COMPREHENSIVE PLAN

2025

VILLAGE OF REDGRANITE

Waushara County, Wisconsin

October 2006

Prepared by the

East Central Wisconsin Regional Planning Commission

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ABSTRACT

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This report describes existing conditions, projects future growth and offers recommendations to guide future development in the Village of Redgranite, Waushara County.

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Background information including population, household and employment forecasts, demographic trends, age distribution, education and income levels and employment characteristics, along with a statement of overall objectives, policies, goals and programs to guide future development and redevelopment over a 20-year planning period.

Chapter 3: Economic Development 3-1

A compilation of objectives, polices, goals, maps and programs to promote the stabilization, retention or expansion of the economic base and quality employment opportunities, including an analysis of the labor force and economic base. This shall include an assessment of categories or particular types of new businesses and industries that are desired, along with the strengths and weaknesses with respect to attracting and retaining these businesses and industries.

Chapter 4: Housing 4-1

A compilation of objectives, polices, goals, maps and programs to provide an adequate housing supply that meets existing and forecasted housing demand. This shall include an assessment of the age, structural, value and occupancy characteristics of existing housing stock; identification of polices and programs that promote the development of housing and provides a range of housing choices that meets the needs of persons of all income levels, age groups and special needs; promotes the availability of land for development or redevelopment of low and moderate income housing; and maintains or rehabilitates the existing housing stock.

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A compilation of objectives, polices, goals, maps and programs to guide the future development of the various modes of transportation, including highways, transit, transportation systems for persons with disabilities, bicycles, walking, railroads, air transportation, trucking and water transportation.

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A compilation of objectives, policies, goals, maps and programs to guide the future development of utilities and community facilities such as sanitary sewer, storm water management, water supply, solid waste disposal, on-site wastewater treatment technologies, recycling facilities, parks, telecommunication facilities, power-generating plants and transmission lines, cemeteries, health and child care facilities, police, fire and rescue facilities, libraries, schools and other governmental facilities.

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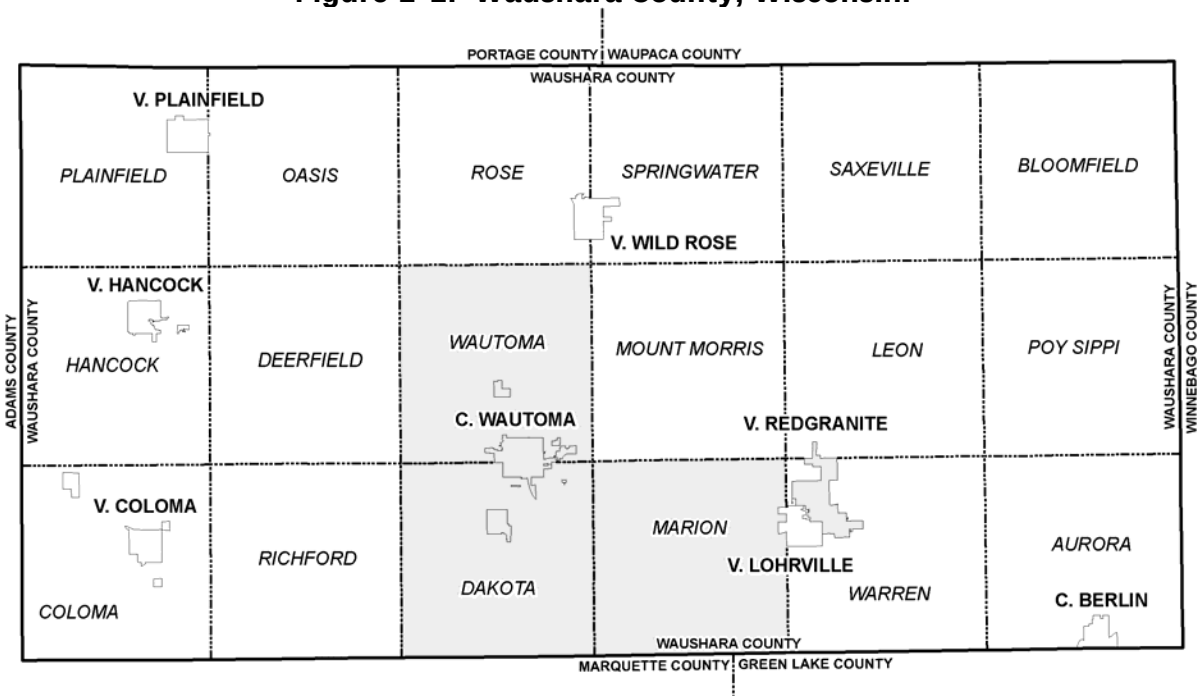
INTRODUCTION

Location

Located in east central Wisconsin, Waushara County communities are preparing comprehensive plans for both the individual communities and county-wide. The Group D planning cluster is located in south central Waushara County (Figure 1-1). The cluster is comprised of the City of Wautoma, Village of Redgranite, and the towns of Dakota, Marion, and Wautoma. Located centrally in the planning area, Wautoma is the county seat. The Village of Redgranite is located approximately 10 miles east of the City of Wautoma. In total, the planning area encompasses 107.6 square miles. The total population within the cluster is 7,674.

Figure 1-1. Waushara County, Wisconsin.



The planning cluster offers residents a small town atmosphere while providing many services and amenities (schools, libraries, post offices, health care, shopping centers, etc.) offered in urban areas. Basic services are typically only a 15 minute drive. The planning cluster enjoys a variety of landscapes including family farming operations, forests, diverse wetlands, lakeshores, and rural and suburban residential development. Three major highways (STHs 21, 22 and 73) traverse the area and provide easy access to the Fox Cities, Oshkosh, western Wisconsin, Stevens Point, Wisconsin Rapids, and Waupaca. These transportation corridors provide convenient access to employment opportunities within the planning area and nearby communities.

Planning History

The towns of Dakota, Marion and Wautoma, and the City of Wautoma collectively prepared a land management plan in 1995 entitled *Wautoma Area Land Use and Development Plan*. The regional land use plan was prepared to open lines of communication between the municipalities. The plan inventoried the physical, population, and housing characteristics of the area. Strategies and recommendations were prepared to guide land use decisions; the location of natural resources was a predominant factor. This advisory plan delineated specific areas for future residential, commercial, and industrial development.

The communities share common concerns regarding growth and the effects it may have on the area as a whole. These concerns include the possible relocation of STH 21 and the impact it would have on the Group D planning area; the environmental and economical impacts of unsewered residential growth; communication between communities; annexation issues; and territorial and extra-territorial zoning.

The communities entered into a contract in 2002 to update the original land management plan to "Smart Growth" compliance. Realizing the real and perceived impacts the Village of Redgranite has on the living conditions and economy of the Wautoma area due its proximity, the Village of Redgranite was invited to participate in the comprehensive planning process. This is the first comprehensive plan for the Group D communities and the first formalized planning effort for the Village of Redgranite. The Group D communities collectively initiated a multi-jurisdictional comprehensive planning process. To be successful in the planning processes, the communities realized that cooperation was imperative. A joint planning effort allowed all five communities to openly address common issues while preparing a unified vision for the Wautoma area. Increased cooperation not only satisfied the intergovernmental cooperation component of the "Smart Growth" Law, but also was more cost-effective and increased the likelihood of receiving grant funding. In addition, a joint planning effort is more likely to produce cost-effective services and eliminate the duplication of services by adjacent or nearby communities.

Planning Purpose

A comprehensive plan is created for the general purpose of guiding a coordinated development pattern which will make land use decisions that are harmonious with both the overall vision of the community's future as well as ensuring 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.

Enabling Legislation

This comprehensive plan was developed under the authority granted by s. 66.1001 of the Wisconsin 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."

The Group D communities should consult the plan when making decisions relative to land use and other issues impacting their natural and cultural resources. The plan should also be consulted by the individual communities when addressing the following issues:

- 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 under s. 59.69.
- City or village zoning ordinances enacted or amend under s. 62.23 (7).
- Town zoning ordinances enacted or amended under s. 60.61 or 60.62.
- Zoning of shorelands or wetlands in shorelands under s. 59.692, 61.351, or 62.231.

Planning Process

The planning process was completed in four stages. These stages included a citizens questionnaire and visioning and issues identification meetings; inventory and interpretation; development of future land use maps; and implementation planning.

Initially, the general public within the Group D planning cluster was requested to identify issues and concerns relative to land use and development within the area. In 2003, a community-wide questionnaire was mailed to property owners. The questionnaire gathered opinions from residents and landowners regarding land use and development issues. Questionnaires were sent out to landowners in the five communities. The questionnaire was followed by a SWOT analysis. Meeting attendees were asked to evaluate the strengths, weaknesses, opportunities, and threats to existing and future development in the individual communities and the overall planning area.

The second stage, inventory and interpretation, began with the collection of data on existing conditions within the communities. This data was analyzed to identify existing and potential problem areas. Using results from the community-wide questionnaire, as well as background data compiled during the inventory stage, the planning committees from the individual communities developed an overall vision statement as well as goals, objectives, and strategies for each of the nine elements required in the comprehensive plan under "Smart Growth."

The third stage was the development of the Future Land Use Maps. The first two stages were combined to create a recommended land use plan to guide future growth and development within the planning cluster over the next twenty years. The preliminary Future Land Use Plan was presented to the citizens of all five communities in the planning cluster as well as nearby municipalities and government organizations for their review and comment. The comments were considered and included in the final land use map and document.

The fourth stage established the tools necessary for implementation of the plan. Recommendations for regulatory techniques including zoning and an action plan with an accompanying timeline were established to ensure that the intent of the plan will be achieved.

Public Participation

A major element of the comprehensive planning process is public participation. In accordance with s. 66.1001 (4), which defines "Procedures for Adopting Comprehensive Plans," the communities actively sought public participation from their citizens. To gain citizen understanding and support throughout the planning process, the public was provided with a variety of meaningful opportunities to become involved in the process.

Public input was encouraged through several meetings and activities. ECWRPC staff conducted a series of over 20 public meetings with the entire planning cluster as well as numerous meetings with each individual community. All meetings were open to the general public; notices were posted at predetermined public areas. A public hearing was held to present the final draft version of the plan to the general public and neighboring municipalities and solicit further input. The plan was available for review at local libraries, town halls, and the city and village halls.

Visioning Process

To identify community issues and opportunities and create a vision for each of the nine elements, a three-step process was employed. The process included a community questionnaire, a SWOT analysis, and element vision development.

Community Questionnaire Results

In 2003, questionnaires were conducted for the City of Wautoma, Village of Redgranite, and the towns of Dakota, Marion, and Wautoma to gather opinions from residents and landowners regarding land use and development issues. A representative sample of questionnaires was mailed to the town of Marion. Within the remaining municipalities, questionnaires were sent out to all landowners. Additional questionnaires were available at the respective municipalities for renters and other residents or landowners who did not receive a questionnaire by mail. The questionnaire was translated into Spanish and made available through the UW-Extension office and St. Joseph's Church in Wautoma. Each household was asked to complete one questionnaire. A total of 3,557 questionnaires were distributed among the five municipalities, and 1,230 were returned resulting in an overall response rate of 35 percent.

The questionnaire contained 16 questions for the City of Wautoma and Village of Redgranite and 17 questions for the towns of Dakota, Marion, and Wautoma. One open-ended question and two additional questions solicited further input. Results for the questionnaire were published in a separate document and distributed to members of the individual planning committee members for each municipality.[1] Additional copies were distributed to the Wautoma

[1] ECWRPC. 2003. *Summary Report of the Waushara County Group D Planning Cluster Citizens' Questionnaire*.

Public Library, the Redgranite Public Library, the UW-Extension office, and public offices within the individual communities.

The statistical analysis and written comments from the questionnaire provided valuable insight for the respective planning committees in the preparation of the comprehensive plan. Since the plan and its components are citizen-driven, the added perspective from questionnaire respondents helped ensure that the goals, objectives, and strategies recommended by the committees were consistent with the desires of the communities at large.

SWOT Analysis

A SWOT analysis is a planning exercise in which citizens identify those aspects of their community which are desirable and which ones need improvement. Citizens are asked to provide a brief inventory of the strengths, weaknesses, opportunities, and threats of their individual community and the overall area. Strengths are classified as physical assets, a program, or an environmental feature which positively influenced the quality of life within the community. Weaknesses are correctable problems which needed to be addressed or amended. Opportunities are defined as underutilized features which could positively affect the quality of life within the community. A threat is an internal or external feature that could jeopardize the future success of a community.

The individual planning committees and other attendees in the Group D cluster participated in a SWOT exercise in early 2003. The overall purpose of the exercise was to collect information on how residents felt about their community and the overall area. Each participant was asked to write what they considered to be the strengths, weaknesses, opportunities, and threats to the community. These items could include their opinions on physical features such as roads, utilities, natural resources, etc. and quality of life issues.

After making a list of all the ideas, a brief discussion was held about how each of the items could affect the community. The individual committee members rated their top three issues in each of the four groups. The discussions and rankings were not limited to their specific community. The compiled lists were then utilized as a starting point in the remainder of the planning process.

Vision Development

According to Wisconsin's "Smart Growth" Law, individual communities are required to develop a vision statement that describes what the community will look like in twenty years as well as a description of the policies and procedures that will achieve this vision. The collaboration between five communities was a tremendous commitment for each municipality. To ease concerns and establish a focus for the planning program, the visioning process was held at the beginning of the planning process; individual visions for all elements were re-visited at the on-set of the discussion of each one. This process was critical to establish a unified vision for the Wautoma area and provide a direction and focus for the planning effort. The committees crafted their overall vision statement as well as visions for each of the nine elements based on their perceptions of what they would like to see preserved, changed, or created in their communities.

The committees' responses have been summarized in a best case scenario. The vision statements are presented at the beginning of each corresponding element. The overall vision statement is presented as the Issues and Opportunities vision statement.

Plan Contents

The 20-year comprehensive plan contains four major components:

- A profile of the demographic, economic, and housing characteristics;
- An inventory and assessment of the environment; community facilities; and agricultural, natural, and cultural resources;
- Visions, goals, objectives, and implementation strategies; and
- A series of land use maps that depict existing and future land use patterns.

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

Each element consists of a vision statement, background information, and goals, objectives, and strategies for the specific vision. The vision statement expresses the community's expectations for the future. These statements provide a framework and context to consider when making future land use decisions. The Issues and Opportunities vision statement serves as the overall vision statement for the entire plan.

Goals, objectives, and strategies each have a distinct and different purpose within the planning process. Goals are broad, long range statements which describe a desired future condition. Goals will usually only address one specific aspect of the vision. Objectives are statements which describe specific conditions which will help attain the stated goals. Objectives can include new ordinances, amendments to existing ordinances, new programs, and other tasks. Strategies are specific actions which must be performed to implement the goals and objectives of the comprehensive plan. Often, strategies are delineated with a specific timeline to ensure timely implementation of the plan. To be effective, objectives and strategies must be reviewed and updated periodically.

Each element discusses specific information pertinent to the overall land use plan. The Issues and Opportunities Element summarizes demographic information. The Economic Development Element inventories the labor force, analyzes the community's economic base, and provides a development strategy regarding existing and future economic conditions within the community. The Housing Element presents an inventory of the existing housing stock as well as an analysis of future housing needs based on population and household projections. The Transportation

Element provides an inventory of the existing transportation system and an overview of transportation needs. The Utilities and Community Facilities Element inventories existing utilities and community facilities infrastructure including schools, recreational opportunities, cemeteries, communications, gas, electric, public safety and emergency response services and addresses how population projections will affect the efficiency and adequacy of these services. The Agricultural, Natural, and Cultural Resources Element describes the physical setting and cultural resources of the planning area and evaluates how they will affect future growth; specific natural areas and cultural landmarks are identified for protection and preservation. The Land Use Element inventories and describes existing land use patterns and includes a projection of future land use demands and a Future Land Use map for the community. The Intergovernmental Cooperation Element addresses programs and policies for joint planning and decision-making efforts with other jurisdictions including school districts, adjacent local governmental units, and state and federal agencies. The Implementation Element contains a strategy and action plan to assist implementation efforts of the comprehensive plan.

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.

Element Summaries

A summary of key facts and the vision for each of the nine elements has been prepared as a readily available reference guide for readers of this plan. If more detailed information is desired, it is recommended that the reader review the chapter for the individual element. The summaries follow.

ISSUES AND OPPORTUNITIES

Issues and Opportunities Vision for 2025

In 2025, the quality of life for residents of South Central Waushara County has never been higher. Residents have gained greater appreciation of the area's lakes, streams, woodlands and other natural and cultural amenities. They've taken steps through an appropriate mix of public and private ownership to protect these resources so that they can be enjoyed by future generations of local residents as well as by visitors to the area. A concerted effort to identify new markets, products and processes has rejuvenated the area's farm and forest economies. Employment opportunities are provided by new businesses attracted to Wautoma's and Redgranite's industrial park. Their competitive wages are helping the area retain and attract younger members of the workforce and are enabling more local residents to work closer to home.

Wautoma and Redgranite are small vibrant communities offering a range of retail and business services. Downtown shoppers enjoy convenient on-street parking. Traffic congestion and safety issues in both communities and in the Silver Lake area no longer exist with the re-design of the Highway 21 corridor. Basic medical and 24/7 emergency services are now available in Wautoma and Redgranite, with extended care facilities and other housing options available for the area's growing elderly population. Augmented by increased disposable income, pride in homeownership is evident in the continuing upgrade of the area's traditional housing stock and the lack of unkempt properties. A variety of affordable housing options is available to residents of all income levels. Although most new residential development is concentrated in Wautoma, Redgranite and other sewered areas, outlying rural areas in the towns of Dakota, Marion and Wautoma continue to attract new residential development. For the most part, however, it largely has been occurring in locations and in ways that are respectful of the area's natural features and pre-existing land uses.

Key Findings

Demographic Trends

- The Group D planning cluster's population grew by 3,806 persons between 1950 and 2000 (an increase of 101.6%).

- The majority of that growth was concentrated in the towns of Dakota, Marion and Wautoma.

- Historically, migration has played a greater role in Waushara County's population growth than natural increase.

- Since almost 58% of the population growth between 1990 and 2000 can be attributed to an increase in the number of persons age 20 to 64 years, it is likely that the majority of Group D's population growth also comes from in-migration.

Household Structure

- The majority of households in Group D communities are family households. However, the share of non-family households is increasing.

- Average household size is decreasing.

- Historically, the City of Wautoma has retained the lowest average household size, while the largest average household size has fluctuated between the towns of Dakota and Wautoma.

- In 2000, approximately forty percent of all households in the City of Wautoma were one person households. Half of those individuals were age 65 and older.

- Group D towns had much smaller shares of one person households (less than 24%).

Race and Ethnic Origin

- Although the number of persons of color is growing, whites still comprised over 95% of the population in Group D communities in 2000.

- The most common ancestry identified in Group D communities was German (36% of residents claimed some German ancestry).

- Hispanics, which can be of any race, comprise a small (4.6%), but growing segment of the population.

Income Levels

- Although early retirees are moving into the area, the majority of income in all Group D communities comes from earnings, so access to earning opportunities is a strong determinant in meeting the income needs of local residents.

- Growth in median family and median household income between 1989 and 1999 resulted in a smaller income gap between Group D communities and the state, but more variation in median income between Group D communities.

- In 1999, 90% of Group D households had household incomes below $75,000.

- Between 1989 and 1999, the number and share of persons living in poverty declined in the Group D area, Waushara County and Wisconsin.

- In 1999, Group D communities had a higher percentage of persons living in poverty (9.73%) than Waushara County (9.00%) or the state (8.42%).

- Children were more likely to live in poverty than elderly residents.

Population Forecasts

- If migration rates remain positive, Group D communities are expected to grow by 10% between 2005 and 2025. The City of Wautoma and the Town of Marion are expected to experience the strongest growth during this time period.

- In-migration of retirees coupled with an aging baby boom population could result in a doubling of the elderly population during the planning period. This could have a significant impact on housing and service sector needs.

Household Forecasts

- The average household size is expected to decrease.

- The number of year round households is expected to increase by 19% between 2005 and 2025.

- Additional housing will be needed for seasonal residents.

ECONOMIC DEVELOPMENT

Economic Development Vision for 2025

The City of Wautoma and Village of Redgranite have been successful in attracting several small businesses to their industrial parks. The employment opportunities they provide and the competitive wages they offer have helped retain younger members of the work force and are serving to keep more dollars in the local economy. This in turn has enabled the area's retail base to expand and become more diverse. Both downtowns are thriving and few vacant storefronts exist. Area residents, however, still need to travel to larger urban centers for many of their shopping needs. With an overall population base still too small to generate adequate sales volume to attract most "big box" retailers, several local merchants have successfully expanded their operations and product lines.

Key Findings

Educational Attainment

- A larger percentage of Group D cluster residents have received high school diplomas, than the state.

- At the County level, high educational attainment appears to correlate with areas that have attracted a sizable number of retirees.

- Over the course of a career, a person with a bachelor degree can expect to earn nearly double the expected earnings of a high school graduate.

Labor Force

- Labor force growth rates for Waushara County and all five Group D communities exceeded the state's civilian growth rate between 1990 and 2000.

- With the exception of the Town of Marion, labor force growth rates outpaced population growth for Group D communities, the state and the county.

Economic Base Information

- Manufacturing, Education, Health and Social Service sectors employed the greatest share of Group D cluster workers.

Location of Workplace

- According to the U.S. Census Bureau, Waushara County was the number one workplace destination for Group D residents in both 1990 and 2000. In 1990, this ranged from a high of 81% in the Town of Wautoma to a low of 51% in the Village of Redgranite. In 2000 this percentage decreased; it ranged from a high of 77% in the City of Wautoma to a low of 42% in the Village of Redgranite.

- The City (80%, 77%) and Town of Wautoma (81%, 74%) had a larger percentage of residents working in Waushara County than the other Group D communities in both 1990 and 2000.

- Within the Group D communities and Waushara County, the Cities of Wautoma and Berlin ranked as one of the top five destination workplaces for 2000.

Travel Time to Work

- On an average, residents from the Group D communities, Waushara County and the state spent less than 30 minutes traveling to and from work in 1990 and 2000.

- Between 1990 and 2000, average commute times rose for all jurisdictions.

- The Town of Dakota experienced the largest increase in average commute times (6 minutes) while the Town of Marion saw the least (1.2 minutes).

Employment Forecast

- At the state level, between 2002 and 2012, the largest employment increases will be in the education and health services supersectors.

Industrial Park Information

- There are three industrial parks in the Group D area that encompass a total of 86 acres.
- Currently there are 30 acres of industrial park land available in the area.

Business Retention and Attraction

- The Tri-County Regional Development Corporation is an economic partnership that was recently formed between Marquette, Green Lake and Waushara counties.
- The Waushara County Economic Development Corporation 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 a relationship building effort between the community and existing local businesses.

Economic Development Opportunities

- Future economic development will most likely occur primarily in the City of Wautoma, Village of Redgranite and along the STH 21 and 73 corridors.
- Within the City of Wautoma, future commercial development should be directed to the downtown area, the STH 21 and 73 corridor, East Division Street and the Plaza Road area. While industrial development should be directed to the industrial park and the South Pickle Row areas.
- Future commercial development in the Village of Redgranite should be directed toward the downtown area as well as in areas adjacent to STH 21 where existing development exists. Industrial development should be encouraged to develop in the village industrial park.
- Commercial development within the towns of Marion, Dakota and Wautoma should be in areas adjacent to, or served by existing sanitary sewer.
- TIF districts exist in both the City of Wautoma and the Village of Redgranite to encourage economic development.
- Sharing the red granite mining heritage of the area and restoring historic features is a potential economic stimulus that the Village of Redgranite, Waushara County and the other municipalities in the area should explore.

HOUSING

Housing Vision for 2025

A number of factors influence how well the housing stock meets the needs of the community. The design, placement and density of housing impacts the overall appearance and character of a community by defining a sense of place and encouraging or discouraging social interaction between residents. It influences the cost of housing and the cost and efficiency of other plan elements, such as roadways, school transportation and the provision of public facilities.

In rural areas, quality single family housing opportunities remain the primary residential choice. Although the trend of converting and upgrading seasonal lakefront housing to year-round single family residences continues, lake-oriented backlot development has lost favor to conservation subdivisions and other development options that focus on amenities such as common open space and walking trails. Several historic farmsteads have been preserved while new rural residences have been designed to blend in with natural features and existing agricultural activities in ways that minimize land use conflicts and preserve rural character.

Key Findings

Age of Occupied Dwelling Units

- The age of occupied dwelling units indicates that most Group D communities were well established by 1960.

- All five communities' experienced substantial growth in the 1970's as baby-boomers entered the housing market.

- The towns of Dakota and Marion were unique in that during the 1970's the number of units that were added exceeded the number of occupied dwelling units already on the ground.

Change in Structural Type

- Housing choice by structural type increased in the City of Wautoma between 1990 and 2000, as an increase in multi-family units and mobile homes increased the variety of housing within the City.

- Housing choice by structural type decreased in all other Group D communities as single family housing, which is the dominant housing type in all Group D communities, increased as a share of their total housing stock during this decade.

Occupancy Status

- Total occupancy rates are high, except for the towns of Dakota, Marion and Waushara County, where a high percentage of seasonal units reduces the total occupancy rates to less than 72%.

- The majority of occupied units within the area are owner-occupied. The towns have a higher owner-occupancy rate than the City and Village.

Vacancy Status

- All Group D communities had an adequate share of owner-occupied units for sale in 1990 and 2000.

- While the Village of Redgranite and the towns of Marion and Wautoma had a shortage of units for rent in 1990, by 2000 all five Group D communities had an adequate share of housing units for rent.

- In both years, the number of seasonal units varied widely from less than 20 in the City and Village to over 600 in the Town of Marion.

Owner-Occupied Housing Stock Value

- Between 1970 and 2000, median housing values for Waushara County rose from $10,600 to $85,000.

- In 2000, the median housing value for the Group D communities ranged from a low of $59,100 for the Village of Redgranite to a high of $111,400 for the Town of Marion.

- The Town of Marion had the most diverse composition of owner-occupied housing by price range. In the remaining Group D communities and Waushara County, over 85% of the owner-occupied housing stock was valued at less than $150,000 in 2000.

Housing Affordability

- Between 1989 and 1999, median housing values rose faster than median household income in all Group D communities but the City of Wautoma. As a result, housing affordability became a larger issue for homeowners in three of the Group D communities (Redgranite, Marion and the Town of Wautoma).

- In 1999, the percentage of homeowners paying a disproportionate share of their income for housing in Group D communities ranged from 23 percent in the Village of Redgranite to 14 percent in the City of Wautoma.

- Renters had a harder time finding affordable housing than homeowners.

Housing Conditions

- According to the Census Bureau, occupied units without complete plumbing facilities are rare.

- Overcrowding is also limited to a small percentage of households. The Town of Dakota had the greatest percentage of overcrowded units, 4.28%.

TRANSPORTATION

Transportation Vision for 2025

Area residents have access to a network of well-maintained local streets and roads, and county and state highways that address their needs for mobility for their automobiles, trucks, and farm equipment. Safety and congestion aspects of heavy pass-through traffic in Redgranite, the Silver Lake area, and Wautoma have been relieved with the re-designed Highway 21 corridor, which was carefully selected to minimize adverse effects on the area's natural and cultural features and existing land uses and associated activities and address other concerns expressed by local residents. The full scope of upgrade to this highway corridor between Oshkosh and I-90/94 has provided area residents with better access to employment, shopping, and entertainment opportunities elsewhere and has made the area more competitive in attracting new industrial and other business development. On-street parking has been re-established in downtown Wautoma and safety issues associated with the continued growth of the commercial strip east of the city have been addressed. Local trails, including snowmobile trails and a link to the Ice Age Trail, are an integral part of the transportation network, providing connections to schools, recreational areas, and other important destinations. In rural areas where concentrated development exists, wide striped shoulders along key county and town roads provide safe accommodations for growing numbers of bicyclists and pedestrians. While the private automobile is still the vehicle of choice for trips both long and short, the availability of rural public transportation on demand provides a valuable service that is particularly appreciated by the area's growing elderly population.

