultural zoning districts. It establishes procedures local governments must follow if they decide to issue conditional use or other local permits for siting livestock facilities. It also creates the [Livestock Facility Siting Review Board](#) to hear appeals concerning local decisions on permits.

Wis. Stats. S. 823.08, Actions against agricultural uses. The “Right to Farm” law protects farmers from nuisance law suits related to odor and noise in normal agricultural operations provided that public health and safety are not endangered.

Regional

East Central Wisconsin Regional Planning Commission. East Central has adopted a regional comprehensive plan. As a part of this Plan, East Central has adopted several core policies and/or goals for agricultural, natural, and cultural resources.

Agricultural Resources

- Encourage appropriate and practical conservation oriented land and wildlife management practices.
- Promote management of renewable resources in ways compatible with sustained yield.
- Support land use patterns which are consistent with soil suitability and other environmental considerations.
- Encourage development on lands not suitable for farming and community recreation.
- Maintain employment and increased income in the agricultural sector.
- Encourage contiguous planned development to eliminate the intermingling of farms and urban land uses.
- Preserve land suitable for the production of food and fiber to meet present and future needs.
- Promote adoption of exclusive agricultural zoning districts to ensure that valuable farming lands are not lost or disrupted by urban land uses.

Natural Resources

- Improve and protect surface and groundwater quality.
- Improve and/or maintain high air quality.
- Preserve and protect environmentally sensitive areas and promote the linking of these areas into environmental corridors.
- Manage wildlife and wildlife habitat in a manner that maintains ecological stability and diversity while considering the social and economic impacts.
- Protect nonmetallic mineral deposit sites.
- Ensure sufficient natural public open space is provided to meet the active and passive recreational needs of all residents while preserving and protecting the region’s natural and cultural resources.
- Promote the consideration of design and aesthetics as a means of ensuring that communities and the region as a whole remain attractive as places to live, work, and play.

Cultural Resources

- Establish a regional cultural resource implementation committee to work on pursuing implementation of the regional cultural resources plan.
- Hold an annual Cultural Resources Summit where local organizations, preservation professionals, HP commissioners, and the general public could hear speakers, exchange

ideas and interact with each other, raise and address current issues and needs, and encourage support for cultural resource appreciation, enhancement, and protection.

- Create a web-based clearinghouse to serve the region, offering a variety of resources to support preservation of our prehistoric and historic, archeological, and cultural heritage.
- Ensure that decision makers have an understanding of, and an appreciation for, cultural resource protection.
- Make the public better aware of the tax benefits and protections which are available to local landmarks, state and national register site properties, as well as associated responsibilities.
- Work with the Wisconsin Historical Society to increase access to the WHS WHPD database and expand its usefulness to a broader user base.
- Develop an easy, reliable way to alert local government officials conducting permit reviews, and prospective buyers making land/home purchase decisions, as to the location of culturally significant properties by including these cultural resource status designations in all title transfer records.
- Work with local and regional groups to update the State's list of archaeological and historical inventories.
- Revise the Wisconsin State Statutes (709.02) to expand and include "archaeological sites" as well as historic buildings and sites, in the items which realtors must make known to potential buyers.
- Prevent generational loss of cultural heritage by encouraging the use of more cultural resource programming in the history and social studies curriculum of K-12 and higher education institutions in the region.
- Establish a Cultural Resource Center for the ECWRPC region.
- Encourage greater interaction and sharing of ideas, resource materials, etc. between the private sector and the public sector, volunteers and professionals.

County

Waushara County Zoning Ordinance. The Waushara County Zoning Ordinance regulates zoning for the County's Towns. The following Chapters contain relevant information.

Chapter 22: Article IVs, Manure Waste Storage Ordinance regulates the location, design, construction, installation, alteration, closure, and use of manure storage facilities in order to prevent water pollution and the spread of disease. The county does not currently regulate large animal farming operations (CAFOs); however, regulation of these operations is being investigated and may be included under the Manure Waste Storage Ordinance.

Chapter 58, Zoning defines the different zoning categories and identifies what land uses are permitted in a given zone). Exclusive agricultural zoning is not practiced within the county. The A-G zone is designed primarily for large-scale agricultural uses of land related to growing of crops and the raising of livestock. However, single family residential homes are permitted. The A-R zoning provides a semi-rural type of environment, allowing for general agricultural use. According to the Waushara County Zoning Ordinance, all unincorporated areas within 1,000 feet of the ordinary high water mark of navigable lakes, ponds or flowages within 300 feet of the ordinary high water mark of a navigable river or stream fall under Shoreland Jurisdictional Area. Restrictions meant to protect these areas address lot size, setbacks, building, permitted uses, vegetative shore cover, grading and filling.

Waushara County Farmland Preservation Plan. Waushara County adopted a Farmland Preservation Plan on June 9, 1981. The goal of program is to preserve productive and potentially productive agricultural land, forest land, and environmentally sensitive areas while providing other areas for well planned growth in other appropriate areas of the county. Adoption of this plan allows farmers in preservation areas (existing farms with a minimum of 35 acres of productive cropland that are mapped as preservation areas) to sign a voluntary agreement under the State's Farmland Preservation Act for tax credits. Even though existing cropland is enrolled in this program, farmland in the County continues to be lost as more people seek homesites in rural areas.

Federal and State Programs

Federal

United States Department of Agriculture

Conservation Reserve Program (CRP) and Conservation Reserve Enhancement Program (CREP). These programs protect sensitive land by reducing erosion, increasing wildlife habitat, improving water quality, and increasing forestland. CREP, a partnership between federal and state agencies and county land conservation departments, allows a landowner to enroll agricultural lands into various land conservation management practices. To be eligible under this program, farmland needs to be highly prone to erosion and must have been planted for 4 to 6 years before the enactment of the 2002 law. Marginal pastureland is also eligible. Producers need to develop and follow a plan for the conversion of cropland to less intensive use and to assist with the cost, establishment, and maintenance of conservation practices. More information can be found at <http://www.nrcs.usda.gov/Programs/crp/> and <http://www.fsa.usda.gov/FSA/webapp?area=home&subject=copr&topic=cep>.

Grassland Reserve Program (GRP). This program is used to protect private grasslands, shrublands, and pasturelands. Agricultural areas which were formerly one of these ecosystems are also eligible for enrollment. The program helps to restore native grasslands and forbs by banning any agricultural practice which requires breaking the ground. Landowners must place their land into an easement for a period of between 10 and 30 years. An accompanying restoration plan delineates how best to return the area to a natural state. Program participants must share in installation costs. More information can be found at <http://www.fsa.usda.gov/FSA/webapp?area=home&subject=copr&topic=grp>.

Wildlife Habitat Incentives Program (WHIP). This voluntary program is used to develop or improve wildlife habitat on privately owned land. All private land is eligible for this program unless the land is enrolled in CRP, WRP, or other similar programs. Producers must design and implement a wildlife habitat development plan and assist in the implementation costs. More information can be found at <http://www.nrcs.usda.gov/Programs/whip/>.

Grazing Lands Conservation Incentive. This program provides cost sharing to improve grazing land management. More information can be found at <http://www.nrcs.usda.gov/Programs/glici/>.

Environmental Quality Incentives Program (EQIP). This voluntary conservation program promotes agricultural production and environmental quality and compatible goals. Financial assistance and technical help are offered to assist eligible participants in the installation and

implementation of structural improvements and management practices which better protect agricultural land from environmental degradation. All private agricultural land is eligible for enrollment including cropland, grassland, pastureland, and non-industrial private forestland. Participants are required to develop and implement a EQIP plan that describes the conservation and environmental purposes to be achieved. Participants must share in the overall costs. More information can be found at <http://www.nrcs.usda.gov/Programs/eqip/>.

Forest Land Enhancement Program (FLEP). This program aids landowners in the application of sustainable forestry on private land. The program places a permanent easement on farmland. All non-industrial private forestlands are eligible for financial, technical, and educational assistance. Landowners must develop and implement a management plan to harvest timber while protecting the environmental quality of the forest. More information can be found at <http://www.fs.fed.us/spf/coop/programs/loa/flep.shtml>.

USDA Farmland Protection Policy Act (FPPA). The purpose of this program is to maintain prime farmland in agricultural use through agricultural conservation easements. This program provides funding for state, tribal, or local government to purchase development rights on prime agricultural land. More information can be found at <http://www.nrcs.usda.gov/programs/fppa/>.

Wetland Reserve Program. This program which provides financial and technical assistance to private landowners to restore, protect, and enhance wetlands. The management goals include restoring both the functional values of the wetlands and providing optimal wildlife habitat. Most private wetlands that were converted to agricultural uses prior to 1985 are eligible. Participants must develop and follow a plan for the restoration and maintenance of the wetland and, if necessary, assist in the cost of restoration. More information can be found at <http://www.nrcs.usda.gov/PROGRAMS/wrp/>.

US Environmental Protection Agency

Clean Water Act (1977). The Clean Water Act established the basic structure for regulating discharges of pollutants into the waters of the United States.

National Pollution Discharge Elimination System (NPDES) Storm Water Program. The NPDES program addressed the non-agricultural sources of storm water discharge and the Safe Drinking Water Act.

State

Wisconsin Department of Agriculture, Trade and Consumer Protection

Wisconsin Farmland Preservation Program. The 1977 Wisconsin Farmland Preservation Program was developed to preserve farmland through local planning and zoning; promote soil and water conservation; and provides tax relief to participating landowners. Landowners qualify if their land is located in an exclusively agricultural zoning district or if they sign an agreement to use their land exclusively for agricultural purposes. Participating landowners must comply with soil and water conservation standards set by the state Land Conservation Board.

Wisconsin Department of Revenue

Farmland Tax Relief Credit Program. The Farmland Tax Relief Credit Program provides tax relief to all farmland owners with 35 or more acres. The credit is computed as a percentage of the first \$10,000 in property taxes up to a maximum credit of \$1,500. The DOR determines the actual percentage based on the estimated number of claims and amount appropriated for the credit.³¹

Wisconsin Department of Natural Resources

Wisconsin Pollutant Discharge Elimination System Permits (WPDES). The Wisconsin Pollutant Discharge Elimination System Permits (WPDES) was instituted as a complement to the NPDES program. WPDES regulates municipal, industrial, and agricultural operations which discharge (or have the potential to discharge) into local surface waters. Depending on the site-specific land use, the program regulates three different uses. Wastewater discharge permits regulate effluents discharged by industries and municipalities into surface and groundwater. Construction sites greater than one acre and industrial sites (non-metallic mining) are regulated through stormwater runoff permits.³² Concentrated Animal Feeding Operations (CAFOs) with 1,000 animal units or more are regulated as a result of potential contamination from animal waste.³³ If an individual operation is found to be a significant contributor of pollutants, it may be considered a medium-sized CAFO; permits can be issued for medium-sized CAFOs which exceed 300 animal units.

In order to be defined a CAFO, the agricultural operation must first be defined as an animal feeding operation (AFO). CAFOs are facilities which animals are stored, stabled, or fed for at least 45 days within a 12 month period and which vegetation or post-harvest residues are not sustained in the normal growing season over any portion of the facility.³⁴ Permits require CAFOs to provide runoff management plans for outdoor lots and feed storage areas; a manure storage facility plan/diagram, an annually updated comprehensive manure management plan; and routine monitoring and reporting of daily operations. Permits are issued for a maximum of five years. The permit system regulates land application, manure storage, and runoff management; it does not address noise, land values, traffic, odors, or other similar types of issues because there is no statutory authority to do so. These issues must be regulated by county and local ordinances.

Forest Crop Law and Managed Forest Law. In 1927, the Wisconsin Legislature enacted the Forest Crop Law (FCL), a voluntary forest practices program to encourage sound forestry on private lands. It has promoted and encouraged long-term investments as well as the proper management of woodlands. This law allowed landowners to pay taxes on timber only after harvesting, or when the contract is terminated. Since the program expired in 1986, participants are not allowed to re-enroll in the program. Since 1986, the Managed Forest Law has replaced the Forest Crop Law.

³¹ Wisconsin Department of Revenue. 2002. *Division of Research and Policy Farmland Preservation Credit Program and Farmland Tax Relief Credit Program.*

³² Wisconsin State Statutes NR 135 and NR 216.

³³ Wisconsin State Statutes NR 243.

³⁴ U.S. Environmental Protection Agency and U.S. Department of Agriculture. 1999. *Unified National Strategy for Animal Feeding Operations.*

The Managed Forest Law (MFL), enacted in 1985, encourages the growth of future commercial crops through sound forestry practices. To be eligible, a landowner must own at least 10 contiguous acres of woodlands in a village or town. The landowner must implement a forestry management plan for future commercial harvests on the land. Contracts can be entered for a period of either 25 or 50 years. Portions of the land enrolled are open to public access for hunting, fishing, cross-country skiing, sight-seeing, and hiking. The program recognizes individual property owners' objectives while providing for society's need for compatible recreational activities, forest aesthetics, wildlife habitat, erosion control, and protection of endangered resources.

Wisconsin Forest Landowner Grant Program. The Wisconsin Forest Landowner Grant Program assists private landowners in protecting and enhancing their woodlands. Only private non-industrial forest owners of at least 10 acres but no more than 500 acres who have an approved or pending forest stewardship management plan are eligible for assistance. Qualified projects include reforestation; soil and water protection; wetland and riparian protection, restoration, and creation; fish and wildlife habitat enhancement; recreational, historic, and aesthetic forest enhancement; and endangered or threatened resources protection.

Forest Land Enhancement Program (FLEP). The purpose of this program is to assist private landowners in protecting and enhancing their forested lands and water by providing cost-share reimbursement for sustainable forestry practices.

Partners for Fish and Wildlife. Partners for Fish and Wildlife is a program which provides financial and technical assistance to private landowners to restore, protect, and enhance wildlife habitats on their land. This is a voluntary incentive based program. State resource agencies and individual landowners work closely with the Service to help establish priorities and identify focus areas. The restoration of degraded wetlands, native grasslands, streams, riparian areas, and other habitats to conditions as close to natural is emphasized. The program's philosophy is to work proactively with private landowners for the mutual benefit of declining Federal trust species and the interests of the landowners involved. A 50 percent cost sharing is required from individual landowners. Landowners must sign an agreement to retain the restoration for a minimum of 10 years. During this time period, no other private property rights are lost.

Wisconsin Historical Society

The Wisconsin Historical Society (WHS) Division of Historic Preservation (DHP) provides funds for conducting surveys to identify and evaluate historical, architectural, and archaeological resources, nominating properties and districts to the National Register, and carrying out a program of comprehensive historic preservation planning and education. These are available to local units of government and non-profit organizations. Although funding is limited, the DHP identified target communities during each funding cycle. In recent years the DHP has favored underrepresented communities: unincorporated communities or villages or fourth-tier cities with a population less than 5,000. A set of funds is also designated for use by Certified Local Government (CLG) status communities. In addition, many private funding sources specifically target smaller communities in the more rural parts of the state. Other specific programs are listed below.

Federal Historic Preservation Credit. This program returns 20 percent of the cost of rehabilitating historic buildings to owners as a direct reduction in the federal income taxes. To

qualify, buildings must be income producing historic buildings, must be listed on the National Register of Historic Places, or contribute to the character of a National Register Historic District.

Wisconsin Supplemental Historic Preservation Credit. This program returns an additional 5 percent of the cost of rehabilitation to owners as a discount on their Wisconsin state income taxes. Owners that qualify for the Federal Historic Preservation Credit automatically qualify for the Wisconsin supplement if they get National Park Service approval before they begin any work.

25-Percent State Income Tax Credits. This program can be used for the repair and rehabilitation of historic homes in Wisconsin. To qualify, buildings must be either listed on the state or national register; contribute to a state or national register historic district; or be eligible for individual listing in the state register.

Exhibit 5-1

Important Farmland Classes

Exhibit 5-2

Soil Limitations for On-Site Waste Disposal

Exhibit 5-3

Soil Potential for Building Site Development

Exhibit 5-4

Soil Limitations for Septage Spreading

Exhibit 5-5

Environmental Features (Map 1)

Exhibit 5-6

Environmental Features (Map 2)

CHAPTER 6: ECONOMIC DEVELOPMENT

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CHAPTER 6: ECONOMIC DEVELOPMENT

INTRODUCTION

Planning for economic development is an on-going process in which a county organizes for the creation and maintenance of an environment that will foster both the retention and expansion of existing businesses and the attraction of new businesses and ventures. It is important to place an emphasis on existing resources which serve as assets for economic development efforts.

INVENTORY AND ANALYSIS

Some components of the area's economy are presented in this chapter to better understand the state of the economy in Waushara County. Characteristics reviewed in this element include educational attainment, employment and unemployment levels, location of workplace, travel times, and a look at the area's economic base.

Educational Attainment

Table E-1 (Appendix E) presents educational achievement information from the 2000 Census for residents 25 years of age or older. ***A higher percentage of residents in the Waushara County (43.1%) received high school diplomas than the State of Wisconsin (34.6%).*** It is in the area of post-high school achievement where the state generally has a higher level of educational attainment. For example, 1,911 residents (11.7%) from Waushara County completed four years of college or more. Comparatively, at the state level, 22.4 percent of residents have achieved this goal.

The U.S. Census Bureau reports that ***a person with a bachelor degree can expect to earn \$2.1 million over the course of a career, nearly double what the expected earnings are for a high school graduate.***¹ The results of this study demonstrate there is a definite link between earning potential and education. Greater educational attainment is a goal that all of Wisconsin should be striving toward. Since the data suggests that many of the county's best educated residents are retirees, it points to the apparent lack of job opportunities in the area to retain or attract better educated members of the workforce.

Labor Force

Labor force is an indicator of economic performance. It shows how quickly the labor force is growing and the extent to which people are able to find jobs. The labor force is defined as individuals currently with a job, the employed; and those without a job and actively looking for one, the unemployed.

Census information indicates that ***labor force growth rates for Waushara County (29.4%), were greater than the State (14.0%) between 1990 and 2000*** (Table E-2, Appendix E). Within Waushara County the highest labor force growth rates was in the Village of Hancock (63.6%) and the Town of Mount Morris (71.9%). While the lowest labor force

¹ U.S. Census Bureau. 2002. *The Big Payoff: Educational Attainment and Synthetic Estimates of Work-Life Earnings.*

growth rates were experienced in Village of Lohrville (8.4%) and the Town of Bloomfield (9.2%).

Even though the labor market experienced overall growth in Waushara County, the unemployment rates in the county were higher than the state in both 1990 and 2000 (Table E-3 and Table E-4, Appendix E). According to census data, in 2000, Waushara County and Wisconsin had unemployment rates of 6.6% and 4.7%, respectively. Within Waushara County, lower unemployment rates in 2000 (not including the Waushara County portion of the City of Berlin) were seen in the Village Lohrville (1 person, 0.5%) and Town of Leon (14 persons, 2.0%). Largest unemployment rates were experienced in the Town of Coloma (113 people, 29.3%) and the Village of Coloma (31 people, 12.5%).

Table 6-1 includes more recent information for the county and state between 2001 and 2004.² According to Wisconsin Department of Workforce Development, unemployment rates dropped between 2004 and 2007 for both Waushara County and Wisconsin.

Table 6-1. Annual Average Unemployment Rates

	2004	2005	2006	2007
Waushara County	6.0%	5.6%	5.5%	5.4%
Wisconsin	5.0%	4.8%	4.7%	4.9%

Source: Wisconsin Department of Workforce Development, 2004 to 2007

Economic Base Information

The composition and types of employment in the county and the Town provides a snapshot description of the economic base in the area. Table 6-2 illustrates employment information by occupation and by industry.³ ***The manufacturing (22.1%); education, health, social services (17.9%), retail trade (10.4%) industries employed over half (50.4%) of workers in Waushara County in 2000.*** The information (1.3%) and wholesale trade (3.1%) employed the fewest workers in the County. In comparison, manufacturing (22.2%), educational, health and social services (20.0%), and retail trade (11.6%) employed the largest percentage of workers in the state.

The top three occupations for Waushara County workers in 2000 were production, transportation, and material moving (25.0%); management, professional, and related (23.5%); and sales and office (21.4%). The top three occupations in the state were management, professional and related (31.3%), sales and office (25.2%), and production, transportation, and material moving (19.8%).

² Wisconsin Department of Workforce Development, 2004 through 2007. *Local Area Unemployment Statistics Estimates Report*.

³ U.S. Census Bureau, 2000. *Community Profiles*. <http://www.doa.state.wi.us/dir/wisconsin/index.html>.

Table 6-2. Employment by Occupation and Industry

	Waushara County	Wisconsin
Occupation		
Management, professional, and related occupations	23.5%	31.3%
Service occupations	16.1%	14.0%
Sales and office occupations	21.4%	25.2%
Farming, fishing, and forestry occupations	2.9%	0.9%
Construction, extraction, and maintenance occupations	11.1%	8.7%
Production, transportation, and material moving occupations	25.0%	19.8%
Industry		
Agriculture, forestry, fishing and hunting, and mining	7.1%	2.8%
Construction	8.1%	5.9%
Manufacturing	22.1%	22.2%
Wholesale trade	3.1%	3.2%
Retail trade	10.4%	11.6%
Transportation and warehousing, and utilities	5.9%	4.5%
Information	1.3%	2.2%
Finance, insurance, real estate and rental and leasing	3.8%	6.1%
Professional, scientific, management, administrative, and waste management services	3.7%	6.6%
Educational, health and social services	17.9%	20.0%
Arts, entertainment, recreation, accommodation and food services	7.5%	7.3%
Other services (except public administration)	4.4%	4.1%
Public administration	4.6%	3.5%

U.S. Census 2000, SF 3

Table 6-3 lists the largest employers in Waushara County.⁴ Two of the top nine employers are manufacturing facilities. This list also indicates that Waushara County, the Department of Corrections and three school districts provide a large share of public sector employment. Care for the elderly is provided by three of the top 20 employers.

Travel Time to Work

Travel time to work provides information about the time residents spend commuting to work. ***On an average, residents from Waushara County and the state spent less than 30 minutes traveling to and from work in 1990*** (Table 6-4). ***In 1990, average commute times for residents was 21.8 minutes in Waushara County.*** State residents traveled an average of 18.3 minutes to work.

⁴ Wisconsin Department of Workforce Development, 2005. *OEA – Top 100 Employers*.
http://dwd.wisconsin.gov/oea/xls/top_100_all.xls.

Table 6-3. Top 20 Public and Private Employers in Waushara County

Employers	Industry/Product/Service	Employees
Wautoma Public School	Elementary & secondary schools	250-499
County of Waushara	Executive & legislative offices, combined	250-499
Redgranite Correctional Institution	Correctional institutions	250-499
Magnum Products LLC	Other lighting equipment manufacturing	100-249
Milsco Manufacturing (Jason Incorporated)	Motor vehicle seating & interior trim mfg.	100-249
Fleet Guard Inc	Miscellaneous general purpose machinery mfg.	100-249
Tri-County Area School	Elementary & secondary schools	100-249
Wild Rose Public School	Elementary & secondary schools	100-249
Wild Rose Community Memorial	General medical & surgical hospitals	100-249
Mayville Engineering Co Inc	Metal coating & nonprecious engraving	100-249
Plainfield Trucking Inc	General freight trucking, local	100-249
Nordic Mountain LLC	Skiing facilities	50-99
Cooperative Care	Services for the elderly & disabled	50-99
The Copps Corp	Supermarkets & other grocery stores	50-99
Heartland Preston Inc	Homes for the elderly	50-99
Stone Ridge Meat & Country Market	Supermarkets & other grocery stores	50-99
Paramount Farms Inc	Potato farming	50-99
Pine Ridge of Wautoma LLC	Full-service restaurants	50-99
Wild Rose Manor (Wisconsin Illinois Senior Housing)	Nursing care facilities	50-99
Alabama Farmers Coop Inc	Floriculture production	50-99

Table 6-4. Mean Travel Time to Work, 1990 and 2000

	Waushara County	Wisconsin
1990 Mean Travel Time	21.8	18.3
2000 Mean Travel Time	27.1	20.8

Source: U.S. Census 1990 and 2000, SF 3

Between 1990 and 2000, average commute times rose for all jurisdictions, with the County experiencing a greater increase in average commute times than the State (Tables E-5 and E-6, Appendix E). On an average, commute time for County residents increased by about 5.3 minutes, compared to 2.5 minutes for state residents. ***In 2000, average commute times for Waushara County residents was 27.1 minutes***, while State residents traveled an average of 20.8 minutes to work.

Commuting times increased for several reasons. There was a decrease in the share of residents working at home. In addition, there was also an increase in the amount of people traveling more than 30 minutes to work. For example, in 1990, 8.8 percent of Waushara County and 4.9 percent of Wisconsin residents worked from home. By 2000, the share of people working at home had decreased to 5.6 percent in Waushara County and 3.9 percent in Wisconsin. People were also traveling further to work. In 1990, 27.0 percent of County residents and 18.6 percent of State residents traveled more than 30 minutes to work. By 2000, 35.3 percent of County residents and 22.4 percent of State residents traveled more than 30 minutes to their

place of employment. ***This indicates that the residents had to travel further away from home in 2000, to obtain adequate employment and/or wages.***

Location of Workplace⁵

Location of workplace data provides information on the direction and distance residents have to travel to find employment. Table E-7 (Appendix E) includes the Top 20 workplace destinations for Waushara County. ***According to the U.S. Bureau of Census, over fifty percent (58.7%) of county residents worked in Waushara County in 1990.***

In 2000, the location of workplace somewhat mirrored the information from 1990 but showed a decreasing dependence on employment locations in Waushara County. ***The largest share of residents from the county (52.5%) continued to work in Waushara County*** (Appendix E, Table E-7). While a shift of employment was experienced by Waushara County workers from the county to the Appleton-Oshkosh MSA, three out of the top five workplace destinations remained in Waushara County and included the City of Wautoma (16.1%), Village of Wild Rose (5.9%), and Town of Wautoma (5.1%) (Table 6-5). The other two top destinations included the City of Berlin (Green Lake County), and the City of Oshkosh (Winnebago County).

Table 6-5. Top Five Workplaces Destinations, 2000

Place of Residence	Place of Work	Number	Percent
Waushara County	C. Wautoma	1,661	16.1%
	C Berlin, Green Lake Co.	696	6.8%
	C. Oshkosh, Winnebago Co.	686	6.7%
	V. Wild Rose	612	5.9%
	T. Wautoma	525	5.1%
	Top 5 Total	4,180	40.6%
	Total Employed	10,288	100.0%

Source: U.S. Census 2000.

Employment Forecast

The Wisconsin Department of Workforce Development calculates employment projections for the various industries and occupations for the State of Wisconsin.⁶ These projections are completed on a statewide basis and growth is expected in all industries. ***It is anticipated that the largest increases will be seen in the education and health services sector.*** Educational services, which makes up part of this sector includes all public and private elementary, secondary and post-secondary schools. This sector also includes ambulatory health care. The ambulatory health care industry, which is estimated to have the highest growth, is made up of offices of physicians, dentists, and other health practitioners as well as home health care. ***While the state is expected to see the highest increases in this area, employment opportunities in Waushara County may differ.*** According to the various school districts serving the county, enrollment is declining. These declines in enrollment may be the result of limited work opportunities for county residents, an aging population, and the subsequent loss of residents with children in the school district. Education sector employment

⁵ U.S. Census, 1990 and 2000.

⁶ Wisconsin Department of Workforce Development, 2002. *Wisconsin Detailed Industry Employment Projections, 2002 – 2012.*

is unlikely to increase if enrollments continue to drop. It should be noted that it is difficult to forecast employment for small communities, since the addition or loss of one industry or employer greatly impacts the community's economic base.

Industrial Park Information

There are seven industrial parks in Waushara County. Combined, these parks currently have about 155 acres available for development. Table 6-6 contains more information about industrial parks within the county. When these parks become full, it is important that community leaders plan for the expansion of existing parks and for the development of land for future industrial and business sites. An area where infrastructure is already in place is the most cost efficient choice for the community.

Table 6-6. Industrial Parks

Park Location/ Name	Size (Acres)	Water	Sewer	Sanitary Sewer	Storm Sewer	Electricity	Rail	Highway	Avail. Acres	Private / Public	Improved / Not Improved
City of Berlin / Berlin North Business Park	186	Y	Y	Y	N	Y	N	STH 49,21,91	80	Public	Improved
City of Wautoma / South Industrial Park	19	Y	Y	(1)	N	Y	N	STH 21,22,73	0	Public	Improved
City of Wautoma / Southeast Industrial Park	45	Y	Y	(1)	N	Y	N	STH 21,22,73	8	Public	Improved
Village of Coloma / Coloma Business Park	42	Y	Y	Y	N	Y	N	I-39, STH 21	25	Public	Improved
Village of Redgranite / Redgranite Industrial Park ⁴	22	Y	Y	(1)	N	Y	N	I-39, STH 21	22	Public	Improved
Village of Wild Rose / Roberts Industrial Park	23	Well	Y	(2)	N	Y	N	STH 22	18	Public	Improved
Village of Wild Rose / South Industrial Park	9	Well	Y	(2)	N	Y	N	STH 22	2	Public	Improved

Source: ECWRPC, and NEWREP 2008

Business Retention and Attraction

Tri-County Regional Development Corporation (TCREDC) is a partnership between Waushara County and Marquette and Green Lake counties. The TCREDC has a 6-member volunteer board of directors, and a fulltime director. The mission of the TCREDC is to work in cooperation with public and private entities; to promote the region and businesses in order to attract, stimulate and revitalize commerce, industry and manufacturing that results in the retention and creation of viable living wage jobs. Within the county, ***the Waushara County Economic Development Corporation, run by a board of volunteers, is working to foster new business development, and support and sustain existing businesses throughout the county.***

Several nearby communities also actively promote business retention and attraction.⁷ The Berlin Community Development Corporation facilitates community growth by aiding in the expansion and retention of business in the City of Berlin and surrounding areas; the organization operates eight TIF districts throughout the City. The Redgranite Economic Development Committee manages the two TIF districts within the village and works to retain existing businesses and recruit new businesses to the community. The Redgranite Economic Development Committee is volunteer based. Table E-8, Appendix E contains a listing of economic development organizations and groups present in the county.

Business attraction involves the promotion of community assets. For example, some of the activities that are involved in a business attraction program include:

- Providing information about available commercial/industrial sites
- Identifying labor and community characteristics
- Marketing sites to businesses that would be complementary to existing businesses or would provide diversity to the local economy
- Offering low cost land, state or federal grants or other incentives to encourage businesses to locate in the community

Business retention is very important in that it is a relationship building effort between the community and already present local businesses. Activities associated with business retention programs include:

- Helping businesses learn about potential sites for expansion, offering low cost loans and identifying state and federal grants to finance business expansions
- Providing business areas with reliable, efficient public services such as snow removal, road repair, sewer/water utilities, and technology infrastructure
- Providing a contact person to answer business questions and to serve as a resource for business leaders regarding future business development
- Partnering with organizations to support the development of a qualified, educated and trained workforce

Economic Strengths and Weaknesses

By developing a set of strengths and weaknesses, Waushara County is better prepared to develop an economic development strategy. ***These strengths and weaknesses are listed below.***

Strengths

- Proximity to Stevens Point (Portage County), Fox Valley and the Oshkosh area
- Access to a good highway system: I-39, STH 21, STH 49 and USH 10
- Natural Areas, Open Space, and Recreational Opportunities
- Prime Agricultural Soils
- Strong agricultural economy
- Tourism attractions

⁷ UW – Extension Waushara County, 2005. *Economic Development Organizations*.
<http://www.uwex.edu/ces/cty/waushara/cnred/ed/organizations.html>.

Weaknesses

- Lack of diversity in economic base
- Lack of population density is a deterrent for service and retail businesses
- Distance from urban centers
- Affordable housing in many areas of the county

Although new development is highly encouraged, it must exist in harmony with the local environment. It should not compromise the natural resources or the historical and cultural components of the area. New development should blend into the rural landscape and complement existing development.

Commercial and Industrial Design

Site review procedures and design standards can be used to improve the quality of design and to promote the individual identity for a community. Specific standards regarding commercial building design, lot layout, building materials, parking, landscaping, and preservation of sensitive natural resources where necessary can be created so that developers have a clear understanding of the requirements they need to meet in order for their project to receive approval. Communities should consider applying site plan review to all commercial and industrial buildings. This ensures that down town areas and other planned development are designed in a manner consistent with the vision of the local community comprehensive plans.

In addition to design standards, restrictive covenants are another tool business and industrial parks can use. The use of restrictive covenants enables communities to develop business parks with quality buildings and businesses. Covenants also serve to protect the investments of businesses that choose to locate in these parks.

Infill and Brownfield Redevelopment

Brownfield's are sites where development or redevelopment is complicated by real or perceived hazardous substances, pollutants, or contamination. Knowing the location of Brownfield's and the extent of pollution greatly improves the likelihood that these sites will be redeveloped.

The Wisconsin Department of Natural Resources Bureau of Remediation and Redevelopment maintains a listing of Brownfield's and contaminated sites. This website lists 393 entries for Waushara County. These entries are classified in the following six categories: Environmental Repair (ERP), Leaking Underground Storage Tank (LUST), Spills, General Property Information (GP), Liability Exemption (VPLE) and No Action Required by RR Program (NAR). Statuses include Closed, Historic, Open, General Property and No RR Action Required. Closed is defined as "Activities where investigation and cleanup of the contamination has been completed and the State has approved all cleanup actions." Open is defined as "Spills, LUST, ERP, VPLE and Abandoned Container activities in need of cleanup or where cleanup is still underway". Historic is defined as "Spills where cleanups may have been completed prior to 1996 and no end date is shown." General Property is defined as "Liability exemptions, liability clarifications, etc. to clarify the legal status of the property." No RR Action Required is defined as "There was, or may have been, a discharge to the environment and, based on the known information, DNR has determined that the responsible party does not need to undertake an investigation or cleanup in response to that discharge." A listing of Brownfield

and contaminated sites is available from the Wisconsin Department of Natural Resources (WDNR) Bureau for Remediation and Redevelopment. A tracking feature is available at their website.⁸

Waushara County and its communities should complete and maintain an inventory of existing vacant buildings and land identified as "Brownfields". This information could be used to encourage infill development and redevelopment opportunities that take advantage of existing infrastructure and services and removes blight created by vacant and dilapidated buildings and parcels. Once identified, State and federal programs could be used to further study, clean, and redevelop these Brownfields.

Funding resources are listed at the end of the chapter for remediation of contaminated sites. To prevent future environmental damage, the Waushara County should encourage environmentally friendly businesses that are properly permitted and regulated to protect the soil and groundwater. This is particularly critical in areas that depend on private wells for drinking water.

Key Findings

Educational Attainment

- A higher percentage of residents in the Waushara County (43.1%) received high school diplomas than the State of Wisconsin (34.6%).
- A person with a bachelor degree can expect to earn \$2.1 million over the course of a career, nearly double what the expected earnings are for a high school graduate.

Labor Force

- Labor force growth rates for Waushara County (29.4%), were greater than the State (14.0%) between 1990 and 2000.

Economic Base Information

- The manufacturing (22.1%); education, health, social services (17.9%), retail trade (10.4%) industries employed over half (50.4%) of workers in Waushara County in 2000.
- The top three occupations for Waushara County workers in 2000 were production, transportation, and material moving (25.0%); management, professional, and related (23.5%); and sales and office (21.4%).

Travel Time to Work

- On an average, residents from Waushara County and the state spent less than 30 minutes traveling to and from work in 1990.
- In 1990, average commute times for residents was 21.8 minutes in Waushara County.
- In 2000, average commute times for Waushara County residents was 27.1 minutes.

⁸ Wisconsin Department of Natural Resources. 2005. Remediation and Redevelopment Tracking System. <http://botw.dnr.state.wi.us/botw/Welcome.do>

- This indicates that the residents had to travel further away from home in 2000, to obtain adequate employment and/or wages.

Location of Workplace

- According to the U.S. Bureau of Census, the over fifty percent (58.7%) of county residents worked in Waushara County in 1990.
- The largest share of residents from the county (52.5%) continued to work in Waushara County.

Employment Forecast

- It is anticipated that the largest increases will be seen in the education and health services sector.
- While the state is expected to see the highest increases in this area, employment opportunities in Waushara County may differ.

Industrial Park Information

- There are seven industrial parks in Waushara County.
- Combined, these parks currently have about 155 acres available for development.

Business Retention and Attraction

- Tri-County Regional Development Corporation (TCREDC) is a partnership between Waushara County and Marquette and Green Lake counties.
- The Waushara County Economic Development Corporation, run by a board of volunteers, is working to foster new business development, and support and sustain existing businesses throughout the county.
- Business attraction involves the promotion of community assets.
- Business retention is very important in that it is a relationship building effort between the community and already present local businesses.

Economic Strengths and Weaknesses

- Economic strengths generally include the proximity to Stevens Point (Portage County), Oshkosh (Winnebago County), and Fox Valley; natural areas, open space, and recreational opportunities; access to a good highway system; prime agricultural soils; strong agricultural economy; and tourism attractions. Weaknesses include low population density; lack of economic diversity and lack of affordable housing.

Commercial and Industrial Design

- Site review procedures and design standards can be used to improve the quality of design and to promote the individual identity for a community.

Infill and Brownfield Redevelopment

- The Wisconsin Department of Natural Resources Bureau of Remediation and Redevelopment maintains a listing of Brownfield's and contaminated sites. This website lists 393 entries for Waushara County.

INTERRELATIONSHIPS WITH OTHER COMPREHENSIVE PLAN ELEMENTS

Housing

Economic growth will generate more jobs and, consequently, a need for greater housing availability and choices. These choices should reflect the needs of an area. For example if economic growth results in lower wage service sector jobs (retail, leisure, hospitality, and food services) and pay remains at the minimum wage level, housing affordability may become a concern. Therefore it is essential that a balanced mix of well designed housing types of various sizes and prices be available for all income levels. Affordable housing is also an important component of an economic development strategy, as it helps ensure an adequate labor force supply.

Transportation

Facilitating commerce in the area and state is the function of the transportation system. Adequate access to the transportation system is essential to the economic success of the area. Businesses must have the ability to ship and receive goods quickly and economically. Access to and visibility of the business facility may be crucial for both customers and employees. Businesses in different locations may need different transportation accommodations. For example businesses in downtown areas may value on-street parking and pedestrian accommodations more than businesses in a more rural setting.

Utilities and Community Facilities

A vital, safe, clean and healthy environment is an economic draw for new industry and residents. It aids in the retention of existing residents and businesses. Parks and green space add to the local economy by maintaining or increasing property values; providing a place where local citizens can socialize, play sports or relax; and promoting healthy active lifestyles that encourage physical activity. In addition, local parks and recreational facilities draw visitors to an area. These visitors spend money at local restaurants, motels and businesses.

A good educational system has the ability to respond to the ever changing job market, to educate or retrain the residents of an area and to form partnerships between business and schools.

Citizens, businesses and industries need accessible, reliable, and affordable gas and electric services. To enable economic growth and open up new markets and opportunities for diverse and innovative services, access to fast, reliable, cost effective, and cutting edge telecommunications must be available.

Agriculture Resources

Agriculture and agricultural related industries have been and are still important to the economy of Waushara County. One of the many challenges facing Waushara County and the state is the preservation of prime agricultural soils and the farming industry as more farms are converted out of farming and into other uses. Additionally, the future of family farms is a concern as fewer children are choosing to take over farming operations. Reasons given for this include time commitments, cost of entry and the inability to make a living solely from farming. To remain competitive, farmers working with others in the county may want to explore opportunities for industry cluster development. A cluster, which is a geographical group of interconnected companies or associations in a particular field, can include product producers, service providers, suppliers, educational institutions and trade associations. As part of this effort, specialty and organic crops and livestock, along with support industries could be expanded in the area. Communities could also explore programs that match outgoing farmers with individuals who want to farm.

Natural Resources

Although economic benefits can accrue from both consumptive and non-consumptive uses of natural resources, balancing the demands of economic development with the preservation of natural resources is a challenge. Conserving these resources is necessary to maintain and in some cases improve the quality of life for residents while providing an attraction tool for new businesses and workers. Given the importance of tourism in the county, protection of the area's natural resources is essential. However, communities should be aware of the economic trade-offs between sectors. These trade-offs include long term intrinsic values versus current economic gain; high wages versus low wages; informed decisions versus short term economic gains; and actual protection and preservation versus aesthetics.

Cultural Resources

Buildings dating back to the early 1900's can be found throughout Waushara County. These buildings along with artifacts tell the story of the county and the area. This rich history includes the early Native American habitation, the quarrying of red granite, and the development of the communities that make up the county. While the promotion of economic development is important, special care must be taken to preserve not only the character but the historical and cultural elements that remain today. Positive economic benefits can be realized by preserving these elements to provide a charming setting for businesses and communities that evokes a feeling in people's minds of a time or era when things were simpler, peaceful and more welcoming. It may also draw people to an area to explore their culture and/or identity.

Land Use

The development of land can impact the value of land as well as the quality of life within the community. Ideally, the siting of commercial and industrial land uses should have minimal environmental impacts and be located near the necessary infrastructure. Redevelopment of abandoned buildings and areas contribute to the economic vitality of the area.

Intergovernmental Cooperation

Economic development goes beyond municipal and county borders. Commercial and industrial development as well as sporting, tourism and other activities in one community will impact others. This business may also generate a support industry elsewhere in the county. Working in partnership, communities and the county can promote the amenities of the area that contribute to a high quality of life; work to form industrial clusters that involve producers, service providers, suppliers and education; and promote other things that are important to the economic development of the area such as agriculture, organic and specialty crop production, biomass, and forest products.

POLICIES AND PROGRAMS

Regional, County and Local Policies

Regional

East Central Wisconsin Regional Planning Commission. East Central has recently completed a regional comprehensive plan. As part of this planning effort, East Central has adopted five core economic development goals:

- Promote the expansion and stabilization of the current economic base and employment opportunities, while working to promote a positive, growth oriented, entrepreneurially supportive image to attract new business and create additional employment.
- Increase the awareness of on-going collaborative economic activities in the area to ensure maximum benefit to the regional economy.
- Create better relationships between political representatives and the business and educational sectors to effectively link and apply research, development, and technology to production processes, as well as to ensure an appropriately trained workforce.
- Encourage planning to guide community development to maximize the use of existing infrastructure, facilitate the provision of shared resources, minimize costs and environmental impacts, and promote a sense of place and healthy communities.
- Promote the economic benefits of natural resources, parks and recreation.
- Assess options to increase the viability of family farms.

NorthEast Wisconsin (NEW) Economic Opportunity Study. Waushara County participated in the NEW Economic Opportunity Study.⁹ The NEW Study is a multi-jurisdictional partnership intending to further connect workforce development issues with economic development goals. Even before the economic downturn, the northeast region of Wisconsin experienced declines in its strong manufacturing sector employment levels and these negative changes in many cases have continued. The Fox Valley Workforce Development Board initiated a study to address these negative trends and to present recommendations to change the direction of the northeast Wisconsin economy. In addition to Waushara County, the study area is composed of the following 16 counties: Brown, Calumet, Door, Fond du Lac, Green Lake,

⁹ NorthStar Economic, Inc. 2004. *NorthEast Wisconsin Economic Opportunity Study*.
<http://www.neweconomyproject.org/Pages/NEWEconStudy.htm>.

Kewaunee, Manitowoc, Marinette, Marquette, Menominee, Oconto, Outagamie, Shawano, Sheboygan, Waupaca, and Winnebago Counties.

The five strategies developed for the NEW Economic Opportunities project are:

- *Strategy I – Move to a New Economy Construct*
The New Economy building blocks are brain power, risk capital, technological innovation, and entrepreneurship. These New Economy building blocks must be incorporated within the mindset of abundance theory. Business, labor, government, education, and the communities across NEW must all work actively together under a common vision to harness the resources available within the region (and some outside the region) to drive future economic growth.
- *Strategy II – Move to a Collaborative Economic Development Construct*
NEW must abandon the economic strategy of a cost race to the bottom and embrace the concept of abundance theory – that by collaborating, the pie will increase with everyone getting a larger piece. This is best and most efficiently accomplished through proactive collaboration across all sectors in the region – business, labor, government, education, and the general populace.
- *Strategy III – Change Social and Cultural Mindset to Risk and Collaboration*
Proactive collaboration will require an opening up of the region's mindset both socially and culturally. Cultural diversity is a key to the melding of fresh ideas, best practices, and collaboration. It is what has worked in the country and the region in the past and it will be what works in the future.
- *Strategy IV – Change Regional Image*
NEW and much of the greater Midwest has an image of being a wholesome but dull place. It is perpetuated by the national press and exists in the mindsets of Hollywood and Wall Street. That image is somewhat internalized, but also generally accepted by businesses and worker talent outside the region, making it difficult to retain and attract talent to the region. NEW must also develop both an internal and external image that promotes the resource and lifestyle benefits in the region. Inventorying and promoting the richness of the region's assets will help to retain and attract businesses and workers to NEW.
- *Strategy V – Promote Industry Cluster Development*
This strategy addresses clusters, or a concentration of industries, that have potential for the area based on current industries and their expansion. Waushara County is a part of the Fox Valley Rural Sub-Region and for this sub-region the study recommended the possibility of building a biomass refinery that would use wood and other agricultural products to supply power to local foundries and other users be considered. The study suggests collaboration on food production and processing, safety, and packaging cluster. Specialty and organic crops and livestock should be expanded for farmers in this area.

Lake Winnebago Anglers' Survey. Researchers from UW-Extension, UW-Green Bay, UW-Madison, and the Wisconsin Department of Natural Resources (WDNR) recently completed the Lake Winnebago Anglers' Survey.¹⁰ This study examined the economic impact of the Lake Winnebago Pool Lakes fisheries. The study area was defined as the entire pool lake system within the five county region surrounding the Winnebago system (Calumet, Fond du Lac,

¹⁰ UW – Extension and UW – Green Bay. 2005. Lake Winnebago Angler Survey.
<http://www.uwex.edu/ces/cty/winnebago/cnred/documents/finalinitialdatapressrelease063006.doc>.

Outagamie, Waushara, and Winnebago counties). Only fishing trips from the mouth of the Wolf River on Lake Poygan southward to the mouth of the Upper Fox River were considered in this study. An extensive 12-page survey was mailed to a stratified sample of tournament anglers, anglers within the five-county region, anglers statewide, and out-of-state anglers randomly selected from the WDNR ALIS license database. The survey asked specific questions on anglers' fishing habits and preferences, fishing equipment replacement costs, fishing excursions on the Winnebago system, expenditures on these excursions, and attitudes towards current fisheries management practices.

Researchers concluded that:

- Over 1.1 million fishing trips were made on the Lake Winnebago system in 2005.
- 41% of these trips were made by local anglers within the five county region.
- The typical angler from out of the region spent \$273 per day, while out-of-state and tournament anglers spent \$755 and \$469, respectively.
- Conservative estimates indicate that anglers from outside of the five county region contributed \$147.5 million in direct spending in the region.
- Researchers found that spending generated from fishing created an additional \$73.9 million dollars in indirect and induced spending.

Indirect spending is defined as increased sales among businesses in different sectors. For example, increased sales at a local bait and tackle shop may lead to an expansion of the store size; the bait shop will use the increased revenue to buy building materials from a hardware store. Induced effects result from increased buying power of local employees from the pay raises received.

This study emphasized the true importance of the Lake Winnebago system and the economic implications that a quality natural resource base can have on local communities. The direct revenues generated by fishing were greater than several major events or tourist attractions in the area including the annual EAA Fly-in (\$80 million), Country USA (\$23 million), or the Green Bay Packer Lambeau Field Atrium Complex (\$144 million). Unlike week-long festivals, fishing generates revenues for local businesses throughout the year.

Furthermore, this study will have important ramifications on local land use policies throughout the region. Due to the economic importance of the Winnebago fisheries, local policy makers should continue to address land use issues which have the potential to adversely affect water quality and aquatic wildlife habitat within shoreland areas. Development practices that increase shoreland protection and promote erosion control should be implemented. Since only 10 percent of the population lives on the lakeshores, public access will continue to be a major issue. Providing adequate boat ramps, parking areas, shoreline fishing piers, and handicapped accessible facilities will ensure more people have access to this unique fishery. Since these issues must be addressed within the context of current budgetary constraints, it may be necessary to address how user fees can better contribute to the management of the fishery as well as improving public infrastructure. Creative solutions will be needed to incorporate natural resource policies that enhance the Winnebago system fisheries and complement local economic development and revitalization projects.

Federal, State and Regional Programs

Federal Agencies

Some communities in Waushara County meet the requirements of the US Department of Agriculture-Rural Development and may be eligible for Rural Development Economic Assistance Programs. However, there are typically strict income limits associated with some of the programs so the Wisconsin Division of USDA-Rural Development should be contacted regarding eligibility for certain programs. A complete listing of USDA-Rural Development Programs can be found at <http://www.rurdev.usda.gov/wi/programs/index.htm>. Grants are also available through the US Department of Labor and can be found at <http://www.doleta.gov/sga>. A partial list is given below.

Rural Business Opportunity Grants. The Rural Business Opportunity grant program promotes sustainable economic development in rural communities with exceptional need. Grants typically fund projects that will become sustainable over the long term without continued need for external support. These projects should have the ability to serve as a local catalyst to improve the quantity and quality of economic development within a rural region. Grant funds can be used for technical assistance to complete business feasibility studies, conducting training for rural managers and entrepreneurs, establishing business support centers, conducting economic development planning, and providing leadership training. Information regarding the Rural Business Opportunity Grant Program can be found at <http://www.rurdev.usda.gov/wi/programs/rbs/opportun.htm>.

Rural Economic Development Loans and Grants

Rural Economic Development Loans and Grants help develop projects that will result in a sustainable increase in economic productivity, job creation, and incomes in rural areas. Projects may include business start-ups and expansion, community development, incubator projects, medical and training projects, and feasibility studies. Information regarding Rural Economic Development Loans and Grants can be found at <http://www.rurdev.usda.gov/wi/programs/rbs/economic.htm>.

Susan Harwood Training Grants Program. These training grants are awarded to nonprofit organizations for training and education. They can also be used to develop training materials for employers and workers on the recognition, avoidance, and prevention of safety and health hazards in their workplaces. Grants fall into two categories; Target Topic Training and Training Materials Development. The Target Topic Training grants are directed towards specific topics chosen by OSHA. Follow-up is required to determine the extent to which changes were made to eliminate hazards associated with the chosen topic. The Training Materials Development grants are specifically aimed at creating classroom quality training aids. Aids which are developed under the grant program must be ready for immediate self-study use in the workplace. Information regarding the Susan Harwood Training Grant Program can be found at <http://www.osha.gov/dcsp/ote/sharwood.html>.

Community-Based Job Training Grants. Community-Based Job Training grants (CBJTG) seek to strengthen the role of community colleges in promoting the US workforce potential. The grants are employer-focused and build on the President's High Growth Job Training Initiative. The primary purpose of the CBJTG grants is to build the capacity of community colleges to train workers to develop the skills required to succeed in high growth/high demand

industries. Information regarding the Community Based Job Training Grants can be found at <http://www.doleta.gov/business/Community-BasedJobTrainingGrants.cfm>.