Key Findings

Streets and Highways

- The transportation network within the planning cluster is comprised of over 250 miles of local roads, county highways, and state highways.

- Almost two-thirds (64.2%) of the transportation network is local roads owned and maintained by individual municipalities; county highways account for approximately one-fifth (19.1%).

- STH 21 is the only principal artery in the planning cluster which accommodates interstate and interregional trips; approximately 11,000 vehicles travel through the Wautoma area on STH 21 daily.

- STH 22 and STH 73 are minor arterials serving intraregional trips between local communities in the tri-county region and Portage and Waupaca Counties; between 3,000 and 3,600 vehicles travel these highways daily.

- In general, annual average daily traffic counts (AADTs) taken in 2003 were highly affected and altered on all roadways within the planning cluster due to the reconstruction of STH 21.

Other Transportation Modes

- Rail service to Waushara County was discontinued several decades ago.
- The nearest commercial rail service is located in Stevens Point; the nearest passenger services are located in Portage.
- The nearest commercial port/waterway in Waushara County is located in Green Bay.
- Recreational boat facilities are located along several lakes and rivers throughout the planning cluster.
- Pedestrian facilities included the Bannerman Trail (Redgranite and Marion), hiking trails at county parks, and sidewalks with the City of Wautoma and Village of Redgranite.
- Although low housing densities within the cluster may hinder the development of new pedestrian facilities, development opportunities such the Great Wisconsin Birding and Nature Trail and the Ice Age Scenic Trail initiative offer potential economic development to the Group D communities.
- Waushara County Parks Department has established several bicycle routes through the planning cluster; there are 1,000 miles of roadways within the county which provide excellent bicycling opportunities.
- The Waushara County Department of Aging offers bus transportation to elderly and disabled residents for their medical appointments and shopping trips.

Airports

- The Wautoma Municipal Airport is a BU-A facility which can accommodate single engine aircraft with a gross weight less than 12,500 pounds and wingspan less than 49 feet.
- The Wautoma Municipal Airport should be an essential component in any economic development plan as it hosts guests for the annual EAA convention in Oshkosh and local fly-in events.
- Airport zoning tools such as the existing Height Limitation Zoning Ordinance will help assure safe air travel at the Wautoma airport and prevent potential conflicts with existing and future land uses.
- Airports in Appleton, Madison, and Mosinee offer the closest commercial transportation options.

Future Transportation Projects

- There are currently no construction projects scheduled for the Group D communities in the Wisconsin Department of Transportation (WisDOT) *2006 – 2011 Six Year Highway Improvement Program.*

- Local towns receive general transportation aids (GTAs) for local roadway construction projects; the allocation is determined on a per mile basis.

- Additional transportation funding is available from several grant and loan programs through WisDOT.

- All roadways within the cluster must be evaluated biannually using the PASER system developed by WisDOT.

- Future local construction projects should use the PASER system as a guideline for prioritization of individual projects.

- The removal of parking lanes on STH 21 has created identified safety hazards and some economic hardships in downtown Wautoma.

- Increased congestion and other safety issues on STH 21 have identified the need for Group D communities to collaborate with WisDOT, one another, and other Waushara County communities to evaluate potential future by-pass options.

- Upon completion of a STH 21 corridor study, Group D communities should incorporate a county-wide recommended route for STH 21 in their official maps [s.62.23(b)].

- Where feasible, Group D communities should implement the strategies from the WisDOT long-range transportation plans for all modes of transportation.

UTILITIES AND COMMUNITY FACILITIES

Utilities and Community Facilities Vision for 2025

Each municipality and sewered area continues to provide residents with the services they offered in 2004. As new subdivisions are platted near existing sewered development, they are required to connect to existing utilities. When other subdivisions are platted within the boundaries of the sanitary district but beyond a point where the present extension of utilities is economically feasible, they are designed in a manner that enables the cost-effective provision of in-ground utilities at a future date. An ongoing program of monitoring wells and on-site disposal systems is in place elsewhere in the area where concentrated development exists. Through cooperation and other operational efficiencies, service providers are able to hold the line on user fees for water, sewer, solid waste, and other municipal services. A range of educational, library, medical, financial, retail, and other business services is generally available in the two incorporated communities while a diversity of recreational and entertainment opportunities is found throughout the area.

Key Findings

Wastewater Collection and Treatment

- The Wautoma-Silver Lake Sewer Service Area (W-SL SSA) 3,200 acre service area covers the majority of the City of Wautoma and parts of the towns of Wautoma, Dakota and Marion.

- Expansions to the Silver Lake Sanitary District Wastewater (SLSD) Treatment Facility (WWTF) in 1995 increased its capacity to 1.025 million gallons per day (MGD); current loads use less than 43 percent of the overall capacity.

- The current SLSD WWTF should be adequate to handle the additional wastewater flows resulting from the projected population increases through 2025; no upgrades to the plant are anticipated at this time.

- The Redgranite Wastewater Treatment Facility (WWTF) covers the majority of areas south of Willow Creek and along CTH E north to the Redgranite Correctional Facility.

- The capacity of the Redgranite WWTF was doubled to 0.342 MGD in 1999 to handle the additional wastewater flows from the correctional facility.

- The Redgranite WWTF has enough capacity to serve the Pearl Lake Area, the Village of Lohrville and the anticipated wastewater loadings due to population gains and new commercial and industrial development within the Village limits.

Stormwater Management Systems

- Curb and gutter systems are used only in the City of Wautoma and Village of Redgranite; curb and gutter is found in approximately 15 percent of the city and along STH 21 in the village.

- The curb and gutter system in Wautoma drains into three detention ponds located throughout the city and subsequently to the White River; in Redgranite, the system drains into open ditches which then drain into Willow Creek.

- All areas within the three towns and the remainder of the city and village utilize a system of open ditches and culverts for stormwater drainage.

- 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.

- Currently, only the Marion-Warren Drainage District is active.

- The Wautoma Millpond Task Force prepared a management plan to address recurrent flooding problems in downtown Wautoma.

- The City of Wautoma recently updated its Floodplain Zoning Ordinance to address flooding problems downstream of the millpond.

- Some localized flooding occurs in all five communities during periods of heavy rain.

- Communities may want to individually or collaboratively prepare stormwater management plans to address local flooding issues. Strategies which stress on-site infiltration are highly recommended.

Water Supply

- Both the City of Wautoma and the Village of Redgranite have municipal water systems that rely on groundwater as their source of water supply.

- Utilizing the elevated tanks in the community, the City of Wautoma's peak flow is 935,000 gallons per day (gpd), while the Village of Redgranite's peak flow is 345,000 gpd.

- With the exception of an 80-acre residential area on the northeast side of the City of Wautoma, the municipal airport, and former landfills, all incorporated areas within the city are served by municipal water.

- Public water currently serves the incorporated portion of the Village of Redgranite south of Willow Creek and a small portion north of Willow Creek, including the Redgranite Correctional Facility.

- Both municipal water supply systems are adequate to meet demand based on future population projections.

- Distribution systems should be "looped" with interconnections to assure supply in the event of main breakage and to provide good circulation of water within the distribution system.

- The towns of Dakota, Marion and Wautoma are served by private wells.

- Elevated nitrate levels have been detected in a few of the private wells within the region; appropriate precautions should be taken by the individual owners.

- Atrazine prohibition areas have been established in portions of the Town of Wautoma and Village of Redgranite.

- Both the City of Wautoma and Village of Redgranite have Wellhead Protection Ordinances; Waushara County has established a Groundwater Protection Overlay Ordinance. These ordinances should be consulted to ensure that new development is in compliance with water quality objectives.

Solid Waste and Recycling

- The City of Wautoma and the Village of Redgranite contracts with commercial waste management companies to provide curbside pickup to their residents.

- Waushara County operates nine waste collection sites for solid waste and recyclables. County residents can drop off their waste at specified hours with proper identification.

- All non-recyclable wastes are hauled to Valley Trail Landfill in Berlin, Wisconsin.

- Recyclable materials are sent to several different vendors based upon their nature. Materials that are collected include: glass, tin, aluminum, plastic, newsprint, cardboard, magazines, office paper, yard waste, scrap iron, waste oil, batteries, and tires.

Utilities

- Alliant-Wisconsin Power and Light and Adams-Columbia Electric Cooperative provide electric power to the area. American Transmission Company (ATC) owns and maintains a number of transmission lines in the area.

- Although a substation in Wautoma is overloaded and the substation in Redgranite is experiencing low voltages, no anticipated improvements will be made to the electrical transmission grid within the next 10 years.

- Wisconsin Gas Company provides natural gas service to the area. A gas substation is located in Redgranite.

Telecommunications

- Three telephone companies, all subsidiaries of CenturyTel, Inc., provide service to the area.

- Two cell towers are located on Wautoma's former municipal landfill site on CTH MM and are operated by Charter Communications and U.S. Cellular; a third will be built by Nextel on the same property. Several other telecommunications towers are located throughout the planning area.

- Due to the proliferation of internet service providers (ISP), area residents can choose from several national and local ISPs. Dial-up service is available throughout the entire area.

- High speed internet access is available to customers in the City of Wautoma and parts of the Town of Wautoma and Marion. DSL is available in Redgranite. Wautoma High School has fiber optics capabilities; the City is looking to extend wireless service within its jurisdiction.

Cemeteries

- Thirteen (13) cemeteries are located throughout the planning area. They are owned and maintained by a variety of municipalities, local churches, and private cemetery boards.

- Most have available room for expansion to accommodate burials for the next 20 years.

Childcare Facilities

- A total of 16 licensed, certified or regulated facilities are located within the planning area. These facilities have a combined capacity of about 358 children.

- In the Wautoma area, there is a need for additional childcare, especially for children of non-traditional workers such as the second shift workforce.

Elderly Services

- The Waushara County Coordinated Transportation System provides rides to almost 2,500 individuals for medical appointments as necessary and weekly shopping trips.

- Meals are provided to seniors at six locations throughout Waushara County every weekday. These locations include the Wautoma-Waushara Senior Center in Dakota and the Redgranite Civic Center.

- The Information and Assistance Resource Center (Waushara County Department of Aging) provides information and assistance on aging, long-term care, disabilities, and other related topics.

- The Wautoma-Waushara Senior Center offers a wide range of social and educational activities for seniors including bingo, card tournaments, cards, and others.

- Currently, there are 14 residential care facilities with an overall capacity of 198 persons in Waushara County. Since there is a rapidly growing population of elderly persons (65+) there may be a need for additional facilities or visiting nurses to allow more seniors to remain in their homes.

- Additional services are currently needed in Waushara County. Demands are only expected to rise as the overall population of the planning area continues to age.

Safety Services

- Waushara County upgraded their 911 system about two years ago. The system is expensive and some problems have been noted.

- Both the City of Wautoma and Village of Redgranite have their own police departments. There are five full-time officers in the city, while the village employs three full-time and three part-time employees. Officer coverage in both communities exceeds national standards.

- The Town of Marion has one full-time officer who patrols 40 hours per week.

- The Waushara County Sheriff's Office provides back-up for the City of Wautoma, Redgranite, and Marion; they provide primary coverage for the remaining areas in the planning cluster.

- Four officers patrol during the day, while only two patrol at night time. Response times for the Group D communities range from 7 to 12 minutes.

- Plans exist to improve service the Sheriff Office provides; the plans range widely from improving radio communications to acquiring specialized equipment for latent prints examination.

- There are three correction facilities in the planning area: the Waushara Huber Facility, the Waushara County Jail, and the Redgranite Correctional Facility. The facilities can accommodate 36, 153, and 990 inmates, respectively.

- According to national standards, both the county jail and state correctional facility are over-capacity (>80% occupied). Although there are no plans for future expansions, it may become necessary if inmate populations continue to rise.

- Four fire districts provide fire protection to the planning area: the Wautoma Area Fire District, the Wild Rose Fire District, the Neshkoro Fire Department, and the Redgranite Fire District. The fire districts are adequately equipped to respond to fires and medical emergencies.

- The Wild Rose District plans on constructing a new headquarters in the Wild Rose industrial park. All other districts have adequate room for expansion. As equipment ages and funds become available, the various life-saving and fire protection vehicles will be replaced.

Medical Services

- Within the planning area, there are five health care clinics.

- Although there are no hospitals in the planning area, four general medical-surgical hospitals are located within 40 miles of the planning area. There is one in Wild Rose, one in Berlin, and two in Oshkosh.

- Emergency medical services for the entire area are provided by the Waushara County EMS. Headquartered in the City of Wautoma, the agency provides 24 hour service for all emergency calls.

- Response times vary from 3 minutes in the City of Wautoma to 12 minutes in Redgranite.

- Although no specific site has been chosen to date, plans exist to relocate the EMS headquarters. The department constantly updates medical rescue equipment and vehicles on a regular schedule.

Educational Facilities

- Two libraries are located in the planning cluster. The Redgranite Public Library and Wautoma Public Library are part of the WinneFox Federated Library System. Based on national standards of service population, both libraries provide less than a basic level of service.

- Children within the area attend one of several school districts including the Wautoma Area School District, Westfield School District, Berlin Area School District, or Wild Rose School District. Elementary schools are located in both Redgranite and the City of Wautoma; a middle school and a high school are located in Wautoma.

- Overall enrollments are declining in all four school districts. Current facilities should be adequate over the next 20 years. However, it may be necessary to provide updates to the technological infrastructure when feasible.

- The area does not contain any institutions of higher education. However, UW – Oshkosh, UW – Stevens Point, and Ripon College are within a one-hour commute of the area.

- Three technical colleges have districts within the planning cluster: Fox Valley Technical College (FVTC), Madison Area Technical College, and the Moraine Park Technical College. FVTC maintains a satellite campus in the City of Wautoma which offers a two-year degree.

Miscellaneous Governmental Facilities

- The McComb/Bruchs Performing Arts Center is located adjacent to Wautoma High School. The theater offers a diverse schedule of events throughout the year.

- Both the City of Wautoma and the Village of Redgranite have a city/village hall and maintenance garage. The garages are used to store grounds keeping equipment and snowplows. Only the village anticipates any facility expansions.

- With the exception of Wautoma, all three towns have a town hall. The Town of Wautoma has recently purchased a parcel of land near the intersection of STH 22 and Brown Deer Rd to construct a town hall.

Parks and Recreation

- The Waushara County Park System consists of 15 sites encompassing a total of 761 acres. The individual sites provide primarily active recreational opportunities. The County Parks Department has identified the need for swimming opportunities in its recently completed outdoor recreation plan.

- The City of Wautoma Parks Department manages seven sites totaling almost 65 acres. The sites offer a diverse mixture of active and passive recreational activities. The City is considering the establishment of Bugh's Lake Park.

- The Village of Redgranite operates four parks encompassing almost 50 acres. The parks offer both active and passive recreation.

- The towns operate minimal park facilities. Dakota has a picnic area adjacent to its town hall. Marion has a 3 acre park with boat launch facilities. Wautoma has no town-operated park facilities; however, a small park will be built in association with the town hall.

- There are numerous lakes and streams in the planning area which offer a variety of fishing, wildlife viewing, swimming, and other opportunities.

- Three church camps are located in the area: Lake Lucerne Camp and Retreat Center, Camp Webb, and the Whiting Community Baptist Church Camp. A variety of religious retreats and summer camps are offered.

- The White River Campground in Dakota is located on CTH YY.

- About 250 miles of state-fund snowmobile trails are located in Waushara County. Private clubs also maintain additional trails.

- Two sportsmen clubs are in the area. The Wautoma Rod and Gun Club operates a trap shooting range on the southern border of the City of Wautoma. Pine Ridge Farms is a privately owned facility offering paid guided hunts and other activities.

- Two golf course (Waushara Country Club and Two Oaks North) offer residents 45 holes which challenge golfers of all skill levels. Both courses are open to the public.

AGRICULTURAL, NATURAL, AND CULTURAL RESOURCES

Agricultural, Natural, and Cultural Resources Vision for 2025

By 2025, the South Central Waushara County area has been able to successfully preserve large blocks of its most productive farmland. Family farms and small corporate farms comprised of extended families and/or neighbors have become profitable by working closely with the educational and business community to identify new markets, products, and processes. Their efforts have been aided by new agricultural-based industrial development. Although farmers are still selling off individual parcels for rural residential home sites and small hobby farms, they are taking care to minimize the potential for conflict with these activities by keeping their most profitable agricultural lands intact and steering new homes to areas where their impact on farming operations is minimal.

Local residents have taken steps to identify and protect the area's most highly valued environmental and visual features, including its "wild" lakes and streams, wetlands, and largest blocks of woodland, from rampant development. While new residential growth continues to occur in proximity to these features, developers and individuals are taking care to ensure that the results of their activities do not jeopardize the integrity of the resource. These efforts have not only helped preserve the rural character so valued by local residents, they have resulted in improved water quality in the area's lakes and streams.

Area residents continue to rely on easy access to outlying urban centers to meet many of their cultural and entertainment needs but the McComb/Bruchs Performing Arts Center is an important community asset that attracts professional talent. In addition, both performing arts and fine arts at the amateur level have gathered impetus locally as concerted efforts have been made to involve residents of all age groups into local productions and community-sponsored art fairs have continued to grow and attract new local talent. The area now sports several excellent examples of historically accurate architectural restorations.

Key Findings

Agricultural Resources

- Approximately 9 percent of the land within the area is considered prime farmland; land with soils that are best suited for food, feed, forage, fiber and oilseed crops.
- Approximately 46 percent of the area has soils that are classified as unique farmland; lands other than prime that are used to produce specific high value food and fiber crops.
- Agricultural land cover, which includes row crops, forages, and grassland, makes up over 51 percent of the total acreage within the area.
- The area experienced a net loss of 13 farms between 1990 and 1997; the largest losses were experienced by the towns of Marion (9 farms lost) and Wautoma (9 farms lost).
- Two-thirds of the dairy farms within the area were lost between 1990 and 1997.
- About 2,900 acres of farmland were lost in the area between 1990 and 1997; the largest loss (1,213 acres) of farmland occurred in the Town of Wautoma.

Soils

- Approximately 80 percent of the soils in the area are rated suitable for conventional (67.4%) or at-grade in-ground pressure or mound systems (12.5%).
- About half the soils in the Town of Dakota will support a conventional septic system.
- Over 40 percent of the soils in the area have a very high potential for building site development.
- Almost 40 percent of the land in the Town of Dakota is rated low or very low for building site development.
- About 35 percent of the land in the area has severe soil limitation for septage spreading; the Town of Dakota (39.8%) has the largest percentage of land in this category.
- Over 11 percent of the land in the area has slopes greater than 12 percent; within the Town of Wautoma this percentage increases to over 21 percent.

Geology and Topography

- Surface water drainage for the area is easterly toward the Fox River.
- Land relief is approximately 398 feet, from a low of less than 780 feet above sea level where Sucker Creek exits the Town of Marion to a high of approximately 1178 feet above sea level in the northeast corner of the Town of Wautoma.

Water Resources

- There are approximately 31 lakes and impoundments in the area; about half of these are located in the Town of Marion.

- Major waterways include the Mecan River, White River, and Willow Creek. Many of the streams in the area are classified as class I trout streams and/or Exceptional or Outstanding Water Resources.

- Approximately 11 percent or about 7,500 acres of land within the area is classified as floodplain.

- About 14 percent or about 9,500 acres of the area is classified as wetland; 21 percent of the Town of Dakota falls under this classification.

- Groundwater flow is toward the southeast and varies from a high of 1040 feet above sea level near the northwest corner of the Town of Wautoma to less than 800 feet above sea level in the southeast corner of the Town of Marion.

- Past testing showed that 16 private wells within the area contained nitrate levels above the EPA's Safe Drinking Water Standard of 10 mg/l.

- An atrazine prohibition area has been established in section 12 and 13 in the Town of Wautoma and the southern portion of the Village of Redgranite, south of CTH N, Bonnell Avenue and STH 21.

- The majority of homes within the towns of Dakota, Marion and Wautoma are on private septic systems and wells. A municipal sewer system exists around the Silver Lake area and many town residents are connected to this system.

- Municipal sewer and water is available in the City of Wautoma and the Village of Redgranite.

Wildlife Resources

- Two State Natural Areas are present within the Town of Dakota and provide unique natural communities with diverse wildlife habitats.

- The diversities of land use within the area results in numerous habitat types, enabling the area to support a varied and abundant wildlife and fish community.

- Over 35,000 acres within the area can be classified as woodlands; this represents close to 60 percent of the total land area in the towns of Dakota and Wautoma.

- One percent of the land is enrolled in either the Managed Forest Law or Forest Crop Law programs.

Parks, Open Space and Recreational Resources

- The Wisconsin Department of Natural Resources owns about 3,783 acres of land within the area; the majority of the land is in the Town of Dakota (1,935 acres) and the Town of Wautoma (1,512 acres).

- The Lunch Creek Wetland State Natural Area and the Bass Lake Fen State Natural Area are both located in the Town of Dakota.

- Many of the streams and rivers within the area are considered Exceptional Resource Waters and have been designated as Class I or II trout streams.

- U.S. Fish and Wildlife Service owns about 252 acres in the Town of Dakota near the White River Flowage that is used as a breeding ground for migratory birds.

Mineral Resources

- At one time granite was actively mined in the Redgranite area; seven inactive quarries can be found in this area.

Solid and Hazardous Waste

- There are 10 sites from the area included 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. (Inclusion of a site on this list does not mean that environmental contamination has occurred, is occurring, or will occur in the future)

Historic Sites

- The Waushara County Courthouse and Sheriff's Residence/Jail, located in the City of Wautoma, are included on the State and National Register of Historic Places.

- There are 123 sites in the area included on the Architecture & History Inventory found on the Wisconsin Historical Society's Division of Historic Preservation website. One hundred and thirteen of these sites are located in the City of Wautoma or the Village of Redgranite.

LAND USE

Land Use Vision for 2025

New growth has been accommodated in ways that the fabric of woodlands, farmlands, water bodies, wetlands, and other open space that comprises the area's rural character is not compromised. Great success has been achieved in clustering new residential development in areas that protect the integrity of existing land uses and the area's most highly valued environmental and scenic features. As a result, land use conflicts such as those between rural residential development and ongoing farming operations are minimal.

The existing commercial strip east of Wautoma has experienced some additional commercial development but measures taken to address safety issues associated with the increased traffic have included landscaping and other amenities to create an attractive gateway to the city. New highway-oriented commercial development occurring along Highway 21 and other roadways is also attractive and well landscaped. New industrial development has been successfully directed to industrial parks in Wautoma and Redgranite. Major commercial and industrial traffic generators have good access to the state highway system, helping to keep unnecessary traffic off of the local road network.

Key Findings

Existing Land Use

- A detailed field inventory of land uses within the Group D Planning Cluster was conducted in 2000; subsequent updates were completed during the comprehensive planning process.

- Developed land has been altered from its natural state to accommodate human activities. These land uses include residential areas (single family, farmsteads, multi-family, mobile homes); commercial districts; industrial operations (including mining operations and quarries); recreational facilities; institutional facilities; utilities and communication facilities; transportation networks; and airports.

- Undeveloped land includes agricultural cropland, silviculture, woodlands, surface water features, and other open areas.

- Incorporated areas were more developed than the unincorporated towns; developed land accounted for 48.4 percent of the land in the City of Wautoma and 36.3 percent in the Village of Redgranite.

- The most common developed land uses in all five communities included residential and transportation. Institutional facilities were more common in incorporated areas.

- Less than 13 percent of the towns were developed. The Town of Marion was the most developed (12.2%), while the Town of Wautoma was the least developed (6.9%).

- The most prevalent undeveloped land uses in the planning cluster were cropland (both irrigated and non-irrigated); woodlands (silviculture, planted woodlands, and general woodlands); and other open areas.

Zoning Ordinances

- Zoning ordinances regulate the use of property to advance public health, safety, and welfare while promoting organized and consistent development patterns.

- The City of Wautoma and Village of Redgranite have each adopted their own zoning ordinance.

- All three towns have adopted the Waushara County general zoning ordinances. If they choose to do so, individual towns may adopt their own zoning ordinances providing they are as or more restrictive than Waushara County Zoning Ordinance.

- About half of the City of Wautoma is zoned either general agriculture (26.2%) or residential (22.2%).

- Over three-quarters of the Village of Redgranite is zoned either residential (58.9%) or agricultural/holding (19.4%)

- At least 79.2 percent of all three towns is zoned general agriculture; natural resource preservation accounts for at least 3 percent.

- The Town of Marion has the largest area zoned for residential uses (7.4%) among the towns.

Development Trends

- During the last 25 years, annexations have increased the size of both the City of Wautoma and Village of Redgranite.

- The City of Wautoma has experienced a slight decrease in residential land acreages and a slight increase in institutional facilities over the last 25 years.

- The Village of Redgranite has experienced increases in residential, commercial, and institutional land uses while decreases in agricultural cropland and manufacturing.

- The towns of Dakota, Marion, and Wautoma have experienced gains in residential land uses and losses in agricultural land over the last 25 years. This is due primarily to the conversion of farmland into new residential development.

- Woodlands have seen significant losses in the towns due to construction of new residential development.

- Residential densities are defined as the number of housing units per square mile of total land area. Between 1990 and 2000, residential densities increased throughout the planning cluster and Waushara County.

- Intensity is a measure of the number of residential units per acre of residential development. Smaller lot size and the presence of multi-family housing in the City of Wautoma and Village of Redgranite result in more intense land use within incorporated areas. Land use intensities exceeded 2 units per acre in both municipalities.

- Although all three towns had intensities less than 1.5 units per acre, variance was seen. They ranged from 0.91 units per acre in the Town of Wautoma to 1.44 units per acre in the Town of Marion.

Land Use Projections

- Land use projections were based on population and housing projections made by ECWRPC. The projections are used to approximate the amount of land that is anticipated to be needed for future growth and development.

- Land use projections were made by addressing the 14 goals mandated for consideration by s.66.1001 and specific goals addressed within the various zoning ordinances.

- Land use projections are estimates. Actual development will depend on land and housing availability and affordability; the local and state economies; and other factors.

- It is not the intent of the plan to see an entire area within the specified zones to develop. Instead, the specified use shall be allowed if consistent with the type, location, and density of the development. Some of the land within the specified areas would hinder development based on soil suitability, adjacent natural resources, conflicting land uses, or other factors.

City of Wautoma

- Utilizing existing zoning requirements and residential intensities, an additional 24 to 59 acres are anticipated to be developed for all residential uses.

- Future commercial uses are projected to require an additional 12 acres; industrial uses are likely to encompass an additional 5 acres.

Village of Redgranite

- Utilizing existing zoning requirements and residential intensities, 22 to 50 acres are anticipated to be developed for all residential uses.

- Future commercial uses are projected to require an additional 4 acres; while an additional 2 acres are anticipated for industrial uses.

Town of Dakota

- Since ECWRPC population and housing projections limited future development within the town, calculations were based upon a two-thirds realization of a linear growth pattern based on historical building permit data. All land use projections are based on the assumption that 100 new single family homes will be constructed.

- Utilizing desired zoning requirements determined during the planning process, it is anticipated that 260 acres are necessary for future residential growth.

- An additional 32 acres will likely be needed for future commercial uses; an additional one (1) acre is anticipated for future industrial calculations.

- These projections account for land that would be necessary to construct any additional roads, parks, on-site stormwater management facilities, or other development ancillary to the above land uses.

Town of Marion

- Utilizing historical data and existing housing densities, it is anticipated that between 300 and 360 acres are needed for future residential development.

- Where feasible, new residential development will be directed towards the northwestern corner of the Town where sanitary sewer and other public utilities are available.

- Approximately 30 acres of commercial development are anticipated in the Town. No industrial development is expected as these uses will be directed to existing industrial parks in the City of Wautoma.

Town of Wautoma

- Utilizing past building records and ECWRPC population projections, it is anticipated between 180 and 300 acres will be needed for single family residential development.

- New residential development will target areas primarily adjacent to the City of Wautoma. Other development could infill approximately 35 vacant lots in platted subdivisions along STH 22.

- Isolated single lot development is expected to occur throughout the town on a limited basis.

- It is anticipated that commercial development will be directed to areas adjacent to the City of Wautoma where existing public utilities such as sanitary sewer and water can be easily extended.

- New commercial development will likely occur in established commercial areas along STH 21/73 on the eastern and western edges of the city and along STH 22 immediately north of the city.

- It is reasonable to anticipate 20 to 25 acres of new commercial development.

- Where feasible, new industrial development will be directed to existing industrial parks within the city which are serviced by sanitary sewer and water.

Future Land Use Trends

Residential

- Where feasible, new residential development will be directed to areas currently serviced by sanitary sewer and municipal water.

- Infill development will be stressed within the City of Wautoma. Alternatively, new residential development will be directed to areas near the city's north and southwestern borders.

- In the Village of Redgranite, new single family residential development will be encouraged in areas north of Willow Creek and west of the correctional facility where soils are best suited for development.

- The Town of Dakota will encourage the development of "town centers." Where feasible, new residential development will be directed towards the unincorporated village of Dakota and in areas adjacent or near the City of Wautoma.

- Where feasible, residential development within the Town of Wautoma will be directed areas adjacent to the City of Wautoma. Infill development in platted subdivisions along STH 22 will be encouraged.

- The Town of Marion will encourage development within the Silver Lake Sanitary District and infill of existing subdivisions.

- Future multi-family development should occur in areas that can be served by public sewer and water. As such, new complexes will most likely be developed in the city or village.

Commercial

- Commercial growth is bested suited for areas serviced by public sewer and water.

- In the City of Wautoma, commercial development is likely to occur along established business routes and existing commercial districts. New growth will be targeted to areas near STH 21 and Division Street; along East Plaza Road, and near STH 73 in the western section of the city.

- Future commercial growth is anticipated along STH 21 in the Village of Redgranite.

- The Town of Dakota will encourage infill commercial development. Ideally, this development would occur in the unincorporated village of Dakota; in areas adjacent to the Wautoma Industrial Park or within the sanitary district; and along STH 21 west of the City of Wautoma. Limited commercial development would also be appropriate along STH 22.

- The Town of Marion is targeting new in-fill commercial development in the unincorporated village of Spring Lake. Limited commercial development opportunities are also feasible along STH 21.

- The Town of Wautoma has designated areas adjacent to the City of Wautoma as appropriate for new commercial development. Establishments described as "highway commercial" would be best located along STH 22.

- Some future commercial uses may be appropriate either in or adjacent to industrial parks.

Industrial

- New industrial development is best suited for areas serviced by public sewer and water. As such, all five municipalities will direct new industries to existing industrial parks within the City of Wautoma and Village of Redgranite.

- Light industrial development may be appropriate in the unincorporated areas in the towns of Dakota and Wautoma. Any light industrial development should fit the rural character of the towns and be environmentally friendly.

Agriculture

- Agriculture will continue to be an important industry within the unincorporated areas in towns of Dakota and Wautoma. As such, it is the common interest of all municipalities to preserve as much of the remaining farmlands as possible over the next 20 years.

- The Town of Marion respects existing farmers' "Right to Farm" but does not have contiguous acreage that would permit farming operations to expand.

- New development should be directed towards areas which minimize potential conflicts between agricultural operations and other land uses. Land use controls such as setbacks, screening, conservation subdivisions, or buffering should be utilized to limit potential conflicts.

Land Use Issues and Conflicts

- All municipalities agree that improved communication is necessary to ensure that future land use conflicts are minimized. As such, the communities have indicated their support for the formation of a Joint Planning Commission (JPC) in the Wautoma area to discuss issues which are commonly shared. Although the JPC will be primarily responsible for land uses decisions within the 1.5 mile extra-territorial planning area of Wautoma, this committee can be utilized as a venue to discuss all common land use issues.

- The Village of Redgranite should also consider the formation of a Joint Planning Commission (JPC) for the Redgranite area. This planning commission would be responsible for land decisions within the 1.5 mile extra-territorial planning area of the village.

- Joint Planning Commissions would be an ideal entity to handle annexation issues so that intergovernmental relations are not strained as these requests arise.

- Incompatibilities may arise between adjacent land uses as development continues. Proper planning and use of regulatory controls will minimize the severity and overall number of conflicts. Land use controls such as setbacks, screening, and buffering should also be utilized to limit potential conflicts.

INTERGOVERNMENTAL COOPERATION

Intergovernmental Cooperation Vision for 2025

In 2025, the five participating municipalities in the Group D Planning Cluster are cooperating with each other and neighboring municipalities on a variety of issues. They also have a strong working relationship with area sanitary districts, school districts and Waushara County. This spirit of cooperation has led to a more cost-effective delivery of municipal services by eliminating duplication and achieving larger economies of scale. Additionally, the interchange of ideas and information gained from ongoing dialogue among the entities has helped each entity better plan for its future needs. Local officials readily acknowledge that projects slated for one community have benefits for the entire area.

Key Findings

Intergovernmental Agreements

- The City and Town of Wautoma have a signed border agreement which assigns areas along the shared border that can be annexed to the city. The agreement requires that the town must be notified before annexations requests are acted upon.

- Even though the City of Wautoma does not have a border agreement with the Town of Dakota, few conflicts have arisen that have not been resolved with amicable results. However, these two communities may want to explore the possibility of establishing a border agreement in the future.

- Towns cannot annex land from one another. Therefore, borders between these communities are fixed and boundary disputes are non-existent. The towns share a common rural character and enjoy a good working relationship.

- The Village of Redgranite has not formed any formal border agreements with the Village of Lohrville or the towns of Marion, Leon, and Warren. The village is willing to cooperate with these entities to form border agreements for annexation or service provisions if the need arises.

- The Wautoma – Silver Lake Sanitary District works closely with the county, city and towns to monitor new construction within the sewer service and planning areas on all sanitary related issues.

- By statute, the towns have adopted County zoning; while the city and village have adopted their own zoning ordinances. Where feasible, all units of government should collaborate to ensure that zoning ordinances are similar in nature. The towns should strive to enhance and strengthen county zoning ordinances by adopting their own zoning ordinances which may be more stringent.

School Districts

- School districts within the area have cooperated with local governments to provide access to performing arts theaters and forests. Additional communication and cooperation is needed to further benefit the local communities. This may include sharing recreational facilities; utilizing school facilities for meeting space; or collaborating to coordinate the siting, design, and utilization of new school facilities.

Community Facilities

- Local governments, schools districts and businesses should work with utility companies to ensure that the infrastructure that is provided is sufficient to attract new growth. Infrastructure should include, but not be limited to natural gas, electricity, telecommunications, and other similar services.

- Local governments should meet with the Wisconsin Department of Transportation and the Waushara Highway Department to discuss and coordinated upcoming road construction projects.

- All communities within the area have various intergovernmental agreements with respect to public services and facilities. For example, mutual aid agreements exist between the fire districts.

- All communities should strive to implement new intergovernmental agreements which involve senior citizens and other social services; park and recreational facilities; stormwater management; public safety and other topics.

Regional, State, and Federal Agencies

- Individual communities within the Group D cluster should continue to work with the various Waushara County Departments to foster good working relations, promote mutual respect, and coordinate necessary community services.

- Waushara County is a member of the East Central Wisconsin Regional Planning Commission (ECWRPC). ECWRPC provides planning and technical assistance to local communities, counties, and other entities within its jurisdiction. All Group D communities should continue to involve ECWRPC on future projects as the need arises.

- The Wisconsin Department of Natural Resources (WDNR) is responsible for the regulation, protection, and sustained management of natural resources in the state. WDNR operates various programs to help local governments and private landowners successfully manage their properties to benefit overall environmental quality. Local governments should promote positive working relations between themselves, their citizens, and the agency.

- The overall mission of the Wisconsin Department of Agriculture, Trade, and Consumer Protection (DATCP) is multi-fold. DATCP oversees programs which ensure the safety/quality of food; fair business practices for buyer and seller; efficient use of

agricultural resources in a quality environment; consumer protection; healthy animals and plants; and the vitality of Wisconsin agriculture and commerce.

- The Wisconsin Department of Transportation (WisDOT) oversees issues related to transportation uses in the planning area. WisDOT oversees highway planning, construction, and maintenance; airport travel, safety, and zoning; bicycle and pedestrian transportation; and multimodal transportation issues. Although there are no major expansions planned within the Group D area, local communities should take a proactive role in transportation planning issues on an ongoing basis.

- The possible interactions Group D communities can have with all county, state, and federal agencies are too lengthy to include in this report. Local communities must continually network and cooperatively plan with the appropriate agencies as needs arise.

Extra-territorial Jurisdiction

- Incorporated cities and villages in Waushara County can exercise certain powers within 1.5 miles of their incorporated limits. This area is referred to as the extra-territorial jurisdiction. These powers are summarized below.

- Incorporated communities can exercise plat review authority in unincorporated areas adjacent to their communities (s.236.10). If incorporated communities have adopted their own subdivision ordinance, they can approve or reject specific plats and certified survey maps as if they were within incorporated limits.

- Incorporated cities and villages in Waushara County have been given authority to practice extra-territorial zoning within the 1.5 mile area adjacent to their community if they have adopted their own zoning ordinance. In order to practice extra-territorial zoning, an incorporated community must do the following: publicize and adopt a resolution stating its intent to do so; establish a joint committee with representatives from adjacent communities; and adopt specific plans through the joint committee.

- All three towns have expressed a sincere interest to adopt a joint committee with the City of Wautoma and Town of Mount Morris to collectively plan and establish zoning ordinances for the extra-territorial area of the city.

- The Village of Redgranite has expressed an interest to collaborate with its neighbors to establish a joint committee to collectively plan and establish zoning ordinances for the extra-territorial area of the village.

IMPLEMENTATION

Implementation Vision for 2025

In 2025, planning is recognized by the five municipalities as their best and most consistent tool in ensuring they provide for the type of community desired by their residents. They rely heavily on their plan to steer development to appropriate locations and prevent incompatible land use,

and encourage creative design solutions to protect important community natural and man-made resources and promote cost-effective government. They value the opinions of their residents and business owners and respect the responsible efforts of landowners to protect their property and community.

Key Findings

Individual Communities

- Communities can utilize a wide range of tools to implement the goals, objectives, and strategies discussed in this plan.
- Individual communities should annually review their progress with implementation of the comprehensive plan.
- The planning commissions of the individual communities should review the timelines in the respective implementation tables to ensure each strategy is implemented in a timely fashion.
- Where appropriate, modifications should be made to the individual community plans annually. These modifications may include, but are not limited to, the incorporation of new statistical data, changes to individual strategies, and changes to land use maps.
- Individual communities should annually report implementation progress to their citizens. This may be accomplished by an article in the annual report or newsletter.
- Individual communities must update their comprehensive plans every ten (10) years.

Joint Planning Commissions

- Once established, the joint planning commissions (JPCs) should review the goals, objectives, and strategies for all communities within the extra-territorial zoning area. These goals, objectives and strategies should be considered in all future activities of the joint planning commission.
- JPCs should annually review their progress with implementation of the comprehensive plans of the individual communities.
- JPCs should review the timelines in the respective implementation tables to ensure each strategy is implemented in a timely fashion.
- JPCs should annually report implementation progress to the planning commissions and town boards of the individual communities. This may be accomplished by an article in the annual report, newsletters, or at respective board meetings of the individual communities.

CHAPTER 2: ISSUES AND OPPORTUNITIES

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ISSUES AND OPPORTUNITIES

INTRODUCTION

Socioeconomic conditions and growth patterns have implications for the future health and vitality of communities. They help define existing problems and identify available socioeconomic resources. They also represent the current and future demands for services and resources. Changes in population and households combined with existing development patterns and policy choices will determine how well the Group D communities will be able to meet the future needs of its residents and the 14 comprehensive planning goals.

Issues and Opportunities Vision for 2025

In 2025, the quality of life for residents of South Central Waushara County has never been higher. Residents have gained even greater appreciation of the area's lakes, streams, woodlands and other natural and cultural amenities. They've taken steps through an appropriate mix of public and private ownership to protect these resources so that they can be enjoyed by future generations of local residents as well as visitors to the area. A concerted effort to identify new markets, products and processes has rejuvenated the area's farm and forest economies. Employment opportunities are provided by new businesses attracted to Wautoma's and Redgranite's industrial park. Their competitive wages are helping the area retain younger members of the workforce and enabling more local residents to work closer to home.

Wautoma and Redgranite are small vibrant communities offering a range of retail and business services. Downtown shoppers enjoy convenient on-street parking, and traffic congestion and safety issues in both communities and in the Silver Lake area no longer exist with the re-design of the Highway 21 corridor. Basic medical and 24/7 emergency services are now available in Wautoma and Redgranite and extended care facilities and other housing options are available for the area's growing elderly population. Augmented by increased disposable income, pride in homeownership is evident in the continuing upgrade of the area's traditional housing stock and the lack of unkempt properties. A variety of affordable housing options is available to residents of all income levels. Although most new residential development is concentrated in Wautoma, Redgranite and other sewered areas, outlying rural areas in the towns of Dakota, Marion and Wautoma continue to attract new residential development. For the most part, however, it largely has been occurring in locations and ways that are respectful of the area's natural features and pre-existing land uses.

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 of the region. Population and socioeconomic trends are identified, and potential future growth and development patterns are discussed. Characteristics examined include age, race, ethnicity, educational attainment, income and household types. Current and potential population and socioeconomic issues are noted. Their potential impacts and policy implications are discussed in the remaining comprehensive plan element chapters. The remainder of this chapter will briefly

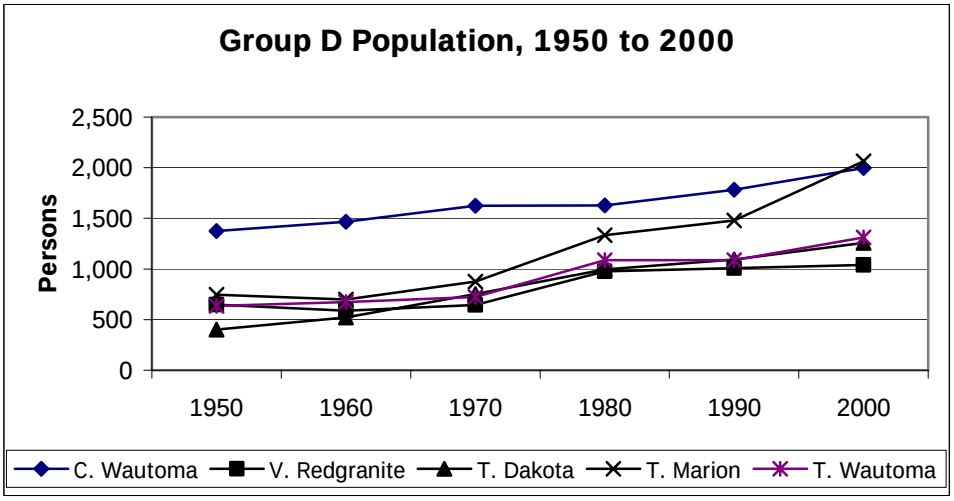
describe the policy context, discuss the need for intergovernmental cooperation, assess current and future trends and identify issues that need to be addressed.

Demographic Trends

Historic Population

Over the past fifty years, the Group D area has experienced significant population growth, growing from 3,806 persons in 1950 to 7,674 persons in 2000 (Appendix B, Table B–1.). The majority of this growth (2,854 persons) was concentrated within the towns. Between 1950 and 2000, the towns of Dakota, Marion, and Wautoma saw their population more than double. This growth, which is most notable in the Town of Marion, occurred largely in response to the development of the lakes and the conversion of seasonal homes to full-time residences. The Village of Redgranite also experienced significant population growth (60.5%). Growth was slowest in the City of Wautoma (45.2%).

Figure 2-1. Historic Population Change



Between 1950 and 2000, population growth in the Group D planning cluster doubled (101.6%), outpacing growth for Waushara County (65.7%), the East Central Region (66.1%), and Wisconsin (56.2%). 2005 population estimates from the Wisconsin Department of Administration (DOA) indicate that recent growth trends are more in line with regional and state growth patterns. Only the Village of Redgranite has experienced a much higher population increase (97.2%) since 2000 than either Waushara County (8.0%) or Wisconsin (4.0%). This increase is due mainly to the construction of the Redgranite Correctional Facility. Population increases in the remaining Group D communities ranged from 0.8 percent in the Town of Dakota to 6.9 percent in the Town of Marion.

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 and the Wisconsin Department of Administration (DOA), for example, show similar trends, but their net migration estimates vary.

An examination of the data provided by the University of Wisconsin-Extension Applied Population Laboratory and the Wisconsin Department of Administration (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 2-1 and 2-2.). 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 2-1. Net Migration Estimates, 1950 to 1990

	Waushara County		Wisconsin	
	Net Migration	Total Change	Net Migration	Total Change
1950 to 1960	-8.62%	-3.04%	-1.44%	15.06%
1960 to 1970	6.37%	9.62%	0.16%	11.79%
1970 to 1980	17.66%	25.22%	0.23%	6.51%
1980 to 1990	7.27%	4.64%	2.68%	3.96%

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

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 0, as more deaths than births occurred in the county during this time period. Since natural increase rates were negative, the entire increase in population Waushara County since 1990 can be attributed to in-migration (Table 2-2.).

Table 2-2. 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	1.46%	23.76%	25.22%
1980-1990	448	411	859	2.42%	2.22%	4.64%
1990-2000	-23	3,792	3,769	-0.12%	19.56%	19.44%
2000-2005 est.	-131	1,983	1,852	-0.57%	8.60%	8.03%

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

Waushara County migration patterns also varied by age (Appendix B, Table B-2.). Between 1990 and 2000, young families (age 30 to 44 yrs) and baby boomers (age 45 to 64), many who converted their seasonal residences to year round homes, 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 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 people age, many eventually need or desire a wider variety of housing, health care, support services and transportation options than is available in rural communities.

Population Density

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 the Group D area has expanded and settlement patterns have increased in density. In general, this area is the most densely populated area of the county. In 2000, towns outside of the Group D planning area had population densities ranging 12 to 41 persons per square mile, while the lowest population density within the Group D planning area was 38 persons per square mile.

A wide range of population densities existed between the Group D communities (Appendix B, Table B-3.). The highest densities were found in the incorporated areas. The City of Wautoma had a population density of 799 persons per square mile, while the Village of Redgranite had a density of 468 persons per square mile. The Town of Marion had an intermediate density of 62 persons per square mile. The towns of Dakota and Wautoma were the most sparsely populated communities within Group D, with population densities of 38 and 39 persons per square mile, respectively. The population density for the county as a whole averaged 37 persons per square mile, compared to the state density of 82 persons per square mile.

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 health care, housing options and transportation services. Currently, the largest age cohort within the 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 the planning cluster.

The change in population by age cohort between 1990 and 2000 indicates that the cluster’s population is aging (Appendix B, Tables B-4 and B-5.). While some local variation existed, as a whole, Group D communities experienced an increase in all age cohorts. The largest increase by far occurred in the working age population, which comprised over half of the total population increase for the Group D area. Seventy percent (69.6%) of those individuals were between the ages of 45 and 64. The school age population (ages 5 to 19 yrs) increased by 25.1% during this time period. The smallest increase occurred in the preschool age population, which only increased by 4 persons.

An examination of the relative composition of the population showed that preschoolers as a share of total population declined in every Group D community. The City of Wautoma and Town of Marion experienced an increase in school age children as a percent of total population, while the share of school age population declined in the Village of Redgranite and the Town of Wautoma. The share of school age children remained relatively constant in the Town of Dakota, increasing by less than one half a percent. Marion was the only Group D community to experience a decline in share of population in the working age category. The City and Town of Wautoma were the only Group D communities to experience a decline in the share of population in the elderly age cohort.

The relative decline in population under age 5 can be attributed to smaller average family sizes (The fertility rate for women decreased from 3.7 in 1957 to 1.8 in the mid-1970's[1].) and the out migration of individuals age 20 to 29. Additionally, many baby boomers have moved beyond the child bearing years. The continuation of low fertility rates in the 1990s (2.0 and 2.1)[1] indicate that the children of the baby boom generation, Generation Xers (born 1965 to 1976) have maintained low fertility rates and few of the "echo boom" (born 1977 to 1995), have begun having children.

The increase in the number of working age and elderly individuals can be attributed to in-migration of individual age 30 and older and the aging of the baby-boomers and World War II generation. The World War II generation includes those individuals born between 1919 and 1935. As these individuals begin to need additional services and health care, some are migrating out of the area, which reduces the share of population in the frail elderly age cohort.

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 to the overall population structure within a community. Between 1990 and 2000, the median age increased in all communities, but the City of Wautoma. On average, the median age increased by 2.1 years in the Group D cluster. Actual increases ranged from 1.6 years in the Town of Marion to 4.6 years in the Town of Dakota. The City of Wautoma had the lowest median age (38.8 years), while the Town of Marion had the highest (48.4 years) (Appendix B, Tables B-4 and B-5).

A closer look at individual age cohorts indicates that clustering of the population on either side of the median varies. Although the median age of several Group D communities was lower than the Waushara County average (42.1 years), in 2000 the planning cluster had a higher proportion of individuals (21.64%) age 65 and older than Waushara County (19.24%). This trend was the same when compared with Wisconsin. The state's median age was 36.0 year, and 13.1 percent of the population was age 65 years or older.

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,

[1] U.S. Census Bureau, "The Fertility of American Women in 2004" in *Population Profile of the United States: Dynamic Version,* Internet release, November 8, 2005.

training, and age also impact the income potential for that household, plus help define the need for services such as child care, 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 the state and Waushara County has been decreasing steadily since 1970 (Appendix B, Table B-25). With a couple minor exceptions (an increase in the C. Wautoma and T. Dakota between 1980 and 1990) this has been true for Group D communities as well. Historically, the City of Wautoma has retained the lowest average household size of all seven jurisdictions. The towns of Dakota and Wautoma have tended to have the largest household sizes. In 2000, the Town of Dakota had the largest average household size at 2.55 persons per household, while the City of Wautoma was the smallest (2.20). The average household size in Waushara County and Wisconsin was 2.43 and 2.50 persons, respectively.

Between 1990 and 2000, the average household size in Waushara County decreased from 2.52 to 2.43 persons per household (Appendix B, Tables B-6 and B-7). The largest decline in household size within the Group D planning cluster occurred in the Town of Wautoma, where the average number of persons per household decreased from 2.59 to 2.46. The Town of Marion experienced the smallest decline in the planning cluster, decreasing from 2.31 to 2.27 persons per household.

The share of one and two person households increased throughout the county and state. By 2000, one-person households comprised 24.9% of all households in the county and 26.8% in Wisconsin. This represented a 1.5% and 2.4% increase in share respectively. A similar increase in two person household was also seen. Two person households increased to 41.9% and 34.6% in Waushara County and Wisconsin, respectively. Within the planning cluster, the city and village had noticeably higher percentages of one person households. One person households accounted for 40.5% of the households in the City of Wautoma and 32.5% of households in Village of Redgranite, compared to less than twenty-five percent in each of the towns. Two person households, on the other hand, accounted for over forty percent in each of the towns, while two person households comprised 35.0% in the Village of Redgranite and 30.0% in the City of Wautoma. The Town of Marion had the highest share of two person households, 50.6%.

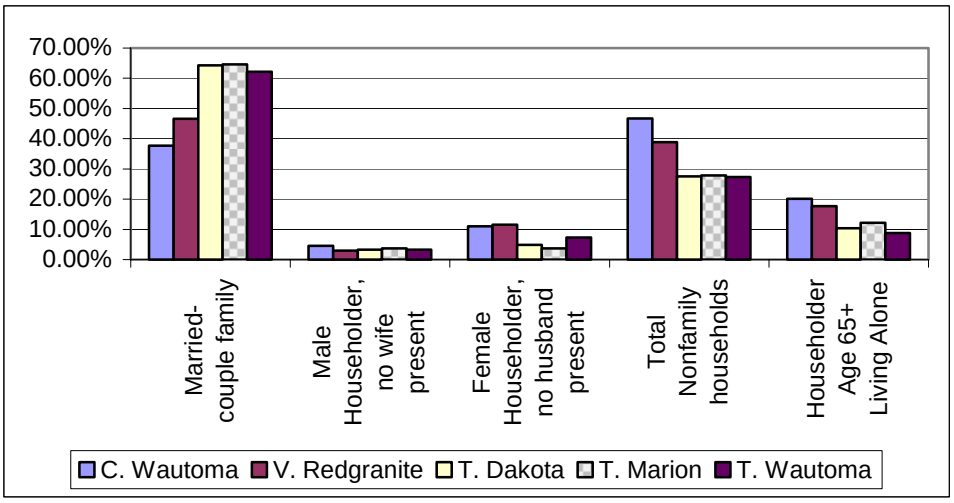
An examination of 3, 4, 5 and 6 or more person household size data shows that the share of households with more than 2 persons per household declined for each additional person added to the household for all seven jurisdictions in 1990 and 2000, with one minor exception. In 1990, 4 person households comprised a slightly larger share of all households (18.8%) than 3 person households (14.0%) in the Town of Wautoma.

By 2000, the share of 5 or more person households had the smallest share of household sizes in all jurisdictions. About nine percent of the households in both Waushara County (8.7%) and Wisconsin (9.3%) had average household sizes of 5 or more persons; only around three percent of households were 6 or larger. For the most part, the share of households with 5 or more persons per household in Group D communities was at or below county and state levels. The one exception was the Town of Dakota, where 5 or more person households comprised 10.3% of all households. The Town of Dakota also had the largest share of 6 or more persons per household, 4.9%.

Household Composition

In 1990 and 2000, the majority of households for all seven jurisdictions were family households, and the majority of family households were married couple families (Appendix B, Tables B-8 and B-9). Between 1990 and 2000, all seven jurisdictions experienced a decrease in the share of family households and married couple families and an increase in the share of nonfamily households. The share of single parent family households increased in all jurisdictions, except for the Town of Dakota, which experienced a decrease in the number and share of single parent family households during this time period. In 1990, the share of family households ranged from 62.7% of all households in the City of Wautoma to 79.5% of all households in the Town of Wautoma. Between 1990 and 2000, the share of family households declined. In 2000, the share of family households ranged from 53.4% of all households in the City of Wautoma to 72.7% of all households in the Town of Wautoma. The City of Wautoma had the largest share of single parent family households and nonfamily households in both years. The Town of Marion had the smallest share of single parent family households for both years, while the Town of Wautoma had the smallest share of nonfamily households for both years (Figure 2.2).

Figure 2-2. Percent of Households by Type, 2000



In 1990, householders age 65 or older and living alone ranged from 22.6% in the City of Wautoma to 9.7% in the Town of Dakota. Between 1990 and 2000, the share of elderly householders living along decreased in the City of Wautoma, Village of Redgranite, Town of Wautoma, Waushara County and the state, and rose in the towns of Dakota and Marion. By 2000, elderly householders living along ranged from 20.1% of all households in the City of Wautoma to 8.8% in the Town of Wautoma.

In 2000, Group D communities had 448 persons age 65 and older living alone. 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. Their home may need special modifications or additional equipment to live independently. They may need assistance with housekeeping, transportation or meal preparation, etc. Social isolation may also become an issue if these individuals have limited mobility options.