H-1B Technical Skills Training Grant Program. The H-1B Technical Skills Training Grant program provides funds to train current H-1B visa applicants for high skill or specialty occupations. Eligible grant applicants include local Private Industry Councils and Workforce Investment Boards that were established under the Workforce Investment Act. Eighty percent of the grants must be awarded to projects that train workers in high technology, information technology, and biotechnology skills. Specialty occupations usually require a bachelor's degree, and an attainment of this degree is strongly encouraged. The program is designed to assist both employed and unemployed American workers acquire the needed technical skills for high skill occupations that have shortages. Information regarding the H-1B Technical Skills Training Grant program can be found at <http://www.doleta.gov/h-1b/html/overv1.htm>.

State of Wisconsin

There are many state programs that communities can consider utilizing to meet their stated goals and objectives. While not an all inclusive list, there are several programs that communities should strongly consider and are addressed below. Wisconsin Department of Commerce area development managers assist business expansions, promote business retention, and help local development organizations in their respective territories. Area development managers (ADM) use their knowledge of federal, state, and regional resources to provide a variety of information to expanding or relocating firms. They also mobilize resources to help struggling businesses. Local economic development practitioners can turn to area development managers for assistance with long-term marketing and planning strategies. Waushara County is in Region 3. The ADM is Deb Clements and she can be reached at 715/344-1381 or via email at dclements@commerce.state.wi.us.

Wisconsin Main Street Program. The Main Street Program is a comprehensive revitalization program designed to promote the historic and economic redevelopment of traditional business districts in Wisconsin and is administered by the Wisconsin Department of Commerce – Bureau of Down Town Development. Communities are selected to participate on an annual basis and are judged on a submitted application. These communities receive technical support and training needed to restore their Main Streets to centers of community activity and commerce. Details regarding the Wisconsin Main Street Program can be found at <http://commerce.wi.gov/cd/CD-bdd.html>.

Community Based Economic Development (CBED) Program. The Community-Based Economic Development (CBED) Program provides financing assistance to local governments and community-based organizations that undertake planning or development projects, or that provide technical assistance services that are in support of business (including technology-based businesses) and community development. The program provides grants for planning, development, and assistance projects; Business Incubator/Technology-Based Incubator; a Venture Capital Fair; and Regional Economic Development Grants. Additional information regarding the CBED program can be found at <http://www.commerce.wi.gov/cd/CD-bcf-cbed.html>.

Community Development Block Grant for Economic Development (CDBG-ED). The CDBG-ED program is designed to assist businesses that will invest private funds and create jobs

as they expand or relocate to Wisconsin. The Wisconsin Department of Commerce would award the funds to the community, which then loans the funds to a business. When the business repays the loan, the community may retain the funds to capitalize a local revolving loan fund. This fund can then be utilized to finance additional economic development projects within the community. Communities may also utilize the existing Waushara County Economic Revolving Loan Fund to provide loans to community businesses. Additional information regarding the CDBG-ED program can be found at the following website: <http://commerce.wi.gov/BD/BD-RLF.html>.

Early Planning Grant Program (EPG). The EPG program is designed to help individual entrepreneurs and small businesses throughout Wisconsin obtain the professional services necessary to evaluate the feasibility of a proposed start up or expansion. Under the EPG program, the Wisconsin Entrepreneurs' Network (WEN) – with funding from the Wisconsin Department of Commerce – can provide applicants with a grant to help cover a portion of the cost of hiring an independent third party to develop a comprehensive business plan. The maximum funding available for Early Planning Grants is 75% of eligible project costs up to \$3,000. Additional information regarding the EPG program can be found at the following website: http://wenportal.org/grant_applications/epg_help.html.

Milk Volume Production (MVP) Program. The Milk Volume Production (MVP) program is designed to assist dairy producers that are undertaking capital improvement projects that will result in a significant increase in Wisconsin's milk production. This program was created to aggressively support Wisconsin's \$20 billion dairy industry. The goal of the MVP program is to provide qualifying dairy producers with the type of financing necessary to fill the "equity gap" and to partner with local communities to increase dairy production in Wisconsin. It is important to note that the MVP application process is competitive, and not all applications will be funded. Only those projects that have a comprehensive business plan and can demonstrate that they will have a long-term sustainable impact upon Wisconsin's milk production will be successful. Information regarding the Milk Volume Production (MVP) Program can be found at <http://commerce.wi.gov/BD/BD-AG-MilkVolumeProduction.html>.

Dairy 2020 Early Planning Grant Program. The Dairy 2020 Early Planning Grant Program is specifically designed for small Wisconsin dairy farms. Professional assistance can help keep smaller operations profitable and competitive in the agricultural industry. Information regarding the Dairy 2020 Early Planning Grant Program can be found at <http://commerce.wi.gov/BD/BD-AG-Dairy2020EPG.html>.

Customized Labor Training Program (CLT). The CLT program provides a matching grant to assist companies which are utilizing new technologies or manufacturing processes to train employees on new technologies. Grant recipients must either expand an existing or build a new facility within the state. The grants help Wisconsin's manufacturers remain on the cutting edge of technological innovation. Eligible expenditures must focus on the continuing technological education of employees. Grants can cover employee wages, training materials, and trainer costs. Grants provide up to \$2,500 per trainee. Information regarding the CLT Program can be found at <http://commerce.wi.gov/BD/BD-CLTprogram.html>.

Entrepreneurial Training Grant Program (ETG). The ETG program provides potential new small business owners with partial tuition for attending the Small Business Center's (SBDC) Entrepreneurial Training Course. This course helps entrepreneurs prepare a comprehensive business plan that evaluates the feasibility of the proposed start up or expansion; identifies possible financing sources; and provides other information in regard to initial business start-up costs. Grants provide up to 75% of total tuition costs. Information regarding the ETG Program can be found at http://wenportal.org/grant_applications/etp_help.html.

Business Employees' Skills Training Program (BEST). The BEST program helps small businesses in industries that are facing severe labor shortages upgrade the skills of their workforce. This program provides applicants with a tuition re-imbursement grant to cover training costs. To be eligible, businesses must have 25 or fewer employees and sales of less than \$2.5 million. In addition, businesses must specialize in automation, agricultural/food products, biotechnology, manufacturing, medical devices, paper/forest products, printing, tourism, or child care. All training must be provided by an independent third party. Information regarding the BEST Program can be found at <http://commerce.wi.gov/BD/BD-BESTprogram.html>.

Industrial Revenue Bond Program. The Industrial Revenue Bond program allows all Wisconsin municipalities to support industrial development through the sale of tax-exempt bonds. The proceeds from the bond sale are loaned to businesses to finance capital investment projects. Even though the bonds are issued by the municipality, the interest and principal are paid by the company. Information regarding the Industrial Revenue Program can be found at <http://commerce.wi.gov/BD/BD-IRB.html>.

Transportation Economic Assistance (TEA) Program. The state-funded Transportation Economic Assistance (TEA) program provides fast tract financing to construct rail spurs and port improvements for new or expanding industries. The program is available through the Wisconsin Department of Transportation. Additional information regarding the TEA program can be found at the following website: <http://www.dot.wisconsin.gov/localgov/aid/tea.htm>

Wisconsin Department of Commerce

Listed below are additional Wisconsin Department of Commerce programs. This quick reference guide identified these programs and selected programs from other agencies. Commerce maintains a network of Area Development Managers to offer customized services to each region of Wisconsin.

Brownfields Initiative. The Brownfields Initiative provides grants to persons, businesses, local development organizations, and municipalities for environmental remediation activities for Brownfield sites where the owner is unknown, cannot be located or cannot meet the cleanup costs. Contact Jason Scott, 608/261-7714.

CDBG-Blight Elimination and Brownfield Redevelopment Program. This program can help small communities obtain money for environmental assessments and remediate Brownfields. Contact Joe Leo, 608/267-0751.

CDBG-Emergency Grant Program. This program can help small communities repair or replace infrastructure that has suffered damages as a result of catastrophic events. Call 608/266-8934.

Community Development Zone Program. This program is a tax-benefit initiative designed to encourage private investment and job creation in economically-distressed areas. The program offers tax credits for creating new, full-time jobs, hiring disadvantaged workers and undertaking environmental remediation. Tax credits can be taken only on income generated by business activity in the zone. Call 608/267-3895.

Freight Railroad Preservation Program. The Freight Railroad Preservation Program provides grants to communities to purchase abandoned rail lines in the effort to continue freight rail service, preserve the opportunity for future rail service, and to rehabilitate facilities, such as tracks and bridges, on publicly-owned rail lines. Contact Ron Adams, Department of Transportation, 608/267-9284.

Health Care Provider Loan Assistance Program. This program provides repayment of educational loans up to \$25,000 over a five-year period to physician assistants, nurse practitioner, and nurse midwives who agree to practice in medical-shortage areas in Wisconsin. The program is designed to help communities that have shortages of primary care providers and have difficulty recruiting providers to their area. Contact M. Jane Thomas, 608/267-3837.

Minority Business Development Fund – Revolving Loan Fund (RLF) Program. This program is designed to help capitalize RLFs administered by American Indian tribal governing bodies or local development corporations that target their loans to minority-owned businesses. The corporation must be at least 51-percent controlled and actively managed by minority-group members, and demonstrate the expertise and commitment to promote minority business development in a specific geographic area. Contact Mary Perich, 414/220-5367 or Bureau of Minority Business Development, 608/267-9550.

Physician Loan Assistance Program. This program provides repayment of medical school loans up to \$50,000 over a five-year period to physicians who are willing to practice in medical-shortage areas in Wisconsin. The program is designed to help communities that have shortages of primary care physicians, and have had difficulty recruiting these physicians to their area. Contact M. Jane Thomas, 608/267-3837.

State Infrastructure Bank Program. This program is a revolving loan program that helps communities provide transportation infrastructure improvements to preserve, promote, and encourage economic development and/or to promote transportation efficiency, safety, and mobility. Loans obtained through SIB funding can be used in conjunction with other programs. Contact Dennis Leong, Department of Transportation, 608/266-9910.

Tax Incremental Financing (TIF). Tax Incremental Financing (TIF) can help a municipality undertake a public project to stimulate beneficial development or redevelopment that would not otherwise occur. It is a mechanism for financing local economic development projects in underdeveloped and blighted areas. Taxes generated by the increased property values pay for land acquisition or needed public works.

Wisconsin Transportation Facilities Economic Assistance and Development Program.

This program funds transportation facilities improvements (road, rail, harbor, airport) that are part of an economic development project. Contact Dennis W. Leong, Department of Transportation, 608/266-9910.

Freight Railroad Infrastructure Improvement Program. This program awards loans to businesses or communities wishing to rehabilitate rail lines, advance economic development, connect an industry to the national railroad system, or to make improvements to enhance transportation efficiency, safety, and intermodal freight movement. Contact Ron Adams, Department of Transportation, 608/267-9284.

Recycling Demonstration Grant Program. This program helps businesses and local governing units fund waste reduction, reuse, and recycling pilot projects. Contact JoAnn Farnsworth, 608/267-7154, DNR.

Wisconsin Fund. The Wisconsin Fund provides grants to help small commercial businesses rehabilitate or replace their privately-owned sewage systems. Contact Jean Joyce, 608/267-7113.

Regional

East Central Wisconsin Regional Planning Commission. The East Central Wisconsin Regional Planning Commission annually creates a Comprehensive Economic Development Strategy (CEDS) report, which evaluates local and regional population and economic activity. Economic development trends, opportunities, and needs are identified within the CEDS report. All communities, which are served by the Commission, are invited to identify future projects for economic development that the community would like to undertake. Those projects are included within the CEDS and may become eligible for federal funding through the Economic Development Administration (EDA) Public Works grant program. Additional information can be found at <http://www.eastcentralrpc.org/planning/economic.htm>.

Northeast Wisconsin Regional Economic Partnership. The combined Bay-Lake and East Central Wisconsin Regional Planning Commission areas were recently named as a Technology Zone by the Wisconsin Department of Commerce. The Northeast Wisconsin Regional Economic Partnership (NEWREP) Technology Zone provides \$5 million in tax credits to businesses certified by commerce, based on a company's ability to create jobs and investment and to attract related businesses. The Technology Zone Program focuses primarily on businesses engaged in research, development, or manufacture of advanced products or those that are part of an economic cluster and knowledge-based businesses that utilize advanced technology production processes in more traditional manufacturing operations. Additional information can be found at <http://www.eastcentralrpc.org/planning/economic.htm>.

CAP Services, Inc. CAP Services Inc. (CAP) is a private non-profit corporation offering programs in Waushara, Marquette, Outagamie, Portage, Waupaca and parts of Marathon and Wood counties. The primary mission of CAP is to help low-income households attain economic and emotional self-sufficiency. Programs include Skills Training to help low-income individuals acquire skills to compete for higher paying jobs by assisting them with tuition, books, transportation and child care costs related to training; Business Development to provide entrepreneurs with the technical assistance, coaching advice and loan packaging they need to

successfully start and grow their businesses; and Home Buyers Assistance to provide matching dollars to eligible low-and moderate-income, first-time homebuyers for down payment and closing costs. Funds are also available for repair and rehabilitation on newly purchased units; Weatherization measures including caulking, insulation, window repair and other conservation measures; Special Needs Housing; Asset Development to provide financial wellness training and incentives to low-income households; Preschool Services including head start for ages 3-5 and their families; and Crisis Intervention. Additional information can be found at www.capserv.org.

Private

The Wisconsin Public Service Corporation (WPS) also contributes a number of economic development services that communities should be aware of for their businesses. WPS maintains an online database of available industrial buildings with information provided by the communities. The WPS economic development page can be a useful resource for communities, and can be accessed at <http://www.wisconsinpublicservice.com/business/bcd.aspx>.

CHAPTER 7: INTERGOVERNMENTAL COOPERATION

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CHAPTER 7: INTERGOVERNMENTAL COOPERATION

INTRODUCTION

The relationship a county has with school districts, neighboring counties, municipalities, the Regional Planning Commission, the state, and the federal government can impact residents in terms of taxation, planning, service provision, and siting of public facilities. An examination of these relationships and the identification of existing or potential conflicts can help a county or municipality address these situations in a productive manner.

INVENTORY AND ANALYSIS

Governmental Units and Relationships

Communities

Waushara County is comprised of 18 towns (Plainfield, Oasis, Rose, Springwater, Saxeville, Bloomfield, Poy Sippi, Leon, Mount Morris, Wautoma, Deerfield, Hancock, Coloma, Richford, Dakota, Marion, Warren and Aurora), two cities (Berlin – partial and Wautoma), six villages (Coloma, Hancock, Plainfield, Wild Rose, Redgranite and Lohrville). With the exception of the Town of Warren, all towns within Waushara County adhere to county zoning. Since the County administers zoning for towns within its borders, it has jurisdiction over zoning matters including land divisions and private on-site wastewater systems. Nevertheless, towns have an opportunity to comment on all proposed development within its jurisdiction before any final action is taken by the county.

Communities work with the various county departments to coordinate road construction and maintenance; solid waste and recycling efforts; senior citizen and other social services; and park and recreational facilities and programs. The communities and the County continue to maintain open communications with one another that work to foster good working relationships and mutual respect.

Counties

Waushara County shares its borders with Portage, Waupaca, Winnebago, Green Lake, and Adams counties. The county has a good working relationship with its neighbors and has established a number of programs that cross county borders. Among other things this includes a partnership with Green Lake and Marquette counties for economic development (Tri-County Regional Economic Development Corporation) and information and assistance on aging, long term care, disabilities and other related topics (The Aging & Disability Resource Center of Green Lake, Marquette and Waushara Counties).

School Districts

Nine school districts are found within Waushara County. These include the Almond-Bancroft, Omro, Tri-County Area, Westfield, Wautoma Area, Wild Rose, Waupaca, Weyauwega-Fremont, and the Berlin Area school districts. The boundaries of these school districts cross not only municipal but also county borders. Therefore it is imperative that

school districts maintain a strong working relationship with the counties and area communities. Local school districts, communities and counties should continue to look for additional ways that communication and cooperation can be done that will benefit local school districts, communities and counties. This may include sharing recreational facilities, utilizing existing school facilities for after school meeting space, and working together to coordinate the siting and utilization of new school facilities. Communities, school districts and local businesses can also establish agreements to work together on other issues. This can include partnerships to construct local buildings (sheds, garages, houses) that not only give students valuable life and work skills but also benefit individuals within the local community. Community service type projects by local students strengthen young people's senses of civic engagement and have life long implications. Local governments, counties and school districts should establish a method of communication and explore ways in which they can work together. Joint cooperation between school districts will allow the goals of the comprehensive plan to be met while providing safe, efficient transportation, community and county services, and related amenities.

Three school forests and a town forest provide 819 acres of passive open space in Waushara County. These facilities include the Tri-County School Forest (230 acres), the Wild Rose School Forest (128 acres), the Coloma School Forest (40 acres) and the Town of Rose Forest (421 acres). School districts share the use of their facilities with local organizations and residents. ***The school forests give people the opportunity to enjoy the outdoors and what nature has to offer.***

Waushara County is part of the Mid State District in the northwestern portion of the county, the Madison Area District in the southern portion, the Moraine Park District in the southeastern portion, and Fox Valley District in the central and northeastern portion of the county. Curriculum in the technical colleges is usually geared toward an area's particular needs. Typically a student may choose from among a two-year highly technical associate degree program, a two-year vocational program, a one-year vocational program, and a short-term program. ***The FVTC offers limited classes at the Wautoma campus in the City of Wautoma. Agreements exist so that residents are able to attend technical college courses outside of their district if it is more convenient to do so.***

Community Facilities

Due to the rural nature of Waushara County, many facilities and services are shared jointly between neighboring communities as well as provided through agreement with the county. Police protection for Waushara County is provided by the Waushara County Sheriff's Department that dispatches officers from the City of Wautoma. The Sheriff's Department provides backup protection to many of the incorporated communities that have their own police departments. Communities that have their own police departments include the City of Wautoma and Berlin, and the villages of Coloma, Hancock, Plainfield, Wild Rose, and Redgranite.

Waushara County is served by a total of eleven fire departments and/or districts. These departments and/or districts are multi-jurisdictional and includes the Coloma Volunteer Fire-Rescue-EMS Department (Village of Coloma, towns of Coloma, Richford (partial) and Richfield); Hancock Volunteer F.D. (Village of Hancock, towns of Hancock and Deerfield (partial)); Plainfield Volunteer F. D. (Village of Plainfield and the towns of Plainfield and Oasis); Redgranite F. D. (villages of Redgranite and Lohrville, partial towns of Marion, Mount Morris,

Leon, Warren); Wild Rose F. D. (Village of Wild Rose, Town of Rose, and the partial towns of Springwater, Wautoma and Mount Morris); Poy Sippi F. D. (Town of Poy Sippi and the partial towns of Saxeville and Leon); Saxeville-Springwater F.D. (Partial towns of Saxeville and Springwater); W. Bloomfield F.D. (Town of Bloomfield); Wautoma Area Fire Department (City of Wautoma and parts of the towns of Deerfield, Marion, Mount Morris and Richford); Berlin F.D. (City of Berlin and towns of Seneca Berlin and Aurora); and Neshkoro F.D. (Village of Neshkoro and the towns of Crystal Lake, Neshkoro and Marion (partial)). To provide better service, ***the fire districts/departments maintain mutual aid agreements with other fire districts/departments and surrounding counties.***

Emergency medical services for the county are primarily provided through the Waushara County EMS. The exception is the towns of Aurora and Warren who contract with the City of Berlin since it is closer and can respond more quickly in an emergency. The Waushara County EMS provides backup service for the town. The EMS administrative office is located at 230 W. Park Street in Wautoma and provides municipal and county ambulance service. The department also operates a permanent service center in Poy Sippi and alternating service centers in Coloma and Plainfield. Both the Coloma and Poy Sippi service centers have live in crew quarters for staff. The agency provides 24-hour service for emergency calls. Response time varies and depends on where the ambulance is located and where the service is required. ***Many of the fire districts and local fire departments within the county have First Responders on staff that can assist with the basic and advanced medical emergencies.*** Depending on location, First Responders are usually able to arrive at the emergency scene either ahead of the ambulance or at approximately the same time.

All counties within the East Central Wisconsin Regional Planning Commission region participate in a federated library system. ***Waushara County is part of the Winnefox Federated Library System.*** Therefore all eight libraries within the county are part of this system and any resident can utilize any of the libraries within the county. Other counties sharing the Winnefox system include Marquette, Green Lake, Fond du Lac and Winnebago. ***The federated library system is designed to provide expanded library service to more people without making additional large expenditures.*** For this reason, libraries do not need to purchase the same collection materials or multiple copies since patrons are able to order materials from any library in the system.

The Waushara County Buildings and Grounds Department is responsible for the Courthouse, Jail, and North and South Annexes and associated property. Prisoners from Huber Jail provide snow removal assistance in winter.¹ ***The County Courthouse and other buildings are available for use by local groups for meeting space.***

The Waushara County Department of Aging works with communities to offer several programs to senior citizens. The Waushara County Coordinated Transportation System offers rides to senior citizens, veterans and human service clientele on Medical Assistance. Meals along with activities and fellowship are provided to seniors at eight locations throughout Waushara County. Most sites are open from Monday through Friday. Meals are also delivered to individual residences. Currently, the county provides this service to nearly 1,000 senior citizens.

¹ *Annual Report, Buildings and Grounds Department, 2007.* Waushara County Buildings and Grounds Department

The Waushara County Parks, Recreation and Solid Waste Department works with communities to provide park, recreation and solid waste collection and recycling. Many of the sites that it utilizes are owned by the municipalities and the county has an agreement to use them and maintain them. The Waushara County's park system is comprised of 15 sites containing a total of 761 acres. The park system provides residents and visitors access to natural lakes, forests, parks, recreational trails and other amenities and are located throughout the county. The county operates nine waste collection sites that residents are able to utilize. These sites are open to any county resident.

The Waushara County Highway Department works with communities, surrounding counties and the WisDOT to ensure that state, county roads are being maintained. The county also has agreements with Waushara County communities to maintain their roads. Communication and coordination between communities and utility infrastructure providers (gas, electric, telephone, etc.), the WisDOT and the Waushara County Highway Department ensures that upcoming road construction and utility upgrades will run smoothly and that all work is done before restoration is completed. This lessens the chance that new road surfaces and restored terraces will need to be excavated shortly after construction is completed.

As indicated above, Waushara County and its communities have various intergovernmental agreements with others in regard to public services and facilities. The County and its communities should continue to look for ways that limited resources can be shared. Likewise, local governments, school districts and businesses should be working together on technological upgrades to ensure that these upgrades are made in concert without duplication of efforts so that a common goal can be achieved. New intergovernmental agreements which involve senior citizens and other social services; park and recreational facilities; stormwater management; or other topics may be issues that are explored in the future.

Region

Waushara County and therefore its communities are members of the East Central Wisconsin Regional Planning Commission (ECWRPC). ECWRPC provides planning and technical assistance to counties, communities, businesses, interest groups and individuals within its region. These services include environmental management, housing, demographics, economic development, transportation, community facilities, land use, contract planning, and others. ***ECWRPC has worked with the County on several projects over the years including the preparation of county park and open space plans, solid waste updates and all-hazard planning.***

Adams and Portage counties to the west and northwest of Waushara County are part of the North Central Wisconsin Regional Planning Commission (NCWRPC). Besides Adams and Portage counties, the NCWRPC includes the counties of Forest, Juneau, Langlade, Lincoln, Marathon, Oneida, Portage, Vilas and Wood Counties.

State of Wisconsin

Wisconsin Department of Natural Resources (WDNR). The WDNR is responsible for the regulation, protection, and sustained management of natural resources within the state. The WDNR operates various programs in water and air quality management, habitat preservation, recreational trail development, and other programs. The WDNR helps local landowners

successfully manage their woodlots for wildlife habitat and timber production throughout Waushara County. The WDNR also maintains environmental corridors which enhance surface water quality and stream habitat throughout the planning area. ***The WDNR maintains a service center in the Wautoma Industrial Park and has been very active in the county.*** The WDNR has been an active participant in the development of the land management and comprehensive plans that have been completed to date. They continue to make comments on the latest comprehensive planning efforts that are currently going on in the county.

Department of Agriculture, Trade, and Consumer Protection (DATCP). The overall mission of DATCP is multi-fold. The agency oversees programs which ensure the safety and quality of food, fair business practices for buyers and sellers, consumer protection, efficient use of agricultural resources in a quality environment, healthy animal and plant populations, and the vitality of Wisconsin agriculture and commerce. Since agriculture will continue to be an important economic industry within the area, many of the programs DATCP offers will benefit and help local citizens.

Wisconsin Department of Transportation (WisDOT). WisDOT deals with issues related to all transportation uses in the state. WisDOT evaluates existing transportation infra-structure for bicycle and pedestrian trails as well as assists in planning efforts for future trails. Additionally, WisDOT provides maintenance services for Interstate 39. ***The WisDOT has been an active participant in the development of the land management and comprehensive plans that have been completed to date. They continue to make comments on the latest comprehensive planning efforts that are currently going on in the county.***

Intergovernmental Comprehensive Planning Efforts

Periodically, representatives from various agencies and businesses (WisDOT, WDNR, CAP Services, Waushara Area Chamber of Commerce, Waushara County Economic Development Corporation, Tri-County Regional Economic Development Corporation, etc.) should be invited to county board or plan commission meetings to talk and/or provide input into the implementation process. The county should work with its communities on the implementation of their individual plans.

Laws, Ordinances and Regulations

Cooperative Boundary Plans and Agreements. Cooperative boundary plans and agreements are joint planning efforts in which two or more municipalities establish a mutually agreeable plan to establish boundary lines, provide public services and facilities, share revenues, and establish land use criteria.² The majority of municipal boundary agreements are conducted between a town and an incorporated village or city. Cooperative boundary plans, which are subject to a minimum of a ten-year period, must be approved by the Wisconsin Department of Administration.

Extraterritorial Subdivision Regulation. Incorporated villages and cities can exercise plat review authority in unincorporated areas adjacent to their communities,³ however, only the City

² Wisconsin State Statutes s.66.0307.

³ Wisconsin State Statutes s.236.10.

of Wautoma has effectuated this. This allows incorporated areas the same authority to approve or reject a specific plat or CSM as if it were within its own jurisdiction. This authority extends to a distance of 1.5 miles from the incorporated boundary for villages and small cities and 3.0 miles for cities with population of greater than 10,000. The incorporated area must have a subdivision ordinance in place in order to exercise this authority.

Cities and villages can work to ensure that land use conflicts be minimized near the incorporated boundaries. If the incorporated area has more restrictive guidelines than the adjacent town, the city/village can require that the subdivisions meet the more restrictive regulations. A plat can be rejected if it conflicts with a city/village ordinance, fails to comply with state statutes, or fails to comply with the city/village master plan.

Extraterritorial Zoning. Incorporated villages and cities have been given authority to practice extraterritorial zoning authority if they have developed a zoning ordinance for the incorporated areas.⁴ Only the City of Berlin has effectuated this. This authority extends to a distance of 1.5 miles from the incorporated boundary for villages and cities with populations less than 10,000 and 3.0 miles for cities if the population exceeds 10,000. Extraterritorial zoning allows for smooth transitions between suburban and rural areas, reduces conflicting land uses, and promotes intergovernmental cooperation in planning for future community needs.

Three major steps are involved in the adoption of an extraterritorial zoning ordinance.⁵ First, the incorporated area must adopt and publicize a resolution to establish its intent to exercise its zoning authority within the extraterritorial area. Second, a joint committee with members from both the incorporated municipality and town must develop the specific zoning ordinance. Finally, the final plan must be adopted through the joint committee. The joint committee consists of three members from the city or village and three members from each affected town. This ensures that zoning cannot happen unless everyone agrees.

Key Findings

Communities

- Waushara County is comprised of 18 towns (Plainfield, Oasis, Rose, Springwater, Saxeville, Bloomfield, Poy Sippi, Leon, Mount Morris, Wautoma, Deerfield, Hancock, Coloma, Richford, Dakota, Marion, Warren and Aurora), two cities (Berlin – partial and Wautoma), six villages (Coloma, Hancock, Plainfield, Wild Rose, Redgranite and Lohrville).
- With the exception of the Town of Warren, all towns within Waushara County adhere to county zoning.

Counties

- Waushara County shares its borders with Portage, Waupaca, Winnebago, Green Lake, and Adams counties.

⁴ *Wisconsin State Statutes* s.62.23.

⁵ Ohm, B. 1999. *Guide to Community Planning in Wisconsin*.

School Districts

- Nine school districts are found within Waushara County. These include the Almond-Bancroft, Omro, Tri-County Area, Westfield, Wautoma Area, Wild Rose, Waupaca, Weyauwega-Fremont, and the Berlin Area school districts.
- Three school forests and a town forest provide 819 acres of passive open space in Waushara County. The school forests give people the opportunity to enjoy the outdoors and what nature has to offer.
- Waushara County is part of the Mid State District in the northwestern portion of the county, the Madison Area District in the southern portion, the Moraine Park District in the southeastern portion, and Fox Valley District in the central and northeastern portion of the county.
- The FVTC offers limited classes at the Wautoma campus in the City of Wautoma. Agreements exist so that residents are able to attend technical college courses outside of their district if it is more convenient to do so.

Community Facilities

- Due to the rural nature of Waushara County, many facilities and services are shared jointly between neighboring communities as well as provided through agreement with the county.
- Police protection for Waushara County is provided by the Waushara County Sheriff's Department that dispatches officers from the City of Wautoma. The Sheriff's Department provides backup protection to many of the incorporated communities that have their own police departments.
- Waushara County is served by a total of eleven fire departments and/or districts. These departments and/or districts are multi-jurisdictional.
- The fire districts/departments maintain mutual aid agreements with other fire districts/departments and surrounding counties.
- Emergency medical services for the county are primarily provided through the Waushara County EMS. The exception is the towns of Aurora and Warren who contract with the City of Berlin since it is closer and can respond more quickly in an emergency.
- Many of the fire districts and local fire departments within the county have First Responders on staff that can assist with the basic and advanced medical emergencies.
- Waushara County is part of the Winnefox Federated Library System. The federated library system is designed to provide expanded library service to more people without making additional large expenditures.
- The County Courthouse and other buildings are available for use by local groups for meeting space.
- The Waushara County Department of Aging works with communities to offer several programs to senior citizens. Among other things this includes transportation, meals, activities and fellowship.
- The Waushara County Parks, Recreation and Solid Waste Department works with communities to provide park, recreation and solid waste collection and recycling. Many of the sites that it utilizes are owned by the municipalities and the county has an agreement to use them and maintain them.
- The Waushara County Highway Department works with communities, surrounding counties and the WisDOT to ensure that state, county roads are being maintained.

Region

- Waushara County and therefore its communities are members of the East Central Wisconsin Regional Planning Commission.
- ECWRPC has worked with the County on several projects over the years including the preparation of county park and open space plans, solid waste updates and all-hazard planning.

State of Wisconsin

- The WDNR maintains a service center in the Wautoma Industrial Park and has been very active in the county and the local planning efforts.
- The WisDOT has been an active participant in the development of the land management and comprehensive plans that have been completed to date. They continue to make comments on the latest comprehensive planning efforts that are currently going on in the county.

INTERRELATIONSHIPS WITH OTHER COMPREHENSIVE PLAN ELEMENTS

Economic Development

Communities should partner with community, county, and regional economic development groups; the local chamber of commerce; organizations such as CAP Services; state agencies such as Wisconsin Department of Commerce and UW-Extension; area school districts and technical schools; local businesses and others which promote economic development. Since the economy of the individual communities in western Waushara County is dependent on the economy of all the municipalities in the area, all communities within Waushara County and the Tri-County region should continue to work together.

Housing

Housing choices that reflect the needs of individual households are an integral part of comprehensive planning. Economic development professionals, housing providers, local government officials, county departments and consumers should work together to promote the development of housing that meets the needs of all income levels within the area. Communities should continue to work with and forge new ties with agencies such as CAP Services, United Migrant Opportunity Services (UMOS), the Federal Department of Housing and Urban Development, and private entities to ensure that an adequate amount of affordable housing is present.

Transportation

Communities should continue to work with WisDOT, Waushara County and ECWRPC to resolve local, regional and state transportation related issues. Roadway projects must be jointly coordinated with public utilities, local emergency rescue departments, community departments, school districts and others to ensure that repairs are made cost-effectively and on a timely basis.

Utilities and Community Facilities

Coordination of road construction projects and utility upgrades can save everyone time and money. If a community is aware of a needed utility upgrade on a local street, they may also decide that it would be cost-effective for them to resurface the roadway after construction has occurred. Likewise, if a utility knows that a local road is going to be under construction, they may decide to upgrade their facilities at the same time.

Coordination of new school facilities is also vital. Communities need to plan for increased traffic, reuse of former buildings, and needed public infrastructure (roads, sewer, water, police and fire protection). Multi-use and extended use of buildings can also save the community money. A school facility is an ideal location to hold evening classes for adults, as well as recreational programs and public meetings. In some instances, school districts have worked with communities to construct joint library projects and recreational facilities (swimming, gym and weight room).

Communities and the County should work together on joint and regional park and recreational programs and facilities. Some of the larger facilities such as a ski or tubing hill, ice rink and swimming pool may be too costly for one entity to tackle alone. Moreover, the use of these facilities is not limited to the residents of one community but is usually enjoyed by the residents and visitors of the entire area. Countywide recreational leagues may also be something that can be investigated. One community alone may not have enough participation to field a sufficient number of teams to support league play, but with input from a number of communities in the area, this may become feasible. Some things that could be investigated may include soccer (adult and youth), baseball (adult and youth), volleyball, or others.

Agricultural Resources

The economy and the character of the county are dependent on a viable agricultural community. Preserving productive agricultural land and maintaining a critical mass of farmers to sustain the local agribusiness are tasks that can not be tackled alone. It will take input and support from communities, farmers, economic development groups, local agencies, and citizens alike.

Natural Resources

Preserving the natural resources of the area is a joint effort. Natural resources do not stop at municipal boundaries. The actions and policies of one community impact the resources of another.

Cultural Resources

The cultural and historical features of a community help define it. Preserving these resources that residents feel have made meaningful contributions to the community's heritage allows a connection to the past and an opportunity to pass this heritage onto future generations. Communities should work together to seek funding from the Wisconsin Historical Society to identify and evaluate historical, architectural and archeological resources in the area. Joint efforts should be made to ensure consistency between communities on planning related issues that affect cultural and historical resources. Finally, communities and the County should work

together to educate citizens and elected officials about the importance of these resources and how they can be protected.

Land Use

Land use brings the other elements together. The future land use map illustrates existing and future development based on the goals, objectives and strategies that each community has established. Land use decisions of one community have a direct impact on other communities. Communities should work together to jointly develop visions of how land along common borders should be developed or preserved. When new development or land divisions occur in these areas, joint input should be obtained before decisions are made.

POLICIES

State, Regional and County Policies

State

The Wisconsin Department of Natural Resources (WDNR) and the Wisconsin Department of Transportation (WisDOT) routinely engage in master planning for natural resource management and transportation purposes. The University of Wisconsin Extension office located in Wautoma serves as an educational resource for County residents.

Waushara County is located within the Northeast Region of the WDNR. The Northeast Region has a regional office in Green Bay and a service center in Wautoma. A master plan is developed for each property that WDNR owns. This plan establishes goals and objectives for how the property will be managed and developed.⁶ In addition, the master plan delineates adjacent lands or related parcels that should be acquired in the future to expand the property. The master plan discusses not only the proposed future of the property, but also the benefits it will provide to local communities. In order for the WDNR master planning process to be effective, local participation from the affected communities is needed. All citizens affected by the WDNR owned land should consider becoming involved in the planning process or attending meetings related to the projects.

Waushara County is located within the North Central Region of the Wisconsin Department of Transportation (WisDOT). The North Central Region has regional offices in Wisconsin Rapids and Rhinelander. WisDOT has prepared several master plans specifically for various modes of transportation as well as a highway improvement plan.⁷ Although the plans are adequate to 2020, these plans will be periodically updated. Additionally, the Connections 2030 Plan, currently in draft form, identifies nearby I-39 as an intercity bus network connecting Madison, Stevens Point, and Wausau.⁸ Waushara County should take a proactive role in all transportation planning processes in the future to ensure that, as existing transportation

⁶ Wisconsin DNR. 2005. *Property Master Planning*. http://dnr.wi.gov/master_planning/.

⁷ Wisconsin DOT. 2009. *Plans and Projects*. <http://www.dot.state.wi.us/projects/mode.htm>.

⁸ Wisconsin DOT. 2009. *Connections 2030 Plan, draft*.
<http://www.dot.wisconsin.gov/projects/state/connections2030.htm>.

facilities are expanded to meet the existing and future needs of the individual communities, the planning area, the State of Wisconsin, and other local concerns are addressed.

Regional

East Central Wisconsin Regional Planning Commission. East Central Wisconsin Regional Planning Commission has completed all milestones in their regional comprehensive planning process. Communities should use the information identified in the first two milestone reports and review the goals set in the third milestone report.

County

Waushara County Land and Water Management Plan. Waushara County has adopted a County Land and Water Management Plan. This plan was developed by the County Land Conservation Committee with assistance from a citizen advisory committee that included representatives from the WDNR, USDA Natural Resources Conservation Service, Central Wisconsin Windshed Partners, and Watershed Lakes Council. It is the responsibility of Waushara County communities to review and implement this plan within their respective jurisdictions.

CHAPTER 8: LAND USE

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CHAPTER 8: LAND USE

INTRODUCTION

Land use directly influences all the various elements presented in the previous chapters. Many aspects of daily life are impacted by elements of the previous chapters. The choices for housing type, location, transportation alternatives, decisions on employment locations, recreational opportunities, and the quality of the man-made and natural environments are all intricately woven together into land use. Land use policy decisions can have far-reaching repercussions for factors including housing growth and the protection of natural resources. For example, rural areas in Waushara County are under pressure from scattered rural residential and vacation home development. Large lot development in rural areas has fragmented farmland and forests and placed greater stress on the lakes, streams, and other environmentally sensitive areas.

This chapter describes existing land use patterns and current zoning ordinances. Development trends over the past 20 years were analyzed, and future land use needs were extrapolated. Finally, the chapter discusses the land use policy context and the need for additional intergovernmental cooperation. Several potential land use conflicts are identified, and issues that must be addressed are discussed.

INVENTORY AND ANALYSIS

Existing Land Use

The Waushara County existing land use map was developed in 2000 by East Central Wisconsin Regional Planning Commission and updated by the municipalities within the county as land management and comprehensive plans were developed. Therefore existing land use, contained in this plan spans a period of about nine years. Land use information was compiled into the general land use categories summarized below and is presented in Table 8-1 and Exhibit 8-1. *The land use categories are agricultural, residential, commercial, industrial, transportation, utilities/communications, institutional facilities, recreational facilities, water features, woodlands and other open land.*

Land Use Categories

Agricultural. Agricultural land is broadly classified as land that is used for crop production. Agricultural uses include farming, dairying, pastures, apiculture (bees), aquaculture (fish, mussels), cropland, horticulture, floriculture, viticulture (grapes), and animal and poultry husbandry. Agricultural land is divided into two sub-categories: irrigated and non-irrigated cropland. Irrigated cropland is watered by artificial means, while non-irrigated cropland is watered by natural means (precipitation).

Residential. Residential land is classified as land that is used primarily for human habitation. Residential land uses are divided into single family residential, farmsteads, and multi-family residential and mobile home parks. Single family residential includes single family dwellings, duplexes, and garages for residential use. Within platted subdivisions, residential land use

encompasses the entire lot. In rural areas where lots are typically larger, single family includes the primary residence, outbuildings, and the mowed area surrounding the structures. Single family also includes isolated garages and similar structures on otherwise undeveloped rural lots. Farmsteads include the farm residence, the mowed area between the buildings and the associated outbuildings (barn, sheds, manure storage, abandoned buildings). Multi-family includes apartments of three or more units; condos; room and boarding houses; residence halls; group quarters; retirement homes; nursing care facilities; religious quarters; and the associated parking and yard areas. Mobile home parks are classified as land that is part of a mobile home park. Single standing mobile homes are classified under single family residential.

Commercial. Commercial land uses represent the sale of goods and services and other general business practices. Commercial uses include retail and wholesale trade (car and boat dealers; furniture, electronics and appliance stores; building equipment and garden equipment; grocery and liquor stores; health and personal care stores; gasoline stations; clothing and accessories, sporting goods, hobby, book and music stores; general merchandise; miscellaneous store retailers; couriers; and masseuse), services (publishing; motion picture and sound recording; telecommunications; information systems; banks and financial institutions; real estate offices; insurance agencies and carriers; waste management; accommodations; restaurants and drinking places; repair and maintenance; personal and laundry; social assistance, etc.) and other uses (warehousing and automobile salvage and junk yards).

Industrial. Industrial land uses represent a broad category of activities which involve the production of goods. Industrial is divided into two separate categories: industrial and quarries. Industrial uses include construction; manufacturing (includes warehousing with factory or mill operation); mining operations and quarries; and other industrial facilities (truck facilities).

Transportation. Transportation includes land uses that directly focus on moving people, goods, and services from one location to another. Transportation is divided into two separate categories: transportation and airport. Transportation uses include highway and street rights of way; support activities for transportation (waysides, freight weigh stations, bus stations, taxi, limo services, park and ride lots); rail related facilities; and other related categories. Airports included areas that are dedicated specifically to air traffic.

Utilities/Communications. Utilities and communications are classified as any land use which aids in the generation, distribution, and storage of electric power (substations and transformers); natural gas (substations, distribution brokers); and telecommunications (radio, telephone, television stations and cell towers). It also includes facilities associated with water distribution (water towers and tanks); water treatment plants; wastewater processing (plants and lift stations); landfills (active and abandoned); and recycling facilities.

Institutional Facilities. Institutional uses are defined as land for public and private facilities dedicated to public services. Institutional land uses include educational facilities (schools, colleges, universities, professional schools); hospitals; assemblies (churches, religious organizations); cemeteries and related facilities; all governmental facilities used for administration (city, village, town halls, community centers, post office, municipal garages, social security and employment offices, etc.); and safety services (police departments, jails, fire stations, armories, military facilities, etc.). Public utilities and areas of outdoor recreation are not considered institutional facilities.

Recreational Facilities. Recreational facilities are defined as land uses which provide leisure activity opportunities for citizens. This category encompasses both active and passive activities. Recreational activities include designated hunting and fishing areas; nature areas; general recreational parks; sports facilities (playgrounds, ball diamonds, soccer fields, tennis courts, etc.); city, county and state parks; fairgrounds; marinas; boat landings; spectator sport venues; hiking trails; mini-golf; bowling; bicycling; skiing; golf courses; country clubs; performing arts centers; museums; historical sites; zoos; amusement parks; gambling venues; and other related activities.

Water Features. Water features include all surface water including lakes, streams, rivers, ponds, and other similar features. Intermittent waterways are also incorporated into this category.

Woodlands. Woodlands are forested areas which are characterized by a predominance of tree cover. Woodlands are divided into two subcategories: general woodlands and planted woodlands. General woodlands are naturally occurring; this category includes forests, woods, and distinguishable hedgerows. Planted woodlands include forestry and timber track operations where trees are typically planted in rows; this category includes tree plantations, orchards and land dedicated to Christmas tree production (nurseries are not included).

Other Open Land. This category includes land which is currently vacant and not developed in a manner similar to the other land use categories described within this section. Open land includes areas that are wet, rocky, or outcrop; open lots in a subdivision; or rural parcels and side or back lots on a residential property that are not developed.

Current Land Use Inventories

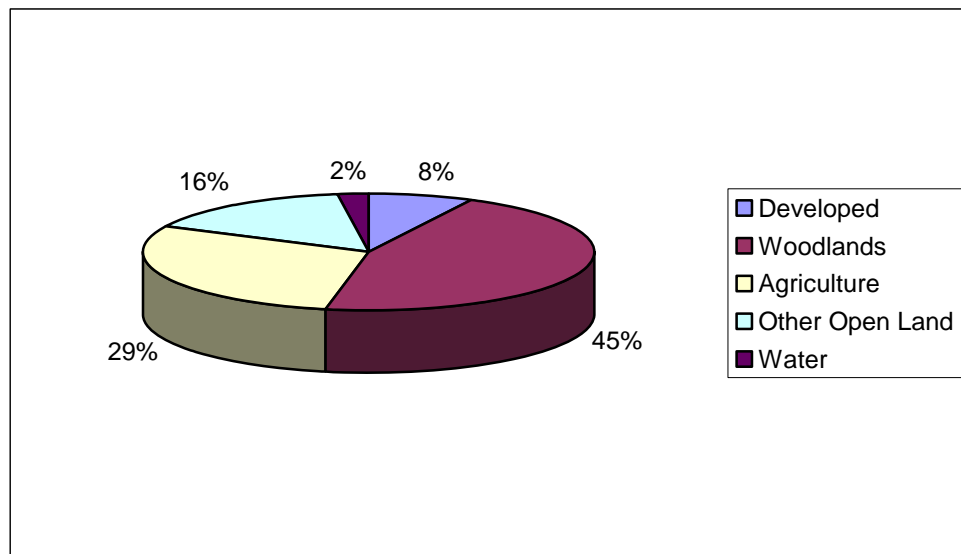
Developed land has been altered from its natural state to accommodate human activities. Although agricultural areas are considered undeveloped by land classification systems, these uses have different impacts on land use decisions than urbanized uses; thus, agricultural uses have been separated to obtain an accurate total of all related activities.

Waushara County encompasses approximately 407,914 acres (Table 8-1, Figure 8-1 and Exhibit 8-1). ***Approximately 8 percent (7.7%) of the total area is developed.*** The primary developed uses include Transportation (39.1%), Single Family Residential (33.7%), Recreational (10.7%) and Farmsteads (9.0%). Collectively these uses account for 92 percent (91.9%) of the developed area.

Overall, cropland (irrigated and non-irrigated) accounts for 29 percent (29.1%) of the total land use, while woodlands (planted and unplanted) make up another 46 percent (45.5%). Other open land (15.5%), water features (2.1%), and active quarry (0.1%) comprises the remaining eighteen percent (17.7%) of the remaining land uses.

Table 8-1. Waushara County Existing Land Use, 2008

Land Use	Total Acres	Percent of Developed Land	Percent of Total
Single Family Residential	10,453	34.1%	2.6%
Farmstead	2,806	9.2%	0.7%
Multi-Family Residential	96	0.3%	0.0%
Mobile Home Parks	163	0.5%	0.0%
Industrial	280	0.9%	0.1%
Recreational Facilities	2,784	9.1%	0.7%
Commercial	810	2.6%	0.2%
Institutional Facilities	756	2.5%	0.2%
Utilities/Communications	280	0.9%	0.1%
Transportation	12,194	39.8%	3.0%
Total Developed	30,623	100.0%	7.5%
Non-irrigated Cropland	65,278		16.0%
Irrigated Cropland	53,441		13.1%
Planted Woodlots	44,516		10.9%
Unplanted Woodlots	141,071		34.6%
Active Quarry	255		0.1%
Other Open Land	63,573		15.6%
Water Features	8,646		2.1%
Total Acres	407,402		100.0%

Figure 8-1. Waushara County Existing Land Use, 2008

Source: ECWRPC, 2008

Zoning

Zoning is a major tool used to regulate land uses. A zoning ordinance regulates the use of property in order to advance public health, safety, and welfare through orderly development. Zoning is performed at several levels in Waushara County. Each incorporated city or village has

general zoning powers.¹ Waushara County has general zoning jurisdiction within most unincorporated areas of the county; the ordinances are administered by the Zoning and Land Conservation Department (WCZLC).² Towns with “village powers” can adopt their own zoning ordinances as long as they are at least as restrictive as the general county ordinance.³ ***With the exception of the Town of Warren, and the portion of the Town of Aurora that falls under the City of Berlin’s extraterritorial zoning, all towns within Waushara County adhere to County Zoning.*** Waushara County shoreland, sanitary, subdivision and floodplain ordinances apply in the Town of Warren and the Town of Aurora that falls under the City of Berlin’s extraterritorial zoning. Within the Town of Aurora, the most restricting ordinance applies.

All zoning district information is contained within the Waushara County Zoning Ordinance. A summary of the usage requirements and restrictions of the districts found within the county area listed below.

- *(A-G) General Agriculture Zone:* This zone is designed primarily for large-scale agricultural uses of land related to growing of crops and the raising of livestock. Permitted uses include airstrips, general farming, single family residential homes, home occupations, and other uses. Residential lot sizes vary. Minimum lot sizes are indicated by the suffix. For example, lots zoned AG-5 must be a minimum of 5 acres.
- *(A-R) Agricultural Residential Zone:* This zone is intended to provide a semi-rural type of environment which allows general agricultural use. Single family residential development on minimum one acre lots, general farming, and home occupations are permitted under this classification.
- *(C-G) General Commercial:* This zone provides for uses found in small commercial areas located throughout the county. Permitted uses include banking; bed and breakfast establishments; professional offices; medical clinics; funeral homes; laundromats; storage garages; restaurants; semi-public uses; warehouses; and retail stores. Single family dwellings are permitted only as accessory to a principal use.
- *(C-C) Community Commercial:* This zone provides for uses found in the central business districts of small communities. Permitted uses include banks, bed and breakfasts, professional offices, medical clinics, funeral homes, laundromats, storage garages, restaurants, semi-public uses, warehouses, and retail stores. Single family dwellings are permitted only as accessory to a principal use.
- *(C-S) Service Commercial:* This zone is designed for small commercial service businesses which are oriented toward the traveler, tourist or vacationer. Lots sizes must be a minimum of 10,000 square feet. Permitted uses include bed and breakfasts; boat sales and service; clubs or lodges; and public swimming pools.
- *(M-G) General Manufacturing Zone:* This zone is intended for any manufacturing or industrial operation which, on the basis of actual physical and operational characteristics,

¹ *Wisconsin Statutes* 62.23 for cities and *Wisconsin Statutes* 61.35 for villages.

² *Wisconsin Statutes* 69.69.

³ *Wisconsin Statutes* 60.22.

would not be detrimental to the surrounding area or the county as a whole by reason of noise, dirt, smoke, odor, traffic, physical appearance, or any other similar features. Automotive-heavy repair and upholstery; cleaning, pressing, and dyeing establishments; commercial bakeries, greenhouses, and recycling operations; distributors; farm machinery sales and/or service; food locker plants; laboratories; machine shops; manufacturing and bottling of nonalcoholic beverages; manufacturing, fabrication, processing, packaging, and assembly of selected products; printing or publishing; storage and sale of machinery and equipment; trade and contractors' offices; warehousing and wholesaling; offices, storage, power supply, and other such uses normally incidental to the principal use are permitted uses that fall under this classification. Lot sizes must be a minimum of 20,000 square feet.