The combination of the increase in one and two person households and the share of non-family households, coupled with a decrease in the share of persons age 65 and older living alone, may mean that some elderly are doubling up. It also indicates that the number of single individuals under the age of 65 is increasing in the planning area.

Race and Ethnic Origin

Population by race and ethnic origin 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 and ethnic origin. Differences also exist in age structure, language barriers and risks for various diseases and health conditions. Some ethnic groups are also more mobile than others.

Since new immigrants are more likely to settle in areas with existing populations from their countries of origin, race and ethnicity also influence migration patterns. National population trends indicate that persons of color and persons of Hispanic Origin are growing faster than the white population. As the population of the cluster, Waushara County, and Wisconsin continue to grow, it is also likely that the minority proportion of the population will also continue to grow. If this occurs, communities may need to compensate for the changing demographic composition. It is important that consideration be made to bring these individuals into the planning process so that these individuals not only understand local cultural norms, but also have a positive stake in our communities. Communities 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 Distribution

The planning cluster experienced a large increase in its nonwhite population between 1990 and 2000 (Appendix B, Tables B-10 and B-11). During this time frame, the number tripled from 111 to 335 individuals. In spite of this increase, whites continued to comprise an overwhelming majority of the population. The largest nonwhite group identified was other races. The number of persons who identified themselves as belonging to some other race in 2000 was 132 individuals (1.7%). Other race includes those individuals who were unwilling to identify themselves as white, African American/Black, Native American, Alaskan Native, Asian or Pacific Islander.

The planning cluster's population is less diverse than the state's population, but more diverse than Waushara County. In 2000, whites comprised 95.6% of the population in Group D communities, while they account for 88.9% and 96.8% for the state and Waushara County respectively. The Town of Marion was the least diverse community, while the Town of Dakota was the most diverse. Additionally, the City of Wautoma and Village of Redgranite had higher levels of racial diversity than the planning cluster as a whole.

Persons of African descent are the largest nonwhite racial group in the state, compromising 5.9% of the state's population. The smallest nonwhite racial group in the state is the Native American population which comprises 0.9% of the state's population. Unlike the state, persons of African descent are the smallest nonwhite racial group (0.5%) in Group D communities and Waushara County (0.3%), while other races are the most common (1.7% and 1.4%, respectively).

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 resident declared they were of two or more races. Approximately one percent of individuals in the planning cluster identified themselves as belonging to two or more races.

Ethnic Origin

In 2000, the most common ancestry identified by Group D residents was German; 36.9% of respondents claimed German heritage compared to 38.0% of county residents and 33.1% of state residents (Appendix B, Table B-12 and B-13). Persons with German ancestry ranged from 27.2% of the population in the City of Wautoma to 44.2% in the Town of Dakota. Several Group D residents (21.6%) could not identify or chose not to report their ancestry. The second most common ancestry listed was Polish. Approximately eight percent (7.9%) of residents claimed Polish ancestry. Persons of Polish descent ranged from 11.2% in the Village of Redgranite to 6.2% in the Town of Marion (Appendix B, Table B-13).

According to the 2000 Census, Hispanics are the fastest growing ethnic group in the United States. They also tend to be a relatively young population. In 2000, the median age for Hispanics was 25.8 years, compared to the U.S. median age of 35.3 years. As a result, over time they will constitute a larger share of our nation's labor force.

Hispanics currently comprise a very small segment of the county's and state's population (Appendix B, Table B-14). 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 more than doubled. At the county level, the Hispanic population increased from 379 to 848 persons between 1990 and 2000. Their overall portion of the population increased from 2.0% to 3.7%. At the state level, the Hispanic population increased from 93,194 persons in 1990 to 192,921 persons in 2000. In 1990, Hispanics comprised 1.9% of the state's population; by 2000, Hispanics comprised 3.6% of the state's population.

Growth in the population with Hispanic Origin varied within the Group D planning cluster between 1990 and 2000. The number and share of Hispanics declined in the Village of Redgranite, rose slightly in the Town of Wautoma, almost doubled in the Town of Dakota and more than doubled in the Town of Marion and City of Wautoma. By 2000, the share of population declaring Hispanic Origin within Group D communities ranged from 8.7% in the Town of Dakota to 1.3% of the population in the Town of Marion. If the Group D planning cluster is going to continue to grow through migration, it is likely that the number and percentage of Hispanics in the area will also increase, as Hispanics are becoming a larger share of the national, state and county population.

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, disability income and welfare payments (U.S. Census Bureau). 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 Income

An examination of 1999 income data indicates that the majority of household income within Group D communities, Waushara County and the state is derived from earnings. As a result, access to earning opportunities is a strong determinant in meeting the income needs of residents in all seven jurisdictions. Group D communities are less dependent on earnings than the state (Appendix B, Table 15), but earnings are still an important component of income. In Wisconsin, 80.6% of income was derived from earnings in 1999. Within the Group D planning area, the percent of income derived from earnings varied from 73.6% in the Town of Wautoma to 58.2% in the Town of Marion. At the county level, 71.4% of income was derived from earnings.

In most instances, unearned income raised the average income per household, so that average incomes per household were higher than the average earnings per household. The Village of Redgranite was unique in that it was the only one of the seven jurisdictions where the average earnings per household ($35,933) was higher than the average income ($32,753) for households (Appendix B, Table 15). Redgranite had the smallest percentage of households with earnings, 65.1%. It was also the only one of the seven jurisdictions where the percent of income from earnings (71.4%) was higher than the percent of household with earnings, which indicates that households in Redgranite with earnings likely have more buying power than those dependent on unearned income. In the remaining six jurisdictions, the percent of households with earnings ranged from 81.8% in Wisconsin to 70.5% in the Town of Marion. This data indicates that while the area is attracting retirees, job growth and employment opportunities are important to the health and wellbeing of Group D residents. This is especially true for Redgranite.

Median 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. For households and families, the median income is based on the distribution of the total number of households or families, including those with no income. A comparison of median family and median household income values between 1989 and 1999 indicate that all Group D communities, Waushara County, and Wisconsin experienced an increase in both income measures during this time period (Appendix B, Table 16). The rate of growth in median household income varied between 70.3% in the Town of Dakota to 38.8% in the Village of Redgranite. The City of Wautoma experienced the highest rate of growth in median family income of all seven jurisdictions (69.6%), while the state had the lowest rate of growth in median family income (50.8%). Within Group D communities, the Town of Wautoma experienced the lowest rate of growth in median family income, 56.2%.

These variations in the median income growth between 1989 and 1999 resulted in an increased disparity between the Group D communities. However, since all Group D communities but Redgranite experienced higher growth rates in median household incomes than Wisconsin, and all Group D Communities experienced higher growth rates in median family income, the income gap between the state and Group D communities is narrowing. Waushara County also experienced a higher rate of growth in median family and household income than the state.

In spite of these gains, the State of Wisconsin maintained higher median household and median family incomes than Waushara County and Group D communities for both years. In 1999, Waushara County had median values of $37,000 and $42,416 respectively, compared to $43,791 and $52,911 for Wisconsin. Within the Group D communities, median household income ranged from $26,726 in the Village of Redgranite to $39,185 in the Town of Wautoma; and median family incomes ranged from $34,875 in the Village of Redgranite to $44,063 in the Town of Wautoma. Only the towns of Marion and Wautoma had higher median household incomes than Waushara County; only the Town of Wautoma had a higher median family income than the county.

Per Capita Income

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. In 1989, the state had the highest per capita income, $13,276. Per capita incomes in Group D communities ranged from $9,282 in the Town of Dakota to $11,868 in the Town of Marion. Per capita income for Waushara County ($10,408) fell within the per capita income range for Group D communities (Appendix B, Table 16).

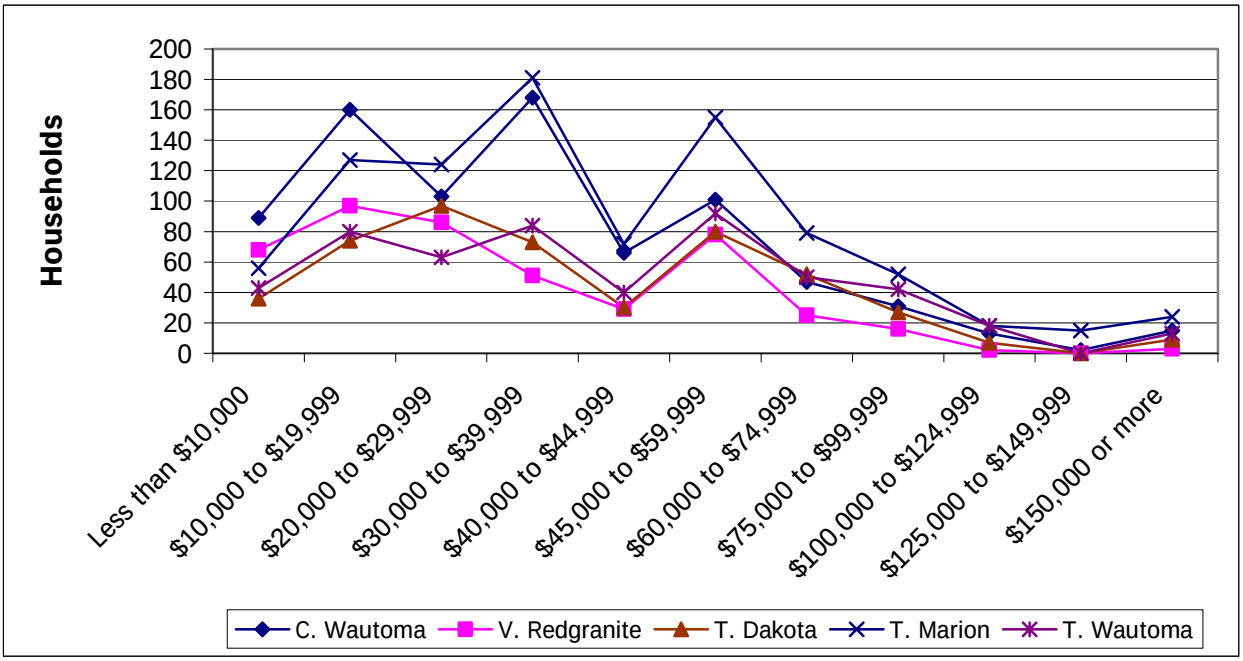
Between 1989 and 1999, per capita income growth varied widely between the Group D communities, while growth rates for the county and state fell between. All three towns experienced higher growth rates in per capita income than the city, the village and the state. Per capita income trends also varied somewhat from median household and median family incomes. Between 1989 and 1999, the percent change in per capita income ranged from 98.2% in the Town of Dakota to 47.5% in the Village of Redgranite. By 1999, the Village of Redgranite had replaced the Town of Dakota as the jurisdiction with the lowest per capita income ($13,994). The Town of Marion not only continued to maintain the highest income per capita ($21,714) within the Group D communities, the Town of Marion's per capita income growth also surpassed the state's rate of growth. By 1999, Marion had the highest income per capita of all seven jurisdictions.

Household Income By Range

While median and per capita income figures are often used to compare incomes across communities, household income by range provides a clearer picture of the distribution of income within a community, which allows communities to better target policies, programs, housing and economic development opportunities to meet the needs of their residents. Table B-17 in Appendix B 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 2.3 shows the distribution of those households. Based on the information provided to the Census Bureau, the City of Wautoma had the largest number of households with incomes below $10,000 (89) in 1999, while the Town of Dakota had the fewest households (36). The

Town of Marion had the largest number of households with incomes of $150,000 or more (24), while the Village of Redgranite had the fewest households with incomes of $150,000 or more (3).

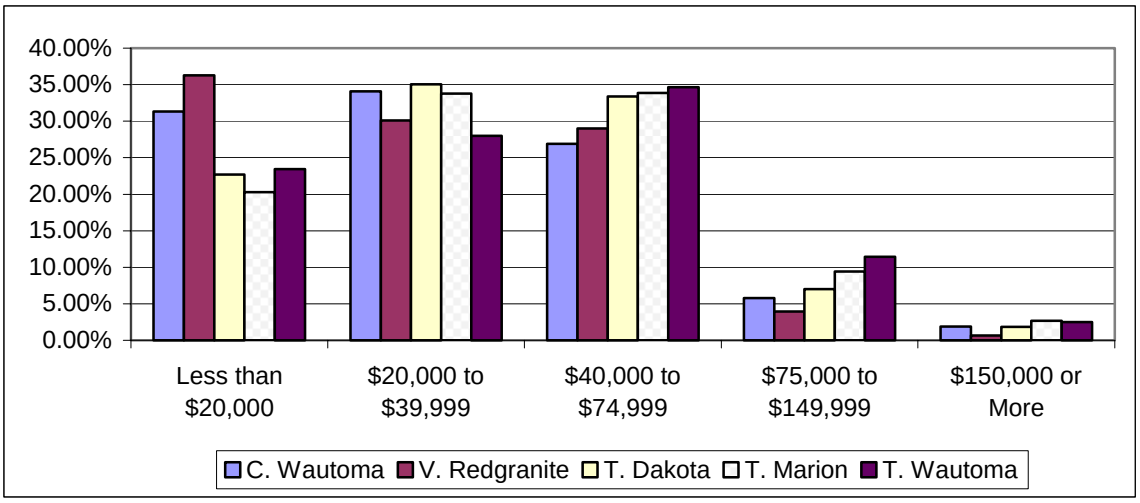
Figure 2-3. Distribution of Households by Income Range, 1999



For additional comparison and analysis, the eleven income categories presented in Appendix B, Table B-17 have been consolidated into five broader income categories and presented in Figure 2.4 as a share of total households with income. As indicated in Figure 2.3 and 2.4, each Group D community had a slightly different distribution of households by income range in 1999. In all cases, however, the overwhelming majority of households (90.3% of all households in the Group D planning cluster) reported incomes below $75,000 and 82.3% of all Group D households reported incomes below $60,000. Approximately 59% of Group D households reported income at or below the county median income ($37,000), which means that many households in the area are likely 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.

The percentage of households with incomes below $20,000, ranged from 20.3% of all households in the Town of Marion to 36.3% of all households in the Village of Redgranite, which indicates that around one fifth of households may be eligible for some form of rental assistance. In comparison, 23.1% of county households and 19.1% of Wisconsin households has incomes less than $20,000. At the other end of the spectrum, 11.7% of county households and 20.3% of Wisconsin households has incomes of $75,000 or more. While the percentage of households with incomes of $75,000 or more in Group D communities ranged from 4.6% in the Village of Redgranite to 13.9% in the Town of Wautoma.

Figure 2-4. Household Income by Range, 1999



Poverty Status

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 for the Group D communities as a whole, Waushara County, and Wisconsin. The Town of Wautoma was unique in that the number of persons living below poverty increased. However, even though the number of persons living below poverty increased in the Town of Wautoma, the percentage of persons living below the poverty threshold decreased during this time period (Appendix B, Tables B-18 and B-21).

In spite of the decline in poverty, 747 persons (9.7% of all residents) in the Group D communities still lived below the poverty line in 1999 (Appendix B, Table B-21). A larger percentage of Group D residents continued to live in poverty than either Waushara County (9.0%) or Wisconsin (8.4%). Statewide, rural residents were more likely to live in poverty than urban residents, so it is likely that distance from economic opportunities is a contributing factor in local poverty rates. Within the Group D communities, poverty rates ranged from 6.7% in the Town of Marion to 12.2% in the Town of Dakota.

Poverty by age status demonstrated rather varied trends (Appendix B, Table B-19, B-20, B-22 and B-23). On average, children were more likely to live below the poverty line than elderly resident during both time periods. In 1989, 23.4% of children in the Group D communities lived in poverty, compared to 11.2% of the elderly. In 1999, 12.3% of children in the Group D communities lived in poverty, compared to 11.3% of the elderly. 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 (Appendix B, Tables B-20 and B-23). While the number and share of elderly living in poverty was less than for children, it should also be noted that counter to the prevailing trend, the number of elderly living in poverty rose from 139 to 188 during this time period.

In 1999, 213 children in Group D communities lived in poverty, compared to 188 elderly residents. At the community level, however, elderly residents were more likely to live below poverty than children in the City and Town of Wautoma and the Village of Redgranite. The highest poverty rates for children occurred in the Town of Dakota (23.1%), while the highest poverty rates for elderly occurred in the Town of Wautoma (19.3%). The lowest poverty rates for children occurred in the Village of Redgranite (8.0%), while the lowest poverty rates for elderly occurred in the Town of Dakota (3.6%) (Appendix B, Tables B-22).

At the county level, 584 children lived in poverty 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. In general poverty rates for children were higher in planning cluster than either Waushara County (10.9%) or Wisconsin (11.2%). Only the Town of Wautoma and Village of Redgranite were significantly lower than the county and state.

Elderly poverty rates showed mixed trends when compared with Waushara County (10.8%) and Wisconsin (7.4%). Only the towns of Dakota and Marion were less than or similar to both the county and state. The Village of Redgranite (10.0%) had a higher percentage of elderly in poverty than the state, but was roughly equivalent to Waushara County. The City and Town of Wautoma had elderly poverty rates significantly higher than the county and state.

The planning cluster had a smaller percentage of families living below poverty (5.2%) in 1999 than the state (5.6%), and a similar share when compared with Waushara County (5.3%). Poverty rates for families ranged from 3.4% in the Town of Marion to 7.6% in the Town of Dakota (Appendix B, Table B-21). In all seven jurisdictions, the share of families living below poverty was less than the share of total persons living below poverty. In each of the seven jurisdictions, the number of persons between the age of 18 and 65 living in poverty was greater than the number of children in poverty, which suggests that a number of working age individuals without children live in poverty. In all jurisdictions but Redgranite, the share of persons between 18 and 65 living in poverty was less than the share of children under poverty. This indicates that Redgranite likely has a larger share of working age individuals without children living in poverty.

Most discussions regarding poverty tend to focus on children and elderly, as those 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. Economic development policies which encourage skills, training and living wage jobs could help Group D communities reduce the number of persons living in poverty.

Population Forecasts

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 depended 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. If the Group D communities continue to attract new residents as they have in the past decade, its population outside of the Redgranite Correctional Facility could very well increase by twenty percent between 2000 and 2025. (Including the prison population increases the anticipated growth rate to 31.3%.) Continued population growth 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 B-24, Appendix B 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 Group D communities review their population growth every five years to determine if communities are following anticipated trends or if growth trends are shifting.

Although it appears that the largest growth rate is anticipated in the Village of Redgranite, this growth is primarily due to the construction of the Redgranite Correctional Facility, which was not occupied at the time the 2000 Census was conducted. Since the facility is currently operational, growth over the next 20 years will likely be closer to six percent. The City of Wautoma and the Town of Marion are expected to grow faster than Waushara County and the other three Group D communities. Factors which may contribute to this higher level of growth include local amenities and the natural resource base. Within the city, access to rental and elderly housing is also expected to have a positive impact on growth. In the Town of Marion the high occurrence of seasonal dwellings which can be easily converted to permanent residences and availability of sewer is also expected to contribute to the continued in-migration of baby boomer retirees.

The Town of Dakota is the only Group D community whose population is anticipated to decrease over the projection period. The Town of Dakota has the youngest population and the largest average household size of all Group D communities. It is anticipated that the town's population will increase through 2010, then decline as children leave home and migrate to other areas for additional schooling or better employment opportunities.

Population Projections by Age Cohort

Although reliable age cohort projections at the community level are not available for Group D communities, it is possible to make assumptions based on past trends and anticipated national,

state and county trends. 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 likely cause a marked shift in the age distribution of the Group D cluster. In-migration of recent retirees coupled with the aging of the baby boom population could result in a doubling of the elderly population during the planning period.

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. In the future, Group D communities may find themselves balancing the needs of school age children with the needs of their elderly residents.

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 household 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 slow the rate of growth or increase 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% between 2000 and 2030. Within the Group D planning cluster, the increase in the number of households is expected to range from 42.0% in the Town of Marion to 6.9% in the Town of Dakota. In total, the Group D cluster is expected to gain 986 new households (Appendix B, Table B-26).

The increase in the number of household is expected to result from in-migration of new households and a continued decrease in household size, as new households are formed within the existing population when those households split into two or more households. One major factor 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.

INTERRELATIONSHIPS WITH OTHER COMPREHENSIVE PLAN ELEMENTS

Economic Development

The aging of our population brings opportunities and challenges to the area. If current migration trends hold true, Group D communities will likely continue to attract retiring baby-boomers. Many of these individuals may have personal wealth and/or good retirement incomes. A larger population also will likely drive the need for additional goods and services. At the same time, Group D communities have a small, but growing number of persons age 65 and older living in poverty. 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 health care 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 Group D communities. All Group D communities but Marion have a higher percentage of persons in poverty than the state. As a result, communities should work together to build and attract living wage employment opportunities.

Housing

Additional housing will be needed to meet the anticipated increases in households, the needs of seasonal residents and changing demographics 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 conversion of seasonal to year round residences is anticipated. Existing homes may need remodeling or rehabilitation to meet changing needs. Communities can anticipate a need for housing for singles, young families and workforce housing. Additionally, a variety of elderly housing and housing for disabled must be provided. Some elderly or disabled individuals may wish to live in their existing home. In some instances, remodeling or rehabilitation will be necessary for these individuals to remain in their homes. Other individuals may choose 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. Furthermore, housing costs appear to be rising faster than incomes within the area. As a result, more attention must be paid to meeting affordable housing needs. Housing can be made more affordable by increasing incomes, subsidizing the cost of existing housing or building housing which is more in line with local incomes.

Transportation

As communities grow, roads and other infrastructure will be needed to access the additional housing, commercial, public and industrial buildings that will 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 addressing alternative transportation needs and desires. Increased access to bicycle and pedestrian facilities could provide viable, cost-effective transportation options for residents, recreational opportunities and may help alleviate some of the increased traffic congestion. 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 health care professionals, shop for groceries, and complete other day-to-day errands.

Community and Public Facilities

As population demographics change, the overall needs of the community also change. A growing elderly population, for example, may increase the need for additional health care or adult day care 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 seasonal residences may increase the need for police or fire protection. In the future, Group D communities will most 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. Communities will also need to balance the demands and needs of the year-round and seasonal populations with the costs of those facilities and services. Ideally, these 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 communities determine appropriate levels of service for fire response, 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 meet.

Agricultural Resources

Traditionally many of the farms in the planning area 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 members of younger generations are showing an interest in farming due to increased operational costs and more stringent regulations. As the population base 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 Group D communities, they should consider ways to reverse the decline in agriculture. Reliance on locally produced agricultural products would support the local agriculture and food products sectors and ensure their continued operation, affordability and access. New farming methods, programs and regulations could help meet anticipated increase in food demands.

Natural Resources

The critical question with respect to natural resources is how will an expanding population base affect the protection and preservation of natural resources. The increased demand for housing, commercial and industrial establishments will require the development of new land throughout Waushara County. The abundance of wetlands, trout 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 the planning area will need to be identified so that transportation and construction costs can be minimized.

Cultural Resources

Waushara County is rich with well-preserved historical, archeological, and cultural sites, which provide information about previous Native American and European settlements. Many buildings or areas also have significant religious or cultural meaning. While some Group D sites are listed on the historical register, others are not. 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 the historical architectural styles into modern construction to enhance the local cultural features and preserve community character.

The latest Census data indicates that the overall population of Waushara County, Wisconsin and Group D communities is becoming more diverse. Several populations of Amish have lived in Waushara County for many years. New nonwhite immigrants are arriving in Wisconsin each year. Additional policies and community services should be provided to meet the basic needs of these populations and to bridge cultural divides that cause conflict between residents.

Land Use

Additional land will be converted to residential, commercial/industrial and public/institutional land uses to accommodate the anticipated increase in population. These changes could significantly alter the pattern of existing development and community character. These changes could also place pressure on natural, cultural and agricultural resources and create conflict between land uses. Local governments must recognize the relationship between the density of settlement and amount and location of land consumed if they are to 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 urban and suburban uses. Either option will impact local communities. Dense patterns which stress infill and mixed use design will create a more traditional small town feel in the city and village, but could create a more urban feel to the towns in the planning area. Low density, auto-dependent development in the rural towns or on the edge of the incorporated communities will lead to increased sprawl and the degradation of a portion of the natural resource base. Regardless of the choice, new development and land use patterns must allow for easy access to needed services and infrastructure.

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 different missions and different 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 Polices

East Central Wisconsin Regional Planning Commission. East Central Wisconsin Regional Planning Commission is currently developing a regional comprehensive plan. As part of this 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 locate? 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.

This goal is consistent with the area's vision for the future 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 analyses 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 Agency. 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 3: ECONOMIC DEVELOPMENT

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ECONOMIC DEVELOPMENT

INTRODUCTION

Planning for economic development is an on-going process in which a community 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.

Economic Development Vision for 2025

The City of Wautoma and Village of Redgranite have been successful in attracting several small businesses to their industrial parks. The employment opportunities they provide and the competitive wages they offer have helped retain younger members of the work force and are serving to keep more dollars in the local economy. This in turn has enabled the area's retail base to expand and become more diverse. Both downtowns are thriving and few vacant storefronts exist. Area residents, however, still need to travel to larger urban centers for many of their shopping needs. With an overall population base still too small to generate adequate sales volume to attract most "big box" retailers, several local merchants have successfully expanded their operations and product lines.

INVENTORY AND ANALYSIS

Some components of the area's economy are presented in this chapter to better help understand the state of the economy in the Group D Planning Cluster communities. Characteristics reviewed in this element include educational attainment, employment and unemployment levels, and a look at the area's economic base.

Educational Attainment

Table C-1 (Appendix C) presents educational achievement information for residents 25 years of age or older. The 2000 data indicates that Waushara County (78.80%) as well as all of the communities in the Group D Cluster continue to have a lower percentage of high school graduates than the state (85.09%). Group D communities ranged from a high of 84.72% for the Town of Marion to a low of 66.07% for the Village of Redgranite, which had the lowest high school graduation rate of any municipality in the county. This trend continues beyond high school. While 22.42% of state residents have completed four or more years of college, these percentages ranged from a high of 15.28% in the Town of Marion and 14.45% in the City of Wautoma to a low of only 3.59% in the Village of Redgranite.

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. The results of this study demonstrate that there is a definite link between earning potential and education. Greater educational attainment is a goal all of Wisconsin should be striving toward. Since the municipalities in Waushara County with the highest levels of educational attainment tend to have extensive lakefront development, it may be indicative that many of the county's best educated residents have relocated to the county upon

retirement. Similarly, these numbers suggest there may be an apparent lack of job opportunities in the area to retain or attract better educated members of the workforce.

Labor Force

Labor force is one 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 between 1990 and 2000 the labor force grew at a faster rate than the overall population of the state, Waushara County and, with the exception of the Town of Marion, the Group D Planning Cluster. (Table 3-1; Table C-2, Appendix C). Particularly impressive was the Village of Redgranite, which added 93 people to its labor force (23.48% increase) despite increasing by only 31 residents (3.07% increase). On the other hand, the Town of Marion, which experienced the most rapid population growth (39.72%), had its labor force grow at a slower rate (35.59%) than its population. This anomaly can perhaps largely be explained by the influx of retirees moving into the community.

Table 3-1. Population and Labor Force, 1990 to 2000

	Population			Labor Force		
	1990	2000	% Change	1990	2000	% Change
C. Wautoma	1,784	1,998	12.00%	761	901	18.40%
V. Redgranite	1,009	1,040	3.07%	396	489	23.48%
T. Dakota	1,092	1,259	15.29%	477	598	25.37%
T. Marion	1,478	2,065	39.72%	680	922	35.59%
T. Wautoma	1,088	1,312	20.59%	514	649	26.26%
County	19,385	23,066	18.99%	8,717	11,279	29.39%
State	4,891,769	5,363,704	9.65%	2,517,238	2,869,236	13.98%

Source: US Census, 1990 and 2000

In 1990, employment rates by community ranged from 84% in the Village of Redgranite to 95% in the Town of Marion (Table C-3, Appendix C). Overall, 93% of Waushara County's labor force was employed, compared to 95% for the state. Women were more likely to be employed than men in the towns of Dakota and Wautoma, Waushara County and the state. In the remaining communities, men had a higher employment rate than women.