- *(M-I) Intensive Manufacturing Zone:* This zone is intended to provide for uses which by their nature can exhibit characteristics harmful, noxious, or detrimental to surrounding uses. Permitted uses include all those permitted under General Manufacturing Zone, as well as freight yards and depots, breweries, and inside storage. Lot sizes must be a minimum of 20,000 square feet.
- *(O-N) Natural Resource Preservation Zone:* This zone provides for the conservation and protection of natural resources. Generally this zone includes swamps, marshlands, river and lakeshore and other land of natural aesthetic value. Residential development is a conditional use and is only allowed as an accessory to a principal use within these areas on one-acre lots. Permitted uses include agriculture, wildlife preserves, fish hatcheries, and farm ponds. Camping trailers, mobile campers, and houseboats are permitted for temporary living quarters within the district.
- *(GWPOD) Groundwater Protection Overlay District:* The purpose of this district is to institute land use regulations to protect the municipal water supplies and to promote the public health, safety and general welfare of the residents of the county. The residents of the county depend exclusively on groundwater for a safe drinking water supply. Certain land use practices and activities can seriously threaten or degrade groundwater quality.
- *(O-F) Forest Zone:* This zone provides for the continuation of forestry practices and related uses in those areas best suited to this activity. This zone is further intended to encourage forestry and to recognize the value of the forest as a recreational resource. Permitted uses include all uses within the O-N zone; debarking operations; maple syrup processing plants; and portable sawmills. Single family dwellings are allowed as a conditional use. Residential lot sizes must be a minimum of one acre.
- *(O-P) Park and Recreation Zone:* This zone provides for the orderly and attractive grouping of recreational oriented service establishments and is further intended to encourage the maintenance and protection of natural resources. Permitted uses include all agriculture, wildlife preserves, fish hatcheries, and farm ponds. Camping trailers, mobile campers, and houseboats are permitted for temporary living quarters within the district.
- *(O-SW) Shoreland/Wetland Zone:* This purpose of this zone is to maintain safe and healthful conditions; to prevent water pollution; to protect fishing and spawning grounds and aquatic life; and to preserve shore cover and natural beauty.

- *(RS-10) Residential Single-Family:* This zone provides a suitable environment for single-family residential development on moderate size lots in areas with public sewer systems. Permitted uses include agriculture and single-family dwellings. The minimum lot size is 10,000 square feet.
- *(RS-20) Residential Single-Family Zone:* This zone is intended to provide a suitable environment for single-family residential development on large lots in areas without public sewage systems. Permitted uses include single-family residential lots of a minimum of 20,000 square feet and agricultural uses.
- *(R-M) Residential Multiple-Family Zone:* This zone provides for multiple-family dwellings in a residential environment. Permitted uses include single-family dwellings, duplexes, and multiple-family dwellings and duplexes. The regulations for this zone apply to multiple-family dwellings served by public sewer systems. Multi-family dwellings not served by a public sewer must have an approved septic system. Sewered lot sizes must be a minimum of 12,000 square feet.
- *(RS-P) Residential Single-Family Planned Development Zone:* The purpose of this zone is to provide the means whereby land may be planned and developed as a unit for residential uses under standards and conditions which encourage good design and promote a stable living environment.
- *(RM-P) Residential Multifamily Planned Development Zone:* The purpose of this zone is to provide the means whereby land may be planned and developed as a unit for residential uses under standards and conditions which promote a stable living environment. This zone is intended to permit flexibility and variety in development at increased densities, to encourage the preservation of natural features and open space, and to minimize present and future burdens on the community as a whole which result from poor planning.

Table 8-2 and Exhibit 8-2, indicated zoning for all unincorporated areas that fall under county zoning. Several generalizations can be made about zoning in the Waushara County (Table 8-2 and Exhibit 8-2). ***The predominant zoning district in the County is General Agriculture (77.7%).*** Depending on the minimum lot size specified, this category is further broken down into a minimum of one (A-G), two (AG-2), three (AG-3) and five (AG-5) acres. Fifty-nine percent of the county is include in the A-G category; 0.4 percent in AG-2; 5.8 percent in AG-3 and 12.4 percent in AG-5. Commercial and Manufacturing garner a small percent of zoning in the county (0.2%) and include the zoning categories of General Commercial, Community Commercial, Service Commercial, General Manufacturing and Intensive Manufacturing. Natural Resource Preservation (6.3%), Forestry (0.8%), Park and Recreation (0.7%) and Shoreland /Wetland (0%) zoning encompassed another 7.7 percent. Residential zoning classifications encompasses about 2.1 percent and includes the categories of Agricultural Residential (0.5%), Residential Single Family RS-10 (0%), RS-20 (1.6%), Residential Multi-Family (0%), Residential Single Family Planned Unit Development (0%) and Residential Multi-Family Planned Unit Development (0%). Roads and water make up the remaining 4.9 percent.

Table 8-2. Waushara County Zoning

Zoning Classification	Acres	Percent
General Agriculture (A-G)	241,136	59.1%
General Agriculture (AG-2)	1,665	0.4%
General Agriculture (AG-3)	23,540	5.8%
General Agriculture (AG-5)	50,774	12.4%
Agricultural Residential (A-R)	1,943	0.5%
General Commercial (C-G)	433	0.1%
Community Commercial (C-C)	9	0.0%
Service Commercial (C-S)	144	0.0%
General Manufacturing (M-G)	157	0.0%
Intensive Manufacturing (M-I)	3	0.0%
Natural Resource Preservation (O-N)	25,730	6.3%
Forestry (O-F)	3,084	0.8%
Park and Recreation (O_P)	2,775	0.7%
Shoreland / Wetland (O-SW)	1	0.0%
Residential Single Family (10,000 SF min.) (RS-10)	119	0.0%
Residential Single Family (20,000 SF min.) (RS-20)	6,453	1.6%
Residential Multiple Family (R-M)	146	0.0%
Residential Single Family Planned Development (RSP-10)	25	0.0%
Residential Mult-Family Planned Development (RM-P)	37	0.0%
NA (NA)	29,603	7.3%
Water	8,268	2.0%
Roads*	11,895	2.9%
Total Acres	407,939	100.0%

Source: Waushara County, 2008

*Waushara County does not include roads in zoning data

NA includes acreages contained within incorporated municipalities, T. Warren & T. Aurora.

Development Trends

The growth and development of Waushara County has been influenced by a number of factors. These factors include the topography, the abundance of navigable surface waters, wooded lands and natural resources, the ability of the soils to support crops and the central location of the county in the state, and its proximity to the Fox Cities, Oshkosh, Stevens Point and Madison.

The earliest inhabitants of Waushara County were Native Americans. Considerable evidence of their civilization has been found throughout the county and still exists today. The Whistler Mound group, in the Village of Hancock, is included on the National Register, but many other sites are still present in the county.

On October 18, 1846, the Menominee Tribe ceded their land, including Waushara County to the U.S. Government. ***By the late 1840's and early 1850's, farming communities centered around small villages and hamlets could be found in the county.*** Many of these communities were established along existing logging and old military roads, and at creek and river crossings. A typical early farming community usually included a tavern, sawmill, stage house (a place for overnight accommodations), church, houses and a few commercial establishments.

In the 1880's, the county experienced a surge of activity with the coming of the railroad and the discovery of red granite. Overnight houses and businesses materialized in the Redgranite/Lohrville area as skilled workers, their families and others made Waushara County their home. The boom ended in the 1920's as concrete replaced stone as the nation's preferred paving material.

Today, agriculture and tourism has grown to become the county's major industries. While the county has seen a decline in the number of farms over the years, in 1997 over half of the county was taxed as farmland. Waushara County's 136 lakes make up about 7,000 acres of surface water. The greatest concentration of lakes is found among the moraines and drumlins in central and western portions of the county. These lakes, along with over 500 miles of rivers and streams and 185,000 acres of woodlots provide for a diversity of boating, fishing, hunting, hiking and other recreational opportunities.

Similar to other rural areas in the state, Waushara County has faced development pressures. ***Large portions of farm and woodlands are being converted to small parcel residential development.*** Easy access to STH 21 and the expansion of USH 10 has shortened the time/distance between Waushara County and the Fox Cities and Oshkosh. As a result, towns along the eastern tier have experienced growth in housing starts by people working outside the county. While communities along the western tier of the county, have closer ties to Stevens Point, Westfield and other areas along the I-39 corridor.

As growth occurs, land use changes in intensity and net density. Analyzing the patterns in land use provides valuable information to local communities in determining how the community has changed and assessing current needs. This information can be used to plan for the appropriate development in the future. To analyze land use changes, East Central Wisconsin Regional Planning Commission (ECWRPC) looked at a number of different data sources, including its own land use inventories of the area, revenue data from the Wisconsin Department of Revenue (DOR), and building permit records from the Wisconsin Department of Administration (DOA).

Several limitations with the information in the data sets necessitate utilizing general summaries for land use trends. A brief discussion of the limitations follows.

ECWRPC conducted land use inventories in 1980 and again in 2000. This information was updated by the local communities when the land management and comprehensive plans were developed. Two distinct classification systems were used in the 1980 and in 2000 and the subsequent land use updates. This made it difficult to compare specific categories between the two inventories. Secondly, computer technology has changed the degree of specificity in which data is collected. In 1980, computerized parcel data was not available. Current land use utilizes parcel data; therefore if a house is located in a subdivision, the entire parcel may be included as residential. Residential areas in 1980 may have included only a portion of these areas.

A comparison of Wisconsin Department of Revenue (DOR) data was used to analyze land use changes between 1990 and 2005⁴ The DOR collects information by real estate class for each minor civil division in the state.⁵ Acreage figures from DOR do not include Department of

⁴ DOR. 1980. *1980 Statistical Report of Property Values Waushara County, Wisconsin.*

⁵ DOR. 1990, 2000, and 2005. *Statement of Equalized Values.*

Natural Resource (DNR) lands or other tax-exempt properties.⁶ Acreage data for incorporated communities is also incomplete, as their information is frequently provided in number of parcels, as opposed to the total acreage of the parcels. Beginning in 1996, the DOR also changed their classification system. Wisconsin Act 27 mandated that agricultural land was categorized from a standard based on use value instead of a standard based on full market value.⁷ Therefore, some land use changes between 1990 and 2005 are a direct result of Act 27 and do not necessarily reflect a change in land use but a change in the way that the land was classified. Following the implementation of the use value standard, agricultural land with improvements was moved to other categories. If these improvements included residential, then the agricultural land with improvements was moved to residential. Additionally, following the use value assessment, less productive land was moved out of agriculture and reclassified as swamp and waste land. Furthermore, the increasing popularity of privately owned recreational land caused a shift of lands from agriculture to both forestland and swamp and wasteland.

The Wisconsin Department of Administration (DOA) collects building permit information for new construction as well as demolition information from communities within the state.⁸ This data is annually reported by communities and includes single-family, two-family, multi-family and mobile homes. The data is an inventory of the net change in the number of residential units for each community that were reported to DOA. This data set includes information that is reported by individual communities to the DOA. If a community does not accurately report its building permit information, it is infeasible to determine actual land use changes.

While the historical data from ECWRPC, DOR and DOA gives us an incomplete picture of the total amount of land historically devoted to the various land uses, it does give us a picture of land consumption patterns within the communities. According to these data sources, several trends can be seen. The collective summary utilizing all three sources is presented below; general trends are discussed.

Land Use Trends

As stated above, some of the changes in land use trends utilizing ECWRPC data can be directly attributed to changes in technology and changes in the way land use data was categorized. To determine overall trends in land use between the 1980 and 2008 years the following land use categories were grouped together:

- Residential: Single family, multi-family, farmsteads, mobile homes, mobile home parks, duplex, group quarters, part-time and seasonal;
- Industrial: Industrial and quarries;
- Parks and Recreation: Parks, recreational activities, conservation and preservation areas, resorts and camps;
- Institutional Facilities: Educational, public assembly, government facilities, cemeteries, churches, hospitals, libraries and institutional;
- Cropland: Irrigated cropland, pastureland, and non-irrigated cropland; and
- Residual: Residual, streets, highways, water features, utilities, planted woodlots, unplanted woodlots, other open land and transportation.

⁶ DOR. 1990, 2000, and 2005. *Statement of Assessments*.

⁷ Wisconsin State Assembly. 1995. *Wisconsin Act 27 (Assembly Bill 150)*.

⁸ Wisconsin Demographics Service Center. 1990 to 2004. *Annual Housing Units Surveys*.

After grouping the land use categories, certain trends were evident: **commercial, residential, and institutional facilities increased, while parks and recreation, industrial, and cropland decreased between 1980 and 2008** (Table 8-3). While the table below indicates acreage totals as collected by ECWRPC, due to changes in methodology, the reader should be looking at trends only that these numbers represent.

Table 8-3. Land Use Trends (ECWRPC), 1980 to 2008

Existing Land Use	1980 Acres	2008 Acres	Change Acres	Percent Change
Residential	8,743	13,565	4,822	55%
Commercial	544	813	269	49%
Industrial	738	560	-178	-24%
Parks and Recreation	8,889	3,327	-5,562	-63%
Institutional Facilities	526	767	241	46%
Cropland	151,148	118,697	-32,451	-21%
Residual	210,916	270,183	59,268	28%
Total	381,504	407,914		

Source: ECWRPC: 1980 and 2008.

Even though land use trends utilizing Department of Revenue data does not include WDNR data or tax exempt properties, certain broad trends can be seen and correspond to trends apparent in the data from ECWRPC. **Residential and commercial acreages are increasing, while agricultural land acres are decreasing** (Table 8-4). The difference in total acreage is related to the property that is tax exempt.

Table 8-4. Land Use Trends (DOR), 1980 to 2005

Land Use	1980 Acres	1990 Acres	2000 Acres	2005 Acres	Percent Change		
					1980-1990	1990-2000	2000-2005
Residential	15,757	25,085	39,667	37,142	59%	58%	-6%
Commercial	1,269	1,694	2,236	2,470	33%	32%	10%
Manufacturing	313	303	223	244	-3%	-26%	9%
Agricultural	219,827	206,912	155,256	145,946	-6%	-25%	-6%
Undeveloped	25,154	23,271	54,662	60,065	-7%	135%	10%
Forest Land	86,115	96,158	85,345	79,745	12%	-11%	-7%
Other			2,207	2,026	0%	-	-8%
Total	348,435	353,423	339,596	327,638			

Source: WI DOR Final Statement of Assessment Report. 1980, 1990, 2000, 2005.

Building Permits

As stated above, net building permit data is available from the DOA. This data has been submitted by the jurisdictions that issue building permits. Net building data indicates the net change, not the total number of building permits. Therefore, if a building is demolished within a community, this information is subtracted from the new permit numbers. **Between 1990 and 2007, 3,166 net units were added in Waushara County** (Table 8-5). These units are a combination of single family, two unit and mobile homes and multi-family. A net total of 2,960 single family, two unit and mobile homes were added in the county over this time period; or an average of about 164.4 units per year. During the same time period, a net total of 206

multi-family units or 11.4 units per year were added. The largest growth in single family units occurred during 1997 to 1999. During these three years, an average of 231.3 units was added per year. It is important to note that the accuracy of the data source is dependent on timely reporting by local officials.

Table 8-5. Residential Building Permits, 1990 to 2007

Year	Additions Number	Deletions Number	Net Number
1990	143	17	126
1991	106	12	94
1992	148	17	131
1993	207	24	183
1994	185	23	162
1995	189	25	164
1996	215	24	191
1997	281	19	262
1998	263	34	229
1999	237	34	203
2000	236	27	209
2001	285	34	251
2002	205	24	181
2003	223	26	197
2004	200	24	176
2005	192	27	165
2006	144	14	130
2007	129	17	112

Source: State of Wisconsin Demographic Services Center
Annual Housing Unit Surveys.

Utilizing ECWRPC, DOR and DOA data, the following trends are apparent between 1980 and 2000/2008: residential and commercial land uses are increasing while agricultural land uses are decreasing.

Density and Intensity

Density

Density is broadly defined as “a number of units in a given area”.⁹ For the purposes of this report, residential densities are defined as the number of housing units per square mile of total land area (units/square mile), excluding water. **Between 1990 and 2000, residential densities increased throughout the county and the state.** As the population of the area has grown, so has the overall housing density (Table 8-6). ***Within Waushara County, residential densities increased by about 12 percent from 19.56 units per square mile to 21.83 units per square mile during this time period.*** While residential densities in Wisconsin increased by about 13 percent from 37.85 units per square mile to 42.74 units per square mile.

⁹ Measuring Density: Working Definitions for Residential Density and Building Intensity, November 2003. Design Center for American Urban Landscape, University of Minnesota.

Table 8-6. Residential Density, 1990 to 2000

Jurisdiction	Land Area Sq. Miles	1990		2000	
		Total Units	Units/Sq. Mi.	Total Units	Units/Sq. Mi.
Wisconsin	54,313.7	2,055,774	37.85	2,321,144	42.74
Waushara County	626.1	12,246	19.56	13,667	21.83

Source: U.S. Census, 1990, 2000.

Intensity

Intensity is the degree of activity associated with a particular land use. Generally, higher intensity land uses also have higher environmental impacts. Due to limited information available, this report will compare the intensities of single-family versus multi-family developments in the various communities. To calculate land intensities, the ECWRPC categorizes single and two-family residential, farmsteads, and mobile homes as "single family."

Incorporated communities or areas served by public sewer often have more intense development patterns than rural towns. Single-family residential development is typically a less intense land use than multi-family (3 or more units) which is typically restricted to areas on public sewer. Second, incorporated areas in Waushara County are smaller in overall land area than the surrounding towns, resulting in a more intensive land use. Finally, incorporated municipalities, in the county, have areas of older development that were constructed during a period when society was less dependent on cars for transportation. This necessitated the need for smaller lot development that allowed for closer proximity to neighbors and services.

Utilizing 2000 U.S. Census data and adding net single and multi-family units per the data from DOA to match the date of the land use in the communities, according to the latest data, there were 13,874 single family units in the Waushara County on a total of 13,469.6 acres (Table 8-7). ***This resulted in a single family intensity of about 1 unit per acre. There were 426 multi-family units in Waushara County on a total of 95.5 acres. Therefore the multi-family intensity was 4.46 units per acre.***

Table 8-7. Intensity, 2008

Municipality	Single Family			Multi-Family		
	Units	Acres	Units/Ac.	Units	Acres	Units/Ac.
Waushara County	13,874	13,469.6	1.03	426	95.5	4.46

Source: Waushara County Land Use data, 2008, ECWRPC. U.S. Census, 2000. State of Wisconsin Demographic Services Center, Annual Housing Unit Surveys.

DEVELOPMENT CONSIDERATIONS

Recommended State, Regional, and County Goals

State, regional, and county goals were developed to provide communities with a framework on which land use decisions could be based. These goals make the planning process and decision defensible to the general public when formulating alternate scenarios for developing parcels within a community.

State of Wisconsin

The State of Wisconsin requires that communities address 14 specific goals in their comprehensive plans.¹⁰ These goals encourage development to occur in an orderly well-planned manner. The goals are:

- Promoting the redevelopment of lands with existing infrastructure and public services and the maintenance and rehabilitation of existing residential, commercial, and industrial structures.
- Encouraging neighborhood designs that support a range of transportation choices.
- Protection of natural areas, including wetlands, wildlife habitats, lakes, woodlands, open spaces, and groundwater resources.
- Protecting economically productive areas, including farmlands and forests.
- Encouraging land uses and development patterns that promote cost-efficient government services and utility costs.
- Preserving cultural, historic, and archaeological sites.
- Encouraging coordination and cooperation with neighboring communities.
- Building community identity by improving overall appearance and attractiveness to visitors.
- Providing an adequate supply of affordable housing for all income levels.
- Providing adequate infrastructure, public services, and a supply of affordable land to meet existing needs and accommodate future growth.
- Promoting the expansion or stabilization of the current economic base and the creation of additional and better employment opportunities.
- Balancing individual property rights with community interests and goals.
- Planning and developing a pattern of land use that preserves and creates a pleasing and unique setting.
- Providing all citizens, including those that are transportation dependent, a variety of economical, convenient, and safe transportation options adequate to meet their needs.

East Central Wisconsin Regional Planning Commission

East Central Wisconsin Regional Planning Commission has developed a regional comprehensive plan.¹¹ As a part of this planning process, East Central has identified several key land use goals:

- Educate the public on potential conflicts and trade-offs associated with alternative development patterns.
- Encourage efficient development in order to reduce land use conflicts and contain community costs.
- Encourage actions and incentives which preserve and protect natural and cultural resources.
- Educate all decision makers regarding what their property rights are and how they can influence the public arena.
- Educate the public on potential cultural, economic and land use conflicts.
- Encourage intergovernmental cooperation and coordination.

¹⁰ *Wisconsin State Statutes 66.1001.*

¹¹ ECWRPC, 2008. *Milestone Report #3: Goals, Strategies and a Plan for Action.*

- Encourage building code standards which preserve historical and cultural character.
- To protect and improve the aesthetic qualities and high-value scenic resources of the region and its communities while balancing the needs of private industry, government, and the general public.
- Identify techniques, which can be used to preserve local community character.
- Encourage a balance between individual property rights and community interest and goals.
- Encourage public participation in comprehensive planning.
- To ensure the region and its communities develop in a manner which is sustainable in nature.
- Comprehensive plan updates have considered the voluntary incorporation of sustainable concepts.
- Communities are informed and educated on the benefits of developing sustainable plans and regulations.

Waushara County

The Waushara County Zoning Ordinance has identified the following criteria for all unincorporated areas within the county:

- Promote and protect public health, safety, comfort, convenience, prosperity, aesthetics, and other aspects of general welfare.
- Establish reasonable standards to which buildings and structures shall conform.
- Regulate and restrict lot coverage and population density.
- Conserve the value of land and buildings.
- Guide the proper distribution and location of land use patterns.
- Promote safety and efficiency of transportation networks.
- Provide adequate light, air, sanitation, and drainage.
- Prevent the uncontrolled use of shorelands and pollution of the navigable waters of the county.
- Encourage the preservation, conservation, and development of land areas for a wide range of natural resources.
- Minimize expenditures of public funds for flood control projects; rescue and relief efforts undertaken at the expense of the taxpayers; business interruptions and other economic disruptions; damage to public facilities in the floodplain; and minimize the occurrence of future flood blight areas.
- Discourage the victimization of unwary land and homebuyers.

Local Land Use Issues

Environmental and Public Utility

Development costs vary based on density, design, social, economical, political and environmental constraints. Public opposition can increase costs through project delays. Development often necessitates the expansion of public infrastructure such as sewer, water, streets, schools, parks and services such as fire and police protection. Increased development can infringe on wetland and floodplain areas, destroy wildlife habitat, and increase runoff to streams and lakes.

To protect and enhance the natural resource base, communities should identify and protect environmental corridors found within the planning area. Environmental corridors are areas in the community that contain and connect natural areas, open space, and other resources. They often lie along streams, rivers, and other natural features. Environmental corridors provide a beneficial buffer between sensitive natural resources and human development. These areas can provide flood control and valuable wildlife habitat and can significantly benefit the aesthetic appeal of the community.

Land Supply

The amount of land available for development within Waushara County is finite. Factors that limit the amount of developable land include environmental restrictions (floodplains, high groundwater, wetlands, steep slopes, and water quality), zoning (setbacks, conservancy and development easements, permitted uses), and conflicts between uses.

Market Trends

The price of developable land varies depending on the surrounding land uses, location, access, services, and other subjective factors. Natural amenities such as water frontage, forests, and open space may increase the overall value. Land prices are subject to market demand and fluctuations. As such, land values show periodic variations. Housing affordability is dependant on land prices.

Table 8-8. Equalized Values, 1998 to 2008

Year	Cities Land Value	Percent Increase	Villages Land Value	Percent Increase	Towns Land Value	Percent Increase	Waushara County Land Value	Percent Increase
1998	7,345,400	-	13,606,700	-	473,974,900	-	494,927,000	-
1999	7,551,800	3%	14,469,600	6%	509,471,400	7%	531,492,800	7%
2000	7,905,200	5%	15,580,500	8%	508,944,600	0%	532,430,300	0%
2001	22,291,300	182%	20,964,400	35%	606,177,800	19%	649,433,500	22%
2002	16,704,600	-25%	21,765,600	4%	646,513,300	7%	684,983,500	5%
2003	19,373,200	16%	22,474,400	3%	696,016,500	8%	737,864,100	8%
2004	18,833,100	-3%	22,089,000	-2%	717,725,900	3%	758,648,000	3%
2005	19,329,800	3%	21,593,800	-2%	733,603,300	2%	774,526,900	2%
2006	19,933,500	3%	22,913,900	6%	795,169,900	8%	838,017,300	8%
2007	20,944,300	5%	24,366,100	6%	844,935,300	6%	890,245,700	6%
2008	21,366,600	2%	27,731,800	14%	954,658,800	13%	1,003,757,200	13%

Source: WDOR: Statement of Equalized Values; 1998 - 2008.

The Wisconsin Department of Revenue (DOR) annually reports equalized value, as set by the department, by real estate class per municipality in Wisconsin. Table 8-8 shows the equalized value of all classes of land in Waushara County. Equalized values have been broken down between cities, village, towns and the county, as a whole. Land values increased between 1998 and 2008 for Waushara County, and its villages and towns. However, this was not the case for Waushara County cities; cities experienced a 182 increase in equalized land value between 2000 and 2001, and then dropped 25 percent between 2001 and 2002. ***Overall, land values in Waushara County increased by 103 percent between 1998 and 2008. While land values in Waushara County cities increased by 191 percent, villages by 104 percent***

and towns by 101 percent. Years of largest increases for Waushara County and its villages and towns occurred in 2001 and 2008. While years of largest increase for Waushara County cities occurred in 2001 and 2003. In 2001, land values in the Waushara County increased by 22 percent compared to 19 percent in Waushara County towns, 35 percent in Waushara County villages and 182 percent in Waushara County cities. While in 2008, land values increased by 13 percent in Waushara towns and county, 14 percent in Waushara villages and two percent in Waushara cities. More recently (2006 to 2008) land values in Waushara County villages are increasing at a faster rate than the county as a whole or its towns and cities. ***From 2006 to 2008, land values increased by 19.8 percent in the County, 20.1 percent in towns, 21.0 percent in villages and 7.2 percent in cities. This indicates that land Waushara County cities are increasing at the lowest rate and is in less demand than elsewhere in the county.***

State of Wisconsin housing statistics provided by the Wisconsin Realtors Association's provide information on the number of home sales and median price over a period of time. ***Between 1998 and 2008 there were 2,666 home sales in Waushara County, with an average of 242 home sales per year*** (Table 8-9). ***During this time period the median sale price increased from \$81,800 in 1998 to \$105,000.*** This represents a 28 percent increase.

Table 8-9. Waushara County Home Sales, 1998 to 2008

Year	Number of Home Sales	Median Sale Price
1998	176	\$81,800
1999	226	\$82,100
2000	235	\$86,600
2001	198	\$98,600
2002	234	\$95,700
2003	250	\$107,700
2004	314	\$97,100
2005	261	\$131,100
2006	296	\$121,800
2007	278	\$109,100
2008	198	\$105,000

Source: Wisconsin Realtor Association Consumer Resources

[Http://www.wra.org/Consumer_Resources/about/housingstats.asp](http://www.wra.org/Consumer_Resources/about/housingstats.asp)

Note: Fourth quarter information note available for 1998 and is not included in total.

Energy Demands

Development is dependant on the availability of a cost-effective, abundant, efficient energy supply. Industry needs to know that reliable energy will be available to run equipment and people rely on affordable energy to heat and power their homes. Not only is energy important for heating and power, but the cost and availability of gasoline may also impact development in the county. Tourism is a major revenue generator for the county, and many people within the county also regularly commute to work. Over half the people in the county regularly travel further than 27.1 minutes to work. In 2000, there were about 3,693 seasonal units in Waushara County. ***An increase in gas prices may cause some residents***

to move closer to their place of employment and out of Waushara County or cause others to consider closer locations from home for their vacation destinations. Therefore, energy availability can have an impact on new and sustained development in the county.

FUTURE LAND USE PROJECTIONS

Wisconsin statutes require comprehensive plans to include five year projections for residential, commercial, industrial, and agricultural uses over the length of the plan.¹² A summary of future land use projections and criteria follows.

While projections can provide extremely valuable information, by nature, projections have limitations which must be recognized. First and foremost, projections are not predictions. Projections are typically based on historical growth patterns and the composition of the current base. Their reliability depends to a large extent on the continuation of those past growth trends. Second, projections for small communities are especially difficult and subject to more error, as even minor changes can significantly impact growth rates. Third, growth is also difficult to predict in areas which are heavily dependent on migration, as migration rates may vary considerably based on economic factors both within and outside of the county.

The actual rate of growth and amount of future growth communities experience can be influenced by local policies which can slow or increase the rate of growth. Regardless of whether communities prefer a no growth, low growth or high growth option, it is recommended they adequately prepare for future growth and changes to provide the most cost-effective services possible. Furthermore, individual communities can maximize the net benefits of their public infrastructure by encouraging denser growth patterns which maximize the use of land resources while minimizing the impact on the natural resource base.

Expected increases in residential and commercial acreage and resulting decreases in agricultural acreage can be estimated by analyzing and projecting historical data into the future. An anticipated range of population and housing growth and the amount of land that would be required to accommodate that increase in growth were made using past housing and population trends and future population and household projections.

In 2000, 23,066 permanent residents resided in the Waushara County, 382 lived in group homes. A total of 9,336 dwelling units (13,302 single family and 365 multi-family) existed in the County.¹³ Of these units, 9,336 dwelling units were occupied year round and 4,331 were vacant. Vacant units are comprised of seasonal units and other (for rent, for sale, other). 3,693 units or 85.3 percent of the vacant units were considered seasonal in 2000. The 9,336 occupied dwelling units (households) had an average household size of 2.43 people. ***Based on ECWRPC projections, the population is expected to increase to 26,667 people by 2030. These people are expected to live 12,023 households.*** Due to a number of reasons, including the aging population base and a decrease in the number of children that people are having, the average household size is expected to decrease to 2.21 people. It is important to remember that the number of total dwelling units

¹² Wisconsin State Statutes 66.1001.

¹³ U.S. Census 2000.

does not equal the total number of households. The total number of dwelling units is a combination of occupied units and vacant units (for sale, rent, seasonal and other), while the total households is equal to the number of dwelling units times a vacancy rate. ***Assuming a constant vacancy rate of 31.7 percent (vacancy rate from 2000 Census held constant), it is anticipated that there will be a total of 17,601 dwelling units in Waushara County by 2030.*** Maintaining the current split between single family and multi-family, it is assumed that ***there will be a total of 17,131 single family and 470 multi-family units in Waushara County by 2030.*** ***Over a 30 year period, an additional 3,829 single family units or 128 units per year will be added in the County. 105 multi-family units or 3.5 units per year will be added during this same time period.***

Historical building permit data from the DOA indicates that between 1990 and 2007, a net total of 2,960 single family units and 206 multi-family units (Table 8-5) were added in Waushara County (164.4 (SF) and 11.4 (MF) dwelling units per year). According to U.S. Census data, a total of 1,421 additional dwelling units were built in the County between 1990 and 2000 (142.1 dwelling units per year). While historical building permit data from DOA and the U.S. Census indicates that County averaged 142.1 to 175.9 dwelling units per year between 1990 and 2000, these trends are not expected to continue (Appendix A: Table A-20 and Table A-22).

Based on existing information, there are approximately 14,655 single/two-family residential units in the County¹⁴ that occupied approximately 13,470 acres.¹⁵ It was assumed that about 20 percent of the new single family dwelling units would be located within incorporated communities on lot sizes of a minimum of 12,000 SF. The remainder of the new single family dwelling units would be added within the towns. Therefore ***future single family residential land use was calculated utilizing 20 percent of the new dwellings on a minimum lot size of 12,000 SF and 80 percent on a minimum lot size of one acre (Table 8-10, high density residential); and 20 percent of new dwelling on a minimum lot size of 12,000 SF and 80 percent on a minimum lot size of five acres (Table 8-11, low density residential).*** ***This means that Waushara County would likely experience an increase of about 2,858 to 13,556 acres of new residential growth, depending on the density chosen.*** This assumes a 15 percent infrastructure and 20 percent market factor.

Multi-family land use assuming that the division between single family and multi-family would remain constant and that multi-family would be added at the same density as it exists today. Assuming a ***15 percent infrastructure and 20 percent market factor, 31.3 acres of multi-family will be added.***

Future commercial and industrial growth was estimated using a ratio of existing population to existing commercial and industrial land use and projecting it forward based on future population estimates. Consequently, ***237.3 acres of commercial and 163.5 acres of industrial will be added over the life of the plan.*** This assumes a 15 percent infrastructure and 20 percent market factor.

Future agricultural land use was calculated based on the assumption that the majority of future development would occur in areas that are currently wooded or farmed. Existing land use indicates that if these two land use categories are compared, about 61 percent would be

¹⁴ U.S. Census 2000 plus DOR net building data.

¹⁵ ECWRPC existing land use 2008.

wooded and 39 percent would be in agricultural uses. Based on these assumptions, *approximately 1,283 to 5,455 acres of agricultural land would be lost over the life of the plan.*

Table 8-10. High Density Residential Land Consumption (Min. Lot Size 1 Acre)

	2008 Acres	2010 Acres	2015 Acres	2020 Acres	2025 Acres	2030 Acres
Residential	13,470	13,729	14,379	15,029	15,678	16,328
Multi-Family	96	98	105	113	120	127
Commercial	813	835	889	943	997	1,051
Industrial	560	575	612	649	687	724
Agriculture	118,697	118,580	118,289	117,997	117,705	117,414

Source: ECWRPC 2009 land use, household projections. U.S.Census 2000. DOA

Table 8-11. Mid Density Residential Land Consumption (Min. Lot Size 5 Acres)

	2008 Acres	2010 Acres	2015 Acres	2020 Acres	2025 Acres	2030 Acres
Residential	13,470	14,702	17,783	20,864	23,945	27,025
Multi-Family	96	98	105	113	120	127
Commercial	813	835	889	943	997	1051
Industrial	560	575	612	649	687	724
Agriculture	118,697	118,201	116,961	115,721	114,482	113,242

Source: ECWRPC 2009 land use, household projections. U.S.Census 2000. DOA

Land Use Issues and Conflicts

In order to avoid future land use conflicts, neighboring towns and counties should establish a communication process to determine the potential effects of new developments within 300 feet of their common border. By doing so, the impacts of the development will be more likely to be minimized.

Waushara County communities, sanitary districts, school districts, planning commissions and others should monitor and provide comments to communities and the County during the ongoing comprehensive planning process which is currently underway. Similarly, the County should be providing comments to Waushara County communities as they complete their plans. Potential land use conflicts may arise as new development occurs. Local officials and county employees will need to collaborate to ensure that the overall density of development within Waushara County communities is consistent with the overall land use visions.

Natural resource preservation and development may be in conflict with each other. High quality wetlands, floodplains, and other features comprise the natural resource base. Increased development near these resources could lead to displacement of wildlife; degradation of surface and groundwater; and loss of forest, farmland and other open lands and resources.

Incompatibilities may arise between adjacent land uses as development continues. Future land use maps designate specific areas for various uses. To minimize these conflicts, other land use controls such as setbacks, screening, and buffering should be utilized to limit potential conflicts. Many of these controls are detailed within the respective zoning ordinances. Any subdivision

that is approved should be designed in a manner that preserves the rural character of the area while enhancing the natural resource base.

Key Findings

Existing Land Use

- The Waushara County existing land use map was developed in 2000 by East Central Wisconsin Regional Planning Commission and updated by the municipalities within the county as land management and comprehensive plans were developed. Therefore existing land use, contained in this plan spans a period of about nine years.
- The land use categories are agricultural, residential, commercial, industrial, transportation, utilities/communications, institutional facilities, recreational facilities, water features, woodlands and other open land.
- Waushara County encompasses approximately 407,914 acres. Approximately 8 percent (7.7%) of the total area is developed.
- Overall, cropland (irrigated and non-irrigated) accounts for 29 percent (29.1%) of the total land use, while woodlands (planted and unplanted) make up another 46 percent (45.5%).

Zoning

- With the exception of the Town of Warren, and the portion of the Town of Aurora that falls under the City of Berlin's extraterritorial zoning, all towns within Waushara County adhere to County Zoning.
- The predominant zoning district in the County is General Agriculture (77.7%).

Development Trends

- The earliest inhabitants of Waushara County were Native Americans.
- By the late 1840's and early 1850's, farming communities centered around small villages and hamlets could be found in the county.
- In the 1880's, the county experienced a surge of activity with the coming of the railroad and the discovery of red granite.
- Today, agriculture and tourism has grown to become the county's major industries.
- Large portions of farm and woodlands are being converted to small parcel residential development.

Land Use Trends

- According to data collected by ECWRPC, commercial, residential, and institutional facilities increased, while parks and recreation, industrial, and cropland decreased between 1980 and 2008.
- According to data collected by the DOR between 1980 and 2005, residential and commercial acreages are increasing, while agricultural land acres are decreasing.

Building Permits

- According to the DOA, between 1990 and 2007, 3,166 net units were added in Waushara County.

Density and Intensity

- Between 1990 and 2000, residential densities increased throughout the county and the state.
- Within Waushara County, residential densities increased by about 12 percent from 19.56 units per square mile to 21.83 units per square mile during this time period.
- Utilizing 2000 U.S. Census data and adding net single family units to match the latest land use data, the intensity for single family development was about 1.03 units per acre for Waushara County. At the same time, the intensity for multi-family development was 4.46 units per acre.

Local Land Use Issues

- Development costs vary based on density, design, social, economical, political and environmental constraints.
- The amount of land available for development within Waushara County is finite.
- Overall, land values in Waushara County increased by 103 percent between 1998 and 2008. While land values in Waushara County cities increased by 191 percent, villages by 104 percent and towns by 101 percent.
- From 2006 to 2008, land values increased by 19.8 percent in the County, 20.1 percent in towns, 21.0 percent in villages and 7.2 percent in cities. This indicates that land Waushara County cities are increasing at the lowest rate and is in less demand than elsewhere in the county.
- Between 1998 and 2008 there were 2,666 home sales in Waushara County, with an average of 242 home sales per year. During this time period the median sale price increased from \$81,800 in 1998 to \$105,000.
- Development is dependant on the availability of a cost-effective, abundant, efficient energy supply.
- An increase in gas prices may cause some residents to move closer to their place of employment and out of Waushara County or cause others to consider closer locations from home for their vacation destinations.

Future Land Use Projections

- In 2000, 23,066 permanent residents resided in the Waushara County, 382 lived in group homes. A total of 9,336 dwelling units (13,302 single family and 365 multi-family) existed in the County. Of these units, 9,336 dwelling units were occupied year round and 4,331 were vacant.
- Based on ECWRPC projections, the population is expected to increase to 26,667 people by 2030. These people are expected to live 12,023 households.
- Assuming a constant vacancy rate of 31.7 percent (vacancy rate from 2000 Census held constant), it is anticipated that there will be a total of 17,601 dwelling units in Waushara County by 2030.

- There will be a total of 17,131 single family and 470 multi-family units in Waushara County by 2030. Over a 30 year period, an additional 3,829 single family units or 128 units per year will be added in the County. 105 multi-family units or 3.5 units per year will be added during this same time period.
- Future single family residential land use was calculated utilizing 20 percent of the new dwellings on a minimum lot size of 12,000 SF and 80 percent on a minimum lot size of one acre (Table 8-10, high density residential); and 20 percent of new dwelling on a minimum lot size of 12,000 SF and 80 percent on a minimum lot size of five acres (Table 8-11, low density residential).
- This means that Waushara County would likely experience an increase of about 2,858 to 13,556 acres of new residential growth, depending on the density chosen.
- Assuming a 15 percent infrastructure and 20 percent market factor, 31.3 acres of multi-family will be added.
- 237.3 acres of commercial and 163.5 acres of industrial will be added over the life of the plan.
- Approximately 1,283 to 5,455 acres of agricultural land would be lost over the life of the plan.

INTERRELATIONSHIPS WITH OTHER PLAN ELEMENTS

Land use cannot be considered in isolation from other elements. Economic development; housing; transportation; community and public facilities; and agricultural, natural and cultural resources all interact with one another. A vibrant economy brings people to the area in search of jobs and housing. Additional jobs may require the construction of more businesses, while additional people may demand other housing and services. Infrastructure such as roads and sewer and water extensions may be needed to serve these areas and people. This development may impact existing farm lands, forest areas, and other natural features.

Economic Development

Commercial and industrial land uses should be located in areas that are compatible with adjacent land uses, minimize environmental impacts, and utilize existing infrastructure. Additionally, industrial and concentrated commercial land uses should be situated in areas, if possible, where public sanitary sewer and water are available.

Housing

It is critical that an adequate supply of reasonably priced land be available for residential development. The amount of land that is required depends on the density, design, and placement of development. Residential development should be placed to minimize environmental impacts and utilize existing infrastructure. Scattered residential development increases the cost to provide public services such as fire, police and emergency protection; consumes and fractures large tracts of agricultural and forested areas; and increases conflicts between agricultural and residential uses.

Demand for property with access to natural resources has driven up land values and the cost of housing in Waushara County. New residential development may not be affordable to residents who depend on the area for jobs. The provision of a mix of residential units must be available

for all income ranges. Affordable housing including smaller homes on smaller lots and reasonably priced rental properties must be provided for individuals on low or fixed incomes. These areas should be located within walking distance of schools, stores, and other services.

Transportation

A well planned transportation system provides access to housing, schools, work and through traffic. As part of this transportation system, bike and pedestrian facilities should be expanded in existing areas to provide safe access to schools and business. When new subdivisions or roads are built or existing roads are reconstructed, pedestrian and bike access should be incorporated into these new designs.

Communities and Waushara County should carefully consider the creation of a system of recreational trails for both non-motorized and motorized traffic. Bicycling and pedestrian trails provide alternative transportation methods for local residents and potential tourist attractions.

Utilities and Community Facilities

New development should occur in proximity to existing infrastructure. Unsewered development should not be allowed to occur in areas that can be cost effectively and readily served by public sewer. In rural areas, scattered residential development increases the cost or makes costs prohibitive for services such as fire, police and emergency protection and public transportation (school bus and elderly/disabled). The road network should provide easy access to all areas as valuable time is lost when emergency vehicles must travel on winding local roads.

Agricultural Resources

Agriculture not only supports the economy of the county, but also defines the rural character that residents' value. The county is experiencing a decrease in the number of farming operations as farmland is converted to other uses. Farmland areas are being fragmented by scattered residential development which often results in agriculture operational conflicts and limits farm expansion for farmers who wish to remain in farming.

Natural Resources

An abundance of natural resources including a multitude of lakes, streams, woodlands, wetlands, wildlife habitat, agricultural land and other open spaces can be found in the County. People who visit and live in the County value these resources. Increased development can adversely affect these very resources that drew people to the county and caused them to remain. New development should be directed away from sensitive environmental areas including floodplains and wetlands. Care should be taken to minimize the effects of new construction on the existing environment by strictly enforcing erosion control practices. Older septic systems should be inspected regularly to minimize the consequences of failing systems on water quality.

Cultural Resources

The historical past helps to define the present. Care should be taken to preserve, protect, and enhance the cultural resources, historic areas, and buildings that remain. New development

should be incorporated into existing development so that it enhances the historic components that remain.

Intergovernmental Cooperation

Land use decisions that are made within one municipality often affect the decisions and land use of another. For example, the development of a heavy industrial activity near the border of one community has the potential to affect the land use, natural resources and economy of an adjacent community. In this example, a residential use may not be compatible with the heavy industrial use, the industry may pollute a stream that flows through another community, or the business may purchase raw products or supplies from a business in an adjacent community. To minimize conflicts, communities should solicit input and find an effective form of communication with neighboring communities and residents. Waushara County should take a lead in sponsoring forums for county-wide discussions and educational sessions.

POLICIES AND PROGRAMS

Regional, County and Local Policies

Zoning Ordinances

The Wisconsin enabling legislation requires that zoning ordinances must be reviewed and modified if necessary to be consistent with a community's comprehensive plan.

Local municipalities and counties can enact wind energy zoning ordinances to proactively plan for siting future wind energy projects.¹⁶ Wind energy zoning ordinances can establish setbacks from property lines, roads, communication and electricity transmission systems, and residential structures. Additionally, setbacks can be established for undeveloped residential properties. Although noise level effects may be difficult to determine due to differences between individuals, it is possible to establish maximum allowable decibel levels at residential dwellings and specific public facility sites. Height restrictions can be placed on individual turbines. Height restrictions must be used cautiously since a restriction could lead to an increased number of turbines and decreased land use efficiencies. Several safety features can be incorporated into a zoning ordinance. For example, restrictions can be placed controlling the accessibility (lockable, non-climbable towers), electrical connection systems, and appropriate warning signage installation to cite a few examples. Ordinances can also include specific plans for site reclamation if a turbine is abandoned or its use is discontinued.

Other zoning tools can also be utilized to limit the number of potential sites for wind energy facilities. Extra-territorial airport zoning can restrict the maximum height of structures to a distance of three miles from a public airport facility. In addition, overlay zoning can be utilized to further protect significant natural or cultural resources by limiting the conditional uses within a specific area.

¹⁶ *Wisconsin State Statutes 66.0401.*

County Policies

County Zoning. The Waushara County Code of Ordinances regulates private on-site wastewater treatment systems, land divisions and land uses. A few of the chapters that relate to land use are summarized below.

Waushara County Utilities Ordinance is contained within Chapter 54 of the Waushara County Code of Ordinances. This ordinance regulates all private on-site wastewater treatment systems within the county. Although this ordinance does not directly determine land uses, it influences the location of future development according to soil suitability.

Waushara County's Subdivision Ordinance is contained in Chapter 42 of the Waushara County Code of Ordinances. The ordinance facilitates division of larger parcels of land into smaller parcels of land. Land divisions create less than three lots of 15 acres or less. Land divisions can be classified as either major or minor subdivisions. A major subdivision creates five or more lots which are each 5 acres or less in area by successive divisions within a 10-year period. A minor subdivision contains three or more lots that are 15 acres or less in area by successive divisions within a 10-year period. The ordinance also contains design standards for streets, setbacks, utility easements, stormwater management techniques, and erosion control.

The **Floodplain Zoning Ordinance** is contained within Chapter 18 of the Waushara County Code of Ordinances. The purpose of the floodplain ordinance is to protect life, health, and property; to minimize the costs associated with flood control projects; and to minimize the costs associated with relief and reconstruction efforts. The ordinance regulates residential uses, storage of hazardous materials, sewage disposal, wells for drinking water, and uses mentioned in NR 116.

The **Shoreland Zoning Ordinance** is contained within Chapter 58 of the Waushara County Code of Ordinances. Shorelands are defined as unincorporated areas which are: 1,000 feet from the ordinary high water elevation mark of navigable lakes, ponds, or flowages; or 300 feet from the ordinary high water elevation mark of navigable rivers or streams. If the landward side of the floodplain exceeds either of these two measurements, this is used as the zoning standard. This ordinance controls the lot size, building setbacks, landfills, agricultural uses, alteration of surface vegetation, sewage disposal, filling, grading, lagooning, and other uses which may be detrimental to this area.

Chapter 58 also addresses **wind energy generation facilities**.¹⁷ The existing ordinance permits wind energy facilities for on-premise consumption in areas that have been zoned for either general agricultural (A-G) or forestry (O-F) uses. Off-premise consumption requires a conditional use. As such, the landscape within these areas must be dominated by agricultural practices or woodlots. Several setbacks, safety restrictions, and ground clearance requirements have been established. The County and local municipalities may wish to collaborate to designate specific sites appropriate for future wind energy facilities.

Farmland Preservation Plan. Waushara County adopted the county Farmland Preservation Plan on June 9, 1981.¹⁸ The goal of the plan is to preserve productive and potentially

¹⁷ WCZLC. 2006. *Code of Ordinances: Waushara County, Wisconsin 58.236 (20)*.

¹⁸ WCZLC. 1980. *Waushara County Farmland Preservation Plan*. http://www.co.waushara.wi.us/more_lcd.htm.

productive agricultural land, forest land, and environmentally sensitive areas while providing other areas for well planned growth in other appropriate areas of the county. Agriculturally productive areas are defined as existing farms consisting of a minimum of 35 contiguous acres of productive farmland. This plan allows farmers in preservation areas to sign agreements on a voluntary basis under the state's Farmland Preservation Act for tax credits.

Land and Water Resource Management (LWRM) Plan. The Waushara County LWRM plan was written in 1999.¹⁹ In 2005, it was revised in response to a legislative call to redesign Wisconsin's programs to reduce pollution from unknown sources. The revised plan was adopted in February 2006. The plan identifies long term goals and implementation strategies to reduce non-point source pollution into rivers, streams, and lakes in Waushara County. The four goals that were identified include: 1.) Reduce soil erosion and continue to protect natural resources; 2.) protect and enhance in-stream, riparian, wetland and upland habitat; 3.) protect surface waters from construction site erosion control & non-metallic mining; and 4.) implement the animal waste prohibition.

Local Policies

Official Map. An official map is intended to implement a master plan for a city, village, or town. The master plan helps direct development by designating areas for streets, highways, parkways, floodplains, and other pertinent land uses. Official maps direct development away from sensitive areas which are designated for future public use.

Existing Comprehensive/Land Management Plans. A number of years ago, Waushara County developed a bottom up approach to land use planning. Over the years, a majority of Waushara County communities have adopted community management and comprehensive plans. Currently the Village of Hancock and the towns of Coloma, Hancock, Plainfield, Oasis, Deerfield, Richford, Springwater, Saxeville, Mount Morris, Leon are working to update their community management plans to "smart growth" compliant. At the same time, the villages of Plainfield, Coloma and Lohrville are working to create comprehensive plans. Waushara County, with input from its municipalities, is in the process of developing a Comprehensive Plan that will be completed in 2009.

Federal, State and Regional Programs

State of Wisconsin

Land and Water Resource Management Planning Program (LWRM). The land and water resource management planning program (LWRM) was established in 1997 by Wisconsin Act 27 and further developed by Wisconsin Act 9 in 1999.²⁰ Although both Acts are designed to reduce non-point pollution, Wisconsin Act 27 regulates rural and agricultural sources while Wisconsin Act 9 regulates urban sources.²¹ Counties are required to develop and periodically revise LWRM plans. Citizens and professionals in each county identify local needs and priorities

¹⁹ WCZLC. 2005. *Waushara County Land and Water Resource Management Plan*.
http://www.co.waushara.wi.us/more_lcd.htm.

²⁰ Wisconsin Legislative Reference Bureau. 1997. *Budget Brief 97-6*.

²¹ Wisconsin Legislative Reference Bureau. 2000. *Budget Brief 00-7*.

in regards to conservation needs through watershed based planning. All LWRM plans must be approved by the Wisconsin Department of Agriculture, Trade, and Consumer Protection.

Wisconsin Act 204. Recent blackouts and other incidents throughout the United States have raised concerns regarding both the supply of energy and the adequacy of the transmission grid. Wisconsin Act 204 mandates that a portion of electricity generation facilities be from renewable resources. To ensure that the renewable energy goals set forth in Wisconsin Act 204 are not unduly hindered, the State passed additional legislation restricting the ability of local governments to prohibit or curtail the development of wind and solar energy systems.²² Municipalities can only impose restrictions on the construction and operation of wind turbines to protect public health and safety. Furthermore, communities cannot impose regulations which increase construction/operation costs, decrease the efficiency of wind generation systems, or specifically prohibit installation of alternate energy systems.

Although traditional approaches such as coal and natural gas are still utilized, other options are being explored that include renewable resources. Under this mandate, other sources of energy such as wind are currently being proposed at several locations throughout Wisconsin. While there is an extensive review process for the placement of large electrical generation facilities, smaller facilities, such as wind turbines, often fall below the size limitation and bypass this review process. Thus, many communities find themselves unprepared to handle future wind turbine proposals.

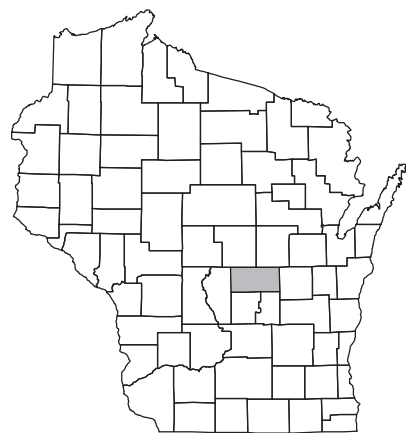
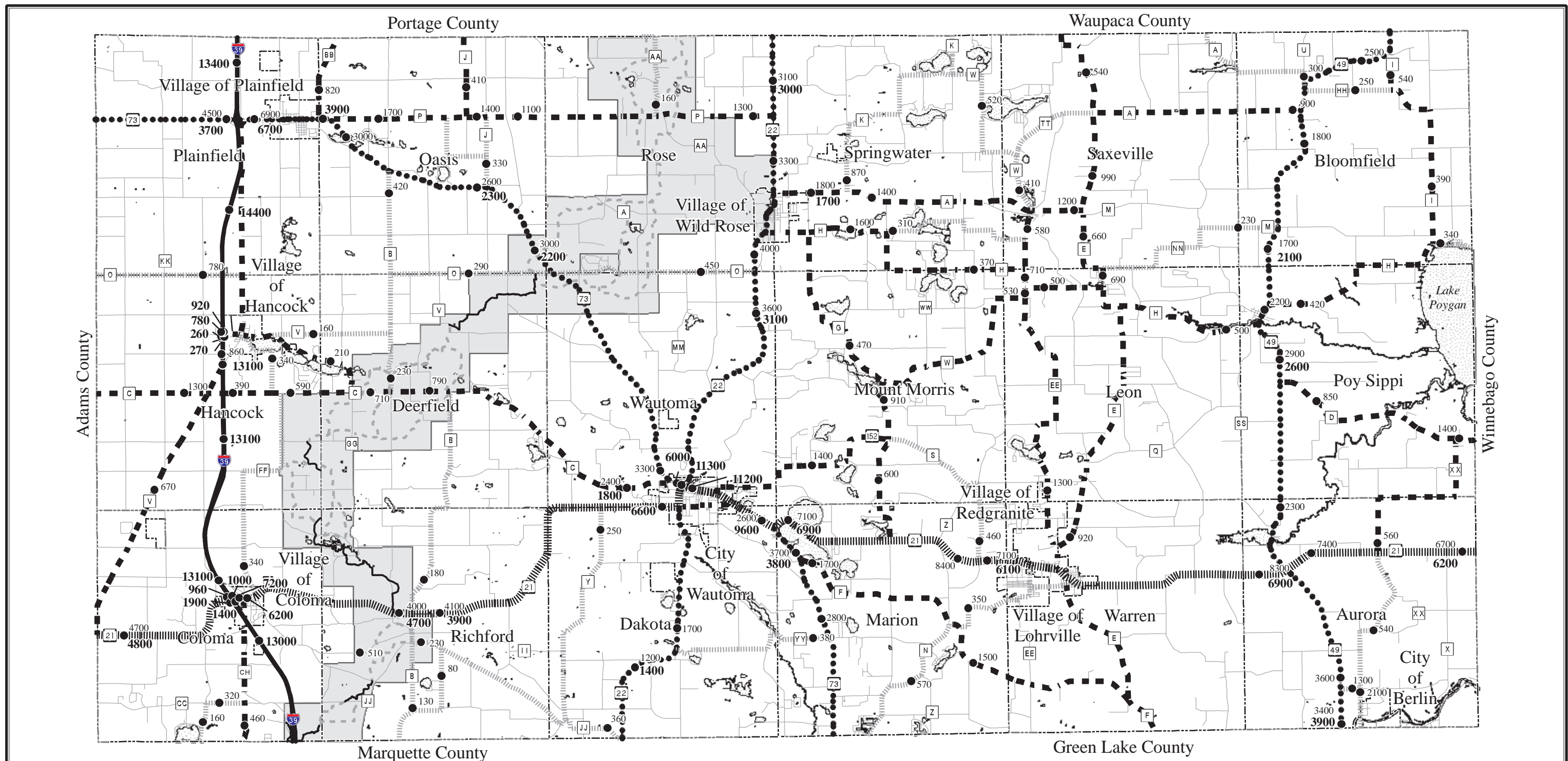
²² Wisconsin Statutes 66.0401

Exhibit 8-1

Existing Land Use

Exhibit 8-1

Existing Land Use



- Functional Class**
- Rural Interstate
 - Rural Principal Arterial - Other
 - Rural Major Collector
 - Rural Minor Arterial
 - Rural Minor Collector
 - Local Road

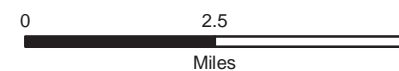
Traffic Volumes 2000 & 2006 Data

1000 2000 Traffic Count
1000 2006 Traffic Count

- Other Features**
- Existing Ice Age Trail
 - Alternate Ice Age Trail
 - Ice Age Corridor
 - Municipal Boundary

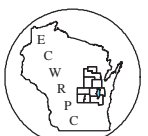
EXHIBIT 3-1 FUNCTIONAL CLASS & TRAFFIC COUNTS

Waushara County, WI



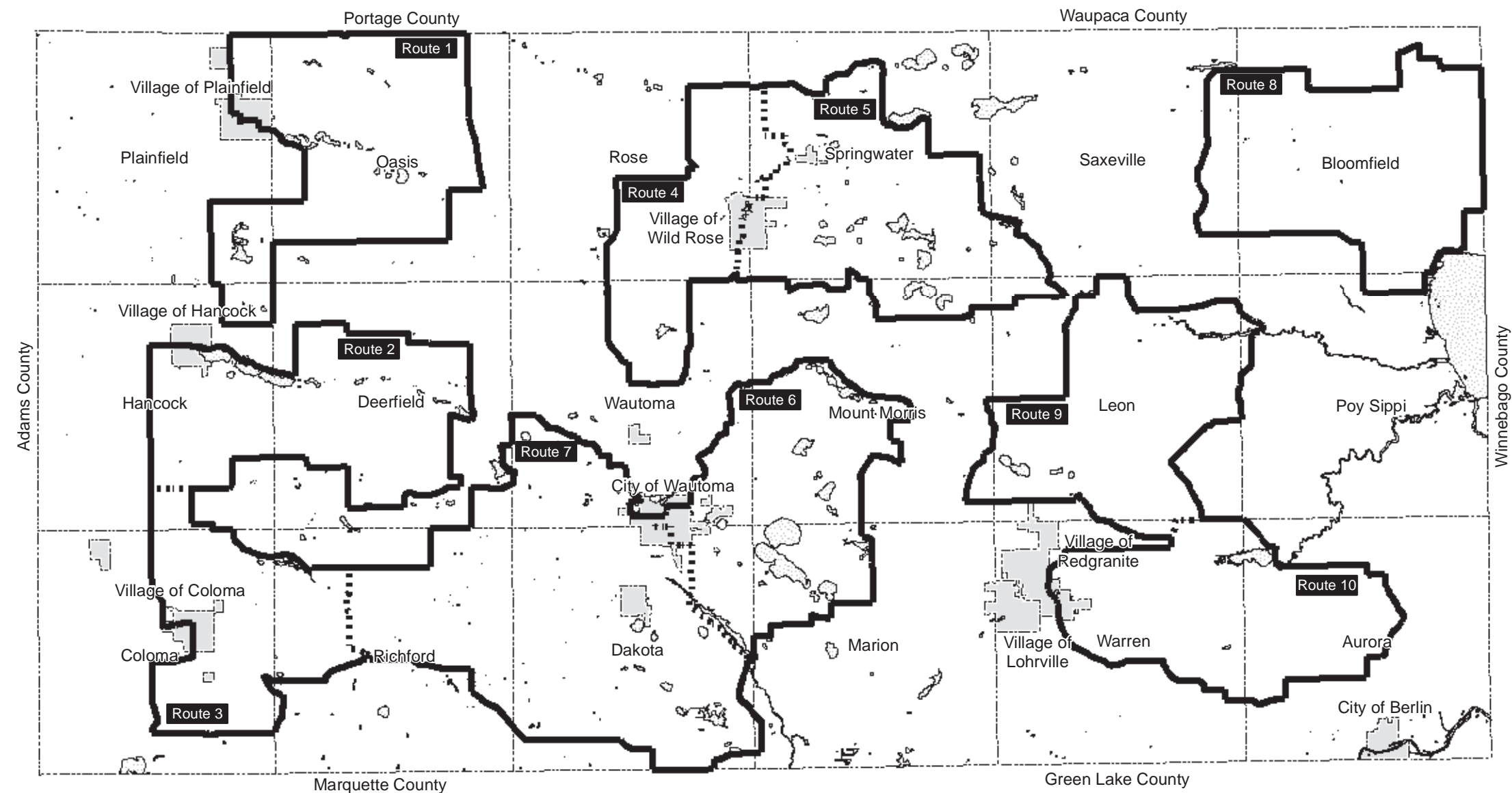
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Source: WisDOT, Rural Functional Class System, 2008. WisDOT Wisconsin Highway Traffic Volume Data, 2000 & 2006. Digital Base Data provided by Waushara County, 2008. Ice Age Trail Data provided by National Park Service, 2006.



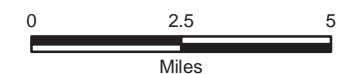
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EXHIBIT 3-2 WAUSHARA COUNTY BIKE ROUTES



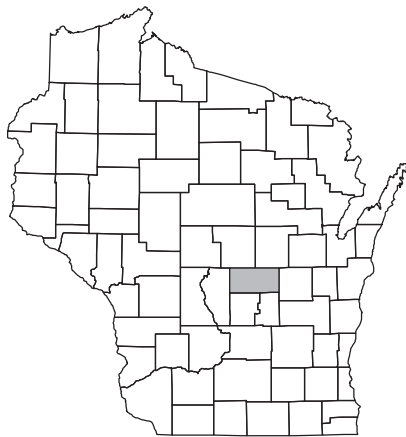
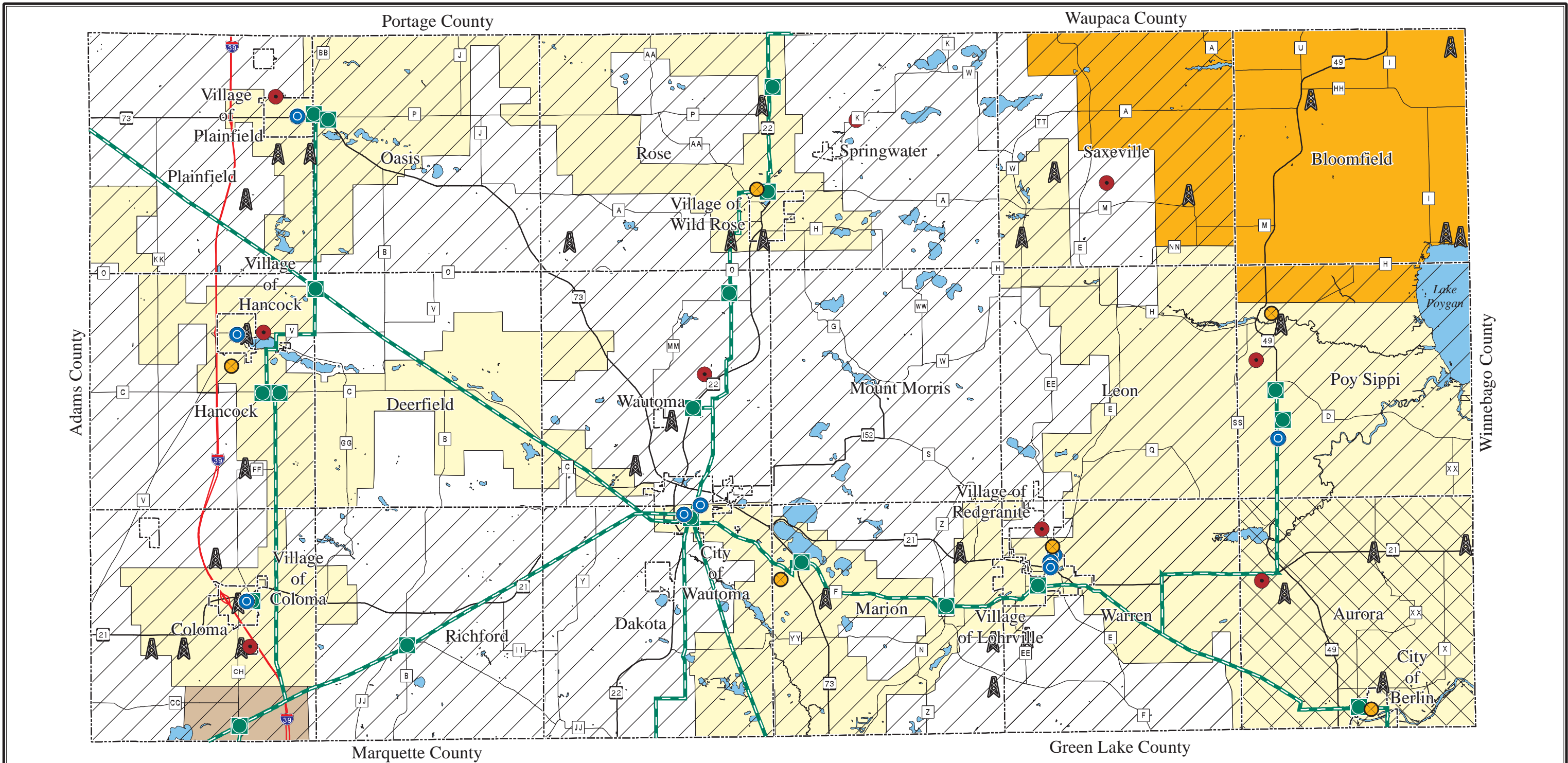
- Bike Route
- Shared Bike Route

Source: Digital Base Data and Bike Route Data provided by Waushara County.



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Electric Service Boundaries

- Adams-Columbia Electric Co-op
- Alliant-Wisconsin Power & Light
- Pioneer Power & Light Co.
- Wisconsin Electric Power Co.

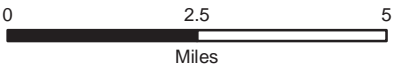
Gas Service Boundaries

- Alliant/Wisconsin Power & Light
- Wisconsin Gas Company

Other Features

- Transmission Line
- Electric Substation
- Interstate Highway
- State Highway
- County Highway
- Waste Drop Off Site
- Waste Water Treatment Facility
- Well
- Tower
- Water Features
- Municipal Boundary

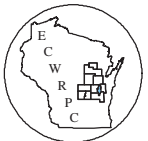
EXHIBIT 4-1 UTILITIES
Waushara County, WI



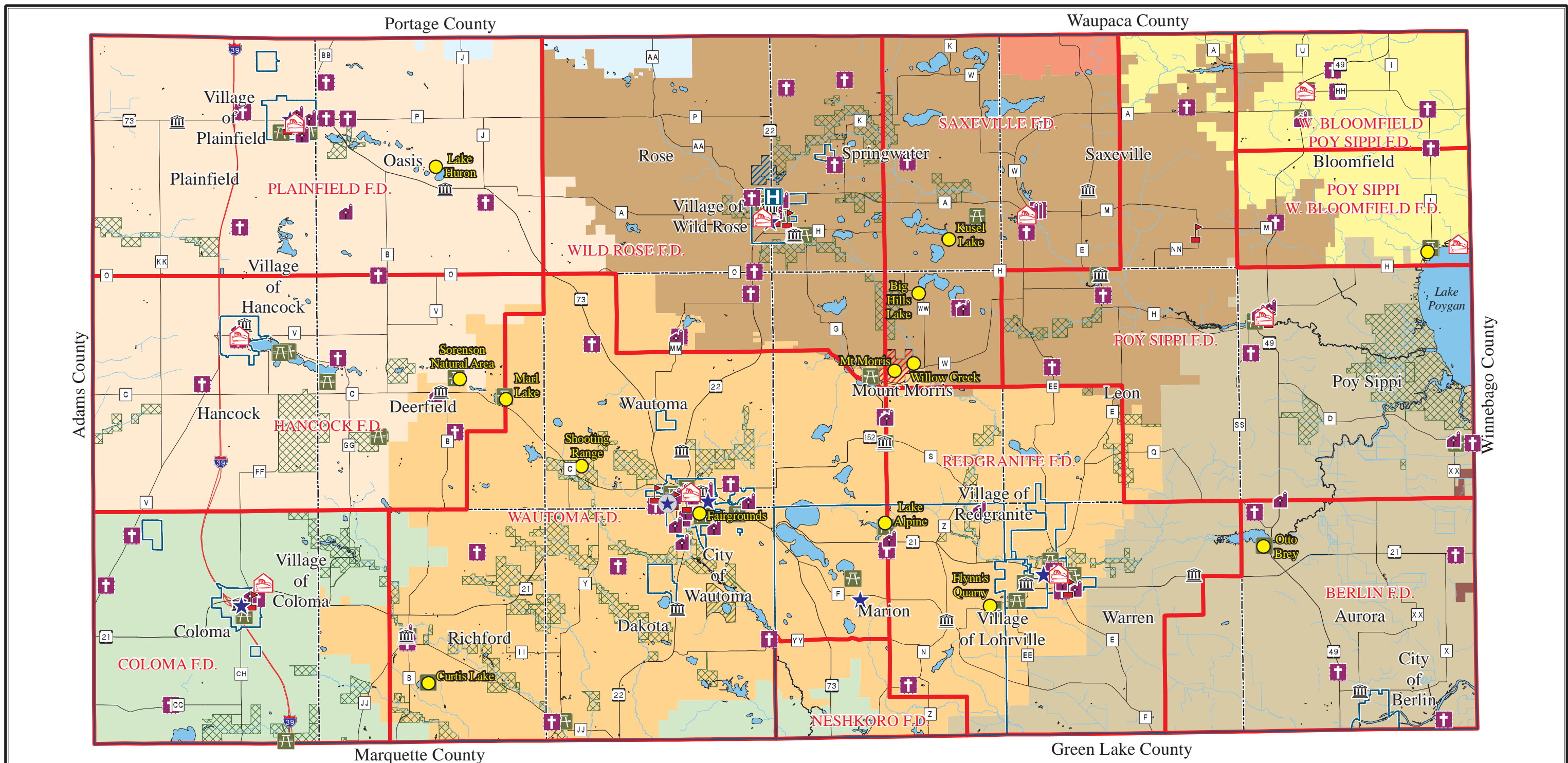
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Source: Base data by Waushara County, 2008.
Utility Data by WPS

Location of features are approximate and should be used for reference purposes only.



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School District Boundaries

- Almond-Bancroft School District
- Berlin Area School District
- Omro School District
- Tri-County Area School District
- Westfield School District
- Wautoma Area School District
- Waupaca School District
- Weyauwega-Fremont School District
- Wild Rose School District

Other Features

- Fire Station
- Police Department
- County Sheriff's Department
- Hospital
- Park
- Police Service Boundary
- Fire Service Boundary
- Municipal Boundary
- County Facility
- Town / Village Hall
- School
- Church
- Cemetery
- DNR Fish & Wildlife Area
- DNR Fish Hatchery
- Mount Morris County Park
- US Fish & Wildlife Area

EXHIBIT 4-2 COMMUNITY FACILITIES

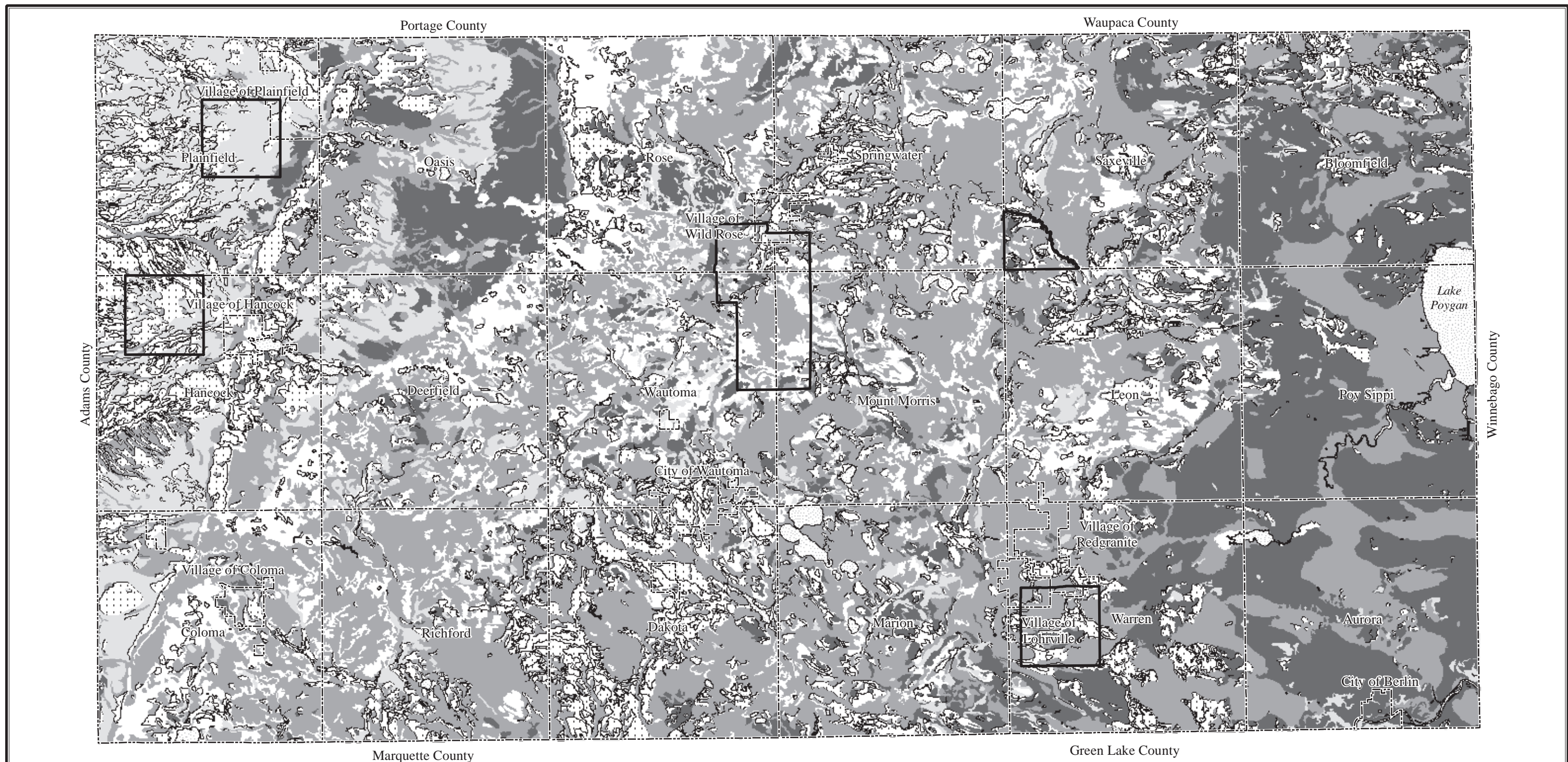
Waushara County, WI


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Source: Base data by Waushara County, 2008.
Community facilities data provided by WI DNR & Waushara County.

Location of features are approximate and should be used for reference purposes only.

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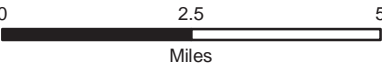


<div style="background-color: #333; width: 30px; height: 15px; margin-bottom: 5px;"></div> Prime Farmland - Those soils that produce the highest yields of food, fiber, feed, forage and oilseed crops when managed according to acceptable farming methods.	<div style="background-color: #fff; border: 1px solid #000; width: 30px; height: 15px; margin-bottom: 5px;"></div> Other Lands - Land that has little value for producing crops.
<div style="background-color: #666; width: 30px; height: 15px; margin-bottom: 5px;"></div> Unique Farmland - Land other than prime that is used to produce specialty crops such as apple orchards, lettuce, carrots, celery, cauliflower, etc. that require a high management and investment level.	<div style="border: 2px solid #000; width: 30px; height: 15px; margin-bottom: 5px;"></div> Atrazine Prohibition Area
<div style="background-color: #ccc; width: 30px; height: 15px; margin-bottom: 5px;"></div> Statewide Important Farmland - Land in addition to prime and unique that is important to the State of Wisconsin for crop production.	<div style="background-color: #eee; border: 1px dotted #000; width: 30px; height: 15px; margin-bottom: 5px;"></div> Water Body
<div style="background-color: #fff; border: 1px dotted #000; width: 30px; height: 15px; margin-bottom: 5px;"></div> Local Important Farmland - Land in addition to prime, unique and statewide that is important to Waushara County for crop production.	<div style="border: 1px dashed #000; width: 30px; height: 15px; margin-bottom: 5px;"></div> Municipal Boundary


* Farmland Categories Include Farmland Where Drained

EXHIBIT 5-1 IMPORTANT FARMLAND CLASSES

Waushara County, WI



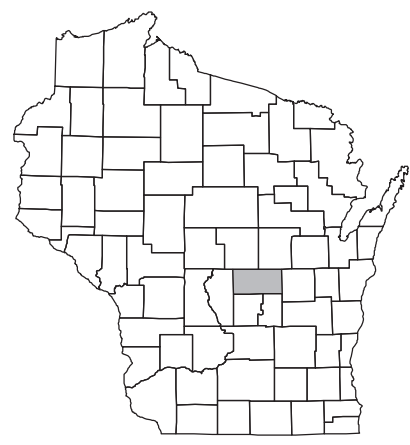
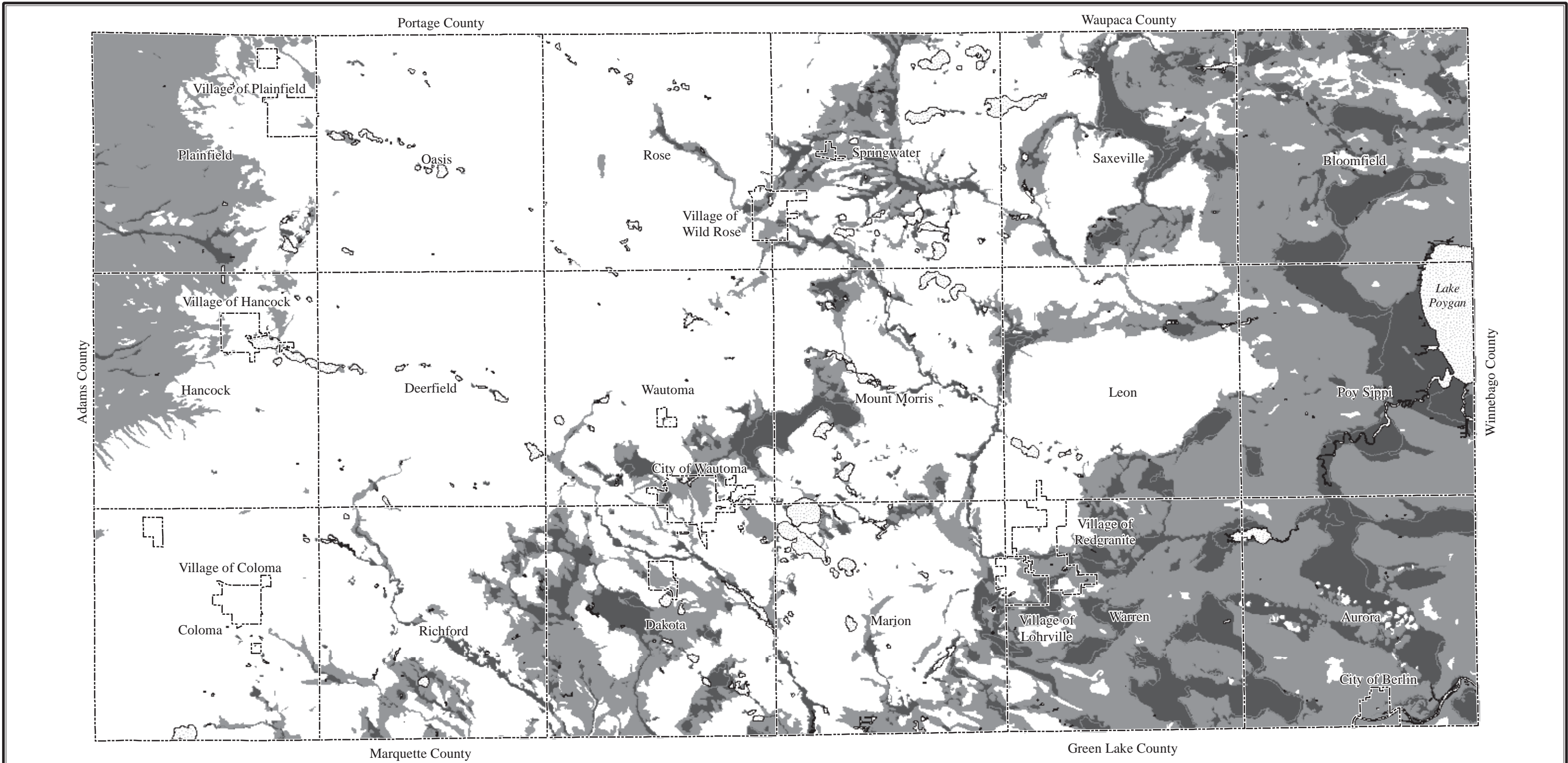
Miles










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Source: Soils Data USDA-NRCS, 1982. Waushara County, 2003. Digital Base Data provided by Waushara County, 2008. Atrazine Prohibition Area Data obtained from the Wisconsin Administrative Code, Chapter ATCP 30 Atrazine, Pesticides; Use Restrictions

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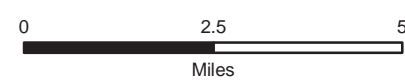


- | | | | |
|---|--|---|--------------------|
|  | Soils Suitable for Conventional Septic Systems |  | No Rating |
|  | Soils Suitable for At-Grade, In-Ground Pressure or Mound Systems |  | Water Body |
|  | Soils Suitable for Holding Tanks or New Technology Systems* |  | Municipal Boundary |
|  | Soils Unsuitable for Private Sewage Systems | | |

* All systems producing 104 or less coliform fecal units (cfu) per 100 mL

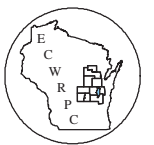
EXHIBIT 5-2 SOIL LIMITATIONS FOR ON-SITE WASTE DISPOSAL

Waushara County, WI



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Source: Soils Data USDA-NRCS, 1982. Waushara County, 2003.
Digital Base Data provided by Waushara County, 2008.



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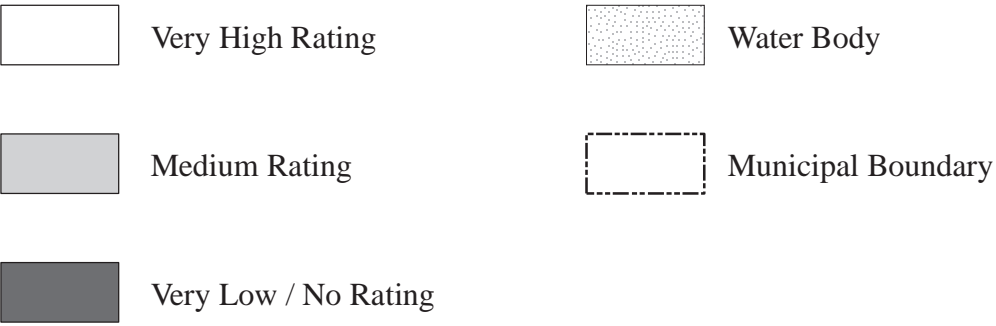
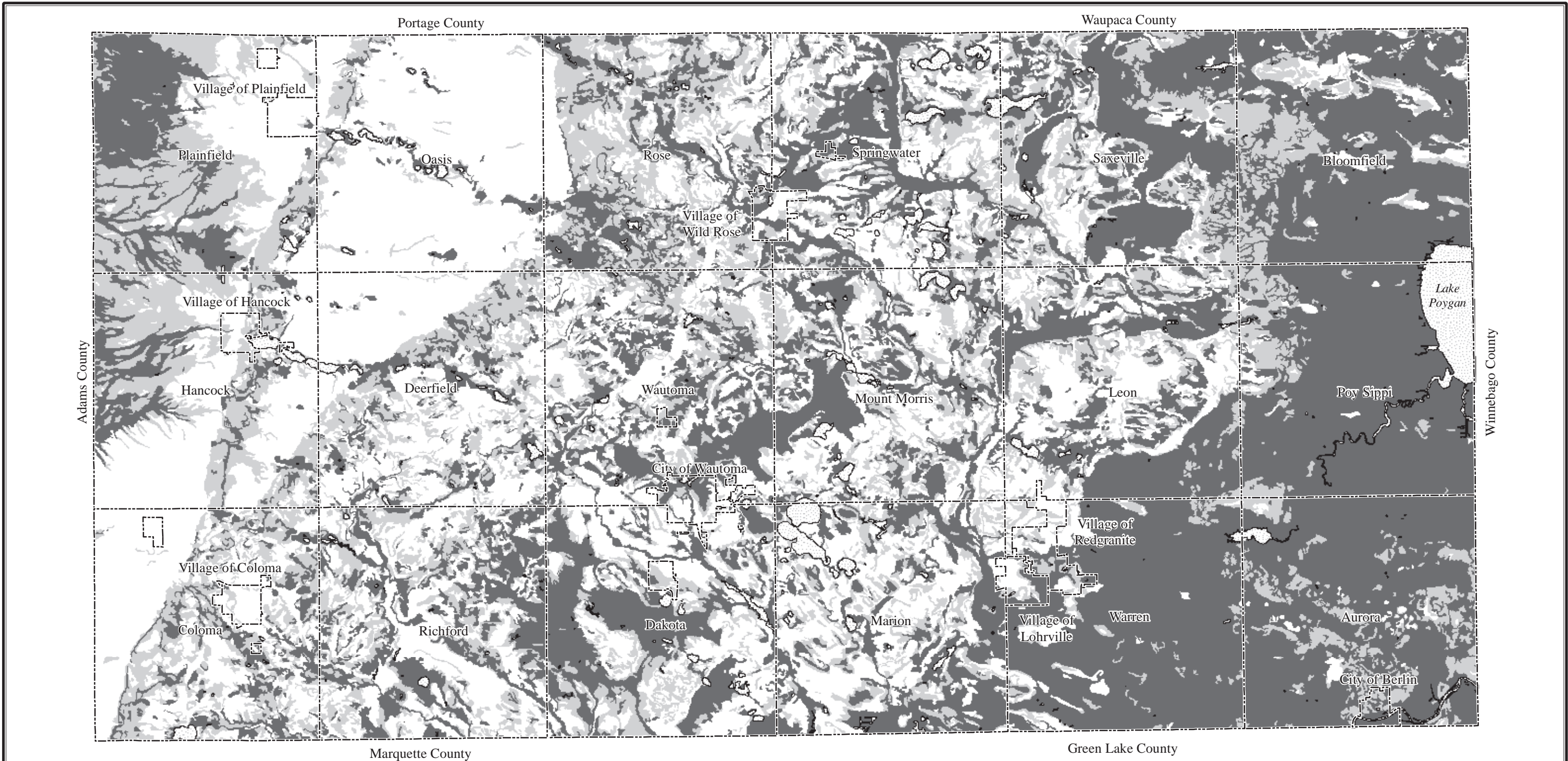
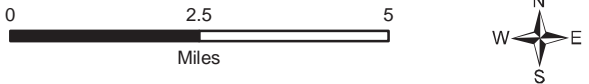


EXHIBIT 5-3 SOIL POTENTIAL FOR BUILDING SITE DEVELOPMENT

Waushara County, WI



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Source: Soils Data USDA-NRCS, 1982. Waushara County, 2003.
Digital Base Data provided by Waushara County, 2008.



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



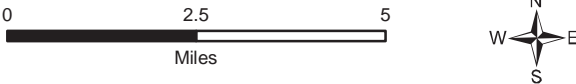
- | | | | |
|---|--|---|--------------------|
|  | None to Slight - Soils relatively free of limitations that affect the intended use or the limitations are easy to overcome. |  | No Rating |
|  | Moderate - Soils with moderate limitations resulting from the effects of slope, wetness, soil texture, soil depth, groundwater, etc. Normally the limitations can be overcome with correct planning, careful design, and good management. |  | Water Body |
|  | Severe - Soils with severe limitations resulting from the effects of slope, wetness, soil texture, highwater table, etc. Soils rated as having severe limitation are severe enough to make the use of the soil doubtful for the proposed use. Careful planning and above-average design and management are required. This often includes major soil reclamation work. |  | Municipal Boundary |

EXHIBIT 5-4 SOIL LIMITATIONS FOR SEPTAGE SPREADING

Waushara County, WI

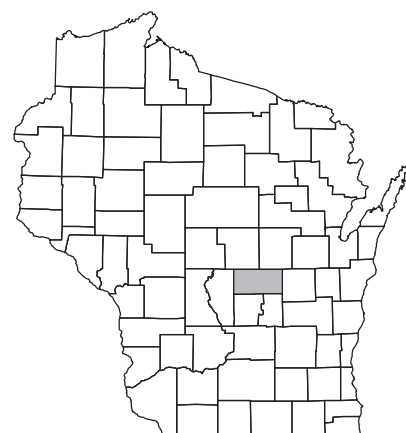
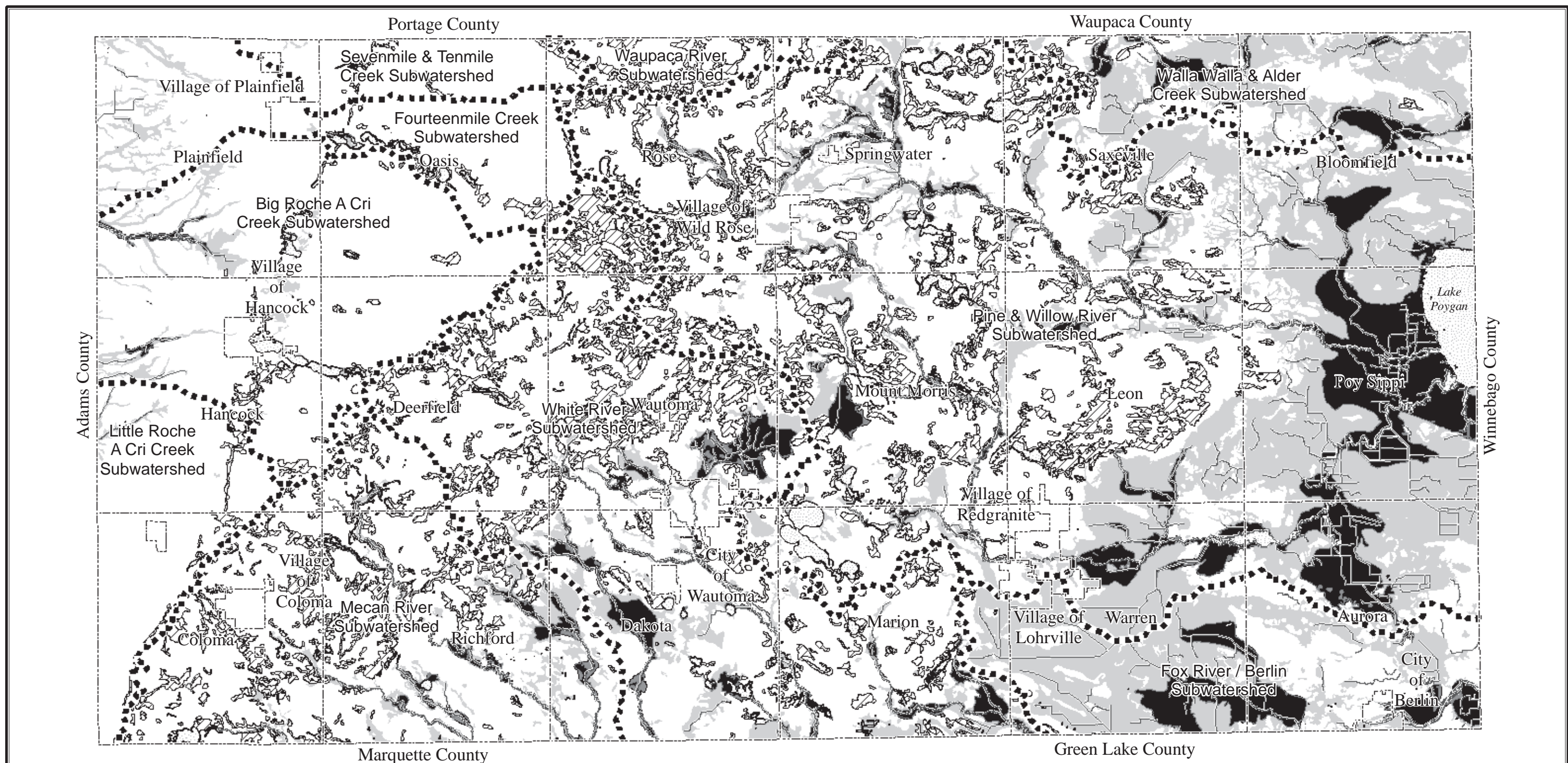


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Source: Soils Data USDA-NRCS, 1982. Waushara County, 2003.
Digital Base Data provided by Waushara County, 2008.



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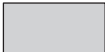





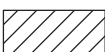

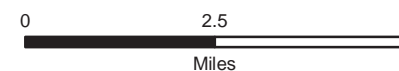
- | | | | |
|---|---|---|-----------------------|
|  | Depth to Groundwater < 2 Ft. |  | Subwatershed Boundary |
|  | Floodplain |  | Water Body |
|  | Floodplain & Depth to Groundwater < 2 Ft. |  | Stream / River |
|  | Slope > 12 % |  | Municipal Boundary |

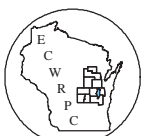
EXHIBIT 5-5 ENVIRONMENTAL FEATURES

Waushara County, WI

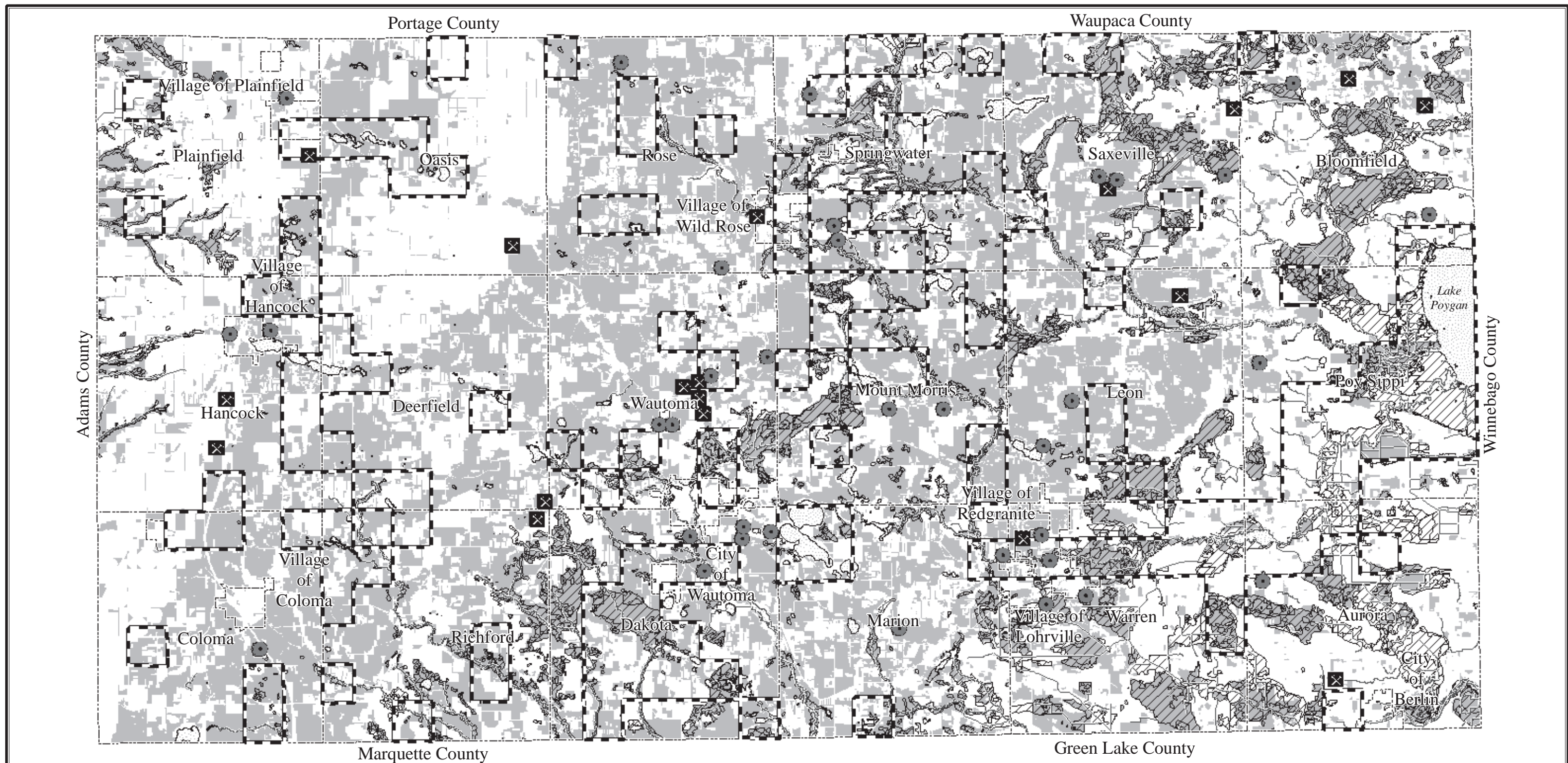


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Source: Soils Data USDA-NRCS, 1982. Waushara County, 2003.
Floodplain Data provided by FEMA, 2001.
Subwatershed Data provided by WI DNR, 2004.
Digital Base Data provided by Waushara County, 2008.



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



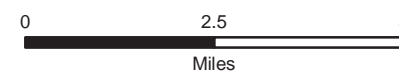
- | | |
|---|--|
|  Woodlands |  Abandoned Landfill Sites |
|  Endangered / Threatened Species |  Water Body |
|  Wetlands > 5 Acres |  Stream / River |
|  Non-Metallic Mining Sites |  Municipal Boundary |

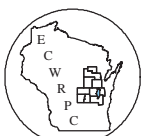
EXHIBIT 5-6 ENVIRONMENTAL FEATURES

Waushara County, WI

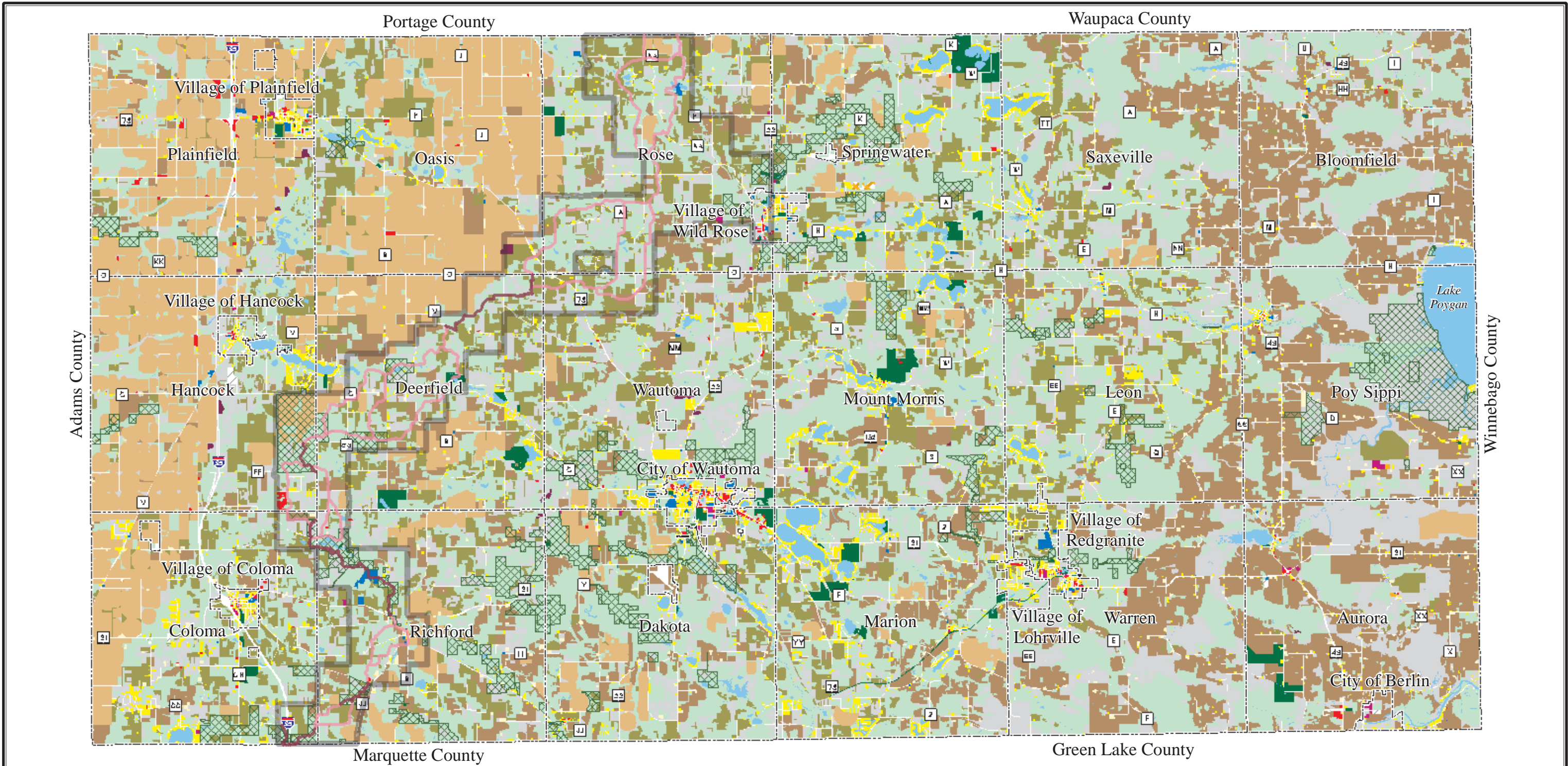


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Source: Woodland data from Waushara County Land Use.
Mining Site Data provided by Waushara County Zoning Office, 2008.
Endangered and Threatened Species Data provided by WI DNR, 2003.
Wetland Data provided by WI DNR, 2004. Digital Base Data provided by Waushara County, 2008.