By 2000, employment rates had risen in the Village of Redgranite, the Town of Dakota, Waushara County and the state (Table C-4, Appendix C). Between 1990 and 2000, the largest increase occurred in the Village of Redgranite (84.34% to 91.21%), while the largest decrease was experienced by the City of Wautoma (92.51% to 88.57%). Women were more likely to be employed than men in the county, state and the towns of Dakota and Marion, while men were more likely to be employed in the City of Wautoma, Village of Redgranite and the Town of Wautoma.

Unemployment rates, however, were also high relative to the county and state. In 1990, the Village of Redgranite clearly was struggling and by 2000 there was some improvement. This was the case for the Town of Dakota as well. In the City and Town of Wautoma, unemployment increases during this time indicate that perhaps by 2000 the recession had already begun in these communities. More recent unemployment rates are available from the Wisconsin Department of Workforce Development. Table 3-2 shows that the consequences of the recession were present at the county and state level between 2000 and 2003.

Table 3-2. Annual Average Unemployment Rates

	2000	2001	2002	2003
Waushara County	4.6%	5.8%	6.6%	6.7%
Wisconsin	3.6%	4.5%	5.5%	5.6%

Source: Wisconsin Department of Workforce Development, LAUS Benchmark and Estimates, Report

Economic Base Information

The composition and types of employment in the county and in the Group D Cluster provides a snapshot description of the economic base in the area. Table 3-3 shows employment information by occupation and by industry for 2000. The table indicates that the Education, Health, and Social Services sector and Manufacturing sector employed the greatest share of Group D workers. While these two sectors employed the largest percentage of Group D workers, the share of workers that each sector garnered varied notably between communities, the county and the state. Employment in the Manufacturing sector ranged from a high of 35.5 percent for Village of Redgranite to a low of 12.5 percent for the Town of Wautoma. In comparison, this sector employed about 22 percent of the workforce in Waushara County (22.1%) and the state (22.2%). Employment in the Educational, Health and Social Services sector varied from a high of 24.8 percent for the City of Wautoma to a low of 15.7 percent for the Village of Redgranite. The percentage of county workers (17.9%) employed in this sector was less than the share of state workers (20%).

The Information sector, which is composed of publishing, telecommunications, data processing, and other like industry groups, and Financial Services sector employed the fewest workers in the cluster, county and state. Less than two percent of the workers within the cluster and county were employed in this sector, compared to slightly more than two percent for the state. The positive aspect of this distribution is that, in general, the manufacturing sector pays higher wages than most service industries. The negative aspect is that the manufacturing sector tends to be severely impacted by recessions, which is particularly painful for most Wisconsin communities.

Table 3-3. Employment by Occupation and Industry

	C. Wautoma	V. Redgranite	T. Dakota	T. Marion	T. Wautoma	Waushara County	Wisconsin
OCCUPATION							
Management, professional, and related occupations	23.7%	13.2%	18.9%	29.8%	27.9%	23.5%	31.3%
Service occupations	18.3%	18.8%	19.6%	13.9%	19.2%	16.1%	14.0%
Sales and office occupations	22.2%	22.0%	22.7%	21.8%	25.6%	21.4%	25.2%
Farming, fishing, and forestry occupations	1.6%	1.3%	1.6%	1.6%	1.7%	2.9%	0.9%
Construction, extraction, and maintenance occupations	5.0%	9.4%	8.9%	11.9%	10.5%	11.1%	8.7%
Production, transportation and material moving occupations	29.2%	35.2%	28.2%	20.9%	15.1%	25.0%	19.8%
INDUSTRY							
Agriculture, forestry, fishing and hunting, and mining	1.9%	2.7%	2.3%	5.0%	5.4%	7.1%	2.8%
Construction	6.9%	5.2%	8.0%	8.7%	5.5%	8.1%	5.9%
Manufacturing	19.4%	35.2%	20.7%	18.1%	12.5%	22.1%	22.2%
Wholesale trade	4.6%	2.7%	6.6%	3.0%	4.5%	3.1%	3.2%
Retail trade	11.8%	10.8%	11.8%	9.9%	12.2%	10.4%	11.6%
Transportation, warehousing and utilities	3.3%	5.6%	4.3%	7.0%	7.2%	5.9%	4.5%
Information	1.6%	1.6%	1.4%	1.3%	0.3%	1.3%	2.2%
Finance, insurance, real estate, rental and leasing	2.8%	4.3%	2.0%	4.2%	5.0%	3.8%	6.1%
Professional, scientific, management, administrative, and waste management services	5.8%	1.6%	3.6%	3.7%	4.2%	3.7%	6.6%
Educational, health and social services	24.8%	15.7%	16.6%	20.6%	22.1%	17.9%	20.0%
Arts, entertainment, recreation, accommodation and food services	8.6%	5.8%	8.8%	7.5%	5.7%	7.5%	7.3%
Other services (except public administration)	4.6%	4.7%	7.1%	5.5%	6.5%	4.4%	4.1%
Public administration	3.9%	4.3%	6.8%	5.6%	8.9%	4.6%	3.5%

Source; U.S. Census, 2000.

Table 3-4 on the following page, shows that two of the top five employers were in the Manufacturing sector. This list also indicates that the Redgranite prison and three school districts provide a large share of public sector employment. The largest employers in Waushara County in 2004 were the County and the Department of Corrections, each employing between 250 to 499 employees. Other employers providing work for over 100 workers included Jason, Inc., Fleet Guard, Inc., Plainfield Trucking, Inc., The Copps Corporation, and the Wild Rose, Wautoma and Tri-County school districts. Care for the elderly is provided by three of the top 20 employers (Wisconsin Illinois, Cooperative Care, and Heartland Preston, Inc.

Table 3-4. Top 20 Public and Private Employers in Waushara County

Employers	Industry/Product/Service	Range of Employees
Waushara County	Executive, Legislative offices Combined	250-499
Department of Corrections	Correctional Institutions	250-499
Jason Inc.	Motor vehicle seating, interior trim manufacturing	100-249
Fleet Guard, Inc.	All other general purpose machinery manufacturing	100-249
Wild Rose Public School	Elementary and public schools	100-249
Wautoma Public School	Elementary and public schools	100-249
Tri-County Area School	Elementary and public schools	100-249
Plainfield Trucking, Inc.	General freight trucking, local	100-249
The Copps Corporation	Supermarkets and other grocery stores, except convenience stores	100-249
Wild Rose Community Memorial	General medical and surgical hospitals	50-99
Wisconsin Illinois	Senior Nursing care facilities	50-99
G R Kirk Co.	Nursery and tree production	50-99
Phoenix Coaters LLC	Metal coating/engraving	50-99
Silvercryst Inc.	Full service restaurant	50-99
Paramount Farms	Potato Farming	50-99
Cooperative Care	Services for the elderly and disabled	50-99
Yellow Thunder Corp.	Other building material dealers	50-99
Especially For You, LTD	All other misc. wood product mfg.	50-99
RMeal LLC	Full service restaurant	50-99
Heartland Preston Inc.	Homes for the elderly	50-99

Source: Wisconsin Department of Workforce Development, 2004.

Location of Workplace

Location of workplace data provides information on the direction and distance residents have to travel to find employment. Table C-6 (Appendix C) includes the Top 20 workplace destinations for Waushara County residents. According to the U.S. Bureau of Census data, the majority of Group D residents worked in Waushara County in 1990. Among the Group D communities, the Town of the Wautoma (80.8%), the City of Wautoma (78.75%), and the Town of Dakota (72.24%) had the highest percentage of their residents working in Waushara County. Furthermore, over half of the workforce in the City of Wautoma (72%) and Town of Wautoma (54%) work in the City of Wautoma. In comparison, while more residents from the remaining communities worked in Waushara County than any other location, they were less likely to work in the City of Wautoma than elsewhere in the county. Over 40 percent of residents of the Village of Redgranite (49.23%), the Town of Marion (45.03%) and the county (41.29%) commuted to jobs outside the county.

Green Lake County was the second most popular workplace destination for all but the Town of Wautoma and Waushara County. About 25 percent (24.62%) of the Village of Redgranite residents worked in Green Lake County, the majority of these within the City of Berlin. The share of workers commuting to Green Lake County dropped off for the remaining communities and the county. Fifteen percent (15.53%) of the Town of Marion workers commuted to Green Lake County compared to eight percent (7.53%) in the Town of Dakota, six percent (6.84%) in the City of Wautoma, four percent (3.59%) in the Town of Wautoma and 10 percent (9.79%) in

the county. The Appleton-Oshkosh MSA also attracted a significant percentage of workers and the second highest share of county residents (9.99%). Approximately 16 percent (15.69%) of the residents in the Village of Redgranite, 11 percent (11.49%) in the Town of Marion, and four percent in the Town of Dakota (4.24%) and the City of Wautoma (4.08%) worked in the Appleton-Oshkosh MSA.

Table C-7 (Appendix C) is organized to provide a comparison between the 1990 and 2000 data. In 2000, the location of workplace somewhat mirrored the information from 1990, but showed an increasing dependence on employment locations outside Waushara County. While the largest share of residents from the county and most Group D communities continued to work in Waushara County, this percentage fell in all communities including the county between 1990 and 2000. In 2000, about three quarters of the workers living in the City of Wautoma (76.96%) and the Town of Wautoma (73.90%) and two-thirds of those living in the Town of Dakota (66.24%) continued to work in Waushara County. In contrast, over half of Redgranite's workforce (57.91%) and nearly half of those in the Town of Marion (48.53%) and the county (47.08%) as a whole commuted to locations outside the county in 2000.

Green Lake County and the Appleton-Oshkosh MSA continued to be popular non-county workplace destinations for Group D communities and Waushara County residents. The primary change is that work destinations in the Appleton-Oshkosh MSA nearly doubled between 1990 and 2000 countywide (797 to 1,490) while Green Lake County as a workplace destination increased at a more modest 19 percent (781 to 928). Among Group D communities, these two destinations represented over 40 percent of the workforce in Redgranite (42.3%) and a quarter in the Town of Marion (25.7%). For Waushara County as a whole, 23.7% of all residents traveled to either the Appleton-Oshkosh MSA or Green Lake County for employment in 2000 compared to 19.8% in 1990. Generally, municipalities nearest the east county line or the City of Berlin have the highest levels of non-county work destinations.

A recent special tabulation by the U.S. Census Bureau provides journey to work data to the Minor Civil Division (MCD) level for all workplace destinations. That information indicates that in 2000, the top workplace destination for residents from the City of Wautoma, towns of Dakota, Marion and Wautoma and Waushara County was the City of Wautoma, while within the Village of Redgranite the top destination was the village (Table 3-5). Within the various communities, the breakout of the top five destinations was similar; the cities of Wautoma and Berlin and the community itself, were part of the top five in all communities and the county. The City of Oshkosh was included as one of the top five for the Village of Redgranite, Towns of Marion and Wautoma, and Waushara County.

Table 3-5. Top 5 Destination Workplaces, 2000

Place of Residence	Place of Work	Number of Employees	Percent of Workers in Sample
C. Wautoma	C. Wautoma	442	55.95%
	T. Wautoma	52	6.58%
	C. Berlin, Green Lake Co.	43	5.44%
	V. Redgranite	24	3.04%
	V. Plainfield	22	2.78%
	Top 5 Totals	583	73.79%
V. Redgranite	V. Redgranite	97	22.56%
	C. Oshkosh	79	18.37%
	C. Berlin, Green Lake Co.	70	16.28%
	C. Wautoma	43	10.00%
	C. Ripon, Fond du Lac Co.	38	8.84%
	Top 5 Totals	327	76.05%
T. Dakota	C. Wautoma	189	34.30%
	T. Wautoma	57	10.34%
	C. Berlin, Green Lake Co.	35	6.35%
	T. Dakota	33	5.99%
	V. Wild Rose	22	3.99%
	Top 5 Totals	336	60.97%
T. Marion	C. Wautoma	194	22.74%
	C. Berlin, Green Lake Co.	98	11.49%
	T. Marion	84	9.85%
	T. Wautoma	56	6.57%
	C. Oshkosh	39	4.57%
	Top 5 Totals	471	55.22%
T. Wautoma*	C. Wautoma	181	30.68%
	T. Wautoma	165	27.97%
	V. Wild Rose	38	6.44%
	C. Berlin, Green Lake Co.	14	2.37%
	C. Oshkosh	13	2.20%
	C. Waupaca	13	2.20%
	Top 5 Totals	411	69.66%
Waushara County	C. Wautoma	1,661	16.28%
	C. Berlin, Green Lake Co.	696	6.82%
	C. Oshkosh	686	6.73%
	V. Wild Rose	612	6.00%
	T. Wautoma	525	5.15%
	Top 5 Totals	4,591	40.98%

Source: U.S. Census, 2000.

Travel Time to Work

Travel time to work provides information about the time residents spend commuting to work. On an average, residents from the Group D communities, Waushara County and the state spent less than 30 minutes traveling to and from work in 1990 and 2000. In 1990, average commute times for Group D communities ranged from 15.3 minutes for residents of the City of Wautoma to 25.1 minutes for residents of the Town of Marion. County residents traveled an average of 21.8 minutes to work, while state residents traveled an average of 18.3 minutes to work (Table 3-6).

Table 3-6. Mean Travel Time to Work, 1990 and 2000

Jurisdiction	1990	2000
C. Wautoma	15.3	19.7
V. Redgranite	21.8	27.2
T. Dakota	20.6	26.6
T. Marion	25.1	26.3
T. Wautoma	17.0	21.7
Waushara County	21.8	27.1
Wisconsin	18.3	20.8

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

Between 1990 and 2000, average commute times rose for all jurisdictions, with the Town of Dakota experiencing the largest increase in average commute times (Table C-8, Appendix C). On an average, commute time for Town of Dakota residents increased by six minutes, rising from 20.6 minutes to 26.6 minutes. The Town of Marion and the state experienced the smallest increase in commute times, 1.2 and 2.5 minutes respectively. In 2000, average commute times for Group D residents ranged from 19.7 minutes for the City of Wautoma to 27.2 minutes for the Village of Redgranite. County residents traveled an average of 27.1 minutes, while state residents traveled an average of 20.8 minutes to work.

Generally, the increase in average commute times resulted from a decrease in the share of residents working at home or traveling shorter distances to work and an increase in the number of commuter trips lasting 30 minutes or longer. For example, the share of Town of Dakota residents working at home and traveling less than five minutes decreased from 20 percent in 1990 to nine percent in 2000, while the share of town residents traveling more than 30 minutes increased from 24 percent to 34 percent. This indicates that residents collectively had to travel further away from home to obtain adequate employment and/or wages.

Employment Forecast

The Wisconsin Department of Workforce Development calculates employment projections for the various industries and occupations for the State of Wisconsin.[1] These projections are completed on a statewide basis and growth is expected in all industries. It is anticipated that

[1] Wisconsin Department of Workforce Development, 2002. Wisconsin Detailed Industry Employment Projections, 2002 – 2012.

the largest increases will be seen in the Education and Health and Social Services sector. Educational Services, which makes up part of this sector, includes all public and private elementary, secondary and post-secondary schools. Also included is Ambulatory Health Care, which includes offices of physicians, dentists, and other health-care practitioners as well as home health care. While the state is expected to see the highest increases in this area, employment in Waushara County may differ. According to the various school districts serving the county, enrollment is declining. This enrollment decline may be the result of limited work opportunities for county residents, an aging population, and a subsequent loss of residents with children in the school district. Education sector employment is unlikely to increase if enrollments continue to drop.

Industrial Park Information

There are three industrial parks in the Group D area. These parks collectively encompass 86 acres, 30 of which are still available. Table 3-7 contains more information about these industrial parks. As these parks become full, it is important that Group D communities plan for future industrial and business sites. Communities should consider the needs of existing as well as future industries and businesses they wish to attract, identifying what location, infrastructure and space needs will be required. In some instances, existing parks may need to be expanded while in others, additional sites may be more appropriate. In most instances, an area where infrastructure is already in place is the most cost efficient choice for the community.

Table 3-7. Industrial Parks Group D

Community Name	V.Redgranite	C.Wautoma	C.Wautoma
Name of Business/Industrial Park	Redgranite Industrial Park	South Industrial Park	Southeast Industrial Park
Location of Park	CTH EE	E.Chicago Rd.	S.Townline Rd.
Contact Person	Donna Berube	Russell M. Nero	Russell M. Nero
Phone Number	(920) 566-2381	(920) 787-4044	(920) 787-4044
Type of Park	Industrial	Industrial	Industrial
Total Acreage	10.2	19	45
Acreage Available	10.2	0	8
Parcel Size Available			
Minimum Acreage	1.0	Unknown	4
Maximum Acreage	10.2	Unknown	Unknown
Purchase Cost (per acre)	Negotiable	Unknown	$4,000
Ownership	Municipal	Municipal	Municipal
Zoning	Industrial	Industrial	Industrial
Adjacent Land Uses			
North	Residential	Commercial	Commercial
South	Treatment Plant	Residential	Residential
East	Agriculture	Agriculture	Agriculture
West	Mixed Uses	Residential	Residential
Park Features			
Acres Available for Expansion	40	None	8 Acres
Fire Insurance Classification	5	5	5
Protective Covenants	No	No	No
Soil Borings	No	No	No
Floodplain	No	No	No
Topography	Level to sloping	Level	Rolling
Foreign Trade Zone	No	No	No
Development Zone	No	No	No
Paved Street to Park	Yes	Yes	Yes
Curb/Gutter to Park	No	No	No
Utilities			
Electricity	Alliant Utilities	Alliant Utilities	Alliant Utilities
Water	Available	Municipal Utility	Municipal Utility
Gas	Avail/Not Installed	WI Gas Company	WI Gas Company
Sanitary Sewer	Adjacent	Adjacent	Adjacent
Storm Sewer	Not Available	Not Available	Not Available
Fiber Optics Service	Unknown	Not Available	Not Available
Digital Switching	Unknown	Not Available	Not Available
Transportation			
Nearest Commercial Airport	Oshkosh (Wittman Field)	Oshkosh (Wittman Field)	Oshkosh (Wittman Field)
Distance to Airport	30 miles	36 miles	36 miles
Nearest Local Airport	Wautoma Municipal Field	Wautoma Municipal Field	Wautoma Municipal Field
Distance to Airport	14 miles	1 mile	1 mile
Longest Local Runway	3,600	3,600	3,600
Nearest Major Highway	I-39, STH 21	STH 21, STH 22, STH 73	STH 21, STH 22, STH 73
Distance to Highway	30, 1	1 mile	0.25 miles
Number of Lanes of Highway	4, 2	2	2
Rail Service	Not Available	Not Available	Not Available
Rail Spur	No	No	No
Port Service	Not Available	Not Available	Not Available
Location of Port Service	Not Available	Not Available	Not Available

Source: ECWRPC *Updated July 2003*

Business Retention and Attraction

Waushara County, in partnership with Marquette and Green Lake Counties, recently formed the Tri-County Regional Economic Development Corporation (TCREDC). The TCREDC has a 6-member volunteer board of directors and a full time 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. 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 Wautoma Industrial Development Corporation, located in the City of Wautoma, works on business recruitment and is the follow-up contact for the City of Wautoma's industrial parks. Both the Redgranite Economic Development Committee and the Wautoma Industrial Development Corporation are volunteer-based. Appendix C contains a listing of economic development organizations and groups present in the county.

The Group D Cluster has little or no staff to engage in the activities listed below. However, the Tri-County Regional Development Corporation and the Waushara County Economic Development Corporation will, in certain instances, be able to offer assistance in some of these areas.

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 existing 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 Development Opportunities

Future economic development in the Group D planning cluster will most likely occur primarily in the City of Wautoma, the Village of Redgranite and along the STH 21/73 corridor. These areas currently have existing infrastructure that should be adequate to accommodate future development without the need to construct additional facilities. Building vacancies are present in the downtown areas of both the city and the village. New development in these locations should preserve the historic significance and character of the downtown areas. Industrial development should continue to be directed towards one of the existing industrial parks.

Within the City of Wautoma, future commercial development should generally be directed to the downtown area, the STH 21/73 corridors, East Division Street and the Plaza Road area. Industrial development should be directed towards the industrial park and South Pickle Row area.

Future commercial development within the Village of Redgranite should generally be directed toward the downtown area as well as areas adjacent to STH 21 where existing commercial development exists. Industrial development should be encouraged to develop in the village's industrial park.

Commercial development within the towns of Marion, Dakota and Wautoma should be within areas that can be served by sanitary sewer. These areas are predominately near the City of Wautoma and along STH 21/73.

Two Tax Incremental Finance Districts (TIF Districts) exist in the City of Wautoma and the Village of Redgranite. In 1998, two TIF districts were created in the village to spur development. TIF #1, formed to encourage both residential and commercial development, encompasses the area along STH 21 from the eastern boundary of the village to approximately the Kwik Trip gas station on the western edge. TIF #2 was created to encourage business development in the village industrial park, and is located across from the prison.

Within the City of Wautoma, TIF #1 was created to redevelop a blighted area near a former school and to encourage industrial development in the city. This TIF district basically encompasses an area that includes Pickle Row, the former Dafoe School site west of Northwestern Avenue, East Division Street, and the city industrial park (south of Division Street) south of STH 21/73. The TIF district also extends north of STH 21/73 and includes the area near E. Plaza Road. TIF #2 was created for industrial development and is located on the western edge of the city. This TIF basically includes the area north of W. Cummings Road, west of STH 21/22 and the Wautoma Millpond, and east and north of the city limits.

Remnants from the red granite mining era can still be seen in the Village of Redgranite and the surrounding area. This includes the historic buildings in the downtown area, abandoned machinery in the former quarry, the Bannerman Trail (the former railroad spur that was used to transport stone from Redgranite and the other quarries in the area to the through rail line near Neshkoro); and the abandoned quarries at Redgranite, Lohrville, Spring Lake, Flynn's, Glen Rock, and Neshkoro. Restoring these historic features and sharing the heritage of the area with future generations is a potential economic stimulus that the village, county and the other municipalities in the area should explore. Since the red granite heritage encompasses the

entire area, restoration and development of this legacy should be a joint effort between the municipalities and 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 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 downtown 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 will enable communities to develop business parks with high quality buildings and businesses. Covenants will also serve to protect the investments of businesses that choose to locate in these parks.

Infill and Brownfield Redevelopment

For commercial and industrial uses, Waushara County should complete and maintain an inventory of existing vacant buildings and land identified as potentially contaminated (brownfield) with industrial or petroleum-based pollutants. This information can be used to encourage infill development and redevelopment opportunities that takes advantage of existing infrastructure and services and removes blight created by vacant and dilapidated buildings and parcels. Once identified, brownfields should be cleaned and promoted for redevelopment through the use of state and federal brownfield cleaning funds. A listing of brownfields and contaminated sites is available from the Wisconsin Department of Natural Resources Bureau for Remediation and Redevelopment. A tracking feature is available at their website: http://botw.dnr.state.wi.us/botw/Welcome.do. This website lists approximately 60 entries for the Group D Planning Cluster. About one-third of the entries are spills and/or leaking underground storage tanks located in the City of Wautoma. The location of some of these sites may actually be in the Town of Wautoma. The Village of Redgranite has 20 entries, the Town of Marion has four and the Town of Dakota has two.

Funding resources for remediation of contaminated sites are listed at the end of the chapter. To prevent future environmental damage, the communities in the Group D Planning Cluster 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.

INTERRELATIONSHIPS WITH OTHER COMPREHENSIVE PLAN ELEMENTS

Housing

Economic growth will generate more jobs and, consequently, create 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 such as retail, leisure and hospitality, and accommodation and food services and pay remains at or near 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 in the state is a major 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 the downtown areas of Wautoma and Redgranite may value on-street parking and pedestrian accommodations more than businesses further out on STH 21 and 73. Transportation safety has also been identified as an issue in the downtown areas of Wautoma and Redgranite. Customers are less likely to utilize a store or area where traffic volume and speed hamper accessibility.

Community and Public 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 other 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. More recently, 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. As more and more farms are converted out of farming and into other

uses, one of the many challenges facing Waushara County and the state is the preservation of prime agricultural soils and the farming industry. Additionally, the future of family farms is a concern as fewer and fewer children are choosing to take over farming operations. Reasons given for this include the inability to make a living solely from farming, time, and cost of entry. 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 certain 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 late 1800s and early 1900s can be found in the downtown areas of both the City of Wautoma and the Village of Redgranite. These buildings, along with the homes and artifacts tell the story of 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 this county. While the promotion of economic development is important, special care must be taken to preserve the character and integrity that defines 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. Restoring and supporting the downtown areas of the Village of Redgranite and the City of Wautoma is important to the communities and the area. 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. A business in the Town of Wautoma may employ workers from the towns of Dakota and Marion, who in turn buy gas and groceries in the City of Wautoma. This business may also generate a support industry in the Village of Redgranite. 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, forest products, and tourism.

POLICIES AND PROGRAMS

Regional, County and Local Policies

Regional

East Central Wisconsin Regional Planning Commission. East Central is currently working on a regional comprehensive plan. As part of this planning effort, East Central has proposed five draft 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.

These goals are consistent with the Group D Cluster's vision for the future to expand and stabilize the current economic base, increase the awareness of collaborative economic activities, create better relationships between business and the educational sector, encourage planning to guide economic development, promote the economic benefits of our natural resources and amenities, and collaboratively work to increase the viability of farming in the county.

NorthEast Wisconsin (NEW) Economic Opportunity Study. Waushara County participated in the NEW Economic Opportunity Study. 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, 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 produce power for local foundries with other users to be considered. The study suggests collaboration on a food production and processing, safety, and packaging cluster. The cultivation of small specialty and organic crops and livestock should be expanded for farmers in this area.

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 local catalysts 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, conduct training for rural managers and entrepreneurs, establish business support centers, conduct economic development planning, and provide 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 and 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 to acquire the needed technical skills for high skill occupations having 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 these 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 and the ADM is Deb Clements. 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 Downtown Development. Communities are selected to participate on an annual basis and are judged on a submitted application. These communities receive the 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.state.wi.us/CD/CD-bdd-overview.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/state.wi/us/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://www.commerce.state.wi.us/MT/Mt-FAX-0806.html.

Early Planning Grant Program (EPG). This EPG program is designed to encourage and stimulate the start-up, modernization, and expansion of small businesses. Grants may be used only to cover the costs of having an independent third party provide professional services. These services include the preparation of a comprehensive business plan that is necessary to secure initial business financing. Businesses with fewer than 50 employees are eligible for funding. Specific grants can be obtained for businesses specializing in automation, agricultural or food products, biotechnology, manufacturing, medical devices, paper or forest products, printing, tourism, and child care. Grants provide a 75% match of up to $3,000. Additional information regarding the EPG program can be found at the following website: http://www.commerce.wi.gov/BD/Mt-FAX-0809.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://www.commerce.wi.gov/MT/Mt-FAX-0810.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://www.commerce.wi.gov/BD/Mt-FAX-0820.html.

Customized Labor Training Program (CLT). The CLT program provides a matching grant to assist companies that 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://www.commerce.wi.gov/BD/Mt-FAX-0802.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://www.commerce.wi.gov/BD/Mt-FAX-0808.html.

Business Employees' Skills Training Program (BEST). The BEST program helps small business 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 or food products, biotechnology, manufacturing, medical devices, paper or forest products, printing, tourism, or child care. All training must be provided by a independent third party. Information regarding the BEST Program can be found at http://www.commerce.wi.gov/BD/Mt-FAX-0819.html.