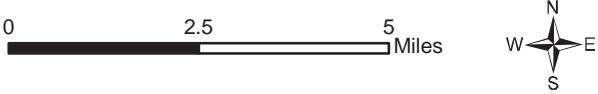
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- | | | |
|---------------------------|--------------------------|-------------------------|
| Single Family Residential | Institutional Facilities | Planted Woodlands |
| Mobile Home Parks | Transportation | General Woodlands |
| Multi-Family Residential | Utilities/Communications | Open Other Land |
| Farmsteads | Non-Irrigated Cropland | DNR Owned Lands |
| Commercial | Irrigated Cropland | Ice Age Corridor |
| Industrial | Water Features | Existing Ice Age Trail |
| Quarries | Recreational Facilities | Alternate Ice Age Trail |

EXHIBIT 8-1 EXISTING LAND USE

Waushara County, WI

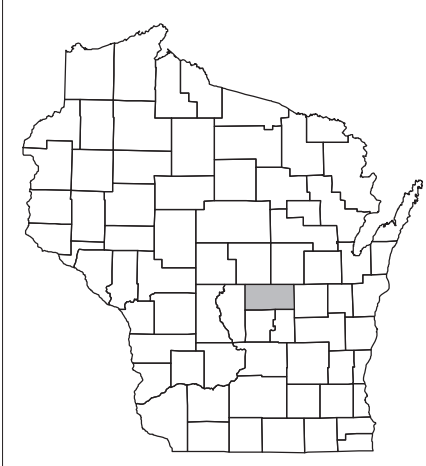
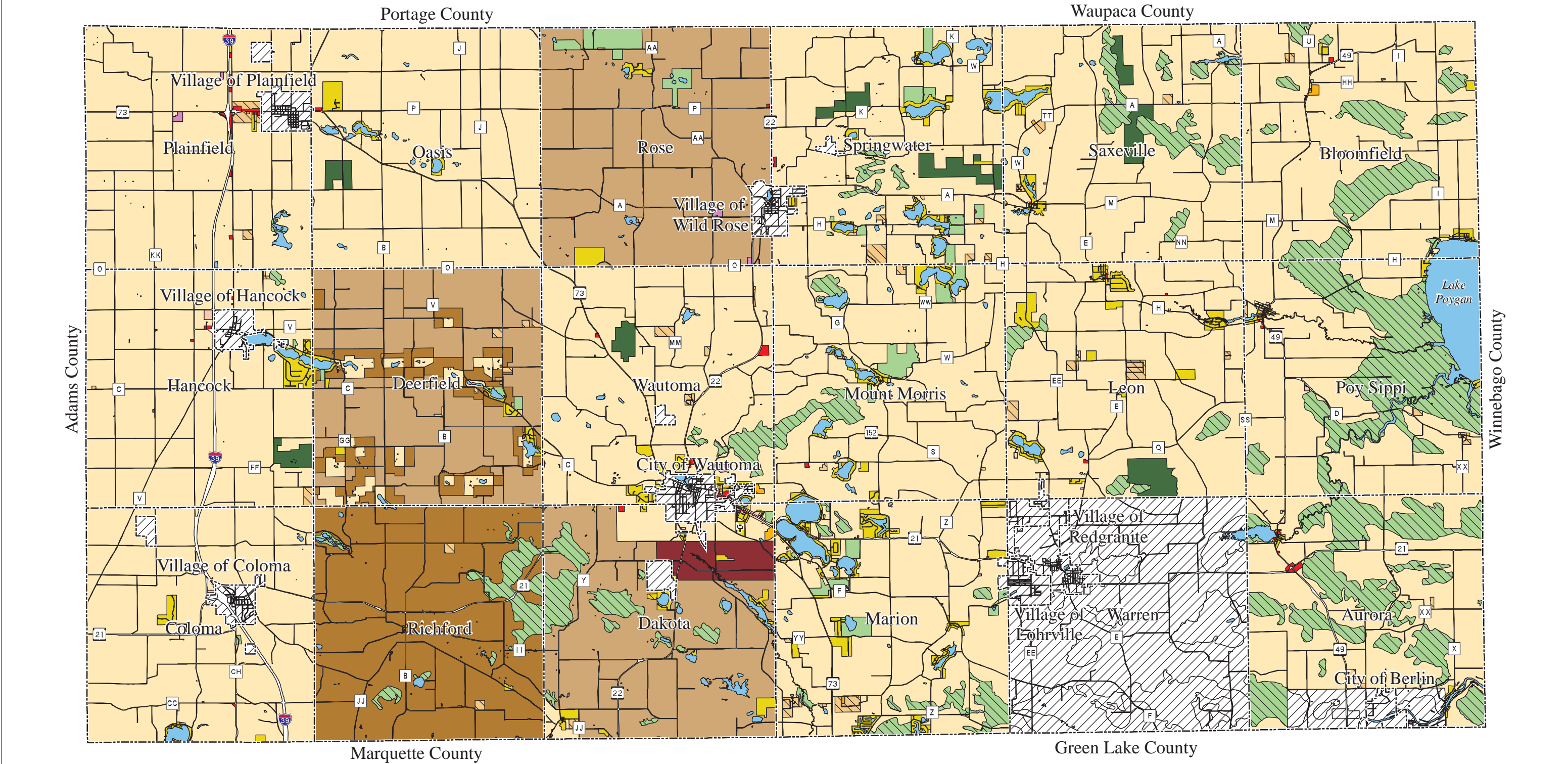


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Source: Land Use data provided by ECWRPC & Individual Municipalities, 2000-2008.
DNR Data provided by WI DNR, 2008. Ice Age Trail Data provided by National Park Service, 2006. Digital Base Data provided by Waushara County, 2008.



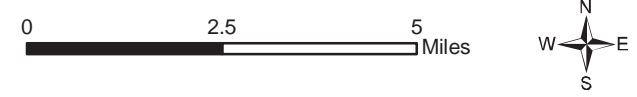
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	(A-G) General Agricultural (Minimum Lot Size 1 Acre)		(O-F) Forest
	(A-G) General Agricultural Zone 2 (Minimum Lot Size 2 Acres)		(O-N) Natural Resource Preservation
	(A-G) General Agricultural Zone 3 (Minimum Lot Size 3 Acres)		(O-P) Park & Recreation
	(A-G) General Agricultural Zone 5 (Minimum Lot Size 5 Acres)		(O-SW) Shoreland / Wetland
	(A-R) Agricultural Residential		(R-M) Residential Multiple Family
	Area Not Included		(RM-P) Residential Multifamily Planned Development
	(C-C) Community Commercial		(RS-10) Residential Single Family (Minimum Lot Size 10000 Square Feet)
	(C-G) General Commercial		(RS-20) Residential Single Family (Minimum Lot Size 20000 Square Feet)
	(C-S) Service Commercial		(RSP-10) Residential Single Family Planned Development
	(M-G) General Manufacturing		Right of Way
	(M-I) Intensive Manufacturing		Water

EXHIBIT 8-2 EXISTING ZONING

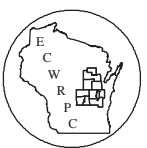
Waushara County, WI



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Note: Waushara County sanitary, shoreland, subdivision, and floodplain ordinances do apply in the Town of Warren and sections 32 - 35 in the Town of Aurora.

Source: Zoning and Base Data provided by Waushara County, 2008.



Prepared April, 2009
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ISSUES & OPPORTUNITIES

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Table A-1. Waushara County Population by MCD, 1950 to 2005

Jurisdiction	1950	1960	1970	1980	1990	2000	DOA 2001	DOA 2002	DOA 2003	DOA 2004	DOA 2005	Percent Change 1990-2000
C. Berlin (pt.)	33	45	41	91	67	83	83	85	86	84	83	23.9%
C. Wautoma	1,376	1,466	1,624	1,629	1,784	1,998	2,070	2,118	2,110	2,115	2,096	12.0%
V. Coloma	338	312	336	367	383	461	460	467	461	467	469	20.4%
V. Hancock	449	367	404	419	382	463	462	463	462	460	453	21.2%
V. Lohrville	206	225	213	336	368	408	409	409	415	414	411	10.9%
V. Plainfield	680	660	642	813	839	899	898	896	899	894	893	7.2%
V. Redgranite	648	588	645	976	1,009	1,040	1,037	2,001	2,011	2,019	2,051	3.1%
V. Wild Rose	582	594	585	741	753	765	754	756	759	758	746	1.6%
T. Aurora	731	780	802	890	846	971	980	1,005	1,038	1,061	1,057	14.8%
T. Bloomfield	801	770	798	931	922	1,018	1,020	1,027	1,032	1,045	1,043	10.4%
T. Coloma ^a	339	355	382	437	499	660	758	699	704	722	735	32.3%
T. Dakota	400	521	752	994	1,092	1,259	1,262	1,273	1,272	1,265	1,269	15.3%
T. Deerfield	417	340	367	445	454	629	639	650	653	653	666	38.5%
T. Hancock	480	354	346	426	467	531	539	547	546	560	566	13.7%
T. Leon	546	520	651	844	992	1,281	1,312	1,355	1,371	1,389	1,411	29.1%
T. Marion	746	700	877	1,333	1,478	2,065	2,077	2,121	2,129	2,163	2,207	39.7%
T. Mount Morris	451	422	517	685	767	1,092	1,112	1,133	1,125	1,121	1,119	42.4%
T. Oasis	389	364	346	403	389	405	403	403	402	396	399	4.1%
T. Plainfield	476	449	447	574	529	533	534	547	549	549	558	0.8%
T. Poy Sippi	830	809	823	913	929	972	974	974	971	974	971	4.6%
T. Richford	386	317	322	404	455	588	595	602	606	608	608	29.2%
T. Rose	420	287	319	515	486	595	597	600	606	611	615	22.4%
T. Saxeville	535	506	612	776	846	974	982	991	997	999	1,014	15.1%
T. Springwater	389	366	584	924	1,011	1,389	1,401	1,405	1,413	1,420	1,423	37.4%
T. Warren	636	708	637	573	550	675	693	707	710	712	708	22.7%
T. Wautoma	636	672	723	1,087	1,088	1,312	1,314	1,326	1,329	1,347	1,347	20.6%
Waushara County ^a	13,920	13,497	14,795	18,526	19,385	23,066	23,365	24,560	24,656	24,806	24,918	19.0%
Region ^a	366,887	413,397	475,090	511,033	542,712	609,438	614,213	622,920	628,125	633,581	638,699	12.3%
Wisconsin ^a	3,434,575	3,951,777	4,417,821	4,705,642	4,891,769	5,363,701	5,400,004	5,453,896	5,490,718	5,532,955	5,580,000	9.6%

^a 2000 Census numbers have been adjusted through the Count Question Resolution Program (CQR) 8/30/02.

Source: U.S. Census: 1950, 1960, 1970, 1980, 1990, 2000; WI DOA 2001, 2005.

Table A-2. Net Migration by Sex and Age, Waushara County, 1990 to 2000

Age, 1990	Age, 2000	Male Net Migration	Female Net Migration	Total Net Migration	Age Group	Total Pop Change
B95-00	0-4	-1	23	22	0-4	-83
B90-95	5-9	153	128	281	5-9	62
0-4	10-14	288	246	534	10-14	333
5-9	15-19	132	86	218	15-19	428
10-14	20-24	-246	-299	-545	20-24	-3
15-19	25-29	-93	-70	-163	25-29	-242
20-24	30-34	164	184	348	30-34	-177
25-29	35-39	316	227	543	35-39	396
30-34	40-44	247	210	457	40-44	548
35-39	45-49	184	216	400	45-49	694
40-44	50-54	175	176	351	50-54	599
45-49	55-59	176	222	398	55-59	303
50-54	60-64	273	257	530	60-64	209
55-59	65-69	268	134	402	65-69	101
60-64	70-74	103	48	151	70-74	250
65-69	75-79	5	-45	-40	75-79	130
70-74	80-84	-30	-36	-66	80-84	87
75-79	85-89	-46	-33	-79	85-89	34
80-84	90-94	-16	-16	-32	90 & Over	100
85-89	95-99	-3	-20	-23		
90 & over	100 & over	0	0	0		
Total Population		2,049	1,638	3,687	Total	3,769

Source: WI DOA, 2005.

Table A-3. Population Density, 2000

Jurisdiction	Pop '00	Land area in sq. mi	Persons per sq mi
C. Berlin (pt.)	83	0.76	109
C. Wautoma	1,998	2.5	799
V. Coloma	461	1.06	435
V. Hancock	463	1.09	425
V. Lohrville	408	1.22	334
V. Plainfield	899	1.3	692
V. Redgranite	1,040	2.22	468
V. Wild Rose	765	1.32	580
T. Aurora	971	34.23	28
T. Bloomfield	1,018	35.41	29
T. Coloma	660	33.07	20
T. Dakota	1,259	33.16	38
T. Deerfield	629	34.67	18
T. Hancock	531	33.45	16
T. Leon	1,281	36	36
T. Marion	2,065	33.55	62
T. Mount Morris	1,092	34.22	32
T. Oasis	405	35.03	12
T. Plainfield	533	33.95	16
T. Poy Sippi	972	32.3	30
T. Richford	588	34.57	17
T. Rose	595	34.88	17
T. Saxeville	974	36.07	27
T. Springwater	1,389	33.53	41
T. Warren	675	32.54	21
T. Wautoma	1,312	33.94	39
Waushara County	23,066	626.04	37
Wisconsin	5,363,701	65,497.82	82

Source: U. S. Census, 2000.

Table A-4. Population by Age Cohort, 1990

Jurisdiction	Less Than 5 yrs	5 to 19 yrs	20 to 24 yrs	25 to 44 yrs	45 to 64 yrs	65 yrs and Older	Total Population	Median Age
C. Berlin (pt.)	5	19	6	22	10	5	67	30.3
C. Wautoma	114	314	90	479	286	501	1,784	40.0
V. Coloma	15	87	12	111	68	90	383	39.7
V. Hancock	34	74	22	85	89	78	382	36.4
V. Lohrville	24	83	23	116	66	56	368	34.0
V. Plainfield	59	217	43	234	132	154	839	33.9
V. Redgranite	71	224	48	255	189	222	1,009	36.7
V. Wild Rose	40	127	31	165	131	182	676	42.0
T. Aurora	49	203	59	245	178	112	846	35.3
T. Bloomfield	60	232	51	263	202	114	922	33.6
T. Coloma	28	119	16	146	131	59	499	37.6
T. Dakota	84	244	57	298	242	167	1,092	35.2
T. Deerfield	32	79	11	131	113	88	454	41.2
T. Hancock	34	95	24	130	102	82	467	37.8
T. Leon	56	180	45	274	273	164	992	40.7
T. Marion	57	233	51	369	423	345	1,478	46.8
T. Mount Morris	50	119	16	193	214	175	767	45.8
T. Oasis	26	96	14	116	83	54	389	35.2
T. Plainfield	51	126	37	156	105	54	529	31.1
T. Poy Sippi	65	200	45	286	175	158	929	35.1
T. Richford	54	108	27	125	91	50	455	31.4
T. Rose	20	110	17	139	107	93	486	39.6
T. Saxeville	49	185	47	229	210	126	846	37.3
T. Springwater	58	152	36	237	300	305	1,088	50.6
T. Warren	34	112	19	154	126	105	550	40.3
T. Wautoma	70	222	34	301	240	221	1,088	40.5
Waushara County	1,239	3,960	881	5,259	4,286	3,760	19,385	38.6
Wisconsin	365,622	1,077,027	363,969	1,544,897	890,098	650,156	4,891,769	32.9

Source: U. S. Census, 1990.

Table A-5. Population by Age Cohort, 2000

Jurisdiction	Less Than 5 yrs	5 to 19 yrs	20 to 24 yrs	25 to 44 yrs	45 to 64 yrs	65 yrs and Older	Total Population	Median Age
C. Berlin (pt.)	8	13	4	34	15	9	83	35.5
C. Wautoma	116	426	126	509	351	470	1,998	38.8
V. Coloma	37	86	20	125	98	95	461	39.1
V. Hancock	21	111	12	112	114	93	463	40.9
V. Lohrville	21	83	15	100	107	82	408	42.5
V. Plainfield	60	222	59	255	168	135	899	34.5
V. Redgranite	57	230	53	256	215	229	1,040	39.3
V. Wild Rose	42	156	26	174	163	204	765	43.2
T. Aurora	51	226	41	285	259	109	971	37.6
T. Bloomfield	57	226	38	297	275	125	1,018	40.1
T. Coloma ⁺	20	140	21	154	223	190	748	48.2
T. Dakota	78	282	56	320	314	209	1,259	39.8
T. Deerfield	18	126	9	168	189	119	629	44.1
T. Hancock	21	124	11	123	171	81	531	42.8
T. Leon	68	216	41	307	417	232	1,281	45.4
T. Marion	78	353	58	447	629	500	2,065	48.4
T. Mount Morris	43	201	32	228	356	232	1,092	47.2
T. Oasis	16	108	14	99	105	63	405	39.4
T. Plainfield	23	140	27	142	134	67	533	36.8
T. Poy Sippi	53	208	42	289	227	153	972	38.7
T. Richford	42	176	22	139	128	81	588	37.2
T. Rose	26	108	25	150	187	99	595	44.0
T. Saxeville	53	188	22	263	281	167	974	42.6
T. Springwater	43	252	35	293	417	349	1,389	48.7
T. Warren	39	139	32	176	180	109	675	40.3
T. Wautoma	71	253	44	328	363	253	1,312	43.4
Waushara County	1,162	4,793	885	5,773	6,086	4,455	23,154	42.1
Wisconsin	342,340	1,189,753	357,292	1,581,690	1,190,047	702,553	5,363,675	36.0

⁺Coloma Pop not yet corrected for age cohort data

Source: U. S. Census, 2000.

Table A-6. Persons per Household, 1990

Jurisdiction	Household Size												Total Households	Average Household Size
	1 Person		2 Person		3 Person		4 Person		5 Person		6 or more Person			
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent		
C. Berlin (pt.)	4	18.2%	8	36.4%	0	0.0%	3	13.6%	7	31.8%	0	0.0%	22	3.05
C. Wautoma	254	34.0%	256	34.2%	109	14.6%	78	10.4%	35	4.7%	16	2.1%	748	2.25
V. Coloma	53	33.3%	44	27.7%	24	15.1%	23	14.5%	14	8.8%	1	0.6%	159	2.41
V. Hancock	58	35.4%	52	31.7%	18	11.0%	22	13.4%	10	6.1%	4	2.4%	164	2.33
V. Lohrville	30	21.1%	55	38.7%	23	16.2%	18	12.7%	11	7.7%	5	3.5%	142	2.59
V. Plainfield	94	29.0%	95	29.3%	49	15.1%	47	14.5%	29	9.0%	10	3.1%	324	2.55
V. Redgranite	130	30.9%	146	34.7%	60	14.3%	50	11.9%	18	4.3%	17	4.0%	421	2.40
V. Wild Rose	125	40.5%	89	28.8%	42	13.6%	35	11.3%	14	4.5%	4	1.3%	309	2.15
T. Aurora	42	14.2%	109	36.8%	56	18.9%	49	16.6%	26	8.8%	14	4.7%	296	2.86
T. Bloomfield	55	17.5%	97	30.8%	62	19.7%	49	15.6%	33	10.5%	19	6.0%	315	2.93
T. Coloma	31	17.1%	70	38.7%	30	16.6%	29	16.0%	12	6.6%	9	5.0%	181	2.76
T. Dakota	84	20.4%	167	40.6%	58	14.1%	50	12.2%	30	7.3%	22	5.4%	411	2.66
T. Deerfield	33	18.5%	71	39.9%	39	21.9%	20	11.2%	10	5.6%	5	2.8%	178	2.55
T. Hancock	30	16.9%	75	42.1%	27	15.2%	31	17.4%	9	5.1%	6	3.4%	178	2.62
T. Leon	78	19.6%	174	43.8%	64	16.1%	49	12.3%	20	5.0%	12	3.0%	397	2.50
T. Marion	133	20.7%	318	49.6%	90	14.0%	65	10.1%	32	5.0%	3	0.5%	641	2.31
T. Mount Morris	76	23.2%	154	47.1%	38	11.6%	34	10.4%	18	5.5%	7	2.1%	327	2.35
T. Oasis	19	14.0%	52	38.2%	24	17.6%	20	14.7%	15	11.0%	6	4.4%	136	2.86
T. Plainfield	46	24.1%	61	31.9%	21	11.0%	37	19.4%	15	7.9%	11	5.8%	191	2.77
T. Poy Sippi	71	20.1%	137	38.7%	50	14.1%	58	16.4%	27	7.6%	11	3.1%	354	2.62
T. Richford	23	15.3%	55	36.7%	15	10.0%	32	21.3%	12	8.0%	13	8.7%	150	3.03
T. Rose	49	25.5%	66	34.4%	36	18.8%	20	10.4%	14	7.3%	7	3.6%	192	2.53
T. Saxeville	58	18.4%	124	39.2%	45	14.2%	55	17.4%	21	6.6%	13	4.1%	316	2.68
T. Springwater	98	22.6%	199	45.9%	64	14.7%	51	11.8%	17	3.9%	5	1.2%	434	2.33
T. Warren	35	16.7%	90	42.9%	36	17.1%	30	14.3%	9	4.3%	10	4.8%	210	2.62
T. Wautoma	75	17.9%	176	41.9%	59	14.0%	79	18.8%	20	4.8%	11	2.6%	420	2.59
Waushara County	1,784	23.4%	2,940	38.6%	1,139	15.0%	1,034	13.6%	478	6.3%	241	3.2%	7,616	2.52
Wisconsin	443,673	24.3%	596,883	32.8%	302,563	16.6%	284,151	15.6%	129,821	7.1%	65,027	3.6%	1,822,118	2.61

Source: U.S. Census, 1990

Table A-7. Persons per Household, 2000

Jurisdiction	Household Size												Total Households	Average Household Size
	1 Person		2 Person		3 Person		4 Person		5 Person		6 or more Person			
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent		
C. Berlin (pt.)	14	38.9%	8	22.2%	6	16.7%	5	13.9%	3	8.3%	0	0.0%	36	2.31
C. Wautoma	326	40.4%	242	30.0%	93	11.5%	82	10.2%	38	4.7%	25	3.1%	806	2.20
V. Coloma	51	27.6%	63	34.1%	34	18.4%	23	12.4%	10	5.4%	4	2.2%	185	2.42
V. Hancock	58	30.1%	73	37.8%	27	14.0%	16	8.3%	11	5.7%	8	4.1%	193	2.40
V. Lohrville	38	22.6%	72	42.9%	27	16.1%	19	11.3%	7	4.2%	5	3.0%	168	2.43
V. Plainfield	98	28.7%	120	35.1%	38	11.1%	43	12.6%	26	7.6%	17	5.0%	342	2.60
V. Redgranite	143	32.5%	154	35.0%	63	14.3%	47	10.7%	19	4.3%	14	3.2%	440	2.30
V. Wild Rose	115	36.9%	92	29.5%	53	17.0%	28	9.0%	15	4.8%	9	2.9%	312	2.26
T. Aurora	49	13.9%	144	40.9%	65	18.5%	53	15.1%	29	8.2%	12	3.4%	352	2.76
T. Bloomfield	73	19.1%	144	37.6%	67	17.5%	61	15.9%	27	7.0%	11	2.9%	383	2.65
T. Coloma	49	19.3%	126	49.6%	27	10.6%	32	12.6%	9	3.5%	11	4.3%	254	2.51
T. Dakota	111	22.5%	200	40.6%	67	13.6%	64	13.0%	27	5.5%	24	4.9%	493	2.55
T. Deerfield	48	18.3%	136	51.7%	27	10.3%	37	14.1%	12	4.6%	3	1.1%	263	2.39
T. Hancock	52	24.6%	89	42.2%	25	11.8%	21	10.0%	8	3.8%	16	7.6%	211	2.52
T. Leon	127	23.6%	249	46.2%	61	11.3%	58	10.8%	30	5.6%	14	2.6%	539	2.38
T. Marion	216	23.8%	459	50.6%	104	11.5%	75	8.3%	28	3.1%	26	2.9%	908	2.27
T. Mount Morris	118	24.5%	245	50.9%	42	8.7%	39	8.1%	26	5.4%	11	2.3%	481	2.27
T. Oasis	32	21.1%	61	40.1%	17	11.2%	19	12.5%	16	10.5%	7	4.6%	152	2.66
T. Plainfield	38	19.2%	78	39.4%	33	16.7%	25	12.6%	14	7.1%	10	5.1%	198	2.69
T. Poy Sippi	91	23.2%	148	37.8%	66	16.8%	57	14.5%	22	5.6%	8	2.0%	392	2.48
T. Richford	26	13.7%	87	45.8%	14	7.4%	26	13.7%	16	8.4%	21	11.1%	190	3.09
T. Rose	49	20.1%	115	47.1%	35	14.3%	26	10.7%	8	3.3%	11	4.5%	244	2.44
T. Saxeville	71	18.1%	184	46.8%	59	15.0%	48	12.2%	23	5.9%	8	2.0%	393	2.48
T. Springwater	157	25.4%	296	48.0%	69	11.2%	54	8.8%	30	4.9%	11	1.8%	617	2.25
T. Warren	53	20.3%	103	39.5%	45	17.2%	34	13.0%	15	5.7%	11	4.2%	261	2.59
T. Wautoma	119	22.8%	221	42.3%	75	14.3%	62	11.9%	31	5.9%	15	2.9%	523	2.46
Waushara County	2,322	24.9%	3,909	41.9%	1,239	13.3%	1,054	11.3%	500	5.4%	312	3.3%	9,336	2.43
Wisconsin	557,875	26.8%	721,452	34.6%	320,561	15.4%	290,716	13.9%	127,921	6.1%	66,019	3.2%	2,084,544	2.50

Source: U.S. Census, 2000.

Table A-8. Households by Type, 1990

Jurisdiction	Total Households	Family Households			Nonfamily Households	
		Married-couple family	Male Householder, no wife present	Female Householder, no husband present	Total Nonfamily households	Householder Age 65+ Living Alone
C. Berlin (pt.)	22	13	2	2	5	3
C. Wautoma	748	371	21	77	279	169
V. Coloma	159	89	4	10	56	29
V. Hancock	164	91	1	6	66	40
V. Lohrville	142	83	3	13	43	13
V. Plainfield	324	169	8	46	101	68
V. Redgranite	421	222	13	38	148	90
V. Wild Rose	309	139	11	28	131	88
T. Aurora	296	216	11	15	54	18
T. Bloomfield	315	223	12	11	69	29
T. Coloma	181	126	6	7	42	15
T. Dakota	411	267	14	30	100	40
T. Deerfield	178	126	7	8	37	19
T. Hancock	178	123	6	12	37	21
T. Leon	397	274	10	20	93	41
T. Marion	641	456	6	29	150	73
T. Mount Morris	327	210	18	17	82	38
T. Oasis	136	96	5	12	23	13
T. Plainfield	191	118	6	11	56	21
T. Poy Sippi	354	244	9	17	84	44
T. Richford	150	115	4	5	26	15
T. Rose	192	113	7	15	57	28
T. Saxeville	316	221	6	20	69	21
T. Springwater	434	296	9	15	114	58
T. Warren	210	142	12	15	41	13
T. Wautoma	420	291	14	29	86	42
Waushara County	7,616	4,834	225	508	2,049	1,049
Wisconsin	1,822,118	1,048,010	52,632	174,530	546,946	192,072

Source: U. S. Census, 1990, STF 1A.

Table A-9. Households by Type, 2000

	Total Households	Family Households			Nonfamily Households	
		Married-couple family	Male Householder, no wife present	Female Householder, no husband present	Total Nonfamily households	Householder Age 65+ Living Alone
C. Berlin (pt.)	36	20	1	1	14	7
C. Wautoma	806	304	37	89	376	162
V. Coloma	185	105	8	15	57	29
V. Hancock	193	96	9	17	71	36
V. Lohrville	168	100	10	13	45	15
V. Plainfield	342	172	18	41	111	50
V. Redgranite	440	205	13	51	171	78
V. Wild Rose	312	137	15	35	125	61
T. Aurora	352	250	16	16	70	23
T. Bloomfield	383	267	15	16	85	31
T. Coloma	254	170	11	14	59	18
T. Dakota	493	317	16	24	136	51
T. Deerfield	263	178	9	17	59	24
T. Hancock	211	132	6	10	63	19
T. Leon	539	349	15	21	154	56
T. Marion	908	587	34	34	253	111
T. Mount Morris	481	304	12	29	136	55
T. Oasis	152	101	5	7	39	18
T. Plainfield	198	122	13	12	51	13
T. Poy Sippi	392	239	17	31	105	43
T. Richford	190	141	7	10	32	13
T. Rose	244	156	9	17	62	25
T. Saxeville	393	278	14	20	81	27
T. Springwater	617	377	18	35	187	71
T. Warren	261	170	12	11	68	27
T. Wautoma	523	325	17	38	143	46
Waushara County	9,336	5,602	357	624	2,753	1,109
Wisconsin	2,084,544	1,108,597	200,300	77,918	697,729	207,206

Source: U. S. Census, 2000, STF 1A.

Table A-10. Waushara County Population by Race, 1990

Jurisdiction	White	African American	Native American	Asian/Pacific Islander	Other Races	Total Population
C. Berlin (pt.)	67	0	0	0	0	67
C. Wautoma	1,756	0	6	1	21	1,784
V. Coloma	382	0	0	0	1	383
V. Hancock	371	0	0	0	11	382
V. Lohrville	357	0	7	1	3	368
V. Plainfield	824	1	3	5	6	839
V. Redgranite	990	4	3	2	10	1,009
V. Wild Rose	649	0	2	14	11	676
T. Aurora	839	0	5	2	0	846
T. Bloomfield	921	0	1	0	0	922
T. Coloma	499	0	0	0	0	499
T. Dakota	1,058	2	6	3	23	1,092
T. Deerfield	449	2	2	1	0	454
T. Hancock	457	0	3	0	7	467
T. Leon	967	11	6	2	6	992
T. Marion	1,461	3	8	0	6	1,478
T. Mount Morris	761	0	5	1	0	767
T. Oasis	383	0	1	0	5	389
T. Plainfield	498	0	0	4	27	529
T. Poy Sippi	920	1	5	1	2	929
T. Richford	455	0	0	0	0	455
T. Rose	481	2	3	0	0	486
T. Saxeville	841	0	0	1	4	846
T. Springwater	1,085	0	0	2	1	1,088
T. Warren	548	0	2	0	0	550
T. Wautoma	1,075	3	2	3	5	1,088
Waushara County	19,094	29	70	43	149	19,385
Wisconsin	4,512,523	244,539	39,387	53,583	41,737	4,891,769

Source: U. S. Census, 1990, STF 1A.

Table A-11. Population by Race, 2000

Jurisdiction	White	African American	Native American	Asian/Pacific Islander	Other Races	Two or More Races	Total Population
C. Berlin (pt.)	79	0	0	0	3	1	83
C. Wautoma	1,879	22	14	17	40	26	1,998
V. Coloma	458	0	0	1	1	1	461
V. Hancock	427	0	5	1	20	10	463
V. Lohrville	395	0	1	0	5	7	408
V. Plainfield	829	1	0	10	56	3	899
V. Redgranite	987	9	12	0	7	25	1,040
V. Wild Rose	744	6	1	2	7	5	765
T. Aurora	948	0	1	11	3	8	971
T. Bloomfield	1,009	0	2	2	0	5	1,018
T. Coloma	730	1	0	0	9	8	748
T. Dakota	1,175	0	2	6	68	8	1,259
T. Deerfield	613	2	2	1	2	9	629
T. Hancock	514	0	2	2	12	1	531
T. Leon	1,266	0	6	0	0	9	1,281
T. Marion	2,026	2	9	10	3	15	2,065
T. Mount Morris	1,073	0	3	2	0	14	1,092
T. Oasis	390	1	2	2	6	4	405
T. Plainfield	515	0	0	1	16	1	533
T. Poy Sippi	944	2	2	1	13	10	972
T. Richford	558	7	5	5	12	1	588
T. Rose	581	2	0	0	6	6	595
T. Saxeville	964	0	0	0	3	7	974
T. Springwater	1,373	3	0	1	3	9	1,389
T. Warren	664	0	1	1	5	4	675
T. Wautoma	1,272	4	2	11	14	9	1,312
Waushara County	22,413	62	72	87	314	206	23,154
Wisconsin	4,769,857	304,460	47,228	90,393	84,842	66,895	5,363,675

Source: U. S. Census, 2000, STF 1A.

Table A-12. Persons of Hispanic Origin, 1990 and 2000

Jurisdiction	1990		2000	
	Number	Percent	Number	Percent
C. Berlin (pt.)	0	0.0%	4	4.8%
C. Wautoma	41	2.3%	144	7.2%
V. Coloma	16	4.2%	14	3.0%
V. Hancock	22	5.8%	40	8.6%
V. Lohrville	4	1.1%	9	2.2%
V. Plainfield	37	4.4%	161	17.9%
V. Redgranite	40	4.0%	32	3.1%
V. Wild Rose	12	1.6%	17	2.2%
T. Aurora	7	0.8%	19	2.0%
T. Bloomfield	0	0.0%	1	0.1%
T. Coloma	0	0.0%	27	3.6%
T. Dakota	58	5.3%	109	8.7%
T. Deerfield	0	0.0%	7	1.1%
T. Hancock	14	3.0%	25	4.7%
T. Leon	8	0.8%	9	0.7%
T. Marion	10	0.7%	27	1.3%
T. Mount Morris	1	0.1%	9	0.8%
T. Oasis	5	1.3%	11	2.7%
T. Plainfield	42	7.9%	52	9.8%
T. Poy Sippi	12	1.3%	20	2.1%
T. Richford	0	0.0%	24	4.1%
T. Rose	0	0.0%	17	2.9%
T. Saxeville	12	1.4%	11	1.1%
T. Springwater	4	0.4%	7	0.5%
T. Warren	5	0.9%	15	2.2%
T. Wautoma	29	2.7%	37	2.8%
Waushara County	379	2.0%	848	3.7%
Wisconsin	93,194	1.9%	192,921	3.6%

Source: U. S. Census, 1990, 2000, STF 1A.

Table A-13 Earnings as a Portion of Household Income, 1999

Jurisdiction	Total Households	Households With Earnings		Aggregate Household Income		Average Household Income	Average Earnings Per Household	Percent of Income from Earnings
		Number	Percent	Total household income	Income From Earnings			
C. Berlin (pt.)	34	24	70.6%	\$1,643,100	\$1,208,900	\$48,326	\$50,371	73.6%
C. Wautoma	795	591	74.3%	\$29,945,300	\$20,618,400	\$37,667	\$34,887	68.9%
V. Coloma	187	139	74.3%	\$7,060,700	\$5,072,000	\$37,758	\$36,489	71.8%
V. Hancock	193	144	74.6%	\$7,405,700	\$5,861,200	\$38,372	\$40,703	79.1%
V. Lohrville	161	114	70.8%	\$6,006,600	\$4,152,700	\$37,308	\$36,427	69.1%
V. Plainfield	331	260	78.5%	\$13,704,700	\$10,556,000	\$41,404	\$40,600	77.0%
V. Redgranite	455	296	65.1%	\$14,902,500	\$10,636,200	\$32,753	\$35,933	71.4%
V. Wild Rose	303	229	75.6%	\$13,478,000	\$10,773,000	\$44,482	\$47,044	79.9%
T. Aurora	356	296	83.1%	\$19,998,600	\$16,023,900	\$56,176	\$54,135	80.1%
T. Bloomfield	382	320	83.8%	\$19,397,000	\$16,145,600	\$50,777	\$50,455	83.2%
T. Coloma	238	186	78.2%	\$10,672,600	\$8,151,500	\$44,843	\$43,825	76.4%
T. Dakota	485	364	75.1%	\$22,734,400	\$16,153,200	\$46,875	\$44,377	71.1%
T. Deerfield	266	198	74.4%	\$13,414,100	\$8,142,000	\$50,429	\$41,121	60.7%
T. Hancock	216	176	81.5%	\$9,893,800	\$7,932,900	\$45,805	\$45,073	80.2%
T. Leon	530	414	78.1%	\$23,330,000	\$16,709,600	\$44,019	\$40,361	71.6%
T. Marion	903	637	70.5%	\$44,028,800	\$25,619,500	\$48,758	\$40,219	58.2%
T. Mount Morris	481	368	76.5%	\$23,161,600	\$15,389,400	\$48,153	\$41,819	66.4%
T. Oasis	153	125	81.7%	\$6,713,400	\$4,911,900	\$43,878	\$39,295	73.2%
T. Plainfield	216	189	87.5%	\$9,593,300	\$7,431,600	\$44,413	\$39,321	77.5%
T. Poy Sippi	387	300	77.5%	\$17,928,800	\$13,710,200	\$46,328	\$45,701	76.5%
T. Richford	200	155	77.5%	\$8,213,700	\$5,384,500	\$41,069	\$34,739	65.6%
T. Rose	242	184	76.0%	\$10,332,800	\$7,703,300	\$42,698	\$41,866	74.6%
T. Saxeville	405	304	75.1%	\$20,164,500	\$15,077,900	\$49,789	\$49,598	74.8%
T. Springwater	616	439	71.3%	\$28,287,100	\$18,250,900	\$45,921	\$41,574	64.5%
T. Warren	252	207	82.1%	\$10,417,900	\$7,942,200	\$41,341	\$38,368	76.2%
T. Wautoma	525	389	74.1%	\$23,735,000	\$17,470,300	\$45,210	\$44,911	73.6%
Wausara County	9,312	7,048	75.7%	416,164,000	\$297,028,900	\$44,691	\$42,144	71.4%
Wisconsin	2,086,304	1,706,803	81.8%	\$112,374,261,000	\$90,604,137,400	\$53,863	\$53,084	80.6%

Source: U. S. Census, 2000, STF 3A.

Table A-14.. Comparative Income Characteristics, 1989 and 1999

Jurisdiction	Median Household Income		Median Family Income		Per Capita Income	
	1989	1999	1989	1999	1989	1999
C. Berlin (pt.)	\$ 21,875	\$45,000	\$ 36,667	\$53,125	\$ 8,982	\$23,859
C. Wautoma	\$ 19,712	\$31,723	\$ 22,115	\$37,500	\$ 9,984	\$16,006
V. Coloma	\$ 17,333	\$33,295	\$ 25,250	\$38,542	\$ 10,337	\$14,766
V. Hancock	\$ 12,917	\$35,341	\$ 21,591	\$36,250	\$ 7,351	\$14,889
V. Lohrville	\$ 21,406	\$34,479	\$ 24,063	\$36,500	\$ 9,033	\$14,386
V. Plainfield	\$ 17,409	\$36,328	\$ 25,774	\$43,977	\$ 9,634	\$15,563
V. Redgranite	\$ 19,259	\$26,726	\$ 22,083	\$34,875	\$ 9,485	\$13,994
V. Wild Rose	\$ 17,857	\$30,655	\$ 25,096	\$37,361	\$ 10,220	\$18,887
T. Aurora	\$ 27,685	\$49,583	\$ 29,583	\$52,500	\$ 10,606	\$20,146
T. Bloomfield	\$ 26,136	\$42,222	\$ 30,511	\$49,643	\$ 11,104	\$19,161
T. Coloma	\$ 21,250	\$36,406	\$ 26,250	\$39,118	\$ 10,744	\$16,290
T. Dakota	\$ 20,513	\$34,931	\$ 23,036	\$37,000	\$ 9,282	\$18,401
T. Deerfield	\$ 25,114	\$41,324	\$ 25,795	\$44,318	\$ 11,194	\$20,781
T. Hancock	\$ 21,696	\$43,889	\$ 23,750	\$45,556	\$ 9,774	\$18,345
T. Leon	\$ 23,750	\$39,524	\$ 27,279	\$45,938	\$ 9,543	\$18,445
T. Marion	\$ 23,397	\$37,534	\$ 25,833	\$41,926	\$ 11,868	\$21,714
T. Mount Morris	\$ 21,625	\$39,732	\$ 24,375	\$45,114	\$ 11,959	\$20,713
T. Oasis	\$ 25,375	\$38,472	\$ 26,875	\$41,563	\$ 13,537	\$16,480
T. Plainfield	\$ 23,750	\$38,462	\$ 28,750	\$41,406	\$ 9,068	\$16,432
T. Poy Sippi	\$ 24,318	\$40,489	\$ 27,639	\$47,250	\$ 10,986	\$18,625
T. Richford	\$ 20,417	\$37,656	\$ 22,500	\$38,929	\$ 8,992	\$14,503
T. Rose	\$ 23,750	\$34,792	\$ 30,694	\$40,417	\$ 11,161	\$17,630
T. Saxeville	\$ 26,618	\$39,688	\$ 28,542	\$46,827	\$ 10,832	\$20,514
T. Springwater	\$ 21,917	\$35,714	\$ 25,250	\$40,385	\$ 11,462	\$20,586
T. Warren	\$ 23,594	\$38,438	\$ 26,375	\$43,833	\$ 9,138	\$15,672
T. Wautoma	\$ 25,143	\$39,185	\$ 28,214	\$44,063	\$ 10,792	\$17,981
Waushara County	\$ 21,888	\$37,000	\$ 26,042	\$42,416	\$ 10,408	\$18,144
Wisconsin	\$ 29,442	\$43,791	\$ 35,082	\$52,911	\$ 13,276	\$21,271

Source: U.S. Census, 2000

Table A-15. Household Income by Range, 1999

	Less than \$10,000	\$10,000 to \$19,999	\$20,000 to \$29,999	\$30,000 to \$39,999	\$40,000 to \$44,999	\$45,000 to \$59,999	\$60,000 to \$74,999	\$75,000 to \$99,999	\$100,000 to \$124,999	\$125,000 to \$149,999	\$150,000 or more	Total Households in Sample
C. Berlin (pt.)	3	3	6	3	2	6	4	7	0	0	0	34
C. Wautoma	89	160	103	168	66	101	47	31	13	2	15	795
V. Coloma	21	34	26	31	20	23	22	5	3	0	2	187
V. Hancock	17	31	32	35	12	38	15	8	3	0	2	193
V. Lohrville	9	22	32	34	11	35	9	9	0	0	0	161
V. Plainfield	39	51	56	34	26	57	41	13	4	2	8	331
V. Redgranite	68	97	86	51	29	78	25	16	2	0	3	455
V. Wild Rose	31	53	62	55	20	24	26	16	11	0	5	303
T. Aurora	15	31	42	40	23	77	63	38	12	5	10	356
T. Bloomfield	22	38	61	54	20	78	44	42	4	8	11	382
T. Coloma	14	29	41	59	29	33	7	10	10	0	6	238
T. Dakota	36	74	97	73	30	80	52	27	7	0	9	485
T. Deerfield	23	26	36	39	28	52	24	18	9	4	7	266
T. Hancock	14	25	14	31	32	57	18	13	10	2	0	216
T. Leon	40	63	74	92	38	100	61	43	10	5	4	530
T. Marion	56	127	124	181	72	155	79	52	18	15	24	903
T. Mount Morris	27	74	71	70	44	62	53	48	18	5	9	481
T. Oasis	22	11	26	23	16	17	13	13	7	5	0	153
T. Plainfield	9	28	35	44	17	47	15	12	3	2	4	216
T. Poy Sippi	38	58	45	48	27	80	30	41	12	2	6	387
T. Richford	10	35	31	39	19	41	14	6	3	0	2	200
T. Rose	18	36	47	41	6	36	37	12	2	5	2	242
T. Saxeville	36	52	61	55	23	71	43	42	9	2	11	405
T. Springwater	50	109	98	90	50	78	52	48	11	10	20	616
T. Warren	29	26	32	44	27	40	25	25	2	0	2	252
T. Wautoma	43	80	63	84	40	92	50	42	18	0	13	525
Waushara County	779	1,373	1,401	1,518	727	1,558	869	637	201	74	175	9,312
Wisconsin	148,964	248,535	274,230	269,250	129,319	339,492	253,518	226,374	94,628	39,091	62,903	2,086,304

Source: U.S. Census, 2000.

Table A-16. Poverty Status, 1989

Jurisdiction	Total Persons		Total Persons Below Poverty		Total Families		Total Families Below Poverty	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
C. Berlin (pt.)	81	100.0%	0	0.0%	18	100.0%	0	0.0%
C. Wautoma	1,399	100.0%	301	21.5%	466	100.0%	64	13.7%
V. Coloma	340	100.0%	53	15.6%	108	100.0%	4	3.7%
V. Hancock	245	100.0%	120	49.0%	88	100.0%	23	26.1%
V. Lohrville	320	100.0%	52	16.3%	105	100.0%	14	13.3%
V. Plainfield	737	100.0%	103	14.0%	229	100.0%	25	10.9%
V. Redgranite	826	100.0%	160	19.4%	266	100.0%	27	10.2%
V. Wild Rose	587	100.0%	78	13.3%	171	100.0%	16	9.4%
T. Aurora	744	100.0%	75	10.1%	225	100.0%	13	5.8%
T. Bloomfield	827	100.0%	124	15.0%	255	100.0%	21	8.2%
T. Coloma	424	100.0%	51	12.0%	141	100.0%	11	7.8%
T. Dakota	872	100.0%	214	24.5%	320	100.0%	42	13.1%
T. Deerfield	414	100.0%	43	10.4%	140	100.0%	12	8.6%
T. Hancock	407	100.0%	54	13.3%	136	100.0%	13	9.6%
T. Leon	861	100.0%	132	15.3%	287	100.0%	27	9.4%
T. Marion	1,319	100.0%	159	12.1%	496	100.0%	39	7.9%
T. Mount Morris	680	100.0%	84	12.4%	250	100.0%	23	9.2%
T. Oasis	363	100.0%	18	5.0%	123	100.0%	7	5.7%
T. Plainfield	390	100.0%	129	33.1%	131	100.0%	25	19.1%
T. Poy Sippi	799	100.0%	123	15.4%	268	100.0%	28	10.4%
T. Richford	353	100.0%	130	36.8%	136	100.0%	31	22.8%
T. Rose	449	100.0%	53	11.8%	130	100.0%	8	6.2%
T. Saxeville	743	100.0%	59	7.9%	233	100.0%	13	5.6%
T. Springwater	884	100.0%	125	14.1%	324	100.0%	32	9.9%
T. Warren	478	100.0%	93	19.5%	173	100.0%	18	10.4%
T. Wautoma	979	100.0%	109	11.1%	342	100.0%	28	8.2%
Waushara County	16,521	100.0%	2,642	16.0%	5,561	100.0%	564	10.1%
Wisconsin	4,754,103	100.0%	508,545	10.7%	1,284,297	100.0%	97,466	7.6%

Source: U.S. Census, 1990.

Table A-17. Persons in Poverty by Age as a Share of the Total Population, 1989

Jurisdiction	Total Persons Number	Persons Under 18				Persons Under 65				Persons Age 65 and Older			
		Total Persons		Below Poverty		Total Persons		Below Poverty		Total Persons		Below Poverty	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
C. Berlin (pt.)	81	26	32.1%	0	0.0%	72	88.9%	0	0.0%	9	11.1%	0	0.0%
C. Wautoma	1,399	410	29.3%	118	28.8%	1,015	72.6%	253	24.9%	384	27.4%	48	12.5%
V. Coloma	340	103	30.3%	12	11.7%	262	77.1%	38	14.5%	78	22.9%	15	19.2%
V. Hancock	245	103	42.0%	46	44.7%	189	77.1%	106	56.1%	56	22.9%	14	25.0%
V. Lohrville	320	106	33.1%	19	17.9%	274	85.6%	44	16.1%	46	14.4%	8	17.4%
V. Plainfield	737	268	36.4%	35	13.1%	620	84.1%	78	12.6%	117	15.9%	25	21.4%
V. Redgranite	826	253	30.6%	50	19.8%	638	77.2%	128	20.1%	188	22.8%	32	17.0%
V. Wild Rose	587	133	22.7%	19	14.3%	425	72.4%	46	10.8%	162	27.6%	32	19.8%
T. Aurora	744	187	25.1%	30	16.0%	622	83.6%	71	11.4%	122	16.4%	4	3.3%
T. Bloomfield	827	280	33.9%	46	16.4%	728	88.0%	103	14.1%	99	12.0%	21	21.2%
T. Coloma	424	102	24.1%	11	10.8%	377	88.9%	34	9.0%	47	11.1%	17	36.2%
T. Dakota	872	293	33.6%	99	33.8%	718	82.3%	201	28.0%	154	17.7%	13	8.4%
T. Deerfield	414	108	26.1%	14	13.0%	326	78.7%	41	12.6%	88	21.3%	2	2.3%
T. Hancock	407	118	29.0%	16	13.6%	335	82.3%	46	13.7%	72	17.7%	8	11.1%
T. Leon	861	227	26.4%	29	12.8%	738	85.7%	104	14.1%	123	14.3%	28	22.8%
T. Marion	1,319	274	20.8%	44	16.1%	1,001	75.9%	132	13.2%	318	24.1%	27	8.5%
T. Mount Morris	680	148	21.8%	30	20.3%	499	73.4%	77	15.4%	181	26.6%	7	3.9%
T. Oasis	363	93	25.6%	2	2.2%	307	84.6%	13	4.2%	56	15.4%	5	8.9%
T. Plainfield	390	170	43.6%	61	35.9%	361	92.6%	114	31.6%	29	7.4%	15	51.7%
T. Poy Sippi	799	240	30.0%	45	18.8%	673	84.2%	91	13.5%	126	15.8%	32	25.4%
T. Richford	353	169	47.9%	61	36.1%	321	90.9%	112	34.9%	32	9.1%	18	56.3%
T. Rose	449	117	26.1%	20	17.1%	363	80.8%	43	11.8%	86	19.2%	10	11.6%
T. Saxeville	743	192	25.8%	23	12.0%	632	85.1%	50	7.9%	111	14.9%	9	8.1%
T. Springwater	884	184	20.8%	38	20.7%	673	76.1%	107	15.9%	211	23.9%	18	8.5%
T. Warren	478	163	34.1%	42	25.8%	400	83.7%	80	20.0%	78	16.3%	13	16.7%
T. Wautoma	979	266	27.2%	39	14.7%	777	79.4%	90	11.6%	202	20.6%	19	9.4%
Waushara County	16,521	4,733	28.6%	949	20.1%	13,346	80.8%	2,202	16.5%	3,175	19.2%	440	13.9%
Wisconsin	4,754,103	1,271,165	26.7%	188,863	14.9%	4,152,291	87.3%	453,739	10.9%	604,812	12.7%	54,806	9.1%

Source: U.S. Census, 1990.

Table A-18. Poverty Status, 1999

Jurisdiction	Total Persons		Total Persons Below Poverty		Total Families		Total Families Below Poverty	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
C. Berlin (pt.)	68	100.0%	3	4.4%	22	100.0%	0	0.0%
C. Wautoma	1,793	100.0%	207	11.5%	430	100.0%	22	5.1%
V. Coloma	486	100.0%	81	16.7%	128	100.0%	16	12.5%
V. Hancock	485	100.0%	46	9.5%	122	100.0%	7	5.7%
V. Lohrville	415	100.0%	13	3.1%	123	100.0%	2	1.6%
V. Plainfield	850	100.0%	97	11.4%	231	100.0%	17	7.4%
V. Redgranite	1,069	100.0%	119	11.1%	269	100.0%	17	6.3%
V. Wild Rose	728	100.0%	48	6.6%	187	100.0%	8	4.3%
T. Aurora	978	100.0%	43	4.4%	282	100.0%	11	3.9%
T. Bloomfield	1,009	100.0%	82	8.1%	298	100.0%	17	5.7%
T. Coloma	690	100.0%	83	12.0%	195	100.0%	6	3.1%
T. Dakota	1,233	100.0%	153	12.4%	357	100.0%	27	7.6%
T. Deerfield	643	100.0%	45	7.0%	204	100.0%	14	6.9%
T. Hancock	542	100.0%	20	3.7%	148	100.0%	0	0.0%
T. Leon	1,273	100.0%	98	7.7%	385	100.0%	15	3.9%
T. Marion	2,031	100.0%	138	6.8%	655	100.0%	22	3.4%
T. Mount Morris	1,118	100.0%	82	7.3%	345	100.0%	20	5.8%
T. Oasis	410	100.0%	24	5.9%	113	100.0%	4	3.5%
T. Plainfield	569	100.0%	65	11.4%	147	100.0%	16	10.9%
T. Poy Sippi	977	100.0%	68	7.0%	287	100.0%	10	3.5%
T. Richford	568	100.0%	127	22.4%	158	100.0%	22	13.9%
T. Rose	584	100.0%	60	10.3%	182	100.0%	6	3.3%
T. Saxeville	967	100.0%	89	9.2%	312	100.0%	17	5.4%
T. Springwater	1,361	100.0%	114	8.4%	430	100.0%	24	5.6%
T. Warren	646	100.0%	49	7.6%	193	100.0%	6	3.1%
T. Wautoma	1,340	100.0%	130	9.7%	380	100.0%	20	5.3%
Waushara County	22,833	100.0%	2,084	9.1%	6,583	100.0%	346	5.3%
Wisconsin	5,211,603	100.0%	451,538	8.7%	1,386,815	100.0%	78,188	5.6%

Source: U.S. Census, 2000, STF 3A.