Industrial Revenue Bond. 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://www.commerce.wi.gov/CD/CD-BED-irb.html.

Transportation Economic Assistance (TEA) Program. The state-funded Transportation Economic Assistance (TEA) program provides fast track 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

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. The CDBG-Blight Elimination and Brownfield Redevelopment Program can help small communities obtain money for environmental assessments and remediate brownfields. Contact Joe Leo, 608/267-0751.

CDBG-Emergency Grant Program. The CDBG-Emergency Grant 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. The Community Development Zone 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 an 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. The Health Care Provider Loan Assistance Program provides repayment of educational loans up to $25,000 over a five-year period to physician assistants, nurse practitioners, 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. The Minority Business Development Fund – Revolving Loan Fund (RLF) 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. The Physician Loan Assistance 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. The State Infrastructure Bank Program is a revolving loan program that helps communities provides 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. The Wisconsin Transportation Facilities Economic Assistance and Development 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. The Freight Railroad Infrastructure Improvement Program awards loans to businesses or communities wishing to rehabilitate rail lines, advance economic development, connect an industry to the national railroad system, or make improvements to enhance transportation efficiency, safety, and intermodal freight movement. Contact Ron Adams, Department of Transportation, 608/267-9284.

Recycling Demonstration Grant Program. The Recycling Demonstration Grant Program helps businesses and local governing units fund waste reduction, re-use, 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.

ECONOMIC DEVELOPMENT – Village of Redgranite

Goal ED 1. Partner with area economic development organizations. The Village of Redgranite's economy is dependent on the economy of the municipalities in the area. For example, a new business in the Town of Marion may employ someone who lives in the Town of Dakota, buys gas and groceries in the City of Wautoma, and generates a support business in the Village of Redgranite.

Objectives:

- **ED 1.1. Promote available commercial and industrial sites.**

  Strategies:
  - **Post available lots on Waushara County Economic Development Corporation, Tri-County Regional Economic Development Corporation websites and *Forward Wisconsin's Locational One Information Systems Database (LOIS)*.** Forward Wisconsin, the Wisconsin Department of Commerce and the state's electric utilities have joined together to develop and implement a state-wide system that will make available comprehensive building, site, and community information. It is an internet based marketing tool. Any community in Wisconsin can use it as a single point of data entry. There is no charge to use LOIS or to integrate it into an existing website. Examples of local organizations that have integrated LOIS into their Web site can be found on Forward Wisconsin's website at www.forwardwi.com. Click on "Resources for Economic Developers" and then on LOIS: A User's Guide. Additional information about LOIS and help to get started is also available by contacting East Central Wisconsin Regional Planning at staff@eastcentralrpc.org or at (920) 751-4770.
  - **Promote available village sites in the Fox Cities.**
    - Consider listing with a real estate agent active in the Fox Cities.
  - **Provide a link with the Department of Commerce website.**

- **ED 1.2. Market area tourism opportunities.** A wealth of potential opportunities exists to draw tourists to the Wautoma area. Residents and tourists strive for a simpler life and appreciate the benefits of buying fresh food and other products that are produced locally. A farmers market would not only fulfill this end but may entice someone to stop at other locations in the village. A bed and breakfast that incorporates life on the farm, a country store, and a restaurant that promotes farm fresh foods could also be considered. The Village, along with the other municipalities, should work with the Waushara Area Chamber of Commence to bring these opportunities to the area.

  Strategies:
  - **Organize a local farmers market. (See Agricultural Element)**
    - Consider partnering with the City of Wautoma to run on alternating summer and fall weekends.
  - **Organize, promote and market agriculture as a tourist attraction. (See Agricultural Element)**

- **ED 1.3. Promote the amenities of the area.** It is important to recognize that the quality of life plays a key role in attracting business and an educated workforce. These

include educational availability and quality, natural resources and recreational opportunities, service provision, and other factors.

Strategies:

- **Develop a fact sheet that highlights the amenities.**
- **Include the fact sheet on the village, Waushara County Economic Development Corporation and other webpage's.**

- **ED 1.4. Encourage the Waushara County Economic Development Corporation Revolving Loan Fund administrators to develop criteria consistent with comprehensive planning recommendations.**

Strategy:

- **Encourage the Waushara County Economic Development Corporation to refer to the local comprehensive plan recommendations and priorities when evaluating loan applications.** Revolving loan fund programs (RLFs) provide low interest funding to businesses for working capital, equipment or for expansion purposes. The businesses must in turn create jobs.

- **ED 1.5. Solicit the expansion and/or creation of new complementary industrial and commercial agribusinesses and support local farm product processing and marketing.** To keep agriculture viable, farmers need an outlet to market or buy their products; this could include the addition of a cannery in the area, a cheese marketing warehouse or possibly an ethanol plant within the county.

Strategies:

- **Encourage the development of agricultural support industries.**
- **Encourage area grocers, restaurants, schools, nursing homes, and other food providers to purchase locally grown and produced foods.**
- **Promote specialized farming methods or products.**
  - Work with the county to explore the possibility of establishing and marketing organic foods and support industries.

Goal ED 2. Build community identity. (See Exhibit 3-1)

Objectives:

- **ED 2.1. Revitalize Bannerman Avenue.**

Strategies:

- **Develop a Downtown Economic Development Plan.** This plan should consider the strategies that are list below and should be a combined effort between local business owners and the village.
  - The Draft Downtown Economic Development Plan should be taken to all businesses for their input and support.
- **Consider applying in the future for Wisconsin Main Street designation to fund outside expertise for the redevelopment of downtowns and community centers.**

- **Encourage foot traffic and pedestrian friendly amenities.**
  - Pedestrian friendly signage.
  - Benches.
- **Encourage beautification projects.** The Waushara Area Chamber of Commerce currently has a beatification committee that presents annual awards to area businesses and communities.
  - Incorporate seasonal decorations.
  - Incorporate banners for special events.
- **Encourage area business owners and civic organizations to sponsor local events that bring people to the Redgranite area.**
  - Encourage business owners and civic organizations to work with the Redgranite Economic Development Committee and Village Board to bring these events to the area.
- **Seek out new businesses that complement existing businesses.**
  - Invite potential business owners to the village.
- **Encourage the Redgranite Development Committee to set up regular meetings and invite business owners to attend.**
  - Forum for communication
  - Forum for cooperation
- **Encourage businesses to form a committee to work with the Redgranite Economic Development Committee.**
- **Consider setting up a Business Improvement District (BID)**
  - Encourage BID Board to set up regular meetings with Main Street business.
  - Work of the BID to include: economic development, downtown promotion and building façade improvement.
- **Identify building vacancies.** The Department of Commerce currently lists building vacancies on their website.
  - Post available buildings and lots on village and Department of Commerce's websites.
  - Encourage building owners to contact the Redgranite Economic Development Committee of vacancies.
- **Encourage historic building renovation and preservation.** Funds are available to identify and evaluate historical, architectural and archeological resources, nominating properties and districts to the national register of Historic Places. Qualifying properties are eligible for a 20% federal tax credit and an additional 5% Wisconsin investment tax credit for rehabilitation of income-producing historic buildings. A 25% Wisconsin investment tax credit is available for people who rehabilitate historic non-income-producing, personal residences. Funds may also be available to renovate other structures that do not qualify for the national register.
  - Encourage building owners to list properties on the National Register of Historic Places.
  - Encourage the Village of Redgranite to set up a revolving loan/grant fund program to renovate or preserve historic properties. The village should review all loan or grant proposals.

- Consider hiring a consultant in the future to conduct an intensive survey of properties in the village to determine eligibility for the grant money under the historic preservation program.

- **ED 2.2. Promote the Village Industrial Park.** The Village is currently planning on more actively promoting the Village Industrial Park in the Oshkosh and Fox Cities areas. This will include a stepped up the Villages advertising campaign and the hiring of a real estate professional that is located in the Oshkosh/Fox Cities area.

  Strategy:
  - **Post available lots on village and Waushara County Economic Development Corporation Website.**

- **ED 2.3. The Village should strive to keep current with the newest technology, especially in regards to high speed internet.** For businesses to compete effectively, it is essential that affordable access to cutting-edge telecommunications be available in the village. While high speed internet is currently available in the Village, as the technology continues to evolve, the Village should stay abreast of the latest technologies.

- **ED 2.4. Promote the clean up and reuse of under utilized, vacant, blighted or commercial/industrial sites and buildings to efficiently use existing public utilities, infrastructure and services.**

  Strategies:
  - **Conduct a windshield survey through the village to target available sites.**
  - **Encourage building owners to contact the Redgranite Economic Development Committee of vacancies.**
  - **Set up a forum to bring building and business people together.**
  - **Continue a community decorating/design contest.**

- **ED 2.5. Develop criteria/design standards that future commercial and industrial proposals must meet in order to be approved by the community.**

  Strategies:
  - **Develop a check list that can be used when considering areas for future or expanding business/industrial sites.**
  - **When identifying future or expanding business/industrial sites, consider the environmental conditions of the area such as wetland, ground water, and floodplain status.**

- **ED 2.6. Evaluate Village entrances.** Community entrances are the first thing that a prospective business owner sees when evaluating a location. (Exhibit 3-1)

  Strategies:
  - **Compile a check list to evaluate the entrances to the village.**
  - **Encourage a civic organization to adopt a village entrance.**

- **ED 2.7. Promote the village amenities.** The Village of Redgranite enjoys a rich local history that can be tied to the discovery of granite in the late 1800's and the subsequent quarries that developed in the area. Fortunately, one of these quarries is located in the village and provides a unique resource that is often under appreciated. While largely undeveloped, the quarry has become an area of concern for the residents of the area. However, opening and maintaining the area around the quarry, may alleviate some safety concerns that the village is experiencing. The trailhead of Bannerman Trail is also located in village. This trail not only provides a link to the quarries in the area, but supplies year round recreational opportunities to the residents of the county.

  Strategies:
  - **Develop the village quarry.**
    - Utilize and improve upon the existing trail system.
    - Organize a community wide quarry clean up day.
      This effort could be initiated by the Village Board, but should include community wide participation from residents, civic and youth organizations and local dive clubs.
    - Consider reopening and developing the existing road around the quarry.
    - Consider developing the quarry into a park like setting.
  - **In the future, reinvestigate the possibility of establishing a state park in the area.**
  - **Promote the Bannerman Trail**
    - Establish a public parking area.
      The village along with the county is currently pursuing options to construct a parking lot for recreational users of the trail.
    - Provide an interconnection with other quarries.
      The Bannerman Trail begins in the Village and is located on the south side of STH 21. This trail would provide an excellent link to the quarries in the area.
    - Promote on county/village websites
  - **Promote the history of the Village of Redgranite**
    - Establish a Village interpretive center.
      The interpretive center could be tied to the Redgranite quarry. Possible locations in the village could include the old post office, gas building or bank.
    - Set up a local historical society chapter.
  - **Promote fishing opportunities in the village.**
    Willow Creek is classified considered a class II trout stream. Public parking is available at Willow Creek Park and across the street from the original wastewater treatment facility.

Goal ED 3. Partner, when possible, with educational institutions to promote life long learning for the area's youth and adults. Overall, the support for education and job skills training is essential for increasing earning potential for all Wisconsin residents. A local branch of CAP Services as well as the Fox Valley Technical program is available for local residents. Additionally, partnerships among learning institutions are forming in response to the economic changes Wisconsin is experiencing. One such group includes Wisconsin technical colleges, the

University System and private colleges. They are working together as a group called North East Wisconsin Educational Resource Alliance (NEW ERA). One of the goals of this partnership is to enhance and expand learning opportunities in Wisconsin to offer necessary training/learning to Wisconsin's current and future workers.

Objectives:

- **ED 3.1. Support entrepreneurial programs to facilitate local business start-ups.**

  Strategies:
  - **Work with CAP Services in Wautoma, an available resource to entrepreneurs.** CAP Services is a resource available to entrepreneurs for business plan development, information on financing and other tools that are necessary for starting a business.
  - **Encourage the Wautoma Area School District to initiate a Junior Achievement Program.** Junior Achievement is a worldwide program whose purpose is to educate students in kindergarten through 12th grade about business, including entrepreneurship, ethics, career development, financial literacy and economics.
  - **Encourage the Wautoma Area School District to continue to provide and initiate programming for new business development and financing planning.**
  - **Encourage individuals to seek support from other sources as needed.** Additional support for business plan development, financing information, and other assistance can be found at the following places:
    - Build Your Business: 1-800-435-7287 www.wisconsin.gov/state/byb
    - Small Business Development Centers (SBDC): 1-800-940-SBDC www.wisconsinsbdc.org
    - Virtual Business Incubator: www.virtualincubate.com
    - Impact Seven: (608) 251-8450 www.impactseven.org
    - Fox Valley Technical College E-Seed Program: www.fvtc.edu/bis 1-800-735-3882
    - East Central Regional Planning Commission for additional information and referrals: staff@eastcentralrpc.org (920) 751-4770

- **ED 3.2. Encourage youth and adults in the area to utilize FVTC's satellite programming.**

  Strategies:
  - **Evaluate the educational needs of the area.**
  - **Encourage local high schools and guidance counselors to promote technical programs/job skill training through FVTC and the local high school.**
  - **Encourage high schools to continue to provide career direction programming.**

- **Encourage high schools to work with CESA 5, CAP Services and the business community to initiate a youth apprenticeship program or other similar program to provide students with valuable skills.**

Goal ED 4. Begin to look at a possible STH 21 bypass. There are no current plans to construct a STH 21 bypass around the village. However, it may be beneficial to the village to begin to think about this issue in terms of future land use planning and the potential impact upon the economics of the region.

Objective:

- **ED 4.1. The village should consider the implications of a bypass and take a position to either support or not support this issue.**

  Strategy:

  - **If the village supports a STH 21 bypass, it should take a proactive role with the Wisconsin Department of Transportation.**

EXHIBIT 3-1

BUILD COMMUNITY IDENTITY

CHAPTER 4: HOUSING

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HOUSING

INTRODUCTION

A number of factors influence how well the housing stock meets the needs of the community. The design, placement and density of housing impacts the overall appearance and character of a community by defining a sense of place and encouraging or discouraging social interaction between residents. It influences the cost of housing and the cost and efficiency of other plan elements, such as roadways, school transportation and the provision of public utilities.

The quality and affordability of housing influences the economic health and wellbeing of the community. 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 to meet other expenses such as food, clothing, transportation, health care, savings for college or retirement, etc. 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.

Housing Vision for 2025

The area accommodates a variety of housing choices. Home ownership continues to be the preferred housing option but the need for rental housing is also being adequately addressed by new duplex and small scale multi-family housing development, which is concentrated in sewered areas. Additionally, efforts to provide attractive yet affordable housing on the upper floors of commercial structures are paying dividends for building owners and increasing the vitality of the two downtowns. Recognizing that mobile homes and subsidized housing provide affordable housing options which cannot be met by other types of residential development, the City and Village have strong design and site requirements that allow attractive, well maintained mobile home parks to be developed in carefully selected areas convenient to services and employment opportunities and local officials have embraced efforts to develop subsidized housing. Extended care and other housing options for seniors are available locally.

In rural areas, quality single family housing opportunities remain the primary residential choice. Although the trend of converting and upgrading seasonal lakefront housing to year-round single family residences continues, lake-oriented backlot development has lost favor to conservation subdivisions and other development options that focus on amenities such as common open space and walking trails. Several historic farmsteads have been preserved while new rural residences have been designed to blend in with natural features and existing agricultural activities in ways that minimize land use conflicts and preserve rural character.

INVENTORY AND ANALYSIS

This section of the chapter provides a broad brush of Group D characteristics and identifies why a particular housing variable may be important. Characteristics which are unique to a particular community are noted, as are characteristics that can help identify strengths or opportunities for improvement. Tables are provided in Appendix D 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.

1990 and 2000 Census information regarding the age of owner-occupied units indicates that most Group D communities were well established by 1960, and all five communities experienced substantial growth in the 1970's as baby-boomers entered the housing market (Table 4-1).

Table 4-1. 'Baby-boomer' Impact by Community

	Units Occupied in 1990		Units Occupied in 2000	
	Units Built Prior to 1960	Units Built in the 1970s	Units Built Prior to 1960	Units Built in the 1970s
C. Wautoma	387	129	366	163
V. Redgranite	179	107	213	100
T. Dakota	100	163	137	139
T. Marion	184	235	233	238
T. Wautoma	166	139	184	99
Waushara County	3,374	2,047	3,610	1,841
Wisconsin	769,712	263,431	917,856	355,484

Source: U.S. Census, STF 3A, 1990 and 2000.

The Towns of Dakota and Marion were unique in that the number of units added in the 1970s exceeded the number of occupied units already on the ground. This is particularly noticeable in the 1990 Census data set. Variation in the data between 1990 and 2000 may reflect variation in the households sampled, a change in housing choice by residents, annexations or change in the actual housing stock through demolition, fire or natural disaster impacts.

Overall, the Village of Redgranite had the oldest housing stock in 2000 (Appendix D, Tables D-1 and D-2). Approximately forty-seven percent (47.44%) of the Village's housing stock was built prior to 1960. In contrast, only 25.55% of the Town of Marion's housing stock was built before

1960, making it the community with the newest housing stock. At the state and county level, 38.67% of Waushara County's housing stock and 44.03% of Wisconsin's housing stock was built prior to 1960.

All Group D communities experienced additional building construction through 2000. The Town of Marion experienced the largest increase in new housing stock. Between 1995 and 2000, Marion gained 125 new occupied housing units. The remainder of Group D communities saw increases in new units that ranged between 49 in the Town of Wautoma to 37 in the Village of Redgranite.

Change in Structural Type

Residential units by structural type is one indication of the degree of choice in the housing market. 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 their community and to draw others to locate there.

As with most rural communities, the dominant housing type in Group D communities and Waushara County is single family housing. In 1990, the Town of Wautoma had the highest percentage of single family housing (89.32%), while the Town of Dakota had the lowest percentage (65.08%). The majority of duplex and multi-family units (84.45%) were located in the City of Wautoma and the Village of Redgranite, where sewer and water are available. Less than three percent of the towns' housing stock was comprised of duplex and multifamily units.

At 209 units, the Town of Dakota contained the largest number and share of mobile home, trailer & other units (32.01%). Mobile homes, trailers & other units were also common in the Village of Redgranite (22.57%) and the Town of Marion (12.99%). The City of Wautoma had the smallest number (32) and share of mobile home, trailer & other units (3.93%) (Appendix D, Table D-3).

During the 1990s, conversions, deletions and additions to communities' housing stock resulted in a slightly different composition of housing in 2000. Housing choice by structural type (the ability to choose to live in a single family home, duplex, multi-unit building or mobile home) increased in the City of Wautoma and Waushara County, but decreased in the remaining Group D communities and at the state level. By 2000, the share of single family units had decreased to 67.40% in the City of Wautoma, while the number and share of duplex, multi-family and mobile home units rose. Within the duplex and multifamily category, the number and share of 2 to 4 unit buildings decreased, while the number and share of larger multi-family buildings increased in the City (Appendix D, Tables D-3 and D-4).

Within the remaining Group D communities, the number and share of mobile home, trailer and other units decreased. With the exception of Redgranite, duplex and multifamily units also decreased in these communities[1]. By 2000, the share of single family units had risen in all four communities and now ranged from 71.57% of the housing stock in Redgranite to 93.94% of the housing stock in the Town of Wautoma. Although the number and share of mobile home, trailer and other units dropped, this category remained the second largest category by structural type for the Village of Redgranite and Group D towns. In 2000, mobile home, trailer and other units comprised 25.73% of the Town of Dakota's housing stock and 19.48% of the Village's housing stock. Only 10.49% of Marion's and 4.58% of the Town of Wautoma's housing stock was comprised of mobile home, trailer and other units.

At the state and county level, the number and share of single family homes and larger multi-family buildings (those with 5+ units per building) increased, while the number and share of 2 to 4 unit buildings and mobile home, trailer and other units decreased. In 2000, single family homes comprised 82.59% of Waushara County's housing stock and 69.34% of the State's housing stock. Mobile home, trailer and other units comprised the second largest housing category for Waushara County, 13.02%. Multifamily units comprised less than five percent (4.39%) of the County's housing stock. At the state level, the second largest housing category was multi-family housing, which comprised 26.18% of Wisconsin's housing stock. Mobile home, trailer and other units comprised 4.49% of the State's housing stock.

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, including 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% for owner-occupied units and 5% for year round rentals. The number of migrant, seasonal and other vacant units will vary depending on the community's economic base.

Tenure

Group D communities with the lowest occupancy rates have the highest percentage of seasonal units (Table 4-2). Occupancy rates vary by community and over time. Total occupancy rates increased for Waushara County, the state and all Group D communities between 1990 and 2000. In both time periods, the City of Wautoma had the highest total occupancy rate and the Town of Marion the lowest.

[1] In Redgranite, the number of duplex and multi-family units increased by 5 units between 1990 and 2000.

Table 4-2 . Occupied and Seasonal Units as a Share of Total Housing Units, 1990 and 2000

Jurisdiction	Total Occupied		Seasonal	
	1990	2000	1990	2000
City of Wautoma	91.78%	91.90%	1.84%	0.91%
Village of Redgranite	88.82%	89.25%	4.01%	2.84%
Town of Dakota	62.94%	71.14%	29.56%	20.78%
Town of Marion	45.24%	55.71%	51.16%	40.06%
Town of Wautoma	81.55%	86.73%	13.40%	10.45%
Waushara County	62.19%	68.31%	31.73%	27.02%
Wisconsin	88.63%	89.81%	7.33%	6.13%

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

The low occupancy rates for the Town of Marion result from the high number of seasonal units within the Town. In 1990, 725 of Marion's 1,417 housing units were seasonal. In 2000, 653 of Marion's 1,630 housing units were seasonal, which indicates that the Town of Marion experienced growth in year round units and potential conversions of seasonal to year round residences (Appendix D, Tables D-5 and D-6). The increase in total occupancy rates for the Town of Dakota was accompanied by a decrease in the number and share of seasonal units, which indicates that some seasonal units may have been converted to year round residences during the 1990s also.

Occupancy rates for Waushara County and Wisconsin indicate that Waushara County has 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 the area are owner-occupied. Group D towns have a higher rate of owner-occupancy than the City, Village, County and State (Table 4-3). Between 1990 and 2000, the share of owner-occupied units increased in Group D towns and at the county and state level, but decreased in the City of Wautoma and the Village of Redgranite. By 2000, the share of occupied units that were owner-occupied ranged from 91.85% in the Town of Marion to 56.08% in the City of Wautoma.

Table 4-3. Tenure as a Percent of Occupied Units, 1990 and 2000

Jurisdiction	Owner Occupied		Renter Occupied	
	1990	2000	1990	2000
City of Wautoma	63.37%	56.08%	36.63%	43.92%
Village of Redgranite	76.96%	71.59%	23.04%	28.41%
Town of Dakota	78.35%	87.22%	21.65%	12.78%
Town of Marion	89.70%	91.85%	10.30%	8.15%
Town of Wautoma	87.86%	91.01%	12.14%	8.99%
Waushara County	80.30%	83.53%	19.70%	16.47%
Wisconsin	66.70%	68.43%	33.30%	31.57%

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 all five Group D communities and Waushara County had an adequate share of owner-occupied units for sale in 1990 and 2000 (Appendix D, Tables D-7 and D-8). The homeowner vacancy rate for Wisconsin remained stable at 1.20%, which was just below the standard for both years. In 1990, homeowner vacancy rates varied from 1.63% in the Town of Wautoma to 5.28% in the Town of Dakota. Between 1990 and 2000, homeowner vacancy rates rose in the City of Wautoma and Village of Redgranite and fell in the remainder of Group D communities and Waushara County. In 2000, homeowner vacancy rates ranged from 1.47% in the Town of Wautoma to 3.81% in the Village of Redgranite. Countywide, the homeowner vacancy rate was 1.89%.

While homeowner vacancy rates in Group D communities indicated an adequate supply of homes for sale, the actual number of homes on the market in Group D communities for both time periods was small. In 1990, the number of housing units for sale ranged from 25 in the Town of Marion to 6 in the Town of Wautoma. In 2000, the number of housing units for sale ranged from 21 in the Town of Marion to 7 in the Town of Wautoma. The number of housing units for sale in the City of Wautoma (9) remained unchanged, while the number of housing

units for sale in Redgranite increased from 10 in 1990 to 12 in 2000. In Dakota the number of housing units for sale decreased from 17 in 1990 to 12 in 2000.

Rental Housing

In 1990, rental vacancy rates for the Village of Redgranite (4.12%) and the towns of Marion (1.52%) and Wautoma (3.92%) were below the vacancy standard of 5.00%, indicating a shortage of housing units for rent (Appendix D, Tables D-7 and D-8). Rental vacancy rates in the remainder of Group D communities ranged from 5.84% in the City of Wautoma to 11.24% in the Town of Dakota. In comparison, the rental vacancy rates for Wisconsin and Waushara County were 4.70% and 8.53%, respectively.

Between 1990 and 2000, the number of rentals and the rental vacancy rates increased in all Group D communities, except the Town of Dakota, which saw a decrease in the number and share of units for rent. Rental vacancy rates in Dakota decreased from 11.24% to 6.35%. In 2000, rental vacancy rates indicate that all Group D communities, Waushara County and the State had an adequate number of rental units on the market. Rental vacancy rates for Group D communities ranged from 5.60% in the Village of Redgranite to 14.89% in the Town of Wautoma. Waushara County had a higher rental vacancy rate, 6.76%, than the state average of 5.60%.

As with the number of homes for sale, the number of housing units for rent within Group D communities was also small. In 1990, the number of housing units for rent ranged from 1 in the Town of Marion to 16 in the City of Wautoma. In 2000, the number of housing units for rent ranged from 4 in the Town of Dakota to 31 in the City of Wautoma. Dakota was the only Group D community to experience a decline in the number of units for rent. Between 1990 and 2000, the number of units for rent declined in Dakota from 10 to 4.

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.

Group D communities exhibited a broad range in the number and share of seasonal units for both time periods (Appendix D, Tables D-7 and D-8). In 1990, the number of seasonal units ranged from 15 in the City of Wautoma to 725 in the Town of Marion. The City of Wautoma also had the smallest share of vacant units listed as seasonal in 1990, while the Town of Marion the largest. Waushara County and Wisconsin also had a large share of vacant units listed as seasonal (Figure 4-1).

Figure 4-1. Vacant Units by Type, 1990

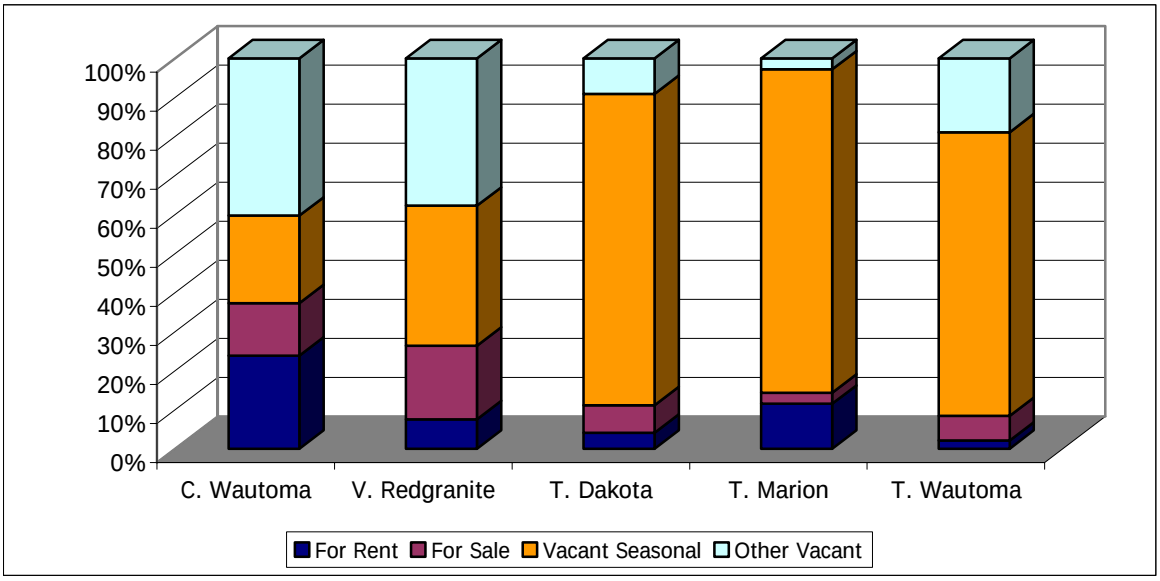
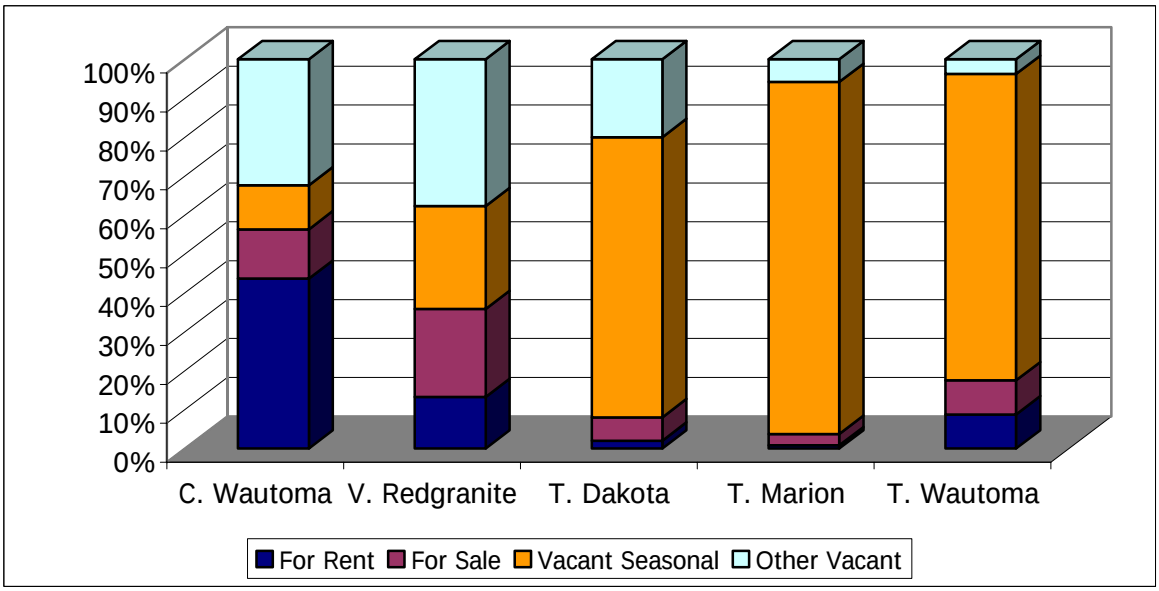


Figure 4-2. Vacant Units by Type, 2000



Between 1990 and 2000, the number of seasonal units decreased for all seven jurisdictions. Within Group D communities, the City of Wautoma continued to have the smallest number of units identified as seasonal (8) in 2000, while the Town of Marion continued to have the largest, 653.

The share of vacant units identified as seasonal also decreased for all jurisdictions, except the Town of Wautoma and Waushara County. Between 1990 and 2000, the share of vacant units identified as seasonal increased in the Town of Wautoma from 72.63% in 1990 to 78.75% and from 83.93% to 85.27% in Waushara County. In 2000, among Group D communities, the share of seasonal units ranged from 11.27% in the City of Wautoma to 90.44% in the Town of Marion.

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. In all jurisdictions, 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. Little to no vacant migrant housing was listed in either Census; and units rented or sold, but not yet occupied, comprised a very small segment of the other vacant unit category. According to the 2000 Census data, the towns of Dakota and Marion had 7 and 1 units of vacant migrant housing, respectively. No vacant migrant housing units were listed in the remaining Group D communities.

In 1990, other vacant comprised the largest share of vacant units for the City of Wautoma and Village of Redgranite, and the second largest share of vacant units for the towns of Dakota and Wautoma, Waushara County and Wisconsin (Figures 4-1 and 4-2). The Town of Marion had an equal number (25 each) and share (3.22%) of vacant units for sale and other vacant units (Appendix D, Tables D-7 and D-8).

Between 1990 and 2000, the share of other vacant units rose in the towns of Dakota and Marion, and decreased in the City and Town of Wautoma, Waushara County and Wisconsin. The number and share of other vacant units remained the same for both years in the Village of Redgranite, where 20 other vacant units comprised 37.74% of all vacant units for both years.

The actual number of other vacant units within Group D communities showed little variation in 1990, ranging from 27 in the City of Wautoma to 18 in the Town of Wautoma. Between 1990 and 2000, a major shift occurred in the number of other vacant units in the towns of Dakota, Marion and Wautoma. The number of other vacant units almost doubled in the Towns of Dakota and Marion and decreased substantially in the Town of Wautoma. In 2000, the number of vacant other units ranged from 42 in the Town of Marion to 3 in the Town of Wautoma.

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 1970. 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 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 allowed home buyers the opportunity to purchase a higher value home, and the market responded by increasing the average home size for new construction[2]. 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 babyboomers 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. 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.

Current Median Housing Value Trends

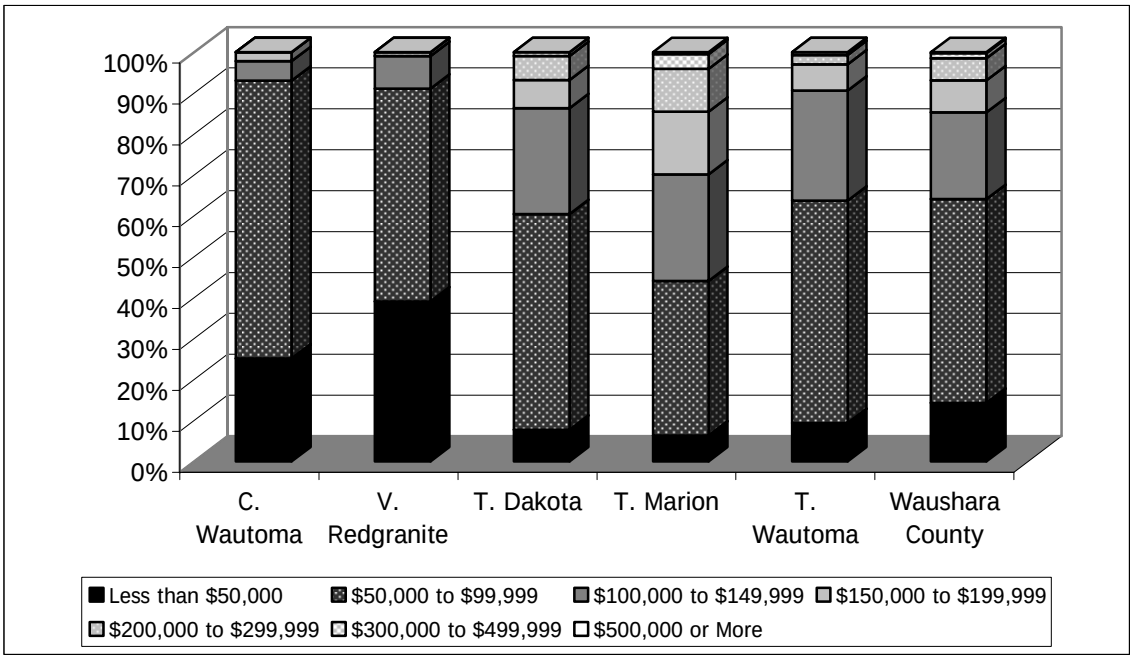
Between 1990 and 2000, Group D communities experienced substantial increases in median housing values. The City of Wautoma experienced the smallest increase in median housing values during this time period, 48.77%, while the Town of Marion experienced the largest increase, 93.40%. The remaining three communities saw more similar trends in housing value increases. Increases in median housing values increases for the remaining three communities ranged from 75.62% in the Town of Wautoma to 79.53% in the Town of Dakota. By 2000, median housing values ranged from $59,100 in the Village of Redgranite to $111,400 in the Town of Marion (Appendix D, Tables D-9).

Current Values by Price Range

With the exception of the Town of Marion, over 85% of the owner-occupied housing stock of all Group D communities and Waushara County was valued at less than $150,000 in 2000. In Marion, 70% of the owner-occupied housing stock was valued at less that $150,000. Each Group D community had a slightly different composition of housing by price range (Appendix D, Tables D-9). The V. Redgranite and C. Wautoma had the largest share of housing units valued at less than $50,000, while the Towns of Marion and Dakota had the least (Figure 4-3). The Town of Marion had the most diverse composition of housing by price range, which indicates that Marion likely has a greater choice in owner-occupied housing opportunities, compared to other Group D communities.

[2] 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.

Figure 4-3. Housing Values by Range, 2000



Housing Costs

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, 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 Partnership[3] 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 Group D communities indicated that housing values were on average lower than the state average. However, many of those units were not affordable for Group D residents. Renters, in particular, found it difficult to find affordable housing.

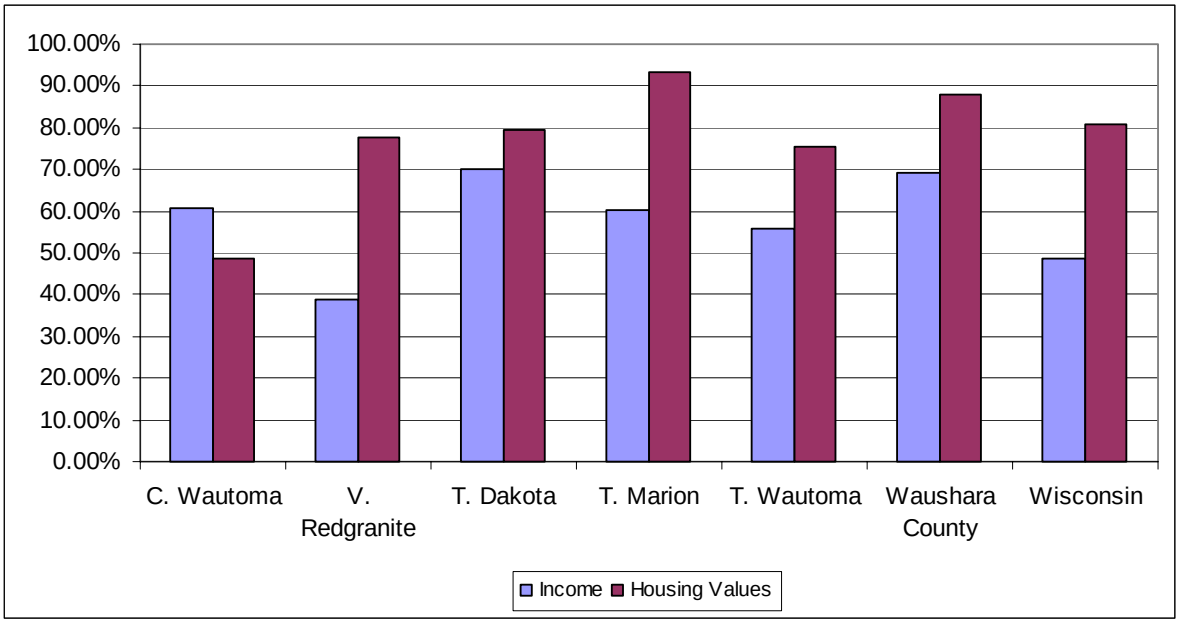
Owner-Occupied Housing

In 1989, 15.08% of homeowners in the state and 17.65% of homeowners in Waushara County were paying a disproportionate amount of their income for housing (Appendix D, Table D-10). Residents in the City of Wautoma had an even harder time finding affordable housing. In 1989, 20.71% of City residents were spending more than 30% of their income on housing. Housing was most affordable in the Village of Redgranite, where only 14.15% of homeowners were paying a disproportionate share of their income for housing.

Between 1989 and 1999, housing affordability became a larger issue for homeowners in the state, Waushara County and three Group D communities: Redgranite, Marion and the Town of Wautoma. The percentage of homeowners paying a disproportionate share of their income for housing in Group D communities ranged from 22.67% in the Village of Redgranite to 14.15% in the City of Wautoma. Almost 20% (19.71%) of County residents were paying a disproportionate share of their income for housing in 1999, compared to 17.81% of state residents. The change in housing affordability likely resulted from housing prices and values rising faster than incomes. The City of Wautoma was the only jurisdiction during this time period where average household income rose faster than the median price of housing (Figure 4-4.).

[3] 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.*

Figure 4 - 4. Change in Median Housing Values vs Change in Median Household Income



Renter-Occupied Housing

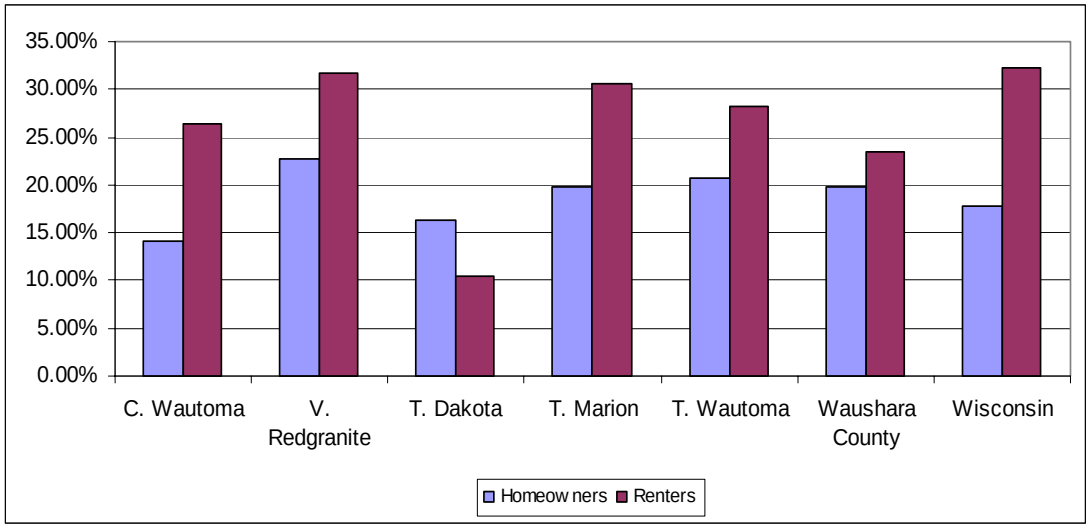
Census data indicates that renters had far greater difficulty finding affordable housing than homeowners. In 1989, 35.96% of renters in the state and 34.61% of renters in the county paid a disproportionate share of their income for housing, compared to 15.08% and 17.65% of homeowners, respectively. Within Group D communities the share of renters paying a disproportionate amount of their income for housing ranged from 37.50% in the City of Wautoma to 21.05% in the Town of Marion.

Between 1989 and 1999, the number and share of households paying a disproportionate share of their income for rental housing decreased in the City and Town of Wautoma, Town of Dakota, Waushara County and the State of Wisconsin. In the towns of Dakota and Wautoma this decrease was accompanied by a decrease in the total number of renters, which indicates that renters from these communities may have relocated in search of more affordable housing.

The number and share of renters paying a disproportionate share of their income for housing increased in the Town of Marion. In Redgranite, the number of renters paying a disproportionate share of their income for housing increased. However, an overall increase in renters, many who were able to find affordable housing, resulted in the proportion of renters paying a disproportionate amount of their income for rent remained almost constant at around 32%.

By 1999, the share of renters paying more than 30% of their income for housing in Group D communities ranged from 31.75% in the Village of Redgranite to 10.53% in the Town of Dakota (Figure 4-5). Thirty-two percent (32.30%) of state residents were paying more than 30% of their income for rental housing, compared to 23.38% of Waushara County residents.

Figure 4-5. Percent of Households for which Housing is Not Affordable, 1999



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.

In Group D communities, occupied units without complete plumbing facilities are rare. Only 15 occupied units were listed as being without complete plumbing facilities in 2000. Nine of those units were located in the Town of Marion; the remaining units were located in the Town of Wautoma. Less than 5% of dwelling units within Group D communities are overcrowded (Appendix D, Table D-11). The Town of Dakota had the greatest percentage of overcrowded units (4.28%), while the Town of Marion had the smallest (1.32%). The actual number of overcrowded units ranged from 25 in City of Wautoma to 7 in the Village of Redgranite.

Subsidized and Special Needs Housing

Subsidized and special needs housing is needed 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.

Group D residents have local access to subsidized housing for qualifying elderly, families and persons with disabilities within the City of Wautoma and Village of Redgranite (Table 4.4).

Table 4.4. Federally Assisted Rental Units, 2005

	Elderly Units	Family Units	Other Units	Total Units
C. Wautoma	32	14	2	48
V. Redgranite	21		3	24
Total Group D Units	53	14	5	72

Source: WHEDA website, 2005.

The City of Wautoma and Village of Redgranite also have several assisted living options (Table 4.5).

Table 4.5. Assisted Living Options, 2005

	Adult Family Home Capacity	Community Based Residential Care Facility Capacity	Residential Care Apartment Units	Total Units
C. Wautoma	11	70	53	134
V. Redgranite		20	40	60
Total Group D Units	11	90	93	194

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

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 10 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 four of the five Group D communities have a moderate amount of housing stress: the Village of Redgranite, City of Wautoma and the towns of Marion and Wautoma. The Town of Dakota showed a minor level of housing stress. (Appendix D, Tables D-12 and D-13).

Housing Affordability

Based on inventory analysis, housing affordability is the largest housing issue facing Group D communities. Renters, in particular, have a difficult time finding units which are affordable. The major factor contributing to housing affordability issues appears to be that housing values are rising faster than household incomes. 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

Group D communities have an adequate share of units for rent or sale. However, given the small number of units available, communities may wish to evaluate the market demand to see if the units for rent or sale provide an adequate choice for those seeking to rent or purchase housing within their communities.

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. In the Village of Redgranite and the City of Wautoma between 25% and 50% of the housing stock was over 40 years old and valued at less than $50,000. The combination indicates that the City and Village may have older housing units that are in poor condition.

Overcrowding

In 2000, overcrowding affected very few Group D households. However, overcrowding could increase if households choose to double up or move to smaller units in an effort to lower their housing costs.

Plumbing

Ninety-nine percent of occupied units in Group D communities had complete plumbing facilities, so incomplete plumbing facilities is a factor for a very small percentage of households.

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/NIMBYism[4]) also influence housing needs. For example, housing affordability has been identified as the largest housing need for Group D communities. The need may exist because households are unable to find housing within their price range, they desire more housing than they can afford, zoning and subdivision regulations restrict the development of low to moderate income housing, other government regulations increase the cost of housing, developers prefer to build upper end housing, public opposition has resisted the development of

[4] NIMBY: Not In My Back Yard

more affordable housing, or housing costs have risen faster than incomes. Possible factors which may have contributed to housing costs rising faster than incomes may include a lack of opportunity for better paying jobs, lack of education and skill to obtain better paying jobs or income reduction through job loss or wage stagnation.

Two information gathering activities provided additional insight into housing conditions in Group D communities and Waushara County. An area wide questionnaire was conducted in 2003 as part of the Group D planning process and a county wide needs assessment was completed as part of the 2005 Continuum of Care grant application process.

Group D Questionnaire Results

Group D residents were asked to rate the type and amount of existing residential development in their community[5]. For each type of housing, residents were asked if the amount present in their community was too much, about right or too low. Table 4.6 represents the opinion of the respondents.

Table 4.6 Total Area Community Questionnaire Results, Existing Residential Development

Housing Type	Too Much	About Right	Not Enough	Total Respondents
Single Family	5.00%	83.00%	12.00%	100.00%
Low to Moderate Inc.	25.00%	55.00%	20.00%	100.00%
Duplexes	11.00%	74.00%	15.00%	100.00%
Multi-unit Apartments	19.00%	66.00%	15.00%	100.00%
Condominiums	13.00%	61.00%	26.00%	100.00%
Assisted Living	3.00%	57.00%	40.00%	100.00%
Mobile Home Parks	44.00%	52.00%	4.00%	100.00%
High Income Development	22.00%	54.00%	24.00%	100.00%

Source: ECWPRC, 2003.

Based on these results, the highest need identified by respondents was for additional assisted living or elderly housing. Forty percent of Group D respondents noted that the area does not have enough assisted living or elderly housing choices. However, given the facilities available within the area, prior to building new housing, communities should check with local facilities, service providers and residents to determine if the identified need results from a lack of capacity, lack of affordability or a facility/need mismatch.

Condominium development ranked second in terms of the next highest percentage of respondents that noted the area did not have enough of this type of housing. High income

[5] A summary of the questionnaire results are located in Appendix A. A copy of the questionnaire can be reviewed at the Wautoma or Redgranite Public Libraries or obtained from the ECWRPC office (920) 751-4770.

development received the third largest percentage of respondents in the not enough column. However, it should be noted that almost as many respondents stated that the area had too much high income development as respondents noted that the area did not have enough high end development. As a result, communities may need to carefully consider the amount, impact and potential location of such development. Potential impacts could include a change in community character, demand for additional services, an increase in property values which could contribute to property taxes increases and magnify housing affordability issues; or other potential impacts.

Twenty percent of respondents noted that the area did not have enough low and moderate income housing, which is comparable to the percentage of households identified in the 2000 Census as paying a disproportionate amount of their income for housing. However 25% of respondents stated that the area had too much low to moderate income housing, which indicates that communities may need to conduct additional education or informational sessions in order to effectively address housing affordability issues. Communities need to understand and alleviate residents' concerns. Residents' may need additional information or education regarding what 'affordable housing' is and what it means to the community. Opposition to affordable housing may stem from misconceptions, opposition to certain styles of housing, existing problems within the community or economic base concerns.

For the questions regarding the amount of duplex and multi-unit apartments in the area, 15 percent of respondents to each of these questions felt that the amount of duplexes and multi-unit apartments were too low. Mobile home parks received the lowest rating for existing development. Only 4% of respondents to this questions stated that the number of mobile home parks was too low.

When asked about future development, 88% of respondents supported the concept of an adequate supply of affordable housing. Eight-nine percent of residents favored promoting redevelopment. Other concepts related to affordable housing development that received strong support included promoting development that minimized costs (90%), encouraging municipal coordination and cooperation (96%), attracting good paying jobs (97%), cost effective community facilities (96%) and quality of life for children and grandchildren (98%). When compared to other local land use issues, however, affordable housing ranked 14th out of the 15 issues. Protecting natural resources ranked number one, followed by private property rights (#2), quality of life (#3) and good paying jobs (#4). However, both quality of life and good paying jobs are related to housing affordability, so while affordable housing may have ranked low compared to other issues, it should receive attention as recommendations are developed and implemented to meet the needs of Group D residents.

Continuum of Care Needs Assessment

The Continuum of Care[6] 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

[6] 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.

included in this information gathering process including: Waushara County 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, etc. 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 has used the information gathered to apply for a grant to help meet identified needs.

INTERRELATIONSHIPS WITH OTHER PLAN ELEMENTS

Housing cannot be considered in isolation from other elements. Meeting the housing needs of all residents requires an adequate supply of reasonably priced land with the appropriate infrastructure, utilities and services, coupled with employment opportunities and community designs which allow for transportation choices. 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 is needed in communities which have vacant industrial or commercial properties. Bringing these properties back onto the tax rolls will 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, and utilize space and structures which may no longer be appropriate for commercial or industrial uses. Apartments above stores can also help retail and service establishments supplement their income.

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 provide a healthy, low cost alternative to the automobile for short trips between homes, schools, places of business, employment and recreation. Paratransit service may be needed for those unable to walk or for trips beyond walking distance. A good street network and highway system helps provide access to greater economic opportunities beyond those in the immediate vicinity. As transportation costs rise, carpooling and vans may be a more cost-effective means of traveling between homes and places of employment.

Community and Public 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 police, 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. While these may be private sources for rural single family housing, well run public facilities are needed for city or village environments and denser housing alternatives such as condominiums and multi-family apartments.

Other community and public facilities such as waste disposal options, recycling facilities, parks, libraries, childcare, eldercare, medical facilities and emergency shelters also contribute to the area's quality of life and wellbeing of individual households.

Agricultural Resources

As the City and Village grow, more land will be converted from farms, forests and open space to residential uses. Farmland in Group D towns is also under pressure from residential and seasonal home development, both in the form of large lot subdivisions and scattered site residential development. The amount of land converted will vary depending on the choices made in terms of the density, design and placement of that new 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 studies[7] 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 instances bears foraging through dumps and garbage cans. Pressure is also placed on fragile wildlife habitats, such as migration corridors.

Many communities 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

The existing housing stock in Group D communities is an important resource. It provides community character and reflects the historical development of the area. 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 area's history, cultural and community identity.

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

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. In order to protect the area's history, communities should identify properties or types of properties in this category they wish to preserve. Policies and programs to help owners preserve these historical features in a cost effective manner should be developed. Possibilities could range from providing financial aid or tax incentives to marketing these properties to buyers who are interested in preserving these features and have the financial wherewithal to do so.

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 (police, 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. Communities must not only decide how much development, but also the appropriate locations, designs and densities that will accommodate that growth yet preserve important features/characteristics and develop the type of community they desire for the future.

Intergovernmental Planning

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

POLICIES AND PROGRAMS

Regional, County and Local Policies

East Central is currently developing a regional smart growth plan. As part of this planning process, East Central has proposed five core housing goals:

- 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, non-profit and private sectors to increase housing affordability, choice and access within the region.

These goals are consistent with the area's vision for a future, in which a variety of quality housing options meets the needs of all households in urban and rural areas, regardless of age, income, culture, and mobility status. 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 Group D communities include senior 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 also 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 (See page 4-29). 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 non-profit 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 Group D residents' access to housing and housing services. 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 a community's ability to meet the housing needs of their residents.

The City of Wautoma and the Village of Redgranite administer their own zoning codes. The City also administers and enforces the uniform dwelling code, while the Village relies on Waushara County to administer and enforce the uniform dwelling code (UDC). 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 or through 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 $2 million, and the minimum BEDI to Section 108 ratio is 1:1. For more information, contact Frank McNally in HUD's Office of Economic Development at (202) 708-0614 ext. 7100 or visit the web site at: http://www.hud.gov/offices/cpd/economicdevelopment/programs/bedi/bedifacts.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-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 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, 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 abatement, 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. Currently, no public housing authority is listed for Waushara County.

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 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/cat_sfl/home.asp, 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 willing 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 a primary purpose of community development. This is in part accomplished through direct grants/investments or loans to non-profits or agencies to develop affordable housing. Direct loans are also given to individual households of which a certain percent must go to low-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 Affair 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. Information about UMOS's housing programs can also be found on their website at: http://www.umos.org/social_services/housing.aspx?sm=36.

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. For information regarding these and other programs, contact: Jennifer Caravella at 920-787-0416.

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/topics/publications/ 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-a tenant education program. This website is located at: http://www.uwex.edu/ces/house/renting.html. 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, other 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 and are responsible for updating in-formation 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://www.dwd.state.wi.us/dws/programs/refugees.

Tax Increment Financing . TIF is a program that municipalities can use to stimulate development and redevelopment that may not occur otherwise. Recent changes in TIF laws allow communities to include housing within TIF districts. An informational paper regarding TIF can be accessed at: http://www.legis.state.wi.us/lfb/Informationalpapers/2001/17.pdf.

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/portal.jsp?pageId=3.

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 non-profit 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/programs/grants/about.asp, 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 programs, 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 programs, 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 in accessing the Medicaid program to pay for services. Information regarding elderly statistics, information regarding available services and links consumers 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 provides a number of services 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 assess 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.