Table A-19. Persons in Poverty by Age and as a Share of Total Population, 1999

Jurisdiction	Total Persons Number	Persons Under 18				Persons Under 65				Persons Age 65 and Older			
		Total Persons		Below Poverty		Total Persons		Below Poverty		Total Persons		Below Poverty	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
C. Berlin (pt.)	68	12	17.6%	0	0.0%	56	82.4%	1	1.8%	12	17.6%	2	16.7%
C. Wautoma	1,793	459	25.6%	49	10.7%	1,405	78.4%	136	9.7%	388	21.6%	71	18.3%
V. Coloma	486	139	28.6%	34	24.5%	398	81.9%	65	16.3%	88	18.1%	16	18.2%
V. Hancock	485	142	29.3%	16	11.3%	401	82.7%	33	8.2%	84	17.3%	13	15.5%
V. Lohrville	415	102	24.6%	0	0.0%	327	78.8%	7	2.1%	88	21.2%	6	6.8%
V. Plainfield	850	244	28.7%	25	10.2%	714	84.0%	78	10.9%	136	16.0%	19	14.0%
V. Redgranite	1,069	264	24.7%	21	8.0%	839	78.5%	96	11.4%	230	21.5%	23	10.0%
V. Wild Rose	728	193	26.5%	8	4.1%	595	81.7%	31	5.2%	133	18.3%	17	12.8%
T. Aurora	978	247	25.3%	8	3.2%	861	88.0%	35	4.1%	117	12.0%	8	6.8%
T. Bloomfield	1,009	243	24.1%	24	9.9%	888	88.0%	69	7.8%	121	12.0%	13	10.7%
T. Coloma	690	106	15.4%	2	1.9%	487	70.6%	40	8.2%	203	29.4%	43	21.2%
T. Dakota	1,233	308	25.0%	71	23.1%	1,011	82.0%	145	14.3%	222	18.0%	8	3.6%
T. Deerfield	643	145	22.6%	6	4.1%	527	82.0%	38	7.2%	116	18.0%	7	6.0%
T. Hancock	542	124	22.9%	0	0.0%	468	86.3%	14	3.0%	74	13.7%	6	8.1%
T. Leon	1,273	265	20.8%	29	10.9%	1,054	82.8%	79	7.5%	219	17.2%	19	8.7%
T. Marion	2,031	375	18.5%	44	11.7%	1,547	76.2%	102	6.6%	484	23.8%	36	7.4%
T. Mount Morris	1,118	241	21.6%	24	10.0%	892	79.8%	73	8.2%	226	20.2%	9	4.0%
T. Oasis	410	109	26.6%	0	0.0%	344	83.9%	20	5.8%	66	16.1%	4	6.1%
T. Plainfield	569	164	28.8%	32	19.5%	511	89.8%	62	12.1%	58	10.2%	3	5.2%
T. Poy Sippi	977	247	25.3%	11	4.5%	820	83.9%	52	6.3%	157	16.1%	16	10.2%
T. Richford	568	176	31.0%	68	38.6%	481	84.7%	119	24.7%	87	15.3%	8	9.2%
T. Rose	584	112	19.2%	9	8.0%	478	81.8%	47	9.8%	106	18.2%	13	12.3%
T. Saxeville	967	216	22.3%	34	15.7%	800	82.7%	81	10.1%	167	17.3%	8	4.8%
T. Springwater	1,361	256	18.8%	34	13.3%	1,008	74.1%	85	8.4%	353	25.9%	29	8.2%
T. Warren	646	153	23.7%	7	4.6%	543	84.1%	34	6.3%	103	15.9%	15	14.6%
T. Wautoma	1,340	325	24.3%	28	8.6%	1,081	80.7%	80	7.4%	259	19.3%	50	19.3%
Waushara County	22,833	5,367	23.5%	584	10.9%	18,536	81.2%	1,622	8.8%	4,297	18.8%	462	10.8%
Wisconsin	5,211,603	1,342,950	25.8%	150,166	11.2%	4,548,790	87.3%	402,293	8.8%	662,813	12.7%	49,245	7.4%

Source: U.S. Census, 2000, STF 3A.

Table A-20. Population Estimates, Waushara County 1970 to 2030

Minor Civil Division	Census 1970	Census 1980	Census 1990	Census 2000	ECWRPC 2005	ECWRPC 2010	ECWRPC 2015	ECWRPC 2020	ECWRPC 2025	ECWRPC 2030	Percent Change 2000 to 2030
C. Berlin (pt.)	41	91	67	83	86	89	91	92	93	93	12.53%
C. Wautoma	1,624	1,629	1,784	1,998	2,182	2,302	2,409	2,502	2,588	2,649	32.59%
V. Coloma	336	367	383	461	482	511	536	559	580	595	29.09%
V. Hancock	404	419	382	463	471	477	480	479	476	469	1.21%
V. Lohrville	213	336	368	408	425	436	443	447	450	449	9.94%
V. Plainfield	642	813	839	899	912	907	894	873	848	814	-9.46%
V. Redgranite	645	976	1,009	1,040	2,071	2,123	2,159	2,180	2,193	2,184	110.03%
V. Wild Rose	585	741	753	765	773	770	759	742	722	694	-9.26%
T. Aurora	802	890	846	971	1,092	1,139	1,178	1,210	1,238	1,255	29.20%
T. Bloomfield	798	931	922	1,018	1,068	1,076	1,074	1,064	1,050	1,025	0.65%
T. Coloma ^a	382	437	499	660	748	807	862	913	962	1,002	51.83%
T. Dakota	752	994	1,092	1,259	1,293	1,300	1,296	1,282	1,263	1,230	-2.33%
T. Deerfield	367	445	454	629	674	711	745	774	801	820	30.40%
T. Hancock	346	426	467	531	576	601	621	637	652	660	24.30%
T. Leon	651	844	992	1,281	1,435	1,528	1,612	1,687	1,758	1,812	41.46%
T. Marion	877	1,333	1,478	2,065	2,230	2,345	2,446	2,532	2,612	2,666	29.08%
T. Mount Morris	517	685	767	1,092	1,155	1,213	1,263	1,306	1,345	1,370	25.50%
T. Oasis	346	403	389	405	403	397	388	374	359	340	-15.99%
T. Plainfield	447	574	529	533	563	574	581	584	585	580	8.77%
T. Poy Sippi	823	913	929	972	994	993	982	964	941	908	-6.57%
T. Richford	322	404	455	588	627	658	686	709	731	746	26.79%
T. Rose	319	515	486	595	627	645	659	668	675	675	13.36%
T. Saxeville	612	776	846	974	1,026	1,059	1,084	1,102	1,116	1,119	14.88%
T. Springwater	584	924	1,011	1,389	1,460	1,519	1,566	1,604	1,637	1,653	19.02%
T. Warren	637	573	550	675	733	763	789	809	827	837	23.98%
T. Wautoma	723	1,087	1,088	1,312	1,380	1,406	1,420	1,424	1,423	1,407	7.26%
Waushara County ^a	14,795	18,526	19,385	23,066	25,483	26,349	27,024	27,518	27,925	28,051	21.61%

Source: U. S. Census, 1970, 1980, 1990, 2000; WI DOA, 2004; ECWRPC.

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Table A-21. Total Number of Households in Waushara County, 1970 to 2000

Minor Civil Division	1970		1980		1990		2000		1970 to 2000	
	No. HH	Persons per HH	No. HH	Persons per HH	No. HH	Persons per HH	No. HH	Persons per HH	Change in HHs Number	Percent
C. Berlin (pt.)	15	2.73	31	2.94	22	3.05	36	2.31	21	140.0%
C. Wautoma	570	2.76	695	2.18	748	2.25	806	2.20	236	41.4%
V. Coloma	139	2.42	159	2.31	159	2.41	185	2.42	46	33.1%
V. Hancock	136	2.87	167	2.51	164	2.33	193	2.40	57	41.9%
V. Lohrville	62	3.15	127	2.65	142	2.59	168	2.43	106	171.0%
V. Plainfield	250	2.57	318	2.52	324	2.55	342	2.60	92	36.8%
V. Redgranite	231	2.79	367	2.66	421	2.40	440	2.30	209	90.5%
V. Wild Rose	224	2.61	275	2.45	309	2.15	312	2.26	88	39.3%
T. Aurora	239	3.36	303	2.94	296	2.86	352	2.76	113	47.3%
T. Bloomfield	223	3.58	301	3.09	315	2.93	383	2.65	160	71.7%
T. Coloma	114	3.35	145	3.01	181	2.76	254	2.51	140	122.8%
T. Dakota	238	3.16	379	2.62	411	2.66	493	2.55	255	107.1%
T. Deerfield	123	2.98	162	2.75	178	2.55	263	2.39	140	113.8%
T. Hancock	125	2.77	157	2.71	178	2.62	211	2.52	86	68.8%
T. Leon	215	3.03	315	2.68	397	2.50	539	2.38	324	150.7%
T. Marion	310	2.83	542	2.46	641	2.31	908	2.27	598	192.9%
T. Mount Morris	173	2.99	275	2.49	327	2.35	481	2.27	308	178.0%
T. Oasis	107	3.23	131	3.08	136	2.86	152	2.66	45	42.1%
T. Plainfield	144	3.10	191	2.99	191	2.77	198	2.69	54	37.5%
T. Poy Sippi	267	3.05	325	2.81	354	2.62	392	2.48	125	46.8%
T. Richford	90	3.58	139	2.91	150	3.03	190	3.09	100	111.1%
T. Rose	108	2.95	179	2.88	192	2.53	244	2.44	136	125.9%
T. Saxeville	194	3.15	273	2.84	316	2.68	393	2.48	199	102.6%
T. Springwater	205	2.85	365	2.53	434	2.33	617	2.25	412	201.0%
T. Warren	176	3.72	198	2.89	210	2.62	261	2.59	85	48.3%
T. Wautoma	232	3.12	385	2.82	420	2.59	523	2.46	291	125.4%
Waushara County	4,910	3.00	6,904	2.65	7,616	2.52	9,336	2.43	4,426	90.1%

Source: U. S. Census: 1970, 1980, 1990 and 2000.

Note: Corrections to 1990 pphh for T. Springwater and V. Wild Rose made on 11/27/06. Group quarter population for V. Wild Rose was incorrectly assigned to T. Springwater.

Table A-22. Estimated Households by MCD, Waushara County, 2000 to 2030

Minor Civil Division	2000		2005		2010		2015		2020		2025		2030	
	No. HH	Persons per HH	No. HH	Persons per HH	No. HH	Persons per HH	No. HH	Persons per HH	No. HH	Persons per HH	No. HH	Persons per HH	No. HH	Persons per HH
C. Berlin (pt.)	36	2.31	37	2.34	40	2.20	44	2.07	47	1.98	49	1.90	51	1.82
	36	2.31	38	2.29	39	2.26	41	2.23	42	2.21	43	2.19	43	2.18
C. Wautoma	806	2.20	863	2.24	929	2.20	989	2.16	1,037	2.14	1,075	2.14	1,101	2.14
	806	2.20	889	2.18	952	2.15	1,010	2.12	1,060	2.10	1,105	2.08	1,138	2.07
V. Coloma	185	2.42	189	2.47	204	2.43	217	2.39	228	2.37	237	2.37	243	2.38
	185	2.42	195	2.40	209	2.37	222	2.34	234	2.32	244	2.30	252	2.29
V. Hancock	193	2.40	192	2.45	200	2.39	205	2.34	207	2.31	207	2.31	203	2.30
	193	2.40	198	2.38	203	2.35	207	2.32	209	2.30	209	2.28	207	2.27
V. Lohrville	168	2.43	172	2.47	183	2.38	192	2.30	199	2.25	204	2.21	207	2.17
	168	2.43	176	2.41	183	2.38	189	2.35	192	2.33	195	2.31	195	2.30
V. Plainfield	342	2.60	340	2.65	346	2.60	347	2.55	342	2.53	332	2.53	317	2.54
	342	2.60	350	2.58	352	2.55	351	2.52	346	2.50	338	2.48	327	2.47
V. Redgranite	440	2.30	471	2.40	490	2.41	503	2.41	509	2.43	509	2.45	502	2.47
	440	2.30	495	2.28	525	2.25	548	2.22	562	2.20	572	2.18	572	2.17
V. Wild Rose	312	2.26	309	2.30	317	2.24	321	2.18	319	2.14	313	2.12	303	2.11
	312	2.26	318	2.24	321	2.21	321	2.18	317	2.16	310	2.14	300	2.13
T. Aurora	352	2.76	388	2.81	419	2.72	447	2.64	469	2.58	488	2.54	500	2.51
	352	2.76	399	2.74	421	2.71	440	2.68	455	2.66	469	2.64	477	2.63
T. Bloomfield	383	2.65	395	2.69	417	2.57	435	2.46	446	2.38	453	2.31	454	2.25
	383	2.65	405	2.63	413	2.60	417	2.57	417	2.55	414	2.53	406	2.52
T. Coloma	254	2.51	283	2.55	317	2.46	351	2.37	382	2.31	410	2.26	434	2.23
	254	2.51	290	2.49	317	2.46	343	2.43	366	2.41	388	2.39	407	2.38
T. Dakota	493	2.55	498	2.60	517	2.52	531	2.44	536	2.39	535	2.36	527	2.33
	493	2.55	511	2.53	521	2.50	525	2.47	524	2.45	519	2.43	509	2.42
T. Deerfield	263	2.39	277	2.43	304	2.34	330	2.26	352	2.20	372	2.15	387	2.12
	263	2.39	284	2.37	304	2.34	323	2.31	338	2.29	353	2.27	363	2.26
T. Hancock	211	2.52	225	2.57	242	2.48	258	2.40	271	2.35	282	2.31	289	2.28
	211	2.52	231	2.50	243	2.47	255	2.44	264	2.42	271	2.40	276	2.39
T. Leon	539	2.38	593	2.42	654	2.34	713	2.26	764	2.21	810	2.17	848	2.14
	539	2.38	608	2.36	656	2.33	701	2.30	741	2.28	777	2.26	806	2.25
T. Marion	908	2.27	965	2.31	1,049	2.24	1,127	2.17	1,192	2.12	1,248	2.09	1,289	2.07
	908	2.27	991	2.25	1,057	2.22	1,118	2.19	1,168	2.17	1,214	2.15	1,247	2.14
T. Mount Morris	481	2.27	500	2.31	543	2.23	583	2.17	616	2.12	645	2.09	666	2.06
	481	2.27	514	2.25	547	2.22	577	2.19	603	2.17	625	2.15	641	2.14
T. Oasis	152	2.66	149	2.70	154	2.58	157	2.47	157	2.38	156	2.30	152	2.23
	152	2.66	153	2.64	152	2.61	150	2.58	146	2.56	141	2.54	135	2.53
T. Plainfield	198	2.69	205	2.74	218	2.63	229	2.54	237	2.46	243	2.41	245	2.37
	198	2.69	211	2.67	218	2.64	223	2.61	226	2.59	227	2.57	227	2.56
T. Poy Sippi	392	2.48	394	2.52	409	2.43	420	2.34	425	2.27	424	2.22	418	2.17
	392	2.48	404	2.46	409	2.43	410	2.40	405	2.38	399	2.36	387	2.35
T. Richford	190	3.09	199	3.16	214	3.07	229	3.00	241	2.95	250	2.92	257	2.90
	190	3.09	204	3.07	217	3.04	228	3.01	238	2.99	246	2.97	252	2.96
T. Rose	244	2.44	253	2.48	270	2.39	286	2.30	298	2.24	307	2.20	312	2.16
	244	2.44	259	2.42	270	2.39	279	2.36	286	2.34	291	2.32	292	2.31
T. Saxeville	393	2.48	407	2.52	437	2.42	465	2.33	487	2.26	504	2.21	516	2.17
	393	2.48	417	2.46	436	2.43	452	2.40	464	2.38	473	2.36	477	2.35
T. Springwater	617	2.25	638	2.29	687	2.21	732	2.14	768	2.09	797	2.05	817	2.02
	617	2.25	655	2.23	691	2.20	722	2.17	747	2.15	768	2.13	781	2.12
T. Warren	261	2.59	278	2.64	299	2.55	319	2.47	334	2.42	347	2.38	356	2.35
	261	2.59	285	2.57	301	2.54	314	2.51	325	2.49	335	2.47	341	2.46
T. Wautoma	523	2.46	541	2.50	572	2.41	599	2.33	616	2.27	627	2.23	630	2.19
	523	2.46	556	2.44	574	2.41	587	2.38	594	2.36	597	2.34	594	2.33
Waushara County	9,336	2.43	9,760	2.48	10,430	2.40	11,030	2.33	11,479	2.28	11,824	2.25	12,023	2.21
	9,336	2.43	10,034	2.41	10,532	2.37	10,954	2.34	11,268	2.32	11,522	2.30	11,651	2.29

Source: U.S. Census, 2000; ECWRPC.

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HOUSING APPENDICES

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Table B-1. Occupied Dwelling Units by Age, 1990

Jurisdiction	Less Than 5 Years		6-10 yrs		11-20 yrs		21-30 yrs		31-40 yrs		40+ yrs		Total Occupied Units	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
C. Berlin (pt.)	0	0.0%	0	0.0%	9	39.1%	0	0.0%	4	17.4%	10	43.5%	23	100.0%
C. Wautoma	45	6.0%	79	10.6%	129	17.2%	108	14.4%	86	11.5%	301	40.2%	748	100.0%
V. Coloma	2	1.3%	8	5.3%	38	25.2%	14	9.3%	16	10.6%	73	48.3%	151	100.0%
V. Hancock	5	3.2%	7	4.5%	28	17.9%	19	12.2%	11	7.1%	86	55.1%	156	100.0%
V. Lohrville	9	6.1%	22	15.0%	56	38.1%	13	8.8%	17	11.6%	30	20.4%	147	100.0%
V. Plainfield	12	3.6%	33	9.9%	65	19.4%	21	6.3%	38	11.3%	166	49.6%	335	100.0%
V. Redgranite	46	11.1%	29	7.0%	107	25.8%	54	13.0%	17	4.1%	162	39.0%	415	100.0%
V. Wild Rose	41	13.8%	22	7.4%	43	14.4%	28	9.4%	30	10.1%	134	45.0%	298	100.0%
T. Aurora	15	5.2%	12	4.2%	57	19.9%	48	16.7%	38	13.2%	117	40.8%	287	100.0%
T. Bloomfield	16	4.9%	27	8.3%	89	27.2%	27	8.3%	11	3.4%	157	48.0%	327	100.0%
T. Coloma	13	7.0%	30	16.0%	52	27.8%	13	7.0%	4	2.1%	75	40.1%	187	100.0%
T. Dakota	30	7.3%	48	11.7%	163	39.7%	70	17.0%	22	5.4%	78	19.0%	411	100.0%
T. Deerfield	27	15.5%	13	7.5%	44	25.3%	19	10.9%	3	1.7%	68	39.1%	174	100.0%
T. Hancock	23	12.6%	18	9.9%	50	27.5%	15	8.2%	14	7.7%	62	34.1%	182	100.0%
T. Leon	32	8.1%	33	8.4%	135	34.2%	37	9.4%	33	8.4%	125	31.6%	395	100.0%
T. Marion	47	7.3%	100	15.6%	235	36.7%	75	11.7%	34	5.3%	150	23.4%	641	100.0%
T. Mount Morris	26	7.9%	44	13.4%	88	26.7%	32	9.7%	41	12.5%	98	29.8%	329	100.0%
T. Oasis	11	7.7%	22	15.4%	34	23.8%	0	0.0%	11	7.7%	65	45.5%	143	100.0%
T. Plainfield	15	7.9%	18	9.4%	41	21.5%	32	16.8%	32	16.8%	53	27.7%	191	100.0%
T. Poy Sippi	8	2.3%	26	7.3%	83	23.4%	28	7.9%	29	8.2%	180	50.8%	354	100.0%
T. Richford	17	10.6%	15	9.4%	51	31.9%	4	2.5%	6	3.8%	67	41.9%	160	100.0%
T. Rose	7	3.8%	32	17.3%	52	28.1%	17	9.2%	7	3.8%	70	37.8%	185	100.0%
T. Saxeville	24	7.9%	37	12.2%	74	24.3%	33	10.9%	24	7.9%	112	36.8%	304	100.0%
T. Springwater	48	11.1%	61	14.1%	136	31.3%	61	14.1%	47	10.8%	81	18.7%	434	100.0%
T. Warren	23	10.5%	20	9.1%	49	22.4%	14	6.4%	15	6.8%	98	44.7%	219	100.0%
T. Wautoma	29	6.9%	48	11.4%	139	33.1%	38	9.0%	41	9.8%	125	29.8%	420	100.0%
Waushara County	571	7.5%	804	10.6%	2,047	26.9%	820	10.8%	631	8.3%	2,743	36.0%	7,616	100.0%
Wisconsin	198,198	12.0%	177,085	10.7%	263,431	15.9%	243,835	14.8%	166,000	10.0%	603,712	36.5%	1,652,261	100.0%

Source: U.S. Census, 1990

Table B-2. Occupied Dwelling Units by Age, 2000

Jurisdiction	Less Than 5 Years		6-10 yrs		11-20 yrs		21-30 yrs		31-40 yrs		40+ yrs		Total Occupied Units	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
C. Berlin (pt.)	15	45.5%	0	0.0%	0	0.0%	4	12.1%	3	9.1%	11	33.3%	33	100.0%
C. Wautoma	48	6.0%	31	3.9%	114	14.3%	163	20.4%	76	9.5%	366	45.9%	798	100.0%
V. Coloma	10	5.4%	19	10.2%	19	10.2%	33	17.7%	7	3.8%	98	52.7%	186	100.0%
V. Hancock	30	15.6%	34	17.7%	19	9.9%	15	7.8%	5	2.6%	89	46.4%	192	100.0%
V. Lohrville	4	2.4%	13	7.9%	32	19.4%	54	32.7%	13	7.9%	49	29.7%	165	100.0%
V. Plainfield	15	4.5%	13	3.9%	23	6.9%	44	13.3%	30	9.1%	206	62.2%	331	100.0%
V. Redgranite	37	8.2%	32	7.1%	41	9.1%	100	22.3%	26	5.8%	213	47.4%	449	100.0%
V. Wild Rose	48	15.3%	8	2.6%	34	10.9%	32	10.2%	15	4.8%	176	56.2%	313	100.0%
T. Aurora	42	11.8%	20	5.6%	23	6.5%	41	11.5%	43	12.1%	187	52.5%	356	100.0%
T. Bloomfield	59	15.5%	42	11.1%	26	6.8%	52	13.7%	31	8.2%	170	44.7%	380	100.0%
T. Coloma	42	17.2%	24	9.8%	35	14.3%	60	24.6%	22	9.0%	61	25.0%	244	100.0%
T. Dakota	45	9.2%	42	8.6%	76	15.5%	139	28.3%	52	10.6%	137	27.9%	491	100.0%
T. Deerfield	47	18.1%	30	11.5%	29	11.2%	46	17.7%	15	5.8%	93	35.8%	260	100.0%
T. Hancock	35	16.1%	17	7.8%	42	19.3%	31	14.2%	10	4.6%	83	38.1%	218	100.0%
T. Leon	86	16.1%	46	8.6%	82	15.4%	103	19.3%	55	10.3%	161	30.2%	533	100.0%
T. Marion	125	13.7%	95	10.4%	166	18.2%	238	26.1%	55	6.0%	233	25.5%	912	100.0%
T. Mount Morris	64	13.2%	73	15.1%	85	17.5%	85	17.5%	28	5.8%	150	30.9%	485	100.0%
T. Oasis	17	10.8%	7	4.4%	22	13.9%	28	17.7%	18	11.4%	66	41.8%	158	100.0%
T. Plainfield	17	8.2%	18	8.7%	23	11.1%	39	18.8%	39	18.8%	71	34.3%	207	100.0%
T. Poy Sippi	21	5.4%	19	4.9%	27	6.9%	63	16.2%	24	6.2%	236	60.5%	390	100.0%
T. Richford	26	13.3%	25	12.8%	28	14.3%	46	23.5%	3	1.5%	68	34.7%	196	100.0%
T. Rose	49	20.5%	13	5.4%	28	11.7%	49	20.5%	16	6.7%	84	35.1%	239	100.0%
T. Saxeville	46	11.5%	30	7.5%	58	14.5%	82	20.4%	29	7.2%	156	38.9%	401	100.0%
T. Springwater	85	13.9%	39	6.4%	113	18.5%	152	24.8%	54	8.8%	169	27.6%	612	100.0%
T. Warren	33	12.6%	24	9.2%	33	12.6%	43	16.5%	35	13.4%	93	35.6%	261	100.0%
T. Wautoma	49	9.3%	67	12.7%	86	16.3%	99	18.8%	41	7.8%	184	35.0%	526	100.0%
Waushara County	1,095	11.7%	781	8.4%	1,264	13.5%	1,841	19.7%	745	8.0%	3,610	38.7%	9,336	100.0%
Wisconsin	188,002	9.0%	153,270	7.4%	222,167	10.7%	355,484	17.1%	247,765	11.9%	917,856	44.0%	2,084,544	100.0%

Source: U.S. Census, 2000

Table B-3. Total Dwelling Units by Structural Type, 1990

Jurisdiction	Single Family Units		2 to 4 Units		5 or More Units		Mobile Home, Trailer or Other		Total Housing Units	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
C. Berlin (pt.)	26	96.3%	0	0.0%	0	0.0%	1	3.7%	27	100.0%
C. Wautoma	584	71.7%	121	14.8%	78	9.6%	32	3.9%	815	100.0%
V. Coloma	151	77.0%	8	4.1%	25	12.8%	12	6.1%	196	100.0%
V. Hancock	187	80.6%	3	1.3%	0	0.0%	42	18.1%	232	100.0%
V. Lohrville	99	56.9%	1	0.6%	0	0.0%	74	42.5%	174	100.0%
V. Plainfield	301	81.4%	31	8.4%	16	4.3%	22	5.9%	370	100.0%
V. Redgranite	327	69.0%	28	5.9%	12	2.5%	107	22.6%	474	100.0%
V. Wild Rose	229	66.8%	26	7.6%	59	17.2%	29	8.5%	343	100.0%
T. Aurora	295	87.0%	12	3.5%	0	0.0%	32	9.4%	339	100.0%
T. Bloomfield	356	85.6%	11	2.6%	0	0.0%	49	11.8%	416	100.0%
T. Coloma	338	75.6%	5	1.1%	0	0.0%	104	23.3%	447	100.0%
T. Dakota	425	65.1%	18	2.8%	1	0.2%	209	32.0%	653	100.0%
T. Deerfield	306	85.0%	4	1.1%	0	0.0%	50	13.9%	360	100.0%
T. Hancock	319	93.5%	0	0.0%	1	0.3%	21	6.2%	341	100.0%
T. Leon	665	82.0%	5	0.6%	0	0.0%	141	17.4%	811	100.0%
T. Marion	1,219	86.0%	14	1.0%	0	0.0%	184	13.0%	1,417	100.0%
T. Mount Morris	753	86.9%	9	1.0%	2	0.2%	103	11.9%	867	100.0%
T. Oasis	245	94.6%	0	0.0%	0	0.0%	14	5.4%	259	100.0%
T. Plainfield	174	76.3%	4	1.8%	0	0.0%	50	21.9%	228	100.0%
T. Poy Sippi	349	83.3%	9	2.1%	19	4.5%	42	10.0%	419	100.0%
T. Richford	212	86.9%	2	0.8%	0	0.0%	30	12.3%	244	100.0%
T. Rose	246	78.3%	2	0.6%	1	0.3%	65	20.7%	314	100.0%
T. Saxeville	524	89.6%	7	1.2%	0	0.0%	54	9.2%	585	100.0%
T. Springwater	880	79.4%	6	0.5%	0	0.0%	222	20.0%	1,108	100.0%
T. Warren	196	67.1%	2	0.7%	0	0.0%	94	32.2%	292	100.0%
T. Wautoma	460	89.3%	11	2.1%	0	0.0%	44	8.5%	515	100.0%
Waushara County	9,866	80.6%	339	2.8%	214	1.7%	1,827	14.9%	12,246	100.0%
Wisconsin	1,392,610	67.7%	277,221	13.5%	256,616	12.5%	129,327	6.3%	2,055,774	100.0%

Source: U.S. Census, 1990

Table B-4. Total Dwelling Units by Structural Type, 2000

Jurisdiction	Single Family Units		2 to 4 Units		5 or More Units		Mobile Home, Trailer or Other		Total Housing Units	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
C. Berlin (pt.)	17	48.6%	3	8.6%	15	42.9%	0	0.0%	35	100.0%
C. Wautoma	583	67.4%	104	12.0%	142	16.4%	36	4.2%	865	100.0%
V. Coloma	173	84.4%	1	0.5%	12	5.9%	19	9.3%	205	100.0%
V. Hancock	197	76.4%	1	0.4%	13	5.0%	47	18.2%	258	100.0%
V. Lohrville	99	54.1%	7	3.8%	0	0.0%	77	42.1%	183	100.0%
V. Plainfield	298	82.8%	26	7.2%	21	5.8%	15	4.2%	360	100.0%
V. Redgranite	360	71.6%	22	4.4%	23	4.6%	98	19.5%	503	100.0%
V. Wild Rose	253	73.5%	21	6.1%	35	10.2%	35	10.2%	344	100.0%
T. Aurora	349	89.7%	9	2.3%	0	0.0%	31	8.0%	389	100.0%
T. Bloomfield	414	91.0%	13	2.9%	0	0.0%	28	6.2%	455	100.0%
T. Coloma	423	86.9%	2	0.4%	0	0.0%	62	12.7%	487	100.0%
T. Dakota	495	71.9%	13	1.9%	3	0.4%	177	25.7%	688	100.0%
T. Deerfield	447	90.9%	4	0.8%	0	0.0%	41	8.3%	492	100.0%
T. Hancock	348	92.3%	3	0.8%	0	0.0%	26	6.9%	377	100.0%
T. Leon	750	88.1%	0	0.0%	0	0.0%	101	11.9%	851	100.0%
T. Marion	1,456	88.8%	12	0.7%	0	0.0%	172	10.5%	1,640	100.0%
T. Mount Morris	911	91.3%	4	0.4%	2	0.2%	81	8.1%	998	100.0%
T. Oasis	260	98.1%	0	0.0%	0	0.0%	5	1.9%	265	100.0%
T. Plainfield	206	85.1%	6	2.5%	0	0.0%	30	12.4%	242	100.0%
T. Poy Sippi	374	86.4%	20	4.6%	26	6.0%	13	3.0%	433	100.0%
T. Richford	254	90.4%	2	0.7%	2	0.7%	23	8.2%	281	100.0%
T. Rose	267	78.3%	0	0.0%	0	0.0%	74	21.7%	341	100.0%
T. Saxeville	554	90.7%	8	1.3%	0	0.0%	49	8.0%	611	100.0%
T. Springwater	991	69.8%	8	0.6%	2	0.1%	418	29.5%	1,419	100.0%
T. Warren	235	70.4%	5	1.5%	0	0.0%	94	28.1%	334	100.0%
T. Wautoma	574	93.9%	9	1.5%	0	0.0%	28	4.6%	611	100.0%
Waushara County	11,288	82.6%	303	2.2%	296	2.2%	1,780	13.0%	13,667	100.0%
Wisconsin	1,609,407	69.3%	281,936	12.1%	325,633	14.0%	104,168	4.5%	2,321,144	100.0%

Source: U.S. Census, 2000

Table B-5. Occupancy Status, 1990

Jurisdiction	Total Occupied Housing Units		Owner-Occupied Units		Renter Occupied Units		Vacant Housing Units		Total Housing Units
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	
C. Berlin (pt.)	22	81.5%	19	70.4%	3	11.1%	5	18.5%	27
C. Wautoma	748	91.8%	474	58.2%	274	33.6%	67	8.2%	815
V. Coloma	159	81.1%	107	54.6%	52	26.5%	37	18.9%	196
V. Hancock	164	70.7%	127	54.7%	37	15.9%	68	29.3%	232
V. Lohrville	142	81.6%	118	67.8%	24	13.8%	32	18.4%	174
V. Plainfield	324	87.6%	227	61.4%	97	26.2%	46	12.4%	370
V. Redgranite	421	88.8%	324	68.4%	97	20.5%	53	11.2%	474
V. Wild Rose	309	90.1%	183	53.4%	126	36.7%	34	9.9%	343
T. Aurora	296	87.3%	249	73.5%	47	13.9%	43	12.7%	339
T. Bloomfield	315	75.7%	263	63.2%	52	12.5%	101	24.3%	416
T. Coloma	181	40.5%	152	34.0%	29	6.5%	266	59.5%	447
T. Dakota	411	62.9%	322	49.3%	89	13.6%	242	37.1%	653
T. Deerfield	178	49.4%	158	43.9%	20	5.6%	182	50.6%	360
T. Hancock	178	52.2%	151	44.3%	27	7.9%	163	47.8%	341
T. Leon	397	49.0%	349	43.0%	48	5.9%	414	51.0%	811
T. Marion	641	45.2%	575	40.6%	66	4.7%	776	54.8%	1417
T. Mount Morris	327	37.7%	288	33.2%	39	4.5%	540	62.3%	867
T. Oasis	136	52.5%	117	45.2%	19	7.3%	123	47.5%	259
T. Plainfield	191	83.8%	148	64.9%	43	18.9%	37	16.2%	228
T. Poy Sippi	354	84.5%	274	65.4%	80	19.1%	65	15.5%	419
T. Richford	150	61.5%	135	55.3%	15	6.1%	94	38.5%	244
T. Rose	192	61.1%	162	51.6%	30	9.6%	122	38.9%	314
T. Saxeville	316	54.0%	265	45.3%	51	8.7%	269	46.0%	585
T. Springwater	434	39.2%	381	34.4%	53	4.8%	674	60.8%	1108
T. Warren	210	71.9%	179	61.3%	31	10.6%	82	28.1%	292
T. Wautoma	420	81.6%	369	71.7%	51	9.9%	95	18.4%	515
Waushara County	7,616	62.2%	6,116	49.9%	1,500	12.2%	4,630	37.8%	12,246
Wisconsin	1,822,118	88.6%	1,215,350	59.1%	606,768	29.5%	233,656	11.4%	2,055,774

Source: U.S. Census, 1990

Table B-6. Occupancy Status, 2000

Jurisdiction	Total Occupied Housing Units		Owner-Occupied Units		Renter Occupied Units		Vacant Housing Units		Total Housing Units
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	
C. Berlin (pt.)	36	90.0%	17	42.5%	19	47.5%	4	10.0%	40
C. Wautoma	806	91.9%	452	51.5%	354	40.4%	71	8.1%	877
V. Coloma	185	93.9%	133	67.5%	52	26.4%	12	6.1%	197
V. Hancock	193	76.0%	141	55.5%	52	20.5%	61	24.0%	254
V. Lohrville	168	87.5%	156	81.3%	12	6.3%	24	12.5%	192
V. Plainfield	342	91.7%	239	64.1%	103	27.6%	31	8.3%	373
V. Redgranite	440	89.2%	315	63.9%	125	25.4%	53	10.8%	493
V. Wild Rose	312	92.0%	209	61.7%	103	30.4%	27	8.0%	339
T. Aurora	352	91.7%	318	82.8%	34	8.9%	32	8.3%	384
T. Bloomfield	383	84.4%	342	75.3%	41	9.0%	71	15.6%	454
T. Coloma	254	50.8%	218	43.6%	36	7.2%	246	49.2%	500
T. Dakota	493	71.1%	430	62.0%	63	9.1%	200	28.9%	693
T. Deerfield	263	54.0%	245	50.3%	18	3.7%	224	46.0%	487
T. Hancock	211	54.9%	184	47.9%	27	7.0%	173	45.1%	384
T. Leon	539	63.3%	503	59.1%	36	4.2%	312	36.7%	851
T. Marion	908	55.7%	834	51.2%	74	4.5%	722	44.3%	1,630
T. Mount Morris	481	48.4%	431	43.4%	50	5.0%	513	51.6%	994
T. Oasis	152	58.9%	134	51.9%	18	7.0%	106	41.1%	258
T. Plainfield	198	86.1%	169	73.5%	29	12.6%	32	13.9%	230
T. Poy Sippi	392	89.9%	323	74.1%	69	15.8%	44	10.1%	436
T. Richford	190	67.6%	168	59.8%	22	7.8%	91	32.4%	281
T. Rose	244	69.1%	220	62.3%	24	6.8%	109	30.9%	353
T. Saxeville	393	64.4%	355	58.2%	38	6.2%	217	35.6%	610
T. Springwater	617	43.5%	553	38.9%	64	4.5%	803	56.5%	1420
T. Warren	261	78.1%	233	69.8%	28	8.4%	73	21.9%	334
T. Wautoma	523	86.7%	476	78.9%	47	7.8%	80	13.3%	603
Waushara County	9,336	68.3%	7,798	57.1%	1,538	11.3%	4,331	31.7%	13,667
Wisconsin	2,084,544	89.8%	1,426,361	61.5%	658,183	28.4%	236,600	10.2%	2,321,144

Source: U.S. Census, 2000

B-7. Total Vacancy Status, 1990

Jurisdiction	For Rent		For Sale		Seasonal Units		Other		Total Vacant Units	Vacancy Rates	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent		Homeowne	Rental
C. Berlin (pt.)	1	20.0%	3	60.0%	0	0.0%	1	20.0%	5	15.8%	33.3%
C. Wautoma	16	23.9%	9	13.4%	15	22.4%	27	40.3%	67	1.9%	5.8%
V. Coloma	11	29.7%	4	10.8%	8	21.6%	14	37.8%	37	3.7%	21.2%
V. Hancock	6	8.8%	4	5.9%	49	72.1%	9	13.2%	68	3.1%	16.2%
V. Lohrville	0	0.0%	0	0.0%	27	84.4%	5	15.6%	32	0.0%	0.0%
V. Plainfield	19	41.3%	10	21.7%	3	6.5%	14	30.4%	46	4.4%	19.6%
V. Redgranite	4	7.5%	10	18.9%	19	35.8%	20	37.7%	53	3.1%	4.1%
V. Wild Rose	17	50.0%	6	17.6%	5	14.7%	6	17.6%	34	3.3%	13.5%
T. Aurora	6	14.0%	3	7.0%	27	62.8%	7	16.3%	43	1.2%	12.8%
T. Bloomfield	4	4.0%	4	4.0%	84	83.2%	9	8.9%	101	1.5%	7.7%
T. Coloma	3	1.1%	5	1.9%	244	91.7%	14	5.3%	266	3.3%	10.3%
T. Dakota	10	4.1%	17	7.0%	193	79.8%	22	9.1%	242	5.3%	11.2%
T. Deerfield	1	0.5%	5	2.7%	161	88.5%	15	8.2%	182	3.2%	5.0%
T. Hancock	1	0.6%	3	1.8%	156	95.7%	3	1.8%	163	2.0%	3.7%
T. Leon	2	0.5%	6	1.4%	368	88.9%	38	9.2%	414	1.7%	4.2%
T. Marion	1	0.1%	25	3.2%	725	93.4%	25	3.2%	776	4.3%	1.5%
T. Mount Morris	10	1.9%	7	1.3%	502	93.0%	21	3.9%	540	2.4%	25.6%
T. Oasis	0	0.0%	2	1.6%	102	82.9%	19	15.4%	123	1.7%	0.0%
T. Plainfield	1	2.7%	1	2.7%	28	75.7%	7	18.9%	37	0.7%	2.3%
T. Poy Sippi	3	4.6%	4	6.2%	41	63.1%	17	26.2%	65	1.5%	3.8%
T. Richford	2	2.1%	3	3.2%	71	75.5%	18	19.1%	94	2.2%	13.3%
T. Rose	1	0.8%	2	1.6%	28	23.0%	91	74.6%	122	1.2%	3.3%
T. Saxeville	1	0.4%	4	1.5%	244	90.7%	20	7.4%	269	1.5%	2.0%
T. Springwater	6	0.9%	10	1.5%	643	95.4%	15	2.2%	674	2.6%	11.3%
T. Warren	0	0.0%	0	0.0%	74	90.2%	8	9.8%	82	0.0%	0.0%
T. Wautoma	2	2.1%	6	6.3%	69	72.6%	18	18.9%	95	1.6%	3.9%
Waushara County	128	2.8%	153	3.3%	3,886	83.9%	463	10.0%	4,630	2.5%	8.5%
Wisconsin	29,795	12.8%	14,692	6.3%	150,761	64.5%	38,408	16.4%	233,656	1.2%	4.7%

Source: U.S. Census, 1990

B-8. Total Vacancy Status, 2000

Jurisdiction	For Rent		For Sale		Seasonal Units		Other		Total Vacant Units	Vacancy Rates	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent		Homeowner	Rental
C. Berlin (pt.)	2	50.0%	0	0.0%	0	0.0%	2	50.0%	4	0.0%	10.5%
C. Wautoma	31	43.7%	9	12.7%	8	11.3%	23	32.4%	71	2.0%	8.8%
V. Coloma	2	16.7%	0	0.0%	6	50.0%	4	33.3%	12	0.0%	3.8%
V. Hancock	3	4.9%	4	6.6%	53	86.9%	1	1.6%	61	2.8%	5.8%
V. Lohrville	0	0.0%	7	29.2%	11	45.8%	6	25.0%	24	4.5%	0.0%
V. Plainfield	7	22.6%	7	22.6%	8	25.8%	9	29.0%	31	2.9%	6.8%
V. Redgranite	7	13.2%	12	22.6%	14	26.4%	20	37.7%	53	3.8%	5.6%
V. Wild Rose	12	44.4%	5	18.5%	5	18.5%	5	18.5%	27	2.4%	11.7%
T. Aurora	2	6.3%	3	9.4%	21	65.6%	6	18.8%	32	0.9%	5.9%
T. Bloomfield	2	2.8%	3	4.2%	53	74.6%	13	18.3%	71	0.9%	4.9%
T. Coloma	0	0.0%	2	0.8%	206	83.7%	38	15.4%	246	0.9%	0.0%
T. Dakota	4	2.0%	12	6.0%	144	72.0%	40	20.0%	200	2.8%	6.3%
T. Deerfield	0	0.0%	7	3.1%	206	92.0%	11	4.9%	224	2.9%	0.0%
T. Hancock	2	1.2%	3	1.7%	156	90.2%	12	6.9%	173	1.6%	7.4%
T. Leon	0	0.0%	10	3.2%	289	92.6%	13	4.2%	312	2.0%	0.0%
T. Marion	6	0.8%	21	2.9%	653	90.4%	42	5.8%	722	2.5%	8.1%
T. Mount Morris	3	0.6%	6	1.2%	468	91.2%	36	7.0%	513	1.4%	6.0%
T. Oasis	0	0.0%	2	1.9%	97	91.5%	7	6.6%	106	1.5%	0.0%
T. Plainfield	2	6.3%	5	15.6%	18	56.3%	7	21.9%	32	3.0%	6.9%
T. Poy Sippi	6	13.6%	3	6.8%	19	43.2%	16	36.4%	44	0.9%	8.7%
T. Richford	3	3.3%	0	0.0%	72	79.1%	16	17.6%	91	0.0%	13.6%
T. Rose	1	0.9%	2	1.8%	94	86.2%	12	11.0%	109	0.9%	4.2%
T. Saxeville	1	0.5%	4	1.8%	209	96.3%	3	1.4%	217	1.1%	2.6%
T. Springwater	1	0.1%	11	1.4%	772	96.1%	19	2.4%	803	2.0%	1.6%
T. Warren	0	0.0%	2	2.7%	48	65.8%	23	31.5%	73	0.9%	0.0%
T. Wautoma	7	8.8%	7	8.8%	63	78.8%	3	3.8%	80	1.5%	14.9%
Waushara County	104	2.4%	147	3.4%	3,693	85.3%	387	8.9%	4,331	1.9%	6.8%
Wisconsin	38,714	16.6%	17,172	7.3%	142,313	60.9%	35,457	15.2%	233,656	1.2%	5.6%

Source: U.S. Census, 2000

B-9. Owner-Occupied Housing Stock Value, 2000

Jurisdiction	Less than \$50,000	\$50,000 to \$99,999	\$100,000 to \$149,999	\$150,000 to \$199,999	\$200,000 to \$299,999	\$300,000 to \$499,999	\$500,000 or More	Specified owner- occupied units	1990 Median Housing Value	2000 Median Housing Value
C. Berlin (pt.)	0	2	2	0	6	0	0	10	\$48,800	\$208,300
C. Wautoma	105	283	20	9	0	0	0	417	\$40,800	\$60,700
V. Coloma	21	81	11	4	0	0	0	117	\$35,600	\$67,900
V. Hancock	44	54	15	0	0	0	0	113	\$26,300	\$56,900
V. Lohrville	19	46	15	0	0	0	0	80	\$28,800	\$66,700
V. Plainfield	60	110	34	6	0	0	0	210	\$37,700	\$64,200
V. Redgranite	88	117	18	0	2	0	0	225	\$33,300	\$59,100
V. Wild Rose	54	104	21	5	2	1	0	187	\$37,900	\$60,100
T. Aurora	18	80	50	14	13	0	0	175	\$55,200	\$94,800
T. Bloomfield	10	68	61	13	6	0	0	158	\$46,300	\$100,600
T. Coloma	16	37	24	10	2	0	0	89	\$50,000	\$85,000
T. Dakota	17	116	57	15	13	2	0	220	\$51,300	\$92,100
T. Deerfield	9	46	57	15	14	2	0	143	\$50,400	\$109,600
T. Hancock	8	48	34	8	3	0	0	101	\$48,200	\$96,100
T. Leon	21	153	59	29	15	0	0	277	\$43,400	\$88,100
T. Marion	39	234	161	95	65	22	3	619	\$57,600	\$111,400
T. Mount Morris	11	117	56	36	45	7	0	272	\$53,500	\$108,000
T. Oasis	6	52	16	2	0	3	0	79	\$48,500	\$79,200
T. Plainfield	26	49	18	15	2	0	0	110	\$46,600	\$67,900
T. Poy Sippi	32	126	36	5	0	2	0	201	\$41,400	\$78,300
T. Richford	10	39	21	0	2	0	0	72	\$40,600	\$79,100
T. Rose	11	64	22	0	3	0	0	100	\$50,000	\$82,400
T. Saxeville	23	72	60	17	20	9	4	205	\$52,700	\$104,500
T. Springwater	14	114	68	55	42	12	2	307	\$61,100	\$119,300
T. Warren	7	55	14	11	0	0	2	89	\$45,500	\$91,300
T. Wautoma	29	168	83	20	7	2	0	309	\$52,100	\$91,500
Waushara County	698	2,435	1,033	384	262	62	11	4,885	\$45,300	\$85,100
Wisconsin	73,450	396,893	343,993	173,519	95,163	30,507	8,942	1,122,467	\$62,100	\$112,200

Source: U.S. Census, 2000

B-10. Households Paying a Disproportionate Share of their Income for Housing

	Households for which owner costs are not affordable				Number of Households in Sample		Households for which renter costs are not affordable				Number of Households in Sample	
	1989		1999				1989		1999			
	Number	Percent	Number	Percent	1989	1999	Number	Percent	Number	Percent	1989	1999
C. Berlin (pt.)	0	n.a.	4	40.0%	16	10	0	n.a.	6	37.5%	0	16
C. Wautoma	87	20.7%	59	14.1%	420	417	102	37.5%	90	26.3%	272	342
V. Coloma	13	13.8%	31	26.5%	94	117	18	37.5%	10	20.8%	48	48
V. Hancock	36	34.3%	18	15.9%	105	113	13	32.5%	12	22.2%	40	54
V. Lohrville	9	14.1%	12	15.0%	64	80	5	20.8%	6	54.5%	24	11
V. Plainfield	28	12.8%	31	14.8%	219	210	33	36.7%	23	22.1%	90	104
V. Redgranite	30	14.2%	51	22.7%	212	225	30	31.9%	40	31.7%	94	126
V. Wild Rose	19	13.0%	25	13.4%	146	187	79	59.4%	17	17.7%	133	96
T. Aurora	21	17.8%	18	10.3%	118	175	7	25.0%	6	20.0%	28	30
T. Bloomfield	19	18.4%	41	25.9%	103	158	12	27.3%	5	20.0%	44	25
T. Coloma	21	30.9%	22	24.7%	68	89	13	56.5%	2	7.7%	23	26
T. Dakota	29	19.0%	36	16.4%	153	220	28	35.0%	6	10.5%	80	57
T. Deerfield	4	5.8%	30	21.0%	69	143	2	13.3%	0	0.0%	15	13
T. Hancock	15	17.6%	24	23.8%	85	101	10	52.6%	1	4.8%	19	21
T. Leon	45	26.9%	65	23.5%	167	277	7	21.9%	6	20.0%	32	30
T. Marion	73	18.3%	122	19.7%	400	619	12	21.1%	19	30.6%	57	62
T. Mount Morris	19	10.4%	85	31.3%	183	272	9	30.0%	12	26.1%	30	46
T. Oasis	10	19.6%	21	26.6%	51	79	1	10.0%	4	21.1%	10	19
T. Plainfield	12	17.4%	28	25.5%	69	110	5	17.9%	6	26.1%	28	23
T. Poy Sippi	32	19.9%	48	23.9%	161	201	24	34.8%	16	28.6%	69	56
T. Richford	16	34.0%	7	9.7%	47	72	0	0.0%	2	25.0%	12	8
T. Rose	4	9.1%	16	16.0%	44	100	4	23.5%	5	23.8%	17	21
T. Saxeville	22	16.7%	42	20.5%	132	205	2	9.1%	4	15.4%	22	26
T. Springwater	30	15.9%	48	15.6%	189	307	8	19.0%	9	15.8%	42	57
T. Warren	6	9.8%	15	16.9%	61	89	8	61.5%	6	20.0%	13	30
T. Wautoma	37	15.8%	64	20.7%	234	309	12	29.3%	11	28.2%	41	39
Waushara County	637	17.6%	963	19.7%	3,610	4,885	444	34.6%	324	23.4%	1,283	1,386
Wisconsin	140,026	15.1%	199,967	17.8%	928,494	1,122,467	209,438	36.0%	207,242	32.3%	582,371	641,672

Source: U.S. Census, 1990 and 2000

Table B-11. Plumbing Facilities by Occupants Per Room, 2000

Jurisdiction	1 or Fewer Persons per Room						More than 1 Persons per Room						Total Occupied
	Units Not Lacking		Units Lacking		Total Units		Units Not Lacking		Units Lacking		Total Units		
C. Berlin (pt.)	33	100.0%	0	0.0%	33	100.0%	0	0.0%	0	0.0%	0	0.0%	33
C. Wautoma	773	96.9%	0	0.0%	773	96.9%	25	3.1%	0	0.0%	25	3.1%	798
V. Coloma	175	94.1%	2	1.1%	177	95.2%	9	4.8%	0	0.0%	9	4.8%	186
V. Hancock	180	93.8%	0	0.0%	180	93.8%	12	6.3%	0	0.0%	12	6.3%	192
V. Lohrville	165	100.0%	0	0.0%	165	100.0%	0	0.0%	0	0.0%	0	0.0%	165
V. Plainfield	321	97.0%	0	0.0%	321	97.0%	10	3.0%	0	0.0%	10	3.0%	331
V. Redgranite	442	98.4%	0	0.0%	442	98.4%	7	1.6%	0	0.0%	7	1.6%	449
V. Wild Rose	310	99.0%	0	0.0%	310	99.0%	3	1.0%	0	0.0%	3	1.0%	313
T. Aurora	352	98.9%	0	0.0%	352	98.9%	4	1.1%	0	0.0%	4	1.1%	356
T. Bloomfield	370	97.4%	5	1.3%	375	98.7%	5	1.3%	0	0.0%	5	1.3%	380
T. Coloma	234	95.9%	5	2.0%	239	98.0%	5	2.0%	0	0.0%	5	2.0%	244
T. Dakota	470	95.7%	0	0.0%	470	95.7%	21	4.3%	0	0.0%	21	4.3%	491
T. Deerfield	254	97.7%	0	0.0%	254	97.7%	6	2.3%	0	0.0%	6	2.3%	260
T. Hancock	215	98.6%	0	0.0%	215	98.6%	3	1.4%	0	0.0%	3	1.4%	218
T. Leon	521	97.7%	3	0.6%	524	98.3%	9	1.7%	0	0.0%	9	1.7%	533
T. Marion	891	97.7%	9	1.0%	900	98.7%	12	1.3%	0	0.0%	12	1.3%	912
T. Mount Morris	482	99.4%	3	0.6%	485	100.0%	0	0.0%	0	0.0%	0	0.0%	485
T. Oasis	158	100.0%	0	0.0%	158	100.0%	0	0.0%	0	0.0%	0	0.0%	158
T. Plainfield	195	94.2%	4	1.9%	199	96.1%	5	2.4%	3	1.4%	8	3.9%	207
T. Poy Sippi	390	100.0%	0	0.0%	390	100.0%	0	0.0%	0	0.0%	0	0.0%	390
T. Richford	180	91.8%	3	1.5%	183	93.4%	9	4.6%	4	2.0%	13	6.6%	196
T. Rose	226	94.6%	7	2.9%	233	97.5%	6	2.5%	0	0.0%	6	2.5%	239
T. Saxeville	397	99.0%	0	0.0%	397	99.0%	4	1.0%	0	0.0%	4	1.0%	401
T. Springwater	605	98.9%	1	0.2%	606	99.0%	4	0.7%	2	0.3%	6	1.0%	612
T. Warren	248	95.0%	5	1.9%	253	96.9%	8	3.1%	0	0.0%	8	3.1%	261
T. Wautoma	504	95.8%	6	1.1%	510	97.0%	16	3.0%	0	0.0%	16	3.0%	526
Waushara County	9,091	97.4%	53	0.6%	9,144	97.9%	183	2.0%	9	0.1%	192	2.1%	9,336
Wisconsin	2,025,159	97.2%	9,312	0.4%	2,034,471	97.6%	48,737	2.3%	1,336	0.1%	50,073	2.4%	2,084,544

Source: U.S. Census, 2000

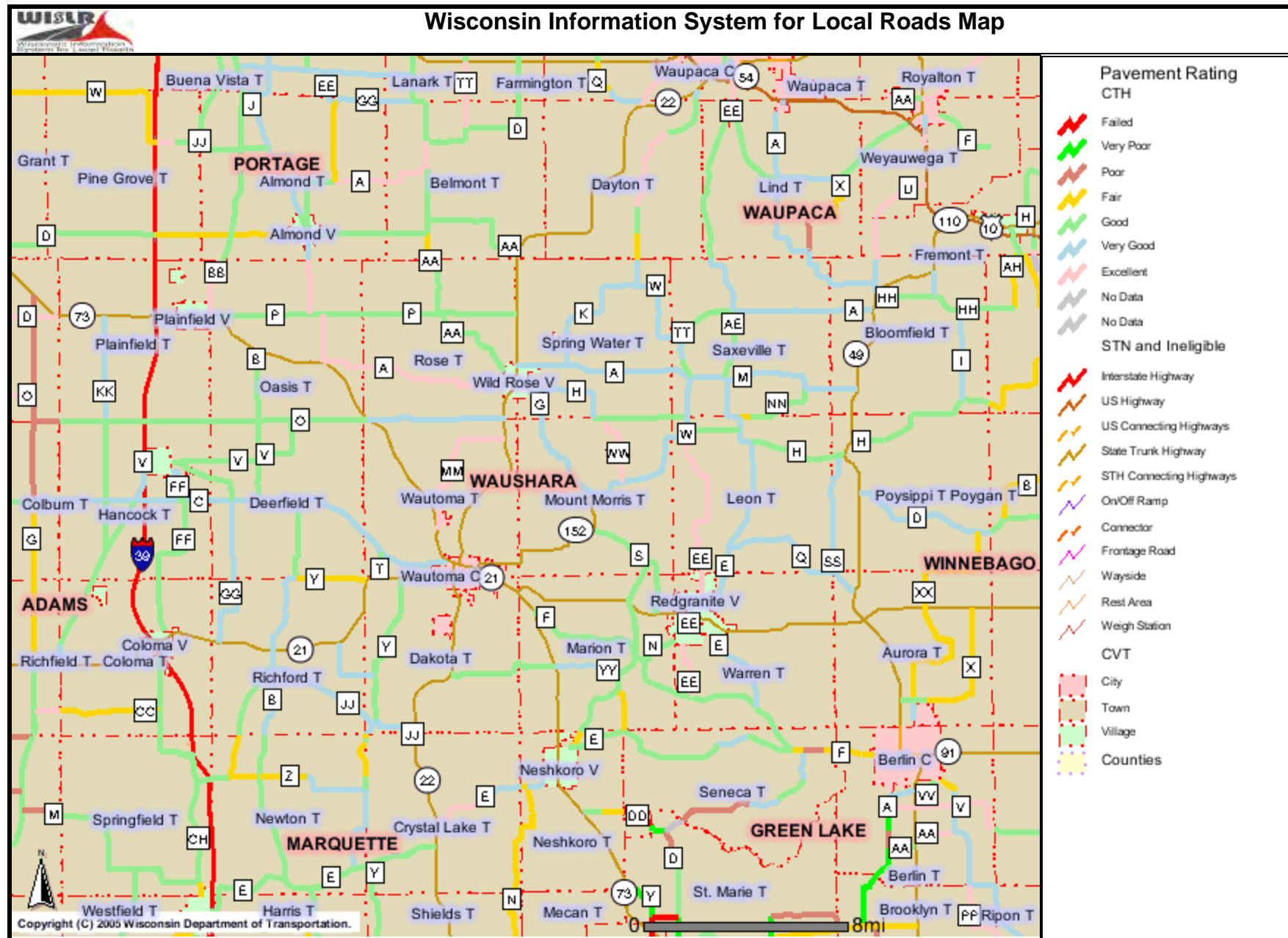
Table B-12. Housing Stress Index

Variables	Variable Weighting Score	Concentration Weight			
		1% to 10% of Units	11% to 25% of Units	26% to 50% of Units	Greater than 50% of units
Vacancy Rates					
Rental Vacancy Rate => 5%	0	0	0	0	0
Rental Vacancy Rate >3%< 5%	1	0	0	0	0
Rental Vacancy Rate >1%< 3%	5	0	0	0	0
Rental Vacancy Rate< 1%	10	0	0	0	0
Owner Occupied Vacancy Rate => 1.5%	0	0	0	0	0
Owner Occupied Vacancy Rate >1%< 1.5%	1	0	0	0	0
Owner Occupied Vacancy Rate >0.5%< 1%	5	0	0	0	0
Owner Occupied Vacancy Rate <0.5%	10	0	0	0	0
Affordability					
Rental Costs <30% of hh Income	0	0	0	0	0
Rental Costs >30% of hh Income	1	1	5	10	15
Homeowner Costs <30% of hh Income	0	0	0	0	0
Homeowner Costs >30% of hh Income	1	1	5	10	15
Age + Value (lowest % prevails)					
% units <\$50,000 & % units >40 yrs <25%	0	0	0	0	0
% units <\$50,000 & % units >40 yrs >25%<50%	1	0	0	0	0
% units <\$50,000 & % units >40 yrs >50%<75%	5	0	0	0	0
% units <\$50,000 & % units >40 yrs >75%	10	0	0	0	0
Overcrowding					
Rental units with <1 persons per room	0	0	0	0	0
Rental units with 1+ persons per room	1	1	5	10	15
Owner-occupied units with <1 persons per room	0	0	0	0	0
Owner-occupied units with 1+ persons per room	1	1	5	10	15
Plumbing					
Housing Units with Complete Plumbing Facilities	0	0	0	0	0
Housing Units Lacking Complete Plumbing Facilities	1	1	5	10	15

B-13. Waushara County Composite Index, 2000

Jurisdiction	Vacancy Index		Affordability Index		Age + Value Index	Overcrowding Index		Plumbing Index	Total Score
	Rental	Owner Occupied	Rental	Owner Occupied		Rental	Owner Occupied		
C. Berlin (pt.)	0	10	10	10	0	0	0	0	30
C. Wautoma	0	0	10	5	1	1	1	1	19
V. Coloma	1	10	5	10	0	1	1	1	29
V. Hancock	0	0	5	5	1	0	1	0	12
V. Lohrville	10	0	15	5	0	0	0	0	30
V. Plainfield	0	0	5	5	1	1	1	0	13
V. Redgranite	0	0	10	5	1	0	1	0	17
V. Wild Rose	0	0	5	5	1	0	1	0	12
T. Aurora	0	5	5	1	0	0	1	0	12
T. Bloomfield	1	5	5	5	0	0	1	1	18
T. Coloma	10	5	1	5	0	0	1	1	23
T. Dakota	0	0	1	5	0	1	1	0	8
T. Deerfield	10	0	0	5	0	5	1	0	21
T. Hancock	0	0	1	5	0	0	1	0	7
T. Leon	10	0	5	5	0	0	1	0	21
T. Marion	0	0	10	5	0	1	1	0	17
T. Mount Morris	0	1	10	10	0	0	0	0	21
T. Oasis	10	1	5	10	0	0	0	0	26
T. Plainfield	0	0	10	5	0	5	1	1	22
T. Poy Sippi	0	5	10	5	0	0	0	0	20
T. Richford	0	10	5	1	0	0	1	1	18
T. Rose	1	5	5	5	0	0	1	1	18
T. Saxeville	5	1	5	5	0	0	1	0	17
T. Springwater	5	0	5	5	0	1	1	0	17
T. Warren	10	5	5	5	0	0	1	1	27
T. Wautoma	0	1	10	5	0	1	1	1	19
Waushara County	0	0	5	5	0	1	1	0	12

Source: ECWRPC, 2003



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AGRICULTURAL, NATURAL, AND CULTURAL RESOURCES APPENDICES

Table D-1	Waushara County Lakes, Ponds and Springs
Table D-2	Waushara County River/Streams
Table D-3	Elements by Town Range for Waushara County
Table D-4	First Ancestry Reported, Top 6 in Waushara County, 2000
Table D-5	Amish Settlements in Wisconsin: Households, Population, Type of Occupation

Table D-1. Waushara County Lakes, Ponds and Springs

Name	Acres	Maximum Depth Feet	Location			Lake Type
			Township	Range	Section Number	
Alpine Lake	56	18	T18N	R11E	4	Not listed
Auroraville Millpond	209	6	T18N	R13E	7	Drainage
Baitenger Lake	5	21	T20N	R12E	19	Seepage
Bannerman Lake	5	6	T18N	R11E	32	Spring
Bass Lake	14	28	T18N	R10E	26	Spring
Beans (Hensen) Lake	20	12	T19N	R10E	10	Seepage
Big Cedar Lake	8	46	T20N	R12E	4	Drainage
Big Hills Lake	133	22	T19N	R11E	2	Seepage
Big Twin Lake	93	13	T20N	R11E	1	Seepage
Bing Lake	9	31	T18N	R08E	1	Seepage
Bohn Lake	13	24	T19N	R09E	16	Seepage
Brownlow (Mud) Lake	10	21	T19N	R11E	12	Spring
Bughs Lake	25	18	T19N	R10E	36	Seepage
Bullhead Lake	6	Not listed	T19N	R08E	1	Not listed
Chain Lake	21	13	T20N	R10E	28	Seepage
Clarks Millpond	68	5	T20N	R12E	1	Drainage
Cooks Lake	5	7	T19N	R11E	14	Seepage
Crooked Lake	25	Not listed	T19N	R09E	17	Not listed
Curtis Lake	33	45	T18N	R09E	28	Drainage
Deer Lake	15	14	T18N	R11E	8	Seepage
Deer Lake	15	Not listed	T19N	R08E	14	Not listed
Echo Lake	4	5	T20N	R11E	3	Seepage
Emerald Lake	11	14	T19N	R11E	16	Drained
Fenrich Springs	2	15	T20N	R11E	3	Spring
Fiddle Lake	2	Not listed	T20N	R09E	16	Not listed
Fish Lake	153	37	T19N	R08E	13	Seepage
Fish Lake	5	20	T20N	R10E	10	Seepage
Flynns Quarry	3	70	T18N	R11E	13	Seepage
Gilbert Lake	141	65	T20N	R11E	15	Seepage
Goose Lake	Not listed	Not listed	T19N	R08E	1	Not listed
Herrick (Hellmans) Lake	25	Not listed	T20N	R09E	31	Not listed
Horsehead (Eastlings) Lake	6	3	T20N	R09E	16	Seepage
Huron Lake	40	46	T20N	R09E	22	Seepage
Idlewild Millpond	4	7	T20N	R11E	16	Drainage
Irogami (Fish) Lake	289	5	T18N	R11E	6	Seepage
Jeanette (Portage) Lake	9	17	T18N	R09E	6	Seepage
Johns Lake	73	41	T19N	R11E	32	Seepage
Jordans Lake	10	3	T18N	R12E	24	Seepage
Kawalski Lake	8	11	T20N	R09E	4	Seepage
Kristine Lake	26	20	T20N	R12E	30	Drainage
Kusel Lake	79	29	T20N	R11E	26	Seepage
Little Beans Lake	1	9	T19N	R10E	11	Seepage
Little Cedar Lake	2	26	T20N	R12E	5	Spring
Little Hills Lake	81	23	T18N	R11E	8	Seepage

Table D-1. Waushara County Lakes, Ponds and Springs (cont'd)

Name	Acres	Maximum Depth Feet	Location			Lake Type
			Township	Range	Section Number	
Little Lake	6	21	T19N	R11E	22	Drainage
Little Twin Lake	10	6	T20N	R11E	1	Seepage
Lohrville Quarry	4	120	T18N	R12E	18	Seepage
Long Lake	272	71	T20N	R12E	7	Seepage
Long Lake	45	6	T20N	R09E	17	Spring
Lost Lake	9	9	T20N	R11E	2	Seepage
Lucerne (Egans) Lake	48	33	T18N	R11E	20	Seepage
Lucky (Fratzke) Lake	17	46	T18N	R10E	36	Seepage
Lyman (Hartford) Lake	9	27	T19N	R09E	15	Seepage
Marl Lake	41	34	T19N	R09E	23	Seepage
Mecan Springs	41	20	T18N	R09E	8	Spring
Meilke (Pickerel) Lake	19	5	T18N	R10E	15	Seepage
Middle Lake	20	14	T19N	R12E	29	Seepage
Mill Pond (Upper W.R. M.P.)	64	29	T19N	R09E	25	Not listed
Morris (Mt. Morris) Lake	163	40	T19N	R11E	16	Drainage
Mud Lake	10	6	T19N	R10E	20	Seepage
Mud Lake	4	2	T20N	R11E	36	Seepage
Mud Lake	11	4	T20N	R09E	22	Seepage
Napowan (Funk) Lake	51	18	T19N	R11E	2	Seepage
Norwegian Lake	94	31	T19N	R11E	5	Seepage
Pearl Lake	92	50	T19N	R12E	30	Seepage
Pickerel Lake	28	51	T18N	R10E	27	Seepage
Pine (Hancock) Lake	93	21	T19N	R08E	11	Seepage
Pine (Springwater) Lake	143	48	T20N	R11E	2	Not listed
Pine River Millpond	28	4	T19N	R12E	4	Drainage
Piper Lake	3	Not listed	T20N	R09E	10	Not listed
Plainfield Lake	31	5	T20N	R09E	18	Seepage
Pleasant Lake	127	30	T18N	R08E	33	Seepage
Pochman Lake	2	7	T18N	R09E	30	Spring
Porters Lake	68	18	T19N	R11E	20	Spring
Poy Sippi Millpond	57	7	T19N	R13E	7	Drainage
Poygan Lake	14,102	11	T19N	R14E	1	Drainage
Pretty Lake	14	24	T20N	R11E	16	Seepage
Pumpkin Seed Lake	2	Not listed	T20N	R09E	16	Not listed
Redgranite Quarry	7	163	T18N	R12E	8	Seepage
Reeder Lake	5	Not listed	T19N	R08E	1	Not listed
Rogers Pond	2	7	T18N	R09E	21	Spring
Round Lake	1	Not listed	T19N	R09E	18	Not listed
Round Lake	26	14	T19N	R10E	19	Seepage
Round Lake	63	19	T20N	R11E	35	Seepage
Sand Lake	143	9	T20N	R08E	36	Not listed
Saxeville Millpond	13	4	T20N	R12E	30	Drainage
School Pond	1	3	T20N	R12E	11	Seepage
Second Lake	10	Not listed	T20N	R09E	17	Not listed
Sherman Lake	17	Not listed	T20N	R09E	17	Not listed

Table D-1. Waushara County Lakes, Ponds and Springs (cont'd)

Name	Acres	Maximum Depth Feet	Location			Lake Type
			Township	Range	Section Number	
Shumway (Smith) Lake	11	6	T20N	R09E	22	Seepage
Silver Lake	344	50	T18N	R11E	7	Seepage
Silver Lake	48	52	T20N	R11E	32	Spring
Slafter Lake	Not listed	Not listed	T20N	R09E	34	Not listed
Spring Lake	40	37	T18N	R11E	23	Spring
Squaw Lake	5	5	T18N	R11E	7	Seepage
Taylor Lake	11	5	T19N	R12E	29	Seepage
Timan Lake	9	16	T20N	R12E	31	Seepage
Tippetts (Tibbetts) Lake	11	17	T19N	R11E	33	Drainage
Turtle Lake	6	27	T19N	R10E	20	Seepage
Twin Lakes	10	Not listed	T19N	R11E	29	Not listed
Ueeck Lake	5	18	T19N	R09E	14	Spring
Unnamed Lake	10	3	T18N	R10E	22	Not listed
Unnamed Lake	7	8	T18N	R10E	36	Not listed
Unnamed Lake	6	6	T18N	R11E	18	Not listed
Unnamed Lake	3	4	T18N	R11E	21	Not listed
Unnamed Lake	1	21	T18N	R11E	27	Not listed
Unnamed Lake	2	3	T18N	R11E	27	Not listed
Unnamed Lake	7	Not listed	T18N	R11E	3	Not listed
Unnamed Lake	90	Not listed	T18N	R10	25	Not listed
Unnamed Lake	1	2	T19N	R09E	35	Not listed
Unnamed Lake	1	4	T19N	R10E	33	Not listed
Unnamed Lake	1	12	T19N	R10E	33	Not listed
Unnamed Lake	1	10	T19N	R10E	32	Not listed
Unnamed Lake	5	5	T19N	R11E	3	Not listed
Unnamed Lake	1	8	T19N	R12E	32	Not listed
Unnamed Lake	9	1	T19N	R11E	5	Not listed
Unnamed Lake	2	3	T19N	R12E	5	Not listed
Unnamed Lake	1	13	T19N	R11E	18	Not listed
Unnamed Lake	4	7	T20N	R10E	33	Not listed
Unnamed Lake	2	3	T20N	R10E	33	Not listed
Unnamed Lake	1	3	T20N	R10E	4	Not listed
Unnamed Lake	6	20	T20N	R10E	10	Not listed
Unnamed Lake	11	2	T20N	R11E	28	Not listed
Unnamed Lake	9	2	T20N	R11E	29	Not listed
Unnamed Lake	9	5	T20N	R11E	33	Not listed
Unnamed Lake	4	3	T20N	R11E	34	Not listed
Unnamed Lake	1	2	T20N	R12E	12	Not listed
Unnamed Lake	6	3	T20N	R12E	19	Not listed
Unnamed Lake	1	2	T20N	R12E	25	Not listed
Unnamed Lake	15	4	T20N	R11E	28	Not listed
Unnamed Lake	3	10	T20N	R11E	21	Not listed
Unnamed Lake	1	8	T20N	R11E	20	Not listed
Unnamed Lake	7	10	T20N	R10E	6	Not listed

Table D-1. Waushara County Lakes, Ponds and Springs (cont'd)

Name	Acres	Maximum Depth Feet	Location			Lake Type
			Township	Range	Section Number	
Unnamed Lake	5	6	T20N	R10E	10	Not listed
Unnamed Spring	3	3	T18N	R08E	34	Spring
Unnamed Spring	1	16	T19N	R10E	32	Spring
Unnamed Spring	5	24	T19N	R12E	32	Spring
Unnamed Spring	1	11	T19N	R11E	25	Spring
Unnamed Spring	1	2	T20N	R12E	11	Spring
Unnamed Spring	2	31	T20N	R12E	25	Spring
Unnamed Spring	1	3	T20N	R11E	29	Spring
Unnamed Spring	1	4	T20N	R11E	8	Spring
Unnamed Spring	12	4	T20N	R10E	6	Spring
Virginia Lake	11	28	T19N	R09E	32	Spring
Walters Lake	Not listed	Not listed	T20N	R09E	4	Not listed
Wautoma Lake	11	4	T19N	R10E	5	Seepage
Wautoma Pond	35	12	T19N	R10E	34	Drainage
West Point Quarry	2	64	T18N	R11E	13	Not listed
Weymouth Lake	8	16	T20N	R09E	21	Seepage
White River Floage Pond	133	20	T18N	R10E	24	Spring
Wild Rose Millpond	17	7	T20N	R10E	25	Drainage
Wilson Lake	81	12	T20N	R11E	27	Seepage
Witters Lake	51	18	T18N	R10E	15	Seepage
Yonke Lake	20	Not listed	T20N	R09E	5	Not listed
Zinke Lake	4	7	T18N	R09E	23	Spring

Source: WDNR Wisconsin Lakes, 1995; ECWPC, 2008.

Table D-2. Waushara County River / Streams

Name	Miles in Waushara County	Sub-watershed	State Classification*
Alder Creek	4.57	Little River & Alder Creek (Walla Walla Creek)	
Austin Creek	3.03	Little River & Alder Creek (Walla Walla Creek)	
Barnes Creek	3	Fox River / Berlin	
Big Roche-A-Cri Creek	4.84	Big Roche-A-Cri Creek	ERW
Bird Creek	4.7	White River	ERW
Bowers Creek	2.5	White River	ERW
Bruce Creek	5.16	Pine River and Willow Creek	
Carpenter Creek	4.32	Pine River and Willow Creek	
Carter Creek	1.92	Pine River and Willow Creek	ERW
Cedar Springs Creek	4.16	Pine River and Willow Creek	ERW
Chaffee Creek	2.92	Mecan River	ERW
East Branch Little Pine Creek	2.06	Pine River and Willow Creek	
Fox River	12.78	Fox River / Berlin	
Hatton Creek	1.65	Little River & Alder Creek (Walla Walla Creek)	
Humphrey Creek	2.45	Pine River and Willow Creek	ERW
Intermittent Ditch	61.01	Various Sub-watersheds	
Intermittent Stream	82.32	Various Sub-watersheds	
Kaminski Creek	1.81	Pine River and Willow Creek	ERW
Leola Ditch	1.69	Fourteen-mile Creek	
Little Lunch Creek	1.68	White River	
Little Pine Creek	4.85	Mecan River	ORW
Little Silver Creek	6.26	Pine River and Willow Creek	ERW
Lunch Creek	10.05	White River	ERW
Magdanz Creek	2.39	Little River and Alder Creek (Walla Walla Creek)	ERW
Mecan River	13.17	Mecan River	ERW
Mosquito Creek	2.16	Little River & Alder Creek (Walla Walla Creek)	
North Branch Wedde Creek	3.53	Mecan River	
Perennial Ditch	94.66	Various Sub-watersheds	
Perennial Stream	0.08	Various Sub-watersheds	
Pine River	53.45	Pine River and Willow Creek	ERW
Porters Creek	1.66	Pine River and Willow Creek	ERW
Pumpkinseed Creek	0.46	Pine River and Willow Creek	
Pumpkinseed Creek	2.81	Pine River and Willow Creek	
Rattle Snake Creek	2.29	Pine River and Willow Creek	
Schmudlack Creek	3.73	Mecan River	ERW
Shoreline Creek	6.98	Fox River / Berlin	
Soules Creek	2.08	White River	ERW
South Branch Wedde Creek	6.71	Mecan River	
Spring Creek	2.63	White River	
Sucker Creek	9.06	White River	ERW
Unnamed Creek	50.01	Various Sub-watersheds	
Unnamed Stream	0.55	Various Sub-watersheds	
West Branch Little Pine Creek	3.9	Pine River and Willow Creek	
West Branch White River	8.09	White River	
White River	22.17	White River	ORW
Willow Creek	61.22	Pine River and Willow Creek	ORW

Source: Waushara County, 2008

*State Classifications: ORW – Outstanding Resource Waters, ERW – Exceptional Resources Waters

Rare, Threatened, and Endangered Species and Natural Communities

The Wisconsin Department of Natural Resources Natural Heritage Inventory (NHI) is an on-line database which provides statewide inventory of KNOWN locations and conditions of rare and endangered species. The NHI records data base is updated continually with the last update completed July 22, 2008. The NHI records for Waushara County can be found at, (<http://dnr.wi.gov/org/land/er/nhi/CountyData/index.htm>).

In most cases, locations for species and natural communities surveyed and listed in the NHI are available down to the town level. The exception are those species whose locations are considered to be sensitive (particularly vulnerable to collection or disturbance). Locations of these species or natural communities are generalized down to the county level in order to minimize impacts to them.

The absence of a species within this database does not indicate that particular species or communities are not present within the listed towns. Nor does the presence of one element imply that other elements were surveyed for but not found. Despite these limitations, the NHI is the state's most comprehensive database on biodiversity and is widely used. Species are listed by their type, scientific name, common name; State status; and the last observed record is indicated. (Table D-3 - Elements by Town Range for Waushara County; Key to the County Data Printout; and map.)

Table D-3. Elements by Town Range for Waushara County

The Natural Heritage Inventory (NHI) database contains recent and historic element (rare species and natural community) observations. A generalized version of the NHI database is provided below as a general reference and should not be used as a substitute for a WI Dept of Natural Resources NHI review of a specific project area. The NHI database is dynamic, records are continually being added and/or updated. The following data are current as of 07/22/2008:

Town Range	Scientific Name	Common Name	State Status	Federal Status	State Rank	Global Rank	Group Name
017N008E	<i>Calephelis muticum</i>	Swamp Metalmark	END		S1	G3	Butterfly-
017N013E	<i>Acipenser fulvescens</i>	Lake Sturgeon	SC/H		S3	G3G4	Fish-
018N008E	<i>Calcareous fen</i>	Calcareous Fen	NA		S3	G3	Community
	<i>Calephelis muticum</i>	Swamp Metalmark	END		S1	G3	Butterfly-
	<i>Deschampsia cespitosa</i>	Tufted Hairgrass	SC		S2	G5	Plant-
	<i>Dry prairie</i>	Dry Prairie	NA		S3	G3	Community
	<i>Lycaeides melissa samuelis</i>	Karner Blue	SC/FL	LE	S3	G5T2	Butterfly
	<i>Oak barrens</i>	Oak Barrens	NA		S2	G2?	Community
	<i>Springs and spring runs, hard</i>	Springs and Spring Runs, Hard	NA		S4	GNR	Community
018N009E	<i>Calamagrostis stricta</i>	Slim-stem Small-reedgrass	SC		S3	G5	Plant-
	<i>Calcareous fen</i>	Calcareous Fen	NA		S3	G3	Community
	<i>Cardamine pratensis</i>	Cuckooflower	SC		S3	G5	Plant-
	<i>Cicindela patruela huberi</i>	A Tiger Beetle	SC/N		S3	G3T3	Beetle
	<i>Deschampsia cespitosa</i>	Tufted Hairgrass	SC		S2	G5	Plant-
	<i>Emergent marsh</i>	Emergent Marsh	NA		S4	G4	Community
	<i>Lycaeides melissa samuelis</i>	Karner Blue	SC/FL	LE	S3	G5T2	Butterfly
	<i>Northern wet forest</i>	Northern Wet Forest	NA		S4	G4	Community
	<i>Ophisaurus attenuatus</i>	Western Slender Glass Lizard	END		S1	G5	Lizard
	<i>Sorex arcticus</i>	Arctic Shrew	SC/N		S3S4	G5	Mammal-
	<i>Southern mesic forest</i>	Southern Mesic Forest	NA		S3	G3?	Community
	<i>Spring pond</i>	Spring Pond	NA		S3	GNR	Community
	<i>Springs and spring runs, hard</i>	Springs and Spring Runs, Hard	NA		S4	GNR	Community
018N010E	<i>Aster dumosus var. strictior</i>	Bushy Aster	SC		S1	G5T4	Plant
	<i>Calcareous fen</i>	Calcareous Fen	NA		S3	G3	Community
	<i>Calylophus serrulatus</i>	Yellow Evening Primrose	SC		S2	G5	Plant
	<i>Catinella exile</i>	Pleistocene Catinella	SC/N		S2	G2	Snail
	<i>Deschampsia cespitosa</i>	Tufted Hairgrass	SC		S2	G5	Plant-
	<i>Eleocharis compressa</i>	Flat-stemmed Spike-rush	SC		S2	G4	Plant-
	<i>Eleocharis olivacea</i>	Capitate Spikerush	SC		S2	G5	Plant-
	<i>Emergent marsh</i>	Emergent Marsh	NA		S4	G4	Community
	<i>Emydoidea blandingii</i>	Blanding's Turtle	THR		S3	G4	Turtle-
	<i>Equisetum variegatum</i>	Variegated Horsetail	SC		S3	G5	Plant-
	<i>Floodplain forest</i>	Floodplain Forest	NA		S3	G3?	Community
	<i>Grammia phyllira</i>	Phyllira Tiger Moth	SC/N		S3	G4	Moth
	<i>Lake--deep, hard, seepage</i>	Lake--Deep, Hard, Seepage	NA		S2	GNR	Community
	<i>Lycaeides melissa samuelis</i>	Karner Blue	SC/FL	LE	S3	G5T2	Butterfly
	<i>Migratory Bird Concentration Site</i>	Migratory Bird Concentration Site	SC		SU	GNR	Other

Table D-3. Elements by Town Range for Waushara County (Cont'd)

Town Range	Scientific Name	Common Name	State Status	Federal Status	State Rank	Global Rank	Group Name
	<i>Platanthera flava</i> var. <i>herbiola</i>	Pale Green Orchid	THR		S2	G4T4Q	Plant
	<i>Polygala cruciata</i>	Crossleaf Milkwort	SC		S3	G5	Plant-
	<i>Rhexia virginica</i>	Virginia Meadow-beauty	SC		S3	G5	Plant-
	<i>Scirpus cespitosus</i>	Tufted Bulrush	THR		S2	G5	Plant-
	<i>Shrub-carr</i>	Shrub-carr	NA		S4	G5	Community
	<i>Southern dry forest</i>	Southern Dry Forest	NA		S3	G4	Community
	<i>Southern sedge meadow</i>	Southern Sedge Meadow	NA		S3	G4?	Community
	<i>Strobilops affinis</i>	Eightfold Pinecone	SC/N		S3	G4G5	Snail
	<i>Tofieldia glutinosa</i>	Sticky False-asphodel	THR		S2S3	G5	Plant-
	<i>Triglochin palustris</i>	Slender Bog Arrow-grass	SC		S3	G5	Plant-
	<i>Utricularia purpurea</i>	Purple Bladderwort	SC		S3	G5	Plant-
	<i>Vertigo elatior</i>	Tapered Vertigo	SC/N		S3	G5	Snail
	<i>Vertigo morsei</i>	Six-whorl Vertigo	SC/N		S1	G3	Snail
018N011E							
	<i>Buteo lineatus</i>	Red-shouldered Hawk	THR		S3S4B,S1	G5	Bird-
	<i>Fundulus diaphanus</i>	Banded Killifish	SC/N		S3	G5	Fish-
	<i>Ophioglossum pusillum</i>	Adder's-tongue	SC		S2	G5	Plant-
018N012E							
	<i>Alder thicket</i>	Alder Thicket	NA		S4	G4	Community
	<i>Arabis missouriensis</i> var. <i>deamii</i>	Deam's Rockcress	SC		S2	G4G5QT	Plant
	<i>Fundulus diaphanus</i>	Banded Killifish	SC/N		S3	G5	Fish-
	<i>Lake--shallow, hard, seepage</i>	Lake--Shallow, Hard, Seepage	NA		SU	GNR	Community
	<i>Lythrurus umbratilis</i>	Redfin Shiner	THR		S2	G5	Fish-
	<i>Northern sedge meadow</i>	Northern Sedge Meadow	NA		S3	G4	Community
	<i>Northern wet forest</i>	Northern Wet Forest	NA		S4	G4	Community
	<i>Notropis texanus</i>	Weed Shiner	SC/N		S3	G5	Fish-
018N013E							
	<i>Acipenser fulvescens</i>	Lake Sturgeon	SC/H		S3	G3G4	Fish-
	<i>Emydoidea blandingii</i>	Blanding's Turtle	THR		S3	G4	Turtle-
	<i>Epioblasma triquetra</i>	Snuffbox	END		S1	G3	Mussel-
	<i>Erimyzon sucetta</i>	Lake Chubsucker	SC/N		S3	G5	Fish-
	<i>Fundulus diaphanus</i>	Banded Killifish	SC/N		S3	G5	Fish-
	<i>Moxostoma valenciennesi</i>	Greater Redhorse	THR		S3	G4	Fish-
	<i>Notropis anogenus</i>	Pugnose Shiner	THR		S2	G3	Fish-
019N007E							
	<i>Emydoidea blandingii</i>	Blanding's Turtle	THR		S3	G4	Turtle-
	<i>Tympanuchus cupido</i>	Greater Prairie-chicken	THR		S1B,S2N	G4	Bird
019N008E							
	<i>Chlosyne gorgone</i>	Gorgone Checker Spot	SC/N		S3	G5	Butterfly
	<i>Emergent marsh</i>	Emergent Marsh	NA		S4	G4	Community
	<i>Emydoidea blandingii</i>	Blanding's Turtle	THR		S3	G4	Turtle-
	<i>Lycaeides melissa samuelis</i>	Karner Blue	SC/FL	LE	S3	G5T2	Butterfly
	<i>Oak barrens</i>	Oak Barrens	NA		S2	G2?	Community
	<i>Southern sedge meadow</i>	Southern Sedge Meadow	NA		S3	G4?	Community
	<i>Tympanuchus cupido</i>	Greater Prairie-chicken	THR		S1B,S2N	G4	Bird
019N009E							
	<i>Carex sychnocephala</i>	Many-headed Sedge	SC		S2	G4	Plant-
	<i>Eleocharis olivacea</i>	Capitate Spikerush	SC		S2	G5	Plant-
	<i>Eleocharis quinqueflora</i>	Few-flower Spikerush	SC		S2	G5	Plant-

Table D-3. Elements by Town Range for Waushara County (Cont'd)

Town Range	Scientific Name	Common Name	State Status	Federal Status	State Rank	Global Rank	Group Name
	<i>Emergent marsh</i>	Emergent Marsh	NA		S4	G4	Community
	<i>Lake--deep, hard, seepage</i>	Lake--Deep, Hard, Seepage	NA		S2	GNR	Community
	<i>Lycaeides melissa samuelis</i>	Karner Blue	SC/FL	LE	S3	G5T2	Butterfly
	<i>Southern mesic forest</i>	Southern Mesic Forest	NA		S3	G3?	Community
	<i>Strophostyles leiosperma</i>	Small-flowered Woolly Bean	SC		S2	G5	Plant
019N010E							
	<i>Buteo lineatus</i>	Red-shouldered Hawk	THR		S3S4B,S1	G5	Bird-
	<i>Carex sychnocephala</i>	Many-headed Sedge	SC		S2	G4	Plant-
	<i>Dry prairie</i>	Dry Prairie	NA		S3	G3	Community
	<i>Emydoidea blandingii</i>	Blanding's Turtle	THR		S3	G4	Turtle-
	<i>Lycaeides melissa samuelis</i>	Karner Blue	SC/FL	LE	S3	G5T2	Butterfly
	<i>Malaxis monophyllos var. brachy</i>	White Adder's-mouth	SC		S3	G4Q	Plant-
	<i>Oak barrens</i>	Oak Barrens	NA		S2	G2?	Community
	<i>Ophisaurus attenuatus</i>	Western Slender Glass Lizard	END		S1	G5	Lizard
	<i>Platanthera flava var. herbiola</i>	Pale Green Orchid	THR		S2	G4T4Q	Plant
	<i>Talinum rugospermum</i>	Prairie Fame-flower	SC		S3	G3G4	Plant
019N011E							
	<i>Acris crepitans blanchardi</i>	Blanchard's Cricket Frog	END		S1	G5T5	Frog-
	<i>Emergent marsh</i>	Emergent Marsh	NA		S4	G4	Community
	<i>Lake--deep, hard, seepage</i>	Lake--Deep, Hard, Seepage	NA		S2	GNR	Community
	<i>Lepomis megalotis</i>	Longear Sunfish	THR		S2	G5	Fish-
	<i>Lycaeides melissa samuelis</i>	Karner Blue	SC/FL	LE	S3	G5T2	Butterfly
	<i>Northern dry-mesic forest</i>	Northern Dry-mesic Forest	NA		S3	G4	Community
	<i>Northern sedge meadow</i>	Northern Sedge Meadow	NA		S3	G4	Community
	<i>Northern wet forest</i>	Northern Wet Forest	NA		S4	G4	Community
	<i>Ophisaurus attenuatus</i>	Western Slender Glass Lizard	END		S1	G5	Lizard
	<i>Shrub-carr</i>	Shrub-carr	NA		S4	G5	Community
	<i>Southern dry-mesic forest</i>	Southern Dry-mesic Forest	NA		S3	G4	Community
	<i>Spring pond</i>	Spring Pond	NA		S3	GNR	Community
	<i>Springs and spring runs, hard</i>	Springs and Spring Runs, Hard	NA		S4	GNR	Community
	<i>Stream--fast, hard, cold</i>	Stream--Fast, Hard, Cold	NA		S4	GNR	Community
019N012E							
	<i>Emydoidea blandingii</i>	Blanding's Turtle	THR		S3	G4	Turtle-
	<i>Lycaeides melissa samuelis</i>	Karner Blue	SC/FL	LE	S3	G5T2	Butterfly
	<i>Northern wet forest</i>	Northern Wet Forest	NA		S4	G4	Community
	<i>Opuntia fragilis</i>	Brittle Prickly-pear	THR		S3	G4G5	Plant
	<i>Penstemon pallidus</i>	Pale Beardtongue	SC		S1	G5	Plant
	<i>Southern dry forest</i>	Southern Dry Forest	NA		S3	G4	Community
	<i>Southern dry-mesic forest</i>	Southern Dry-mesic Forest	NA		S3	G4	Community
	<i>Springs and spring runs, hard</i>	Springs and Spring Runs, Hard	NA		S4	GNR	Community
019N013E							
	<i>Erimyzon sucetta</i>	Lake Chubsucker	SC/N		S3	G5	Fish-
	<i>Fundulus diaphanus</i>	Banded Killifish	SC/N		S3	G5	Fish-
	<i>Haliaeetus leucocephalus</i>	Bald Eagle	SC/P		S4B,S2N	G5	Bird-
	<i>Luxilus chrysocephalus</i>	Striped Shiner	END		S1	G5	Fish-
	<i>Moxostoma valenciennesi</i>	Greater Redhorse	THR		S3	G4	Fish-
	<i>Notropis anogenus</i>	Pugnose Shiner	THR		S2	G3	Fish-
	<i>Opsopoeodus emiliae</i>	Pugnose Minnow	SC/N		S3	G5	Fish-
	<i>Southern sedge meadow</i>	Southern Sedge Meadow	NA		S3	G4?	Community

Table D-3. Elements by Town Range for Waushara County (Cont'd)

Town Range	Scientific Name	Common Name	State Status	Federal Status	State Rank	Global Rank	Group Name
	<i>Wet-mesic prairie</i>	Wet-mesic Prairie	NA		S2	G2	Community
019N014E							
	<i>Erimyzon sucetta</i>	Lake Chubsucker	SC/N		S3	G5	Fish-
	<i>Fundulus diaphanus</i>	Banded Killifish	SC/N		S3	G5	Fish-
	<i>Luxilus chrysocephalus</i>	Striped Shiner	END		S1	G5	Fish-
	<i>Moxostoma valenciennesi</i>	Greater Redhorse	THR		S3	G4	Fish-
	<i>Notropis anogenus</i>	Pugnose Shiner	THR		S2	G3	Fish-
	<i>Opsopoeodus emiliae</i>	Pugnose Minnow	SC/N		S3	G5	Fish-
019N015E							
	<i>Fundulus diaphanus</i>	Banded Killifish	SC/N		S3	G5	Fish-
020N007E							
	<i>Tympanuchus cupido</i>	Greater Prairie-chicken	THR		S1B,S2N	G4	Bird
020N008E							
	<i>Carex sychnocephala</i>	Many-headed Sedge	SC		S2	G4	Plant-
	<i>Chlidonias niger</i>	Black Tern	SC/M		S3B	G4	Bird-
	<i>Eleocharis quinqueflora</i>	Few-flower Spikerush	SC		S2	G5	Plant-
	<i>Emergent marsh</i>	Emergent Marsh	NA		S4	G4	Community
	<i>Lycaeides melissa samuelis</i>	Karner Blue	SC/FL	LE	S3	G5T2	Butterfly
	<i>Pine barrens</i>	Pine Barrens	NA		S2	G2	Community
	<i>Sorex arcticus</i>	Arctic Shrew	SC/N		S3S4	G5	Mammal-
	<i>Tympanuchus cupido</i>	Greater Prairie-chicken	THR		S1B,S2N	G4	Bird
020N009E							
	<i>Carex crawei</i>	Crawe Sedge	SC		S3	G5	Plant-
	<i>Carex sychnocephala</i>	Many-headed Sedge	SC		S2	G4	Plant-
	<i>Eleocharis compressa</i>	Flat-stemmed Spike-rush	SC		S2	G4	Plant-
	<i>Emergent marsh</i>	Emergent Marsh	NA		S4	G4	Community
	<i>Inland beach</i>	Inland Beach	NA		S3	G4G5	Community
	<i>Minuartia dawsonensis</i>	Rock Stitchwort	SC		S1	G5	Plant
	<i>Oxytropis campestris var. chart</i>	Fassett's Locoweed	END	LT	S1S2	G5T1T2	Plant-
	<i>Rana catesbeiana</i>	Bullfrog	SC/H		S3	G5	Frog-
	<i>Southern dry forest</i>	Southern Dry Forest	NA		S3	G4	Community
020N010E							
	<i>Carex sychnocephala</i>	Many-headed Sedge	SC		S2	G4	Plant-
	<i>Cicindela patruela huberi</i>	A Tiger Beetle	SC/N		S3	G3T3	Beetle
	<i>Dry prairie</i>	Dry Prairie	NA		S3	G3	Community
	<i>Eleocharis quinqueflora</i>	Few-flower Spikerush	SC		S2	G5	Plant-
	<i>Gentianopsis procera</i>	Lesser Fringed Gentian	SC		S3	G5	Plant-
	<i>Inland beach</i>	Inland Beach	NA		S3	G4G5	Community
	<i>Lycaeides melissa samuelis</i>	Karner Blue	SC/FL	LE	S3	G5T2	Butterfly
020N011E							
	<i>Asclepias purpurascens</i>	Purple Milkweed	END		S3	G5?	Plant
	<i>Bartonia virginica</i>	Yellow Screwstem	SC		S3	G5	Plant-
	<i>Cicindela patruela huberi</i>	A Tiger Beetle	SC/N		S3	G3T3	Beetle
	<i>Coastal plain marsh</i>	Coastal Plain Marsh	NA		S1	G2?	Community
	<i>Eleocharis quinqueflora</i>	Few-flower Spikerush	SC		S2	G5	Plant-
	<i>Emergent marsh</i>	Emergent Marsh	NA		S4	G4	Community
	<i>Fundulus diaphanus</i>	Banded Killifish	SC/N		S3	G5	Fish-
	<i>Haliaeetus leucocephalus</i>	Bald Eagle	SC/P		S4B,S2N	G5	Bird-
	<i>Hardwood swamp</i>	Hardwood Swamp	NA		S3	G4	Community

Table D-3. Elements by Town Range for Waushara County (Cont'd)

Town Range	Scientific Name	Common Name	State Status	Federal Status	State Rank	Global Rank	Group Name
	<i>Inland beach</i>	Inland Beach	NA		S3	G4G5	Community
	<i>Lake--shallow, soft, seepage</i>	Lake--Shallow, Soft, Seepage	NA		S4	GNR	Community
	<i>Lycaeides melissa samuelis</i>	Karner Blue	SC/FL	LE	S3	G5T2	Butterfly
	<i>Lythrurus umbratilis</i>	Redfin Shiner	THR		S2	G5	Fish-
	<i>Northern dry-mesic forest</i>	Northern Dry-mesic Forest	NA		S3	G4	Community
	<i>Notropis texanus</i>	Weed Shiner	SC/N		S3	G5	Fish-
	<i>Psilocarya scirpoides</i>	Long-beaked Baldrush	THR		S2	G4	Plant-
	<i>Southern mesic forest</i>	Southern Mesic Forest	NA		S3	G3?	Community
	<i>Southern sedge meadow</i>	Southern Sedge Meadow	NA		S3	G4?	Community
	<i>Spring pond</i>	Spring Pond	NA		S3	GNR	Community
	<i>Springs and spring runs, hard</i>	Springs and Spring Runs, Hard	NA		S4	GNR	Community
020N012E							
	<i>Etheostoma microperca</i>	Least Darter	SC/N		S3	G5	Fish-
	<i>Lycaeides melissa samuelis</i>	Karner Blue	SC/FL	LE	S3	G5T2	Butterfly
	<i>Lythrurus umbratilis</i>	Redfin Shiner	THR		S2	G5	Fish-
	<i>Microtus ochrogaster</i>	Prairie Vole	SC/N		S1S2	G5	Mammal
	<i>Northern wet-mesic forest</i>	Northern Wet-mesic Forest	NA		S3S4	G3?	Community
	<i>Notropis texanus</i>	Weed Shiner	SC/N		S3	G5	Fish-
	<i>Platanthera flava var. herbiola</i>	Pale Green Orchid	THR		S2	G4T4Q	Plant
	<i>Stream--fast, hard, cold</i>	Stream--Fast, Hard, Cold	NA		S4	GNR	Community
020N013E							
	<i>Cicindela lepida</i>	Little White Tiger Beetle	SC/N		S2	G3G4	Beetle
	<i>Fundulus diaphanus</i>	Banded Killifish	SC/N		S3	G5	Fish-
	<i>Notropis texanus</i>	Weed Shiner	SC/N		S3	G5	Fish-
	<i>Poanes massasoit</i>	Mulberry Wing	SC/N		S3	G4	Butterfly-
	<i>Poanes viator</i>	Broad-winged Skipper	SC/N		S3	G5	Butterfly-
020N014E							
	<i>Fundulus diaphanus</i>	Banded Killifish	SC/N		S3	G5	Fish-
020N015E							
	<i>Fundulus diaphanus</i>	Banded Killifish	SC/N		S3	G5	Fish-

This report lists locations for all elements occurring in Waushara County, since many element occurrences cross county boundaries, it may also list townships from additional counties.

Wisconsin Natural Heritage Inventory (NHI)

Key to the County Data Printout

TOWNRANGE¹
 EO#² PREC³ SCIENTIFIC NAME⁴ (COMMON NAME)⁵ LASTOBS⁶ ST/FED⁷ GROUP⁸
 COUNTY⁹

1. TownRange Public Land Survey (PLS) Town and Range location of the endangered resource element occurrence. Please note, duplicate records may appear due to multiple locations of an element within a TownRange.
2. EO# Element Occurrence Number. Three digit number identifying each unique occurrence of a rare species, natural community or natural feature in Wisconsin.
3. Prec Precision to which the element occurrence was mapped on USGS 7.5 minute topographic map. Indicates how precisely we can locate the element.

 S = Seconds (~200 ft. radius), F = Forty (40-acre or quarter-quarter radius),
 Q = Quarter (160-acre or 1/4 mi. radius), M = Minute (1 to 1.5 mi. radius),
 G = General (5 mi. radius), NM = Not Mapped, U = Unmappable
4. Scientific name Scientific name of the endangered resource element.
5. (Common name) Common name of the endangered resource element, established by The Nature Conservancy.
6. Lastobs The last confirmed observation date of the element occurrence.
7. St/Fed Federal and State protection Status;

 St: Wisconsin State Status - Protection category designated by the Wisconsin DNR.
 END = endangered; THR = threatened; SC = Special Concern.

 Special Concern species are those species about which some problem of abundance or distribution is suspected but not yet proved. The main purpose of this category is to focus attention on certain species before they become threatened or endangered.

Fed: Federal protection status designated by the Office of Endangered Species, U.S. Fish and Wildlife Service indicating the status of a species in the United States.
 LE = listed endangered; LT = listed threatened; LE-LT = listed endangered in part of its range, threatened in another part; XN = nonessential experimental population(s) in part of its range; LT,PD = listed threatened, proposed for de-listing;
 C = candidate for future listing.

 WDNR and federal regulations regarding Special Concern species range from full protection to no protection. The current categories and their respective level of protection are as follows: SC/P = fully protected; SC/N = no laws regulating use, possession, or harvesting; SC/H = take regulated by establishment of open closed seasons; SC/FL = Federally protected as endangered or threatened, but not so designated by state WDNR; SC/M = fully protected by federal and state laws under the Migratory Bird Act.
8. Group Taxonomic group of the element. A “^” next to the group name indicates that the element is associated with wetlands or waterbodies.
9. County The first four letters of the county name. Exceptions: GRNL = Green Lake, WASB = Washburn. Please note that all counties of occurrence are listed for each element, this is a function of the data linkage within the database. Please ignore if only interested in Township information.

Waushara County

AQUATIC OCCURRENCES

Animal

Osprey, Pandion haliaetus, 2008
Bullfrog, Rana catesbeiana, 1997
Snuffbox, Epioblasma triquetra, 2001
Bald Eagle, Haliaeetus leucocephalus, 2005
Black Tern, Chlidonias niger, 2003
Weed Shiner, Notropis texanus, 1979
Arctic Shrew, Sorex arcticus, 1974
Least Darter, Etheostoma microperca, 1979
Lake Sturgeon, Acipenser fulvescens, 1991
Mulberry Wing, Poanes massasoit, 2005
Redfin Shiner, Lythrurus umbratilis, 1979
Pugnose Minnow, Opsopoeodus emiliae, 1978
Pugnose Shiner, Notropis anogenus, 1979
Striped Shiner, Luxilus chrysocephalus,
Lake Chubsucker, Erimyzon sucetta, 1979
Longear Sunfish, Lepomis megalotis, 2003
Swamp Metalmark, Calephelis muticum, 2001
Banded Killifish, Fundulus diaphanus, 1995
Greater Redhorse, Moxostoma valenciennesi, 1974
Blanding's Turtle, Emydoidea blandingii, 2005
Red-shouldered Hawk, Buteo lineatus, 2006
Broad-winged Skipper, Poanes viator, 2000
Blanchard's Cricket Frog, Acris crepitans blanchardi, 1971

Plants

Crawe Sedge, Carex crawei, 2001
Cuckooflower, Cardamine pratensis, 1960
Adder's-tongue, Ophioglossum pusillum, 1956
Tufted Bulrush, Scirpus cespitosus, 2007
Tufted Hairgrass, Deschampsia cespitosa, 2001
Yellow Screwstem, Bartonia virginica, 1913
Many-headed Sedge, Carex sychnocephala, 2001
Capitate Spikerush, Eleocharis olivacea, 1963
Crossleaf Milkwort, Polygala cruciata, 1969
Fassett's Locoweed, Oxytropis campestris var. chartacea, 2007
Purple Bladderwort, Utricularia purpurea, 2002
White Adder's-mouth, Malaxis monophyllos var. brachypoda, 1918
Few-flower Spikerush, Eleocharis quinqueflora, 2000
Long-beaked Baldrush, Psilocarya scirpoides, 2000
Variegated Horsetail, Equisetum variegatum, 2000
Sticky False-asphodel, Tofieldia glutinosa, 1979
Lesser Fringed Gentian, Gentianopsis procera, 1998
Virginia Meadow-beauty, Rhexia virginica, 1963
Flat-stemmed Spike-rush, Eleocharis compressa, 2000
Slender Bog Arrow-grass, Triglochin palustris, 2000
Slim-stem Small-reedgrass, Calamagrostis stricta, 2001

Natural Communities

Shrub-carr, Shrub-carr, 1983
Spring Pond, Spring pond, 2006
Inland Beach, Inland beach, 2000
Alder Thicket, Alder thicket, 1978
Calcareous Fen, Calcareous fen, 2000
Emergent Marsh, Emergent marsh, 1979
Hardwood Swamp, Hardwood swamp, 2006
Floodplain Forest, Floodplain forest, 1983
Wet-mesic Prairie, Wet-mesic prairie, 2000
Coastal Plain Marsh, Coastal plain marsh, 1978
Northern Wet Forest, Northern wet forest, 1979
Northern Sedge Meadow, Northern sedge meadow, 1978
Southern Sedge Meadow, Southern sedge meadow, 2006
Stream--Fast, Hard, Cold, Stream--fast, hard, cold, 1978
Lake--Deep, Hard, Seepage, Lake--deep, hard, seepage, 1983
Northern Wet-mesic Forest, Northern wet-mesic forest, 1978
Lake--Shallow, Hard, Seepage, Lake--shallow, hard, seepage, 1978
Lake--Shallow, Soft, Seepage, Lake--shallow, soft, seepage, 1978
Springs and Spring Runs, Hard, Springs and spring runs, hard, 2006

TERRESTRIAL OCCURRENCES

Animal

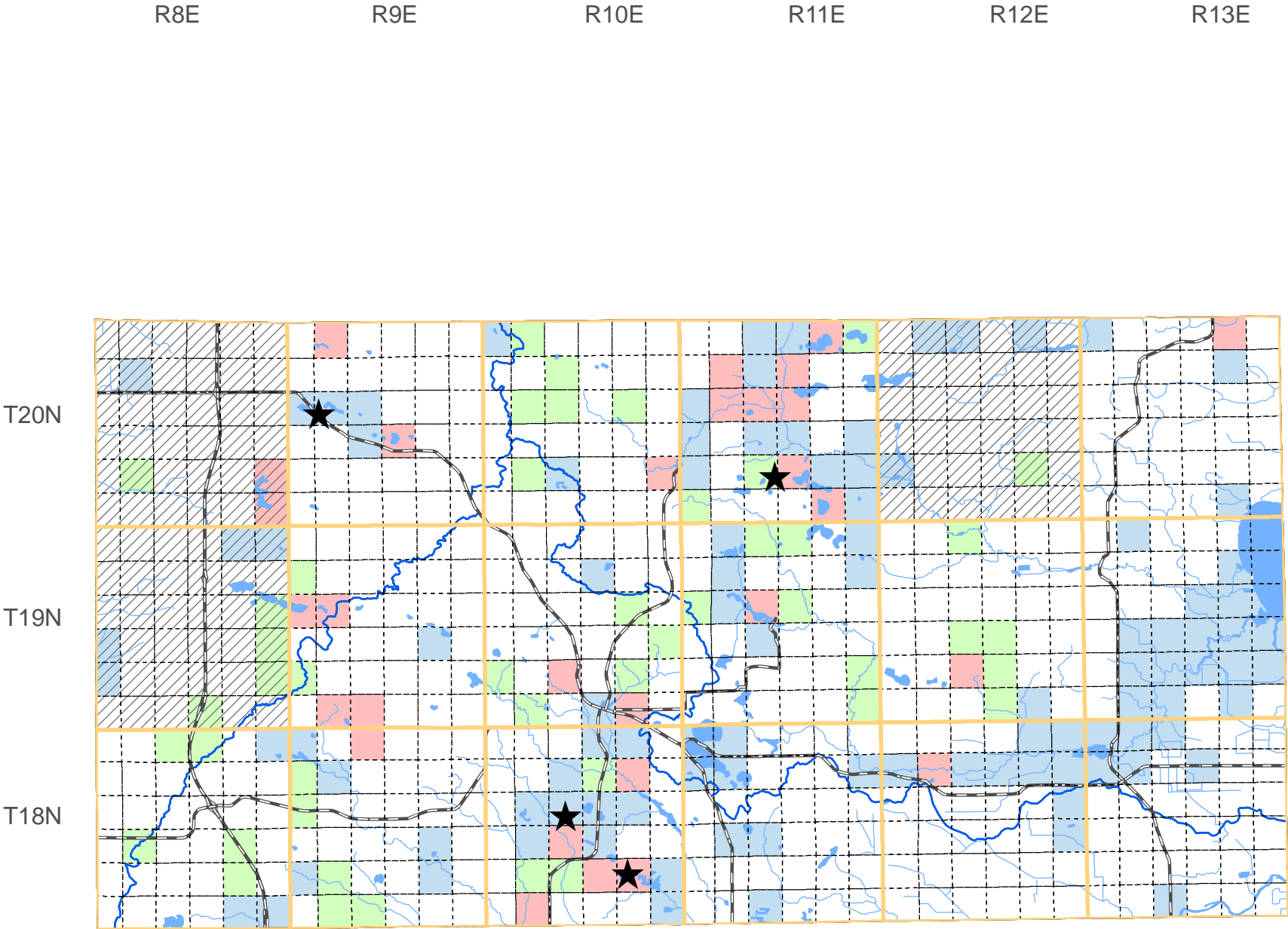
Karner Blue, Lycaeides melissa samuelis, 2006
Prairie Vole, Microtus ochrogaster, 1898
A Tiger Beetle, Cicindela patruela huberi, 2000
Tapered Vertigo, Vertigo elatior, 1997
Northern Goshawk, Accipiter gentilis, 2005
Six-whorl Vertigo, Vertigo morsei, 1997
Eightfold Pinecone, Strobilops affinis, 1997
Phyllira Tiger Moth, Grammia phyllira, 1999
Gorgone Checker Spot, Chlosyne gorgone, 1996
Pleistocene Catinella, Catinella exilis, 1997
Greater Prairie-chicken, Tympanuchus cupido, 1979
Little White Tiger Beetle, Cicindela lepida, 2005
Western Slender Glass Lizard, Ophisaurus attenuatus, 2007
Migratory Bird Concentration Site, Migratory Bird Concentration Site, 1979

Plants

Bushy Aster, Aster dumosus var. strictior, 1963
Purple Milkweed, Asclepias purpurascens, 1984
Rock Stitchwort, Minuartia dawsonensis, 1962
Deam's Rockcress, Arabis missouriensis var. deamii, 1958
Pale Beardtongue, Penstemon pallidus, 1965
Pale Green Orchid, Platanthera flava var. herbiola, 2006
Prairie Fame-flower, Talinum rugospermum, 1991
Brittle Prickly-pear, Opuntia fragilis, 1972
Yellow Evening Primrose, Calylophus serrulatus, 1915
Small-flowered Woolly Bean, Strophostyles leiosperma, 1957

Natural Communities

Dry Prairie, Dry prairie, 1979
Oak Barrens, Oak barrens, 2000
Pine Barrens, Pine barrens, 1978
Southern Dry Forest, Southern dry forest, 1983
Southern Mesic Forest, Southern mesic forest, 2006
Northern Dry-mesic Forest, Northern dry-mesic forest, 2006
Southern Dry-mesic Forest, Southern dry-mesic forest, 1979



SPECIES and/or NATURAL COMMUNITY | Aquatic Terrestrial Both Township Occurrences Watershed Boundaries ★ State Natural Area



This map represents the known occurrences of rare species and natural communities that have been recorded in the Wisconsin Natural Heritage Inventory (NHI). Colored sections indicate the presence of one or more occurrences within that section. Hatched townships indicate one or more occurrences reported only at the township level. The date following the names above notes the most recent year the occurrence was recorded in the county.

Map generated using NHI data from: 10/01/2008
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Table D-4. First Ancestry* Reported, Top 6 in Waushara County, 2000

Jurisdiction	German	Unclassified or not reported	Polish	Irish	United States or American	English	Persons Reporting First ancestry	Total Population in Sample	Percent of Population Within Top 6 Categories
C. Berlin (pt.)	31	13	8	2	4	0	55	68	85.29%
C. Wautoma	532	537	158	79	97	80	1,421	1,958	75.74%
V. Coloma	173	138	2	31	31	14	348	486	80.04%
V. Hancock	171	90	6	42	14	49	395	485	76.70%
V. Lohrville	135	89	33	24	31	19	332	421	78.62%
V. Plainfield	228	149	58	44	46	79	709	858	70.40%
V. Redgranite	378	242	120	45	51	28	829	1,071	80.67%
V. Wild Rose	267	192	27	41	24	30	598	790	73.54%
T. Aurora	484	164	100	17	50	30	820	984	85.87%
T. Bloomfield	527	190	37	47	22	18	827	1,017	82.69%
T. Coloma	214	198	28	24	35	54	495	693	79.80%
T. Dakota	550	209	113	72	43	47	1,035	1,244	83.12%
T. Deerfield	241	125	60	40	28	55	520	645	85.12%
T. Hancock	195	93	84	25	21	26	449	542	81.92%
T. Leon	560	211	66	64	49	47	1,064	1,275	78.20%
T. Marion	773	354	127	107	133	69	1,693	2,047	76.36%
T. Mount Morris	420	169	72	46	63	28	950	1,119	71.31%
T. Oasis	159	65	41	20	20	15	345	410	78.05%
T. Plainfield	182	112	62	25	12	30	457	569	74.34%
T. Poy Sippi	431	168	80	48	63	23	811	979	83.04%
T. Richford	260	159	23	14	34	6	411	570	87.02%
T. Rose	191	85	59	16	13	72	503	588	74.15%
T. Saxeville	407	175	52	63	34	75	797	972	82.92%
T. Springwater	543	224	89	77	56	76	1,144	1,368	77.85%
T. Warren	214	166	89	37	38	11	487	653	84.99%
T. Wautoma	539	312	87	51	43	57	1,030	1,342	81.15%
Waushara County	8,805	4,629	1,681	1,101	1,055	1,038	18,525	23,154	79.07%
Wisconsin	1,775,722	826,719	326,038	298,177	189,283	184,574	4,536,956	5,363,675	67.13%

*Includes individuals who only reported one ancestry and the first response listed for those who reported multiple ancestries.

Source: U.S. Census, 2000 STF 3A.

Table D-5. Amish Settlements in Wisconsin: Households, Population, Type of Occupation

Amish Settlements in Wisconsin (settlements, county)	Households No.	Population No.	Persons/Household ratio	Farming Percent	Dairying Percent	Woodworking Percent
Algoma, Kewaunee Co **	2	13	6.5	100	100	?
Athens, Marathon Co	28	191	6.8	86	86	7
Augusta, Eau Claire Co	115	710	6.2	61	59	32
Beetown, Grant Co ***	11	66	6.0	?	?	?
Blair, Trempealeau Co	43	212	4.9	23	16	58
Bonduel, Shawano Co	35	177	5.1	40	29	51
Cashton, Vernon-Monroe Co	273	1,690	6.2	55	49	26
Chaseburg, Vernon Co	25	175	7.0	64	60	32
Chetek, Barron Co	15	78	5.2	80	53	20
Clayton, Barron Co	19	108	5.7	68	32	47
Elkhart Lake-St. Anna, Calumet Co	13	64	4.9	77	23	23
Evansville-Brodhead, Rock Co	26	123	4.7	35	23	35
Fennimore, Grant Co	23	176	7.7	96	78	4
Franklin, Jackson Co	3	19	6.3	100	33	0
Granton, Clark Co *	121	726	6.0	74	68	22
Greenwood, Clark Co	30	193	6.4	80	67	19
Hillsboro, Vernon Co	95	672	7.1	83	48	10
Kingston-Dalton, Green Lake-Columbia-Marquette Co	152	963	6.3	43	28	41
LaValle-Ironton, Sauk Co	53	378	7.1	47	42	47
Livingston, Lafayette Co	23	177	7.7	65	35	39
Loganville-Hill Point, Sauk Co	?	?		46	20	46
Lookout-Wolf Valley, Buffalo Co ***	11	66	6.0	?	?	?
Loyal, Clark Co ***	59	363	6.2	>60	60*	?
Marion, Waupaca Co **	22	135	6.1	64	50	?
Medford, Taylor Co	82	341	4.2	45	35	21
Mondovi, Pepin-Buffalo Co	73	454	6.2	37	26	56
New Auburn, Chippewa Co	27	199	7.4	11	0	63
Owen-Unity, Clark Co	18	122	6.8	72	56	0
Platteville, Lafayette Co **	21	129	6.1	86	90	?
Readstown, Vernon Co	35	169	4.8	29	20	43
Rising Sun, Crawford-Vernon Co **	1	6	6.0	100	100	?
Spencer, Clark Co	16	90	5.6	75	75	6
Stratford, Marathon Co	19	112	5.9	21	16	63
Taylor, Jackson Co **	17	104	6.1	88	53	?
Viroqua-Liberty Pole, Vernon Co	10	69	6.9	30	20	20
Wautoma, Waushara Co	52	291	5.6	33	23	51
Wilton-Tomah, Monroe Co	139	907	6.5	78	73	13
Wolf Valley-Lookout, Buffalo Co	?	?		>64	64*	?

*** Source: Number of Farmers and Woodworkers per settlement Miller (2002); size of ministry (Raber 2003)

ECONOMIC DEVELOPMENT APPENDICES

Table E-1 Educational Attainment, 2000

Table E-2 Total Civilian Labor Force, 1990 and 2000

Table E-3 Employment Status, 16 Years and Older, 1990

Table E-4 Employment Status, 16 Years and Older, 2000

Table E-5 Travel Time to Work, 1990

Table E-6 Travel Time to Work, 2000

Table E-7 Location of Workplace, 1990 and 2000

Table E-8 Economic Development Organizations

Table E-1. Educational Attainment, 2000

Jurisdiction	Less than 9th Grade		9 - 12 Grade, No Diploma		High School Graduate		College				Total Persons Age 25 and Older		High School Graduation Rate	
							1 - 3 Years		4 Years or More					
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
C. Berlin (pt.)	1	1.85%	6	11.11%	24	44.44%	15	27.78%	8	14.81%	54	100.00%	47	87.04%
C. Wautoma	114	8.62%	206	15.58%	542	41.00%	269	20.35%	191	14.45%	1,322	100.00%	1,002	75.79%
V. Coloma	20	6.29%	45	14.15%	140	44.03%	90	28.30%	23	7.23%	318	100.00%	253	79.56%
V. Hancock	20	6.25%	77	24.06%	132	41.25%	68	21.25%	23	7.19%	320	100.00%	223	69.69%
V. Lohrville	20	6.76%	47	15.88%	167	56.42%	55	18.58%	7	2.36%	296	100.00%	229	77.36%
V. Plainfield	50	9.31%	105	19.55%	222	41.34%	90	16.76%	70	13.04%	537	100.00%	382	71.14%
V. Redgranite	63	8.69%	183	25.24%	289	39.86%	164	22.62%	26	3.59%	725	100.00%	479	66.07%
V. Wild Rose	43	7.89%	77	14.13%	209	38.35%	146	26.79%	70	12.84%	545	100.00%	425	77.98%
T. Aurora	38	5.73%	75	11.31%	275	41.48%	205	30.92%	70	10.56%	663	100.00%	550	82.96%
T. Bloomfield	45	6.47%	87	12.52%	344	49.50%	167	24.03%	52	7.48%	695	100.00%	563	81.01%
T. Coloma	56	10.22%	112	20.44%	186	33.94%	145	26.46%	49	8.94%	548	100.00%	380	69.34%
T. Dakota	78	9.33%	122	14.59%	349	41.75%	205	24.52%	82	9.81%	836	100.00%	636	76.08%
T. Deerfield	26	5.37%	69	14.26%	191	39.46%	134	27.69%	64	13.22%	484	100.00%	389	80.37%
T. Hancock	19	4.90%	38	9.79%	212	54.64%	57	14.69%	62	15.98%	388	100.00%	331	85.31%
T. Leon	63	6.64%	134	14.12%	410	43.20%	233	24.55%	109	11.49%	949	100.00%	752	79.24%
T. Marion	71	4.54%	168	10.74%	678	43.35%	408	26.09%	239	15.28%	1,564	100.00%	1,325	84.72%
T. Mount Morris	30	3.65%	88	10.69%	358	43.50%	209	25.39%	138	16.77%	823	100.00%	705	85.66%
T. Oasis	17	6.30%	52	19.26%	103	38.15%	67	24.81%	31	11.48%	270	100.00%	201	74.44%
T. Plainfield	14	3.76%	49	13.17%	180	48.39%	101	27.15%	28	7.53%	372	100.00%	309	83.06%
T. Poy Sippi	66	9.90%	66	9.90%	297	44.53%	160	23.99%	78	11.69%	667	100.00%	535	80.21%
T. Richford	68	19.05%	34	9.52%	149	41.74%	69	19.33%	37	10.36%	357	100.00%	255	71.43%
T. Rose	44	10.35%	56	13.18%	185	43.53%	95	22.35%	45	10.59%	425	100.00%	325	76.47%
T. Saxeville	37	5.17%	74	10.35%	333	46.57%	157	21.96%	114	15.94%	715	100.00%	604	84.48%
T. Springwater	29	2.78%	130	12.46%	495	47.46%	251	24.07%	138	13.23%	1,043	100.00%	884	84.76%
T. Warren	37	8.30%	78	17.49%	217	48.65%	91	20.40%	23	5.16%	446	100.00%	331	74.22%
T. Wautoma	65	6.86%	145	15.30%	347	36.60%	257	27.11%	134	14.14%	948	100.00%	738	77.85%
Waushara County	1,134	6.95%	2,323	14.24%	7,034	43.13%	3,908	23.96%	1,911	11.72%	16,310	100.00%	12,853	78.80%
Wisconsin	186,125	5.35%	332,292	9.56%	1,201,813	34.58%	976,375	28.09%	779,273	22.42%	3,475,878	100.00%	2,957,461	85.09%

Source: U.S. Census, 2000

Table E-2. Total Civilian Labor Force, 1990 and 2000

Jurisdiction	1990			2000			1990 to 2000 Change			1990 to 2000 Percent Change		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
C. Berlin (pt.)	38	24	14	45	20	25	7	-4	11	18.42%	-16.67%	78.57%
C. Wautoma	761	390	371	901	457	444	140	67	73	18.40%	17.18%	19.68%
V. Coloma	163	88	75	249	134	115	86	46	40	52.76%	52.27%	53.33%
V. Hancock	143	89	54	234	127	107	91	38	53	63.64%	42.70%	98.15%
V. Lohrville	178	103	75	193	106	87	15	3	12	8.43%	2.91%	16.00%
V. Plainfield	366	180	186	425	235	190	59	55	4	16.12%	30.56%	2.15%
V. Redgranite	396	200	196	489	242	247	93	42	51	23.48%	21.00%	26.02%
V. Wild Rose	295	144	151	351	170	181	56	26	30	18.98%	18.06%	19.87%
T. Aurora	420	247	173	565	311	254	145	64	81	34.52%	25.91%	46.82%
T. Bloomfield	469	292	177	512	290	222	43	-2	45	9.17%	-0.68%	25.42%
T. Coloma	242	135	107	386	200	186	144	65	79	59.50%	48.15%	73.83%
T. Dakota	477	267	210	598	320	278	121	53	68	25.37%	19.85%	32.38%
T. Deerfield	212	128	84	288	152	136	76	24	52	35.85%	18.75%	61.90%
T. Hancock	199	119	80	288	167	121	89	48	41	44.72%	40.34%	51.25%
T. Leon	457	264	193	686	374	312	229	110	119	50.11%	41.67%	61.66%
T. Marion	680	368	312	922	478	444	242	110	132	35.59%	29.89%	42.31%
T. Mount Morris	313	170	143	538	299	239	225	129	96	71.88%	75.88%	67.13%
T. Oasis	180	86	94	201	97	104	21	11	10	11.67%	12.79%	10.64%
T. Plainfield	220	127	93	277	145	132	57	18	39	25.91%	14.17%	41.94%
T. Poy Sippi	443	255	188	517	276	241	74	21	53	16.70%	8.24%	28.19%
T. Richford	195	116	79	257	156	101	62	40	22	31.79%	34.48%	27.85%
T. Rose	246	149	97	284	160	124	38	11	27	15.45%	7.38%	27.84%
T. Saxeville	390	219	171	483	276	207	93	57	36	23.85%	26.03%	21.05%
T. Springwater	464	256	208	615	347	268	151	91	60	32.54%	35.55%	28.85%
T. Warren	256	152	104	326	192	134	70	40	30	27.34%	26.32%	28.85%
T. Wautoma	514	306	208	649	331	318	135	25	110	26.26%	8.17%	52.88%
Waushara County	8,717	4,874	3,843	11,279	6,062	5,217	2,562	1,188	1,374	29.39%	24.37%	35.75%
Wisconsin	2,517,238	1,355,109	1,162,129	2,869,236	1,505,853	1,363,383	351,998	150,744	201,254	13.98%	11.12%	17.32%

Source: U.S. Census, 1990 and 2000.

Table E-3. Employment Status, 16 Years and Older, 1990

Jurisdiction	Total Civilian Labor Force			Employed Persons						Unemployed Persons					
				Total		Male		Female		Total		Male		Female	
	Total	Male	Female	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
C. Berlin (pt.)	38	24	14	38	100.00%	24	100.00%	14	100.00%	0	0.00%	0	0.00%	0	0.00%
C. Wautoma	761	390	371	704	92.51%	368	94.36%	336	90.57%	57	7.49%	22	5.64%	35	9.43%
V. Coloma	163	88	75	157	96.32%	86	97.73%	71	94.67%	6	3.68%	2	2.27%	4	5.33%
V. Hancock	143	89	54	121	84.62%	75	84.27%	46	85.19%	22	15.38%	14	15.73%	8	14.81%
V. Lohrville	178	103	75	161	90.45%	90	87.38%	71	94.67%	17	9.55%	13	12.62%	4	5.33%
V. Plainfield	366	180	186	334	91.26%	164	91.11%	170	91.40%	32	8.74%	16	8.89%	16	8.60%
V. Redgranite	396	200	196	334	84.34%	169	84.50%	165	84.18%	62	15.66%	31	15.50%	31	15.82%
V. Wild Rose	295	144	151	269	91.19%	125	86.81%	144	95.36%	26	8.81%	19	13.19%	7	4.64%
T. Aurora	420	247	173	388	92.38%	227	91.90%	161	93.06%	32	7.62%	20	8.10%	12	6.94%
T. Bloomfield	469	292	177	441	94.03%	272	93.15%	169	95.48%	28	5.97%	20	6.85%	8	4.52%
T. Coloma	242	135	107	225	92.98%	133	98.52%	92	85.98%	17	7.02%	2	1.48%	15	14.02%
T. Dakota	477	267	210	432	90.57%	236	88.39%	196	93.33%	45	9.43%	31	11.61%	14	6.67%
T. Deerfield	212	128	84	205	96.70%	123	96.09%	82	97.62%	7	3.30%	5	3.91%	2	2.38%
T. Hancock	199	119	80	173	86.93%	108	90.76%	65	81.25%	26	13.07%	11	9.24%	15	18.75%
T. Leon	457	264	193	431	94.31%	249	94.32%	182	94.30%	26	5.69%	15	5.68%	11	5.70%
T. Marion	680	368	312	648	95.29%	353	95.92%	295	94.55%	32	4.71%	15	4.08%	17	5.45%
T. Mount Morris	313	170	143	303	96.81%	162	95.29%	141	98.60%	10	3.19%	8	4.71%	2	1.40%
T. Oasis	180	86	94	169	93.89%	83	96.51%	86	91.49%	11	6.11%	3	3.49%	8	8.51%
T. Plainfield	220	127	93	202	91.82%	120	94.49%	82	88.17%	18	8.18%	7	5.51%	11	11.83%
T. Poy Sippi	443	255	188	407	91.87%	229	89.80%	178	94.68%	36	8.13%	26	10.20%	10	5.32%
T. Richford	195	116	79	185	94.87%	110	94.83%	75	94.94%	10	5.13%	6	5.17%	4	5.06%
T. Rose	246	149	97	231	93.90%	139	93.29%	92	94.85%	15	6.10%	10	6.71%	5	5.15%
T. Saxeville	390	219	171	367	94.10%	207	94.52%	160	93.57%	23	5.90%	12	5.48%	11	6.43%
T. Springfield	464	256	208	435	93.75%	233	91.02%	202	97.12%	29	6.25%	23	8.98%	6	2.88%
T. Warren	256	152	104	246	96.09%	146	96.05%	100	96.15%	10	3.91%	6	3.95%	4	3.85%
T. Wautoma	514	306	208	483	93.97%	283	92.48%	200	96.15%	31	6.03%	23	7.52%	8	3.85%
Waushara County	8,717	4,874	3,843	8,089	92.80%	4,514	92.61%	3,575	93.03%	628	7.20%	360	7.39%	268	6.97%
Wisconsin	2,517,238	1,355,109	1,162,129	2,386,439	94.80%	1,280,407	94.49%	1,106,032	95.17%	130,799	5.20%	74,702	5.51%	56,097	4.83%

Source: U.S. Census, 1990

Table E-4. Employment Status, 16 Years and Older, 2000

Jurisdiction	Total Civilian Labor Force			Employed Persons						Unemployed Persons					
				Total		Male		Female		Total		Male		Female	
	Total	Male	Female	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
C. Berlin (pt.)	45	20	25	43	95.56%	20	100.00%	23	92.00%	2	4.44%	0	0.00%	2	8.00%
C. Wautoma	901	457	444	798	88.57%	412	90.15%	386	86.94%	103	11.43%	45	9.85%	58	13.06%
V. Coloma	249	134	115	218	87.55%	117	87.31%	101	87.83%	31	12.45%	17	12.69%	14	12.17%
V. Hancock	234	127	107	219	93.59%	120	94.49%	99	92.52%	15	6.41%	7	5.51%	8	7.48%
V. Lohrville	193	106	87	192	99.48%	106	100.00%	86	98.85%	1	0.52%	0	0.00%	1	1.15%
V. Plainfield	425	235	190	384	90.35%	210	89.36%	174	91.58%	41	9.65%	25	10.64%	16	8.42%
V. Redgranite	489	242	247	446	91.21%	227	93.80%	219	88.66%	43	8.79%	15	6.20%	28	11.34%
V. Wild Rose	351	170	181	335	95.44%	159	93.53%	176	97.24%	16	4.56%	11	6.47%	5	2.76%
T. Aurora	565	311	254	536	94.87%	287	92.28%	249	98.03%	29	5.13%	24	7.72%	5	1.97%
T. Bloomfield	512	290	222	483	94.34%	269	92.76%	214	96.40%	29	5.66%	21	7.24%	8	3.60%
T. Coloma	386	200	186	273	70.73%	149	74.50%	124	66.67%	113	29.27%	51	25.50%	62	33.33%
T. Dakota	598	320	278	560	93.65%	294	91.88%	266	95.68%	38	6.35%	26	8.13%	12	4.32%
T. Deerfield	288	152	136	276	95.83%	144	94.74%	132	97.06%	12	4.17%	8	5.26%	4	2.94%
T. Hancock	288	167	121	273	94.79%	155	92.81%	118	97.52%	15	5.21%	12	7.19%	3	2.48%
T. Leon	686	374	312	672	97.96%	366	97.86%	306	98.08%	14	2.04%	8	2.14%	6	1.92%
T. Marion	922	478	444	875	94.90%	449	93.93%	426	95.95%	47	5.10%	29	6.07%	18	4.05%
T. Mount Morris	538	299	239	525	97.58%	290	96.99%	235	98.33%	13	2.42%	9	3.01%	4	1.67%
T. Oasis	201	97	104	195	97.01%	93	95.88%	102	98.08%	6	2.99%	4	4.12%	2	1.92%
T. Plainfield	277	145	132	256	92.42%	135	93.10%	121	91.67%	21	7.58%	10	6.90%	11	8.33%
T. Poy Sippi	517	276	241	502	97.10%	264	95.65%	238	98.76%	15	2.90%	12	4.35%	3	1.24%
T. Richford	257	156	101	240	93.39%	144	92.31%	96	95.05%	17	6.61%	12	7.69%	5	4.95%
T. Rose	284	160	124	267	94.01%	147	91.88%	120	96.77%	17	5.99%	13	8.13%	4	3.23%
T. Saxeville	483	276	207	458	94.82%	253	91.67%	205	99.03%	25	5.18%	23	8.33%	2	0.97%
T. Springwater	615	347	268	595	96.75%	330	95.10%	265	98.88%	20	3.25%	17	4.90%	3	1.12%
T. Warren	326	192	134	311	95.40%	182	94.79%	129	96.27%	15	4.60%	10	5.21%	5	3.73%
T. Wautoma	649	331	318	598	92.14%	306	92.45%	292	91.82%	51	7.86%	25	7.55%	26	8.18%
Waushara County	11,279	6,062	5,217	10,530	93.36%	5,628	92.84%	4,902	93.96%	749	6.64%	434	7.16%	315	6.04%
Wisconsin	2,869,236	1,505,853	1,363,383	2,734,925	95.32%	1,428,493	94.86%	1,306,432	95.82%	134,311	4.68%	77,360	5.14%	56,951	4.18%

Source: U.S. Census, 2000

Table E-5. Travel Time to Work, 1990

Jurisdiction	Travel Time																Total 16 Years and Older		
	Less than 5 min.		5 to 9 minutes		10 to 14 minutes		15 to 19 minutes		20 to 29 minutes		30 to 44 minutes		45 to 59 minutes		60 minutes or more			Worked at home	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent		Number	Percent
C. Berlin (pt.)	0	0.00%	16	42.11%	9	23.68%	0	0.00%	3	7.89%	6	15.79%	0	0.00%	4	10.53%	0	0.00%	38
C. Wautoma	104	15.14%	229	33.33%	91	13.25%	52	7.57%	45	6.55%	54	7.86%	57	8.30%	20	2.91%	35	5.09%	687
V. Coloma	25	16.78%	21	14.09%	8	5.37%	19	12.75%	31	20.81%	20	13.42%	7	4.70%	8	5.37%	10	6.71%	149
V. Hancock	21	17.36%	21	17.36%	20	16.53%	13	10.74%	16	13.22%	9	7.44%	8	6.61%	7	5.79%	6	4.96%	121
V. Lohrville	16	10.06%	21	13.21%	9	5.66%	19	11.95%	26	16.35%	29	18.24%	23	14.47%	8	5.03%	8	5.03%	159
V. Plainfield	26	7.93%	98	29.88%	39	11.89%	16	4.88%	45	13.72%	78	23.78%	16	4.88%	2	0.61%	8	2.44%	328
V. Redgranite	23	7.08%	37	11.38%	28	8.62%	49	15.08%	66	20.31%	67	20.62%	35	10.77%	5	1.54%	15	4.62%	325
V. Wild Rose	43	16.54%	82	31.54%	12	4.62%	28	10.77%	47	18.08%	13	5.00%	14	5.38%	10	3.85%	11	4.23%	260
T. Aurora	35	8.97%	59	15.13%	64	16.41%	44	11.28%	62	15.90%	68	17.44%	18	4.62%	11	2.82%	29	7.44%	390
T. Bloomfield	25	5.72%	15	3.43%	36	8.24%	64	14.65%	66	15.10%	69	15.79%	47	10.76%	14	3.20%	101	23.11%	437
T. Coloma	23	10.22%	40	17.78%	24	10.67%	27	12.00%	35	15.56%	32	14.22%	13	5.78%	11	4.89%	20	8.89%	225
T. Dakota	39	9.18%	64	15.06%	70	16.47%	48	11.29%	57	13.41%	50	11.76%	33	7.76%	20	4.71%	44	10.35%	425
T. Deerfield	17	8.50%	15	7.50%	21	10.50%	39	19.50%	21	10.50%	19	9.50%	14	7.00%	12	6.00%	42	21.00%	200
T. Hancock	11	6.36%	24	13.87%	29	16.76%	18	10.40%	14	8.09%	45	26.01%	2	1.16%	13	7.51%	17	9.83%	173
T. Leon	12	2.80%	13	3.03%	44	10.26%	51	11.89%	115	26.81%	76	17.72%	51	11.89%	39	9.09%	28	6.53%	429
T. Marion	37	5.75%	96	14.91%	114	17.70%	88	13.66%	88	13.66%	61	9.47%	43	6.68%	88	13.66%	29	4.50%	644
T. Mount Morris	4	1.36%	13	4.41%	79	26.78%	65	22.03%	34	11.53%	21	7.12%	24	8.14%	25	8.47%	30	10.17%	295
T. Oasis	19	11.24%	19	11.24%	15	8.88%	25	14.79%	13	7.69%	34	20.12%	10	5.92%	4	2.37%	30	17.75%	169
T. Plainfield	12	6.00%	42	21.00%	26	13.00%	19	9.50%	32	16.00%	38	19.00%	5	2.50%	13	6.50%	13	6.50%	200
T. Poy Sippi	32	7.96%	26	6.47%	9	2.24%	59	14.68%	69	17.16%	118	29.35%	37	9.20%	11	2.74%	41	10.20%	402
T. Richford	12	6.49%	18	9.73%	17	9.19%	31	16.76%	33	17.84%	11	5.95%	9	4.86%	21	11.35%	33	17.84%	185
T. Rose	8	3.49%	29	12.66%	37	16.16%	47	20.52%	35	15.28%	11	4.80%	8	3.49%	32	13.97%	22	9.61%	229
T. Saxeville	7	1.92%	21	5.77%	21	5.77%	50	13.74%	103	28.30%	65	17.86%	30	8.24%	22	6.04%	45	12.36%	364
T. Springwater	22	5.13%	75	17.48%	57	13.29%	35	8.16%	102	23.78%	39	9.09%	33	7.69%	29	6.76%	37	8.62%	429
T. Warren	20	8.33%	30	12.50%	16	6.67%	30	12.50%	44	18.33%	39	16.25%	25	10.42%	13	5.42%	23	9.58%	240
T. Wautoma	52	10.97%	142	29.96%	85	17.93%	47	9.92%	42	8.86%	24	5.06%	19	4.01%	36	7.59%	27	5.70%	474
Waushara County	645	8.09%	1,266	15.87%	980	12.29%	983	12.32%	1,244	15.59%	1,096	13.74%	581	7.28%	478	5.99%	704	8.83%	7,977
Wisconsin	130,968	5.57%	386,108	16.43%	439,464	18.70%	398,660	16.97%	443,436	18.87%	282,678	12.03%	83,031	3.53%	71,179	3.03%	114,167	4.86%	2,349,691

Source: U.S. Census, 1990

Table E-6. Travel Time to Work, 2000

Jurisdiction	Travel Time																	Total 16 Years and Older	
	Less than 5 min.		5 to 9 minutes		10 to 14 minutes		15 to 19 minutes		20 to 29 minutes		30 to 44 minutes		45 to 59 minutes		60 minutes or more		Worked at home		
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number		Percent
C. Berlin (pt.)	8	18.60%	9	20.93%	5	11.63%	2	4.65%	4	9.30%	6	13.95%	0	0.00%	9	20.93%	0	0.00%	43
C. Wautoma	137	17.34%	222	28.10%	98	12.41%	55	6.96%	54	6.84%	121	15.32%	31	3.92%	52	6.58%	20	2.53%	790
V. Coloma	29	13.81%	26	12.38%	10	4.76%	32	15.24%	42	20.00%	42	20.00%	4	1.90%	9	4.29%	16	7.62%	210
V. Hancock	21	10.14%	14	6.76%	32	15.46%	15	7.25%	50	24.15%	50	24.15%	6	2.90%	15	7.25%	4	1.93%	207
V. Lohrville	2	1.05%	32	16.84%	8	4.21%	13	6.84%	47	24.74%	17	8.95%	32	16.84%	34	17.89%	5	2.63%	190
V. Plainfield	45	12.00%	66	17.60%	50	13.33%	21	5.60%	64	17.07%	88	23.47%	21	5.60%	6	1.60%	14	3.73%	375
V. Redgranite	23	5.35%	61	14.19%	24	5.58%	69	16.05%	60	13.95%	87	20.23%	60	13.95%	31	7.21%	15	3.49%	430
V. Wild Rose	39	12.19%	81	25.31%	38	11.88%	34	10.63%	59	18.44%	13	4.06%	15	4.69%	25	7.81%	16	5.00%	320
T. Aurora	18	3.45%	40	7.66%	84	16.09%	43	8.24%	98	18.77%	157	30.08%	32	6.13%	26	4.98%	24	4.60%	522
T. Bloomfield	16	3.41%	40	8.53%	23	4.90%	54	11.51%	65	13.86%	121	25.80%	70	14.93%	26	5.54%	54	11.51%	469
T. Coloma	34	12.83%	31	11.70%	18	6.79%	35	13.21%	51	19.25%	36	13.58%	13	4.91%	28	10.57%	19	7.17%	265
T. Dakota	30	5.44%	90	16.33%	104	18.87%	53	9.62%	68	12.34%	80	14.52%	57	10.34%	48	8.71%	21	3.81%	551
T. Deerfield	14	5.11%	27	9.85%	52	18.98%	44	16.06%	28	10.22%	45	16.42%	17	6.20%	21	7.66%	26	9.49%	274
T. Hancock	6	2.21%	25	9.23%	41	15.13%	25	9.23%	53	19.56%	67	24.72%	12	4.43%	21	7.75%	21	7.75%	271
T. Leon	10	1.51%	31	4.68%	47	7.09%	75	11.31%	142	21.42%	143	21.57%	111	16.74%	67	10.11%	37	5.58%	663
T. Marion	56	6.57%	107	12.54%	148	17.35%	100	11.72%	149	17.47%	95	11.14%	72	8.44%	98	11.49%	28	3.28%	853
T. Mount Morris	8	1.60%	44	8.80%	92	18.40%	73	14.60%	78	15.60%	59	11.80%	60	12.00%	65	13.00%	21	4.20%	500
T. Oasis	10	5.26%	31	16.32%	13	6.84%	38	20.00%	34	17.89%	25	13.16%	14	7.37%	13	6.84%	12	6.32%	190
T. Plainfield	7	2.85%	52	21.14%	34	13.82%	22	8.94%	35	14.23%	67	27.24%	3	1.22%	15	6.10%	11	4.47%	246
T. Poy Sippi	33	6.65%	30	6.05%	12	2.42%	44	8.87%	99	19.96%	164	33.06%	58	11.69%	28	5.65%	28	5.65%	496
T. Richford	14	6.11%	17	7.42%	31	13.54%	22	9.61%	40	17.47%	28	12.23%	16	6.99%	22	9.61%	39	17.03%	229
T. Rose	0	0.00%	41	15.71%	52	19.92%	39	14.94%	39	14.94%	40	15.33%	10	3.83%	18	6.90%	22	8.43%	261
T. Saxeville	18	3.95%	22	4.82%	30	6.58%	50	10.96%	103	22.59%	98	21.49%	50	10.96%	66	14.47%	19	4.17%	456
T. Springwater	37	6.38%	70	12.07%	47	8.10%	74	12.76%	111	19.14%	62	10.69%	52	8.97%	73	12.59%	54	9.31%	580
T. Warren	12	3.91%	16	5.21%	55	17.92%	29	9.45%	39	12.70%	70	22.80%	33	10.75%	26	8.47%	27	8.79%	307
T. Wautoma	66	11.19%	151	25.59%	103	17.46%	45	7.63%	42	7.12%	68	11.53%	37	6.27%	52	8.81%	26	4.41%	590
Waushara County	693	6.74%	1,376	13.37%	1,251	12.16%	1,106	10.75%	1,654	16.08%	1,849	17.97%	886	8.61%	894	8.69%	579	5.63%	10,288
Wisconsin	135,194	5.02%	398,697	14.82%	476,569	17.71%	440,637	16.38%	531,628	19.76%	369,375	13.73%	120,028	4.46%	113,181	4.21%	105,395	3.92%	2,690,704

Source: U.S. Census, 2000

Table E-7. Location of Workplace, 1990 and 2000

Location of Workplace	Waushara County			
	1990		2000	
	Number	Percent	Number	Percent
Worked in Waushara County	4,683	58.7%	5,398	52.5%
City of Wautoma	1,320	16.5%	1,661	16.1%
Remainder of Waushara County	3,363	42.2%	3,737	36.3%
Worked in Adams County	43	0.5%	105	1.0%
Worked in Portage County	317	4.0%	505	4.9%
City of Stevens Point	119	1.5%	250	2.4%
Remainder of Portage County	198	2.5%	255	2.5%
Worked in Waupaca County	561	7.0%	654	6.4%
Worked in Appleton-Oshkosh MSA	797	10.0%	1,490	14.5%
City of Appleton	60	0.8%	145	1.4%
City of Oshkosh	421	5.3%	686	6.7%
City of Neenah	66	0.8%	115	1.1%
Remainder of Calumet County	2	0.0%	3	0.0%
Remainder of Outagamie County	71	0.9%	188	1.8%
Remainder of Winnebago County	177	2.2%	353	3.4%
Worked in Green Lake County	781	9.8%	926	9.0%
City of Berlin	634	7.9%	696	6.8%
Remainder of Green Lake County	147	1.8%	230	2.2%
Worked in Green Bay, WI, SMSA	13	0.2%	35	0.3%
City of Green Bay	7	0.1%	14	0.1%
Remainder of Green Bay, WI, SMSA	6	0.1%	21	0.2%
Worked in Marquette County	205	2.6%	317	3.1%
Worked in Wood County	102	1.3%	91	0.9%
Worked in Fond du Lac County	197	2.5%	277	2.7%
Worked in Wausau, WI, SMSA	15	0.2%	19	0.2%
Worked Elsewhere	263	3.3%	471	4.6%
Place of Work Not Reported		0.0%		0.0%
Total Employed Persons	7,977	100.0%	10,288	100.0%

Source: U.S. Census, 1990 and 2000.

Table E-8. Economic Development Organizations

Organization Name	Structure	Funding	Focus Audience	Focus Area	Current Activities	Anticipated Activities
<u>Berlin Business Improvement District</u> (920) 361-3636	Staff and Volunteers	Properties in Business Improvement District / City of Berlin	commercial businesses / businesses located in Business Improvement District	Business Improvement District (Downtown)	business recruitment and retention / facade improvements / special events / promotion	business recruitment and retention / facade improvements / special events / promotion / joint ventures with Berlin Chamber
<u>Berlin Chamber of Commerce</u> (920) 361-3636	Staff and Volunteers	Membership Dues	commercial and industrial businesses	Berlin Area	business recruitment and retention / group insurance / tourism / networking / special events	business recruitment and retention / group insurance / tourism / networking / special events / joint ventures with Berlin BID
<u>Berlin Community Development Corporation</u> (920) 361-5430	Staff and Volunteer Board of Directors	City of Berlin / State / Federal	startup, recruited and existing businesses	City of Berlin	revolving loan for matching amounts / business development programs / business recruitment / business retention / lease - purchase option on build-to-suit facilities / market industrial park sites in the City of Berlin	revolving loan for matching amounts / business development programs / business recruitment / business retention / lease - purchase option on build-to-suit facilities / market industrial park sites in the City of Berlin
Bureau of Migrant Services (920) 787-3338	Staff	State	migrant workers and employers of migrant workers	Region	regulatory and technical assistance for migrant workers and their employers	regulatory and technical assistance for migrant workers and their employers
<u>CAP Services</u> (920) 787-7461	Staff	Community Development Block Grants / County / Service Fees	startup businesses for low to moderate income individuals / recruit businesses which employ or could employ low & moderate income individuals	Region	micro business incubator / micro business recruitment / business startup counseling / revolving loan fund for smaller amounts (\$100-\$7,500) / industrial property development	micro business incubator / micro business recruitment / micro business startup counseling / revolving loan fund for smaller amounts (\$100-\$30,000) / industrial property development
<u>Coloma Industrial Development Corporation</u> (715) 228-4167	Volunteers	Village of Coloma / State / Donations	business interested in access to I-39 and industrial park	Coloma	business recruitment for industrial park	business recruitment / industrial park development
<u>Farm Service Agency - Waushara County</u> (608) 296-2819	Staff	Federal - USDA	agricultural businesses	Waushara County	provide loans to farmers / administrator all federal farm programs / information distribution	provide loans to farmers / administrator all federal farm programs / information distribution

Table E-8. Economic Development Organizations (cont'd)

Organization Name	Structure	Funding	Focus Audience	Focus Area	Current Activities	Anticipated Activities
<u>Fox Valley Technical College</u> (920) 787-3319	Staff	Area Taxes / Tuition and Fees	secondary & postsecondary students / business & industry with training needs / community & individuals interested in self-enrichment activities	Region	on-campus, video, internet, and correspondence, courses towards a degree / continuing education / customized training / career counseling	degree attainable in Wautoma / specific training for local businesses / specific community & self-enrichment activities
<u>Experience Works</u> (920) 787-0484	Staff	Federal - Dept. of Labor thru. Older Americans Act	seniors (Individuals age 55 and over)	Region	develop employment opportunities for seniors / job placement for seniors	develop employment opportunities for seniors / job placement for seniors
Highway 21 Corridor Project	Volunteers	7 Towns, Villages, & Cities along Highway 21 / GEM Grant	tourists, commercial businesses and municipalities along Highway 21 or with in 8 miles of Highway 21	7 participating Municipalities & Towns along or with in 8 miles of Hwy 21	joint tourism promotion	joint tourism promotion
<u>Village of Hancock</u> (715) 249-5521	Village Board	Village of Hancock	commercial and industrial businesses	Village of Hancock	business recruitment and retention	business recruitment and retention
Village of Plainfield (715) 335-6707	Village Board	Village of Plainfield	commercial and industrial businesses	Village of Plainfield	business recruitment and retention	business recruitment and retention
<u>Redgranite Economic Development Committee</u> (920) 566-2381	Volunteers	Village of Redgranite / Private Donations	small to midsize commercial and industrial businesses	Village of Redgranite	2 TIF districts / business recruitment / business retention	land use planning / downtown rehab / TIF districts / business recruitment / business retention
<u>Tri-County Regional Economic Development Corporation</u> (920) 382-0963	Staff and Volunteers	Green Lake, Marquette, and Waushara County Economic Development Corporations/ Private Donations	commercial and industrial businesses	Green Lake, Marquette, and Waushara Counties	work with public and private entities / promotes and advocates for the three county region / business recruitment / business retention / assistance for existing and future businesses in the region	work with public and private entities / promotes and advocates for the three county region / business recruitment / business retention / assistance for existing and future businesses in the region

Table E-8. Economic Development Organizations (cont'd)

Organization Name	Structure	Funding	Focus Audience	Focus Area	Current Activities	Anticipated Activities
<u>UMOS</u> (920) 787-4617	Staff	Federal and State Grants/ Donations/ Service Fees	Migrant Labor and Transitional Labor	Wisconsin and Minnesota	Employment and training assistance especially for low income, and Hispanic	Employment and training assistance especially for low income and Hispanic
<u>UW Extension - Waushara County</u> (920) 787-0416	Staff	Waushara County / State / Federal	individuals, groups, schools, and local government	Waushara County	educational programs based on university research, knowledge, & resources to address community, natural resources, economic development, agricultural, youth, & family issues	educational programs based on university research, knowledge, & resources to address community, natural resources, economic development, agricultural, youth, & family issues
<u>Waushara Area Chamber of Commerce</u> (920) 787-3488	Staff and Volunteers	Membership Dues	county businesses and member businesses	Waushara County	tourism promotion / economic development programs / business networking	tourism promotion / economic development programs / business networking
<u>Waushara Convention and Visitors Bureau</u> (920) 787-3488	Staff and Volunteers	Waushara Area Chamber of Commerce	County businesses and organizations	Waushara County	tourism promotion	tourism promotion
<u>Waushara County Economic Development Corporation</u> (920) 787-6500	Volunteer Board of Directors	Community Development Block Grant / State / County	startup, recruited and existing businesses which employ or could employ a number of new or local residents	Waushara County	revolving loan for larger amounts (\$20,000-\$750,000) / community profiles	coordinate economic development efforts in the county / revolving loan for larger amounts (\$20,000- \$750,000) / community profiles / business retention and expansion assistance / macro business recruitment
<u>Waushara County Farm Bureau</u> (920) 787-4664	Staff	Membership Dues	agricultural businesses	Waushara County	advocate for farms / agricultural education	advocate for farms / agricultural education
<u>Waushara County Office of the Wisconsin Job Center</u> (920) 787-3338	Staff	Waushara County / State / Federal	businesses looking for employees / people looking for employment	Waushara County & State	resume and application assistance for job seekers / job placement services / apprenticeship programs / public assistance programs / labor market information / GED and HSED program / training for special populations	advise job center on activities / direct W-2 program activities / employment application assistance / job placement services / employee recruitment for businesses

Table E-8. Economic Development Organizations (cont'd)

Organization Name	Structure	Funding	Focus Audience	Focus Area	Current Activities	Anticipated Activities
<u>Wautoma Industrial Development Corporation</u> (920) 787-4044	Volunteers	City of Wautoma	commercial and industrial businesses	City of Wautoma	business recruitment and follow up contact for City of Wautoma industrial parks	business recruitment and follow up contact for City of Wautoma industrial parks
<u>Waushara Tourism Resource Commission</u> (920) 787-3488	Volunteers	Room Tax	County businesses and events particularly the lodging industry	Waushara County	Promotion of Waushara County and a tourist destination	Promotion of Waushara County and a tourist destination
<u>Wild Rose Economic Development Committee</u> (920) 787-622-4183	Village Board	Village of Wild Rose	commercial and industrial businesses	Village of Wild Rose	business recruitment for industrial park	business recruitment for industrial park

Source: Waushara County UW-Extension, www.uwex.edu/ces/cty/waushara/cnred/ed/organizations.html

Updated 9/2008