HOUSING – Village of Redgranite

Goal H 1. Recognize that the provision of affordable housing is an integral part of a comprehensive economic development strategy for the region. Rural communities often find themselves at a competitive disadvantage in attracting new employers. An adequate supply of decent, safe, affordable housing can aid communities in attracting and retaining businesses. Companies are reluctant to relocate to communities without adequate housing for their workers. Existing companies may move out of the area if they cannot attract an adequate labor force.

Objective:

- **H 1.1. Encourage economic development professionals, housing providers and consumers to work together to help promote the development of housing that meets the needs of all income levels within a community, including entry level and low skill workers.** Some businesses which employ low wage workers, such as restaurants, coffee shops, daycare centers, dry cleaners, etc., contribute to the overall amenities of the area, and are part of a package that contributes to the area's quality of life and attracts higher income residents. Affordable housing provides greater financial stability for these workers, which contributes to greater employee satisfaction and productivity.

Goal H 2. Support efforts to supply affordable housing in the area so every household has access to shelter.

Objectives:

- **H 2.1. Support collaboration between governmental and private sectors to ensure the provision of an adequate supply of affordable housing.** Many individuals tend to assume or prefer that the private sector will meet housing needs. In reality, the private sector can only meet a portion of market demands. Existing household income, public opposition and regulatory, market and information barriers often prevent the private sector from addressing many segments of the housing market. Cooperation and coordination is needed from all sectors to help identify and meet housing needs.

Strategy:

- **Encourage the Village of Redgranite to review their zoning code to increase housing choice and lower development costs.** The current residential zoning district allows for a minimum lot area of 10,000 SF, minimum lot width of 80 feet at the building setback and 60 feet at the right-of-way line, a minimum side yard setback of 10 feet and 6 feet, front yard setback of 25 feet and a backyard setback of 15 feet backyard. The zoning code also specifies that the minimum first floor square footage for a single family home is 720, while the minimum square footage for a two family home is 576 per unit.

  The Village should consider lowering the minimum lot area to 6,400 SF. The minimum lot width and setbacks may also have to be revised and should be reviewed.

- **H 2.2. Pursue federal funding to meet affordable housing needs.** Rural areas rarely have the staff and resources available to meet the housing needs of all their citizens. Rural communities are also often unaware of programs and funding that is available to meet housing needs.

- **H 2.3. Continue to work with private developers to ensure an adequate supply of affordable housing.**

  Strategies:
  - **Contact support and funding agencies, such as CAP Services, USDA Rural Development, Waushara County's Veteran's Administrator to find out what assistance may be available.**
  - **Refer interested individuals to job training opportunities as needed to increase earning potential.** Job training may be provided through the technical college, job center, CAP Services or other agencies. The CAP Services building in Wautoma houses the job center which is part of the Fox Valley Workforce Development Board.
  - **Refer interested individuals to job search assistance for the underemployed.**
  - **Include a link on the village website to the job center.**

- **H 2.4. Increase awareness of the issues surrounding affordable housing among decision makers, realtors and the public.** Affordable housing promotes a quality design that is cost effective, increases financial stability and provides households the income needed to cover transportation, food, healthcare, clothing and other necessary living expenses.

  Strategies:
  - **When applicable, use examples of people such as teachers or couples who are first time homebuyers that want to live in the community and have difficulty finding affordable housing.** Other examples of individuals falling into this category include elderly persons living on fixed incomes and families that have faced unexpected medical expenses or circumstances.
  - **Encourage the design of new affordable housing that fits into existing neighborhoods.**
  - **Work with neighbors to establish buy in early in the development process.**

Goal H 3. Provide housing choices which reflect the needs of individual households. Housing is not a one size fits all commodity. Different types of households have different housing needs and preferences. As the population in the area changes, housing needs change also. Options need to be expanded to address housing needs of emerging households, the elderly, adaptations for people with disabilities, new immigrants, the growing minority population and an increasing variety of household types and preferences**.**

Objectives:

- **H 3.1. Promote development and preservation of varied types of housing developments.**

  Strategy:
  - **Investigate the potential of selling off building rights for condominiums around the perimeter of the quarry while maintaining public use and the aesthetics of Quarry Park.**

- **H 3.2. Encourage developers to recognize the income potential in meeting a wider range of housing needs in both new housing and rehabilitation of existing buildings.**

- **H 3.3. Promote area cooperation and incentives to encourage mixed income, mixed use housing developments within the City of Wautoma and Village of Redgranite.** Mixed use, mixed income neighborhoods are cost efficient. They also increase mobility and provide opportunities for greater social interaction through building design, placement and increased transportation choices. They may also increase income opportunities. For example, in rural tourist areas, an apartment above retail space can provide year round income for the landlord, which helps to subsidize the cost of the retail space during off seasons.

  Strategy:
  - **The Village should review the existing zoning ordinance and modify the ordinance if it does not allow for mixed use.**

- **H 3.4. Increase public awareness of cultural and generational differences in housing preferences.** The number and share of elderly residents is rising. Some elderly residents prefer to age in place, others desire to relocate. Some seniors may not be able to stay in their home without modification, transportation services or assistance in meeting their daily care needs. Yet these individuals may be too proud to ask for assistance.

Goal H 4. Encourage preservation and rehabilitation activities to preserve the integrity of the existing housing stock and the cultural identity and history of the area. The existing housing stock in the area is an important resource, which provides community character, cultural identity and reflects the historical development of the area. It also increases the housing stock diversity, provides housing choice and helps maintain housing affordability.

Objectives:

- **H 4.1. Develop and adopt new zoning and building codes for houses built prior to the adoption of the Uniform Dwelling Code.** Many older buildings may be structurally sound, decent and affordable; however, they do not meet current building code standards. In many instances, it is cost prohibitive to bring older buildings up to current building code standards, consequently these properties may be allowed to deteriorate. In the process, historic and period architecture is lost.

- **H 4.2. Reduce the incidence of poorly maintain owner and renter occupied housing.**

  Strategies:
  - **Provide non-threatening educational opportunities to teach people how to maintain their homes and yards.**
  - **Encourage community/housing improvement activities.** These activities have the potential to not only reduce the incidence of poorly maintained owner and renter occupied housing but also to instill community pride. A community wide clean up day or other effort, possibly in partnership with church and/or civic organizations, could assist the elderly or other residents with home maintenance issues. Money may be available from Wisconsin Housing and Economic Development (WHEDA) for minor outside repairs.
  - **Modify property assessment and taxation policies to minimize the negative effects on rehabilitation efforts.** The Village encourages property owners to make improvements. To lesson the impacts that these improvements may have on property assessments and taxation, the Village should consider a prorated assessment schedule that would spread any increase in assessment out over a set number of years.
  - **Encourage better landlord tenant communication and coordination.** Both tenants and landlords should have a clear understanding regarding which party is responsible for what maintenance items and activities. Department of Agriculture, Trade and Consumer protection publishes a brochure that describes basic landlord and tenant rights and responsibilities. This brochure should be sent to all existing tenants and landlords within the Village. Additionally, copies should also be given to all new rental property owners at the time of sale and all new renters when rental agreements are signed.
  - **Help landlords recognize that maintaining properties is a good business decision.** This can be done by positively reinforcing responsible landlords in the community. The village could recognize landlords formally or informally with the intent of fostering relationships between the village and good stewards of property in the village.
  - **Refer individuals to educational opportunities that assist with tenant training for life skills including property maintenance.** Programs are available through UW-Extension and some nonprofit agencies. Brochures are available through UW-Extension.
  - **Encourage preservation and renovation of historic homes.** Wisconsin homeowners may be eligible to claim a 25 percent state income tax credit for rehabilitation of historic personal residences. This program is administered by the State Historical Society, Division of Historic Preservation (DHP).
  - **Encourage the Village of Redgranite to review the existing zoning ordinance section 1.03(4) regarding building maintenance and material storage for both content and enforcement.**

- **H 4.3. Identify additional funding sources and encourage better utilization of existing programs to make the most efficient use of housing dollars.** Many funding agencies such as WHEDA and USDA Rural Development will come make presentations to your community.

Strategies:

- **Identify funding sources that allow seniors and others who wish to do so to remain in their homes longer.** Community Development Block Grants (CDBG), administered through CAP Services, are available for weatherization and rehabilitation.
- **Encourage joint funding applications to meet identified needs.** The Village of Redgranite should work with surrounding communities and Waushara County.
- **Encourage existing nonprofits to work closer together and with the private sector to meet community needs.** CAP Services, Habitat for Humanity, USDA Rural Development and the Veterans Administration have programs that assist the elderly and allow them to remain in the homes.

- **H 4.4. Encourage intergovernmental cooperation to promote cost effective redevelopment and growth that meet current and future business and community needs.**

- **H 4.5. Encourage public private partnerships that promote economic opportunities and provide for decent, safe affordable housing.** One example could be a joint construction training program between local schools and construction companies.

Goal H 5. Promote cooperation and coordination between government, non-profit and private sectors to increase housing affordability, choice and access. Not only do all levels of government influence housing supply, availability, location, choice and access, the interaction between government, non-profit and private sectors can influence housing affordability, choice and access as well.

Objectives:

- **H 5.1. Identify additional opportunities for coordination and cooperation between governments and between the public, private and nonprofit sectors.**

- **H 5.2. Encourage the creation of multi-organization partnerships that allow agencies to share staff time and leverage housing development resources.** Many rural communities have part-time staff who maintain fulltime jobs elsewhere. As a result, paid staff is not available to apply for or administer programs. However, retirees or others within the community may have skills or expertise that they would be willing to share.

Strategies:

- **Invite funding agencies, consultants and nonprofit agencies to attend village board meetings and explain their programs.**
- **Identify volunteers, who may have the time, expertise and willingness to build the capacity to address identified issues.**
- **Establish a talent pool, which allows potential volunteers the opportunity to sign up for specific tasks.** Notices could be included in area church bulletins and in the newsletter that is sent to senior citizens by the Waushara County Department of Aging.

- **Invite agencies which will provide capacity building technical assistance to come speak to your community.** Agencies can help the Village identify specific things that need to be done to address housing issues.
- **Identify broader, regional or state entities that have financial housing resources or grant writing capabilities, and link them up with local emerging partnerships that need development assistance.**

- **H 5.3. Address the relationship between housing and other land uses in both private and public planning arenas.** Decisions made about housing impacts housing choice, supply and affordability. It also impacts other planning areas including economic development, transportation, community and public facilities, environmental quality and land use.

CHAPTER 5: TRANSPORTATION

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TRANSPORTATION ELEMENT

INTRODUCTION

The City of Wautoma, Village of Redgranite and the towns of Dakota, Marion and Wautoma have a transportation system that is made up of local roads, collectors and arterial streets. STH 21, which connects Oshkosh and Tomah, traverses the area and brings vehicles through the downtown portions of both the village and the city. While private vehicles are the primary mode of transportation in the area, the several biking and pedestrian opportunities are available to the residents and visitors of the area.

Transportation Area Vision for 2025

Area residents have access to a network of well-maintained local streets and roads, and county and state highways that address their needs for mobility for their automobiles, trucks, and farm equipment. Safety and congestion aspects of heavy pass-through traffic in Redgranite, the Silver Lake area, and Wautoma have been relieved with the re-designed Highway 21 corridor, which was carefully selected to minimize adverse effects on the area's natural and cultural features and existing land uses and associated activities and address other concerns expressed by local residents. The full scope of upgrade to this highway corridor between Oshkosh and I-90/94 has provided area residents with better access to employment, shopping, and entertainment opportunities elsewhere and has made the area more competitive in attracting new industrial and other business development. On-street parking has been re-established in downtown Wautoma and safety issues associated with the continued growth of the commercial strip east of the city have been addressed. Local trails, including snowmobile trails and a link to the Ice Age Trail, are an integral part of the transportation network, providing connections to schools, recreational areas, and other important destinations. In rural areas where concentrated development exists, wide striped shoulders along key county and town roads provide safe accommodations for growing numbers of bicyclists and pedestrians. While the private automobile is still the vehicle of choice for trips both long and short, the availability of rural public transportation on demand provides a valuable service that is particularly appreciated by the area's growing elderly population.

INVENTORY AND ANALYSIS

This chapter provides an inventory of the existing transportation, pedestrian, bicycling, trucking and airport facilities in the area. In addition, a summary of existing transportation plans, policies and funding sources associated with these facilities are discussed. The chapter also utilizes the citizen committees' vision for the future to develop the associated goals, objectives and recommendations to achieve them.

Streets and Highways

The primary transportation system consists of a hierarchal network of highways, byways, and other roads and streets that pass through a community. The combined road mileage for the five municipalities in the Group D Planning Cluster totals over 250 miles (Table 5-1).

Table 5-1. Road Network by Jurisdiction

Municipality	STH Miles	CTH Miles	Local Miles	Total Miles
City of Wautoma	4.03	0.26	14.59	18.88
Village of Redgranite	1.43	0.56	12.46	14.45
Town of Dakota	9.60	12.08	40.20	61.88
Town of Marion	11.76	23.26	55.22	90.24
Town of Wautoma	15.91	12.55	41.51	69.97
Total	42.73	48.71	163.98	255.42

Source: WisDOT, 1998, 2004

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.

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. The most recent counts in Waushara County date from 2000 and 2003. When a significant difference in the two counts is encountered, it often can be explained by a road closure, detour, or similar circumstance that temporarily disrupts the normal flow of traffic. The reduction in traffic counts between 2000 and 2003 was most likely caused by the closure of STH 21 between the Winnebago County line and STH 49 that occurred during its reconstruction in 2003. The resulting detour forced people to find alternate routes which affected the traffic counts in the Wautoma/Redgranite area. Exhibit 5-1 displays the functional classification and AADT of selected roadways within the area.

Principal Arterials

Principal arterials serve interstate and interregional trips. These routes generally serve all urban areas with populations greater than 5,000. Rural principal arterials are further subdivided into 1.) Interstate highways and 2.) other principal arterials.

- **STH 21** is classified as a principal arterial-other, providing east-west linkage between Oshkosh/USH 41 and Tomah/I-94. This highway traverses the downtown areas of both the Village of Redgranite, and the City of Wautoma. Generally, AADTs on STH 21 decrease as traffic flows through the county, increasing only in the more congested semi-urban areas in and near Redgranite and Wautoma. Between 2000 and 2003, AADTs decreased on all portions of STH 21, except in the Wautoma area where its roadway was shared with STH 73. Between 2000 and 2003, AADTs on STH 21 were 7,400/5,500 near the eastern entrance to Redgranite, 10,100/7,800 in the downtown area, and 7,100/5,500 west of the village. As STH 21/73 enters Wautoma from the east, AADTs of 13,500/13,700 were recorded. Within the city, AADTs were 10,700/11,600 west of the downtown where the roadway is shared by STH 21, 22 and 73. As STH 21 leaves the city to the west, AADTs were 6,500/5,800.

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.

- **STH 73** links Wautoma with Neshkoro and Princeton to the southeast and Plainfield, I-39, and Wisconsin Rapids to the northwest. Between 2000 and 2003, AADTs on STH 73 remained relatively constant, decreasing from 2,800 to 2,500 south of Wautoma near CTH F and increasing from 3,300 to 3,500 just west of the city.

- **STH 22** provides a north-south linkage between Montello, Wautoma and Waupaca areas. STH 22 enters the Group D cluster from the south (Marquette County), and passes through the western edge of Wautoma before continuing north through Wild Rose and eventually the Waupaca area. AADTs on STH 22 between 2000 and 2003 remained relatively constant. At two locations south of the city, AADTs of 1,200/1,400 (2000/2003) and 1,700/1,500 (2000/2003) were recorded while north of Wautoma AADTs remained constant at 3,600.

Major Collectors

Major collectors provide service to moderate sized communities and other intra-area traffic generators and link those generators to nearby larger population centers or higher function routes.

- **STH 152** from STH 21/73 east to the Wautoma-Mount Morris town line. This collector links the unincorporated community of Mount Morris with the City of Wautoma. AADTs were 1,400 in 2000 and 1,500 in 2003 midway between the two communities.

- **CTH C** from its intersection with STH 73 near the northwest corner of the City of Wautoma west to the Wautoma-Deerfield town line provides east-west service between the City of Wautoma and the Hancock area. West of the intersection, the AADT decreased from 2,400 in 2000 to 1,800 in 2003.

- **CTH F** from STH 73 east of Wautoma to the Marion-Warren town line and beyond. This collector provides service between the Wautoma and Berlin areas and is used by some people to bypass the congested lakes area east of Wautoma. AADTs remained relatively constant between 2000 and 2003, increasing from 1,700 to 2,100 near STH 73 and 1,500 to 1,600 in the Spring Lake area.

- **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 2003, AADTs were relatively light on CTH N. AADTs ranged from 330 southwest of Spring Lake, 290 between Spring Lake and Lohrville, and 600 near its east terminus in Redgranite.

- **CTH E** from the southern limits of the Village of Redgranite to STH 21 and from STH 21 to the northern limits of the village. In conjunction with CTH F, CTH E provides north-south service between the Berlin area and the Village of Redgranite. It also provides north-south service between the Village of Redgranite and the lakes in the northern part of Waushara

County. Between 2000 and 2003, AADTs remained relatively constant on CTH E, increasing from 910 to 940 south of STH 21 and, north of STH 21, decreasing from 2,600 to 2,500 south of its junction with CTH EE. North of the junction, AADTs increased from 920 in 2000 to 1,000 in 2003.

- **CTH EE** from CTH E to the northern village limits. Along with CTH E, CTH EE provides access from STH 21 in downtown Redgranite to the prison and the lake area in the northern part of the county. AADTs just north of Redgranite in the Town of Leon remained constant at 1,300 between 2000 and 2003.

- **CTH S** from STH 21 north to the Marion-Mount Morris area. CTH S provides access from STH 21 west of Redgranite to Mount Morris, Wild Rose, and lakes in the Springwater area. Between 2000 and 2003, AADTs remained constant, decreasing from 460 to 450 near its junction with STH 21.

- **CTH O** basically follows the Wautoma/Rose town line from STH 22 to the west, accommodating east-west travel from Wild Rose towards the Hancock/I-39 area. Between 2000 and 2003, AADTs increased from 450 to 490 west of 16th Avenue.

Minor Collectors

Minor collectors gather traffic from local 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.

- **CTH YY** from STH 73 in the Town of Marion west to STH 22 in the Town of Dakota. Between 2000 and 2003, AADTs decreased from 380 to 300 on this road segment.

- **CTH Y** from STH 21 west of Wautoma southerly to the Marquette County line through the Town of Dakota. AADTs south of STH 21 declined slightly from 250 to 220 between 2000 and 2003.

- **22nd Lane**, in the Town of Dakota, north from STH 21 in the Lake Alpine area to the Marion-Mount Morris town line. This minor collector provides north-south service between STH 21 and Mount Morris and the lakes in this area of the county. No traffic counts are available for this roadway segment.

- **CTH JJ** in the Town of Dakota from STH 22 west to Dakota-Richford town line. This minor collector provides northwest-southeast service between STH 22 and the unincorporated community of Richford. AADT on CTH JJ remained unchanged at 360 between 2000 and 2003.

- **Division Street** in the City of Wautoma between the intersection of STH 21/22 on the west side of the city and STH 21/73 on the east side. This route provides a bypass of Wautoma's downtown business district. Between 2000 and 2003, AADTs decreased from 2,400 to 2,200 near the west end. The easternmost extension is relatively new construction; official counts may not have been available when the most recent traffic survey was conducted and there is no record that this segment has been designated as a minor collector.

Local Roads

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

Pavement Surface Evaluation and Rating (PASER)

Every two years all jurisdictions in the state of 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 local road 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.

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 brand new road. Unpaved roads are rated on a scale of 1 to 5, with 1 again being a road that needs rebuilding and 5 being a brand new road. 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 costs for road repair and improvement. As of 2003 local governments are required to submit their PASER ratings every two years to WisDOT. Table 5-2 provides a breakdown of the PASER ratings, conditions and maintenance needs.

Table 5-2. 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	Needs
5	Excellent	Little maintenance
4	Good	Routine maintenance
3	Fair	Regrading, ditch & culvert maintenance, additional gravel
2	Poor	Additional aggregrate, major ditch & culvert maintenance
1	Failed	Complete rebuild and/or new culverts

Source: Transportation Information Center, UW-Madison

Table 5-3 provides a summary of the total miles of local roads in each municipality by PASER rating. Over 99 percent of the roads within the Group D cluster are paved. A third (56 miles, 34%) of the roads are in excellent to very good condition and require little maintenance. About half the roads (78 miles, 47%) are in good to fair condition, and while they are in good condition structurally, will need slightly more maintenance work. This work may involve seal coating, crack filling and possibly a non-structural overlay. The remaining local roads will require substantially more work. Fifteen percent (25 miles) will require structural improvements that could involve pavement recycling, overlay and patching, while the remaining one percent (2.2 miles) will need total reconstruction.

Table 5-3. Total Miles of Local Roads by PASER Rating.

Paved Road Rating	City Wautoma	Village Redgranite	Town Dakota	Town Marion	Town Wautoma	Total
10	0.34	0.72	2.53	4.17		7.76
9		1.19	1.47	2.39	0.44	5.49
8	3.45	2.41	12.89	16.86	6.57	42.18
7	2.17	2.86	9.83	6.55	2.57	23.98
6	2.15	2.2	10.35	11.08	5.14	30.92
5	1.61	1.73	1.88	12.67	4.38	22.27
4	3.04	0.03			7.07	10.14
3	0.68	0.82			12.5	14
2	0.93				1.08	2.01
1					0.06	0.06
Not Rated			0.07	1.25	1.26	2.58
Subtotal	14.37	11.96	39.02	54.97	41.07	161.39
Gravel Road Rating						
5	0.22				0.34	0.56
4		0.16	0.51			0.67
3		0.14	0.11			0.25
2		0.07	0.56		0.1	0.73
1		0.13				0.13
Not Rated				0.25		0.25
Subtotal	0.22	0.5	1.18	0.25	0.44	2.59
Total	14.59	12.46	40.2	55.22	41.51	163.98

Source: WisDot-WISLER, 2004

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. 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. A town road (26th Rd.) in Saxeville is the only road in Waushara County currently enrolled in the Rustic Roads program. Several town roads within the planning area may have the same potential.

Truck Transportation

There are several designated truck routes within the planning region. STH 21 is the primary truck transportation route through the towns of Wautoma, Dakota, and Marion as well as the City of Wautoma and Village of Redgranite. STH 21 provides direct access to Oshkosh and the Fox Cities to the east. Western destinations include the I-39/USH 51 corridor, I-90, I-94, and western Wisconsin. Minor truck routes include STH 22 and STH 73. STH 22 provides access to Wild Rose and Waupaca to the north and Montello to the south. STH 73 provides access to Plainfield, I-39, and Wisconsin Rapids to the northwest and Princeton and Columbus to the southeast. Local truck traffic occurs on several other state and county highways throughout the planning area, but is more limited in volume.

Several local companies provide both long distance and local freight hauling services within the planning region (Table 5-4).

Table 5-4. Transportation Companies.

Company	Transport Service	Location
Baneck Transport	Long Distance	T. Marion
G & C Trucking	Local	C. Wautoma
Kelly J. Barber & Son Trucking	Local	T. Wautoma
Weiland's Trucking Co.	Local	C. Wautoma
Hartwig Excavating	Excavating	T. Dakota
Stafford Excavating	Excavating	T. Mount Morris

Railroads

There no longer are any operating railroads in Waushara County. 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.

Several towns and Waushara County maintain boat launch facilities throughout the county. Public boat landings are located on Witter's Lake, Bugh's Lake, and the White River in the Town

of Dakota; Irogami Lake, Silver Lake, Hills Lake, Lake Lucerne, Lake Alpine, and Spring Lake in the Town of Marion; and Beans Lake in the Town of Wautoma.

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 travel 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.

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

Future opportunities for increased pedestrian travel will continue to be better realized in the incorporated areas of Wautoma and Redgranite. Officials in these areas should address current pedestrian traffic volumes and how to increase future pedestrian traffic in the area. Future development should include pedestrian facilities such as sidewalks, crosswalks, traffic controls (walk/don't walk signals), and multi-use trails. Multi-use recreational trails provide the best opportunity to increase pedestrian opportunities within the towns of Wautoma, Dakota, and Marion. The Ice Age Trail corridor, which is being created to allow the public an opportunity to view and enjoy the glacial topography of Wisconsin, can be found in the northwest corner of the Town of Wautoma although the trail's exact location may be outside the planning area. Regardless, its proximity to the Group D communities will still afford the residents of the area an excellent hiking opportunity.

Cycling Opportunities

Over 1,000 miles of highly scenic low volume road provide abundant opportunities for bicycling in Waushara County. As such, Waushara County has unofficially identified an interconnected system of bicycle routes throughout the county. 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 from 23 to 35 miles in length and offer several rest stops at municipal and county parks as well as local tourist attractions. Three routes within the planning area offer scenic views of the City of Wautoma, the Village of Redgranite, and the countryside of the surrounding towns (Exhibit 5-2).

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 the planning area in the *Wisconsin State Bicycle Transportation Plan 2020*.

- All of STH 21, STH 22 north of the City of Wautoma, STH 73 south and east of the city and CTH F in the Town of Marion are not recommended as bicycle routes due to the high volumes of traffic.

- CTH II, CTH Y, and CTH JJ in the Town of Dakota; CTH N, CTH YY, and CTH Z in the Town of Marion; and CTH MM and CTH O in the Town of Wautoma have been identified as roads with excellent conditions for bicycling.

- Other roads within the planning area with moderate conditions for bicycling include STH 152, STH 73 northwest of the City of Wautoma, STH 22 south of the City of Wautoma, and CTH F southeast of Spring Lake.

Airports

The three 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, and Dane County Regional Airport in Madison. Many residents prefer to fly out of Milwaukee or 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 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.

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.

Bus Service

There is no scheduled bus service within the county. However, the Department of Aging administers two programs on a countywide 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.

Current and Future Transportation Projects

In 2004, the state replaced the faulted joints and performed a diamond grind on STH 21 between the Village of Redgranite and STH 49. According to the *Wisconsin 2006-2011 Six Year Highway Improvement Program*, dated February 1, 2006, no upgrades are currently planned for any of the roads in the Group D Planning Cluster during the next several years.

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. As Table 5-1 indicates, these roads comprised the bulk of a community's total roadway mileage. To assist communities with the cost of constructing and maintaining these roads, the state provides general transportation aids (GTA), which are available based on lane mileage. For two-lane roads, the towns typically spent between $1,700 and $2,700 per mile while the City and Village spent about $18,000 and 10,000 per mile respectively in 2002. 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, sidewalks, etc, which raises the cost per mile above town spending amounts.

INTERRELATIONSHIPS WITH OTHER COMPREHENSIVE PLAN ELEMENTS

Economic Development

Providing a quality transportation system is important to the economic success of the area. Businesses need to assess the transportation system as to its ability to ship and receive goods, provide access and 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 the untrained, persons with disabilities, or young people. These groups of people are frequently not able to drive, or to 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 along Main Street and Bannerman Avenue may value on-street parking and pedestrian accommodations more than businesses further out on STH 21/73. Traffic in downtown Wautoma and Redgranite has been identified as an issue. A possible STH 21 bypass of both downtown areas has been raised by committee members. In

the future, if communities feel that a bypass may be warranted, potential impacts to existing businesses (increased pedestrian access to street shops, decreased visibility to motorists who normally would travel along the corridor, etc.) need to be considered.

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 transportation infrastructure, community accessibility and safety of the area. Affordable housing, including mixed income developments, should be located in a manner that facilitates transportation access to services and employment. Where available, mixed income housing should be located near public transportation links including public transit. Consideration to both pedestrian and bicycling facilities should be given in all housing developments.

Community and Public 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 our rural residents and farming community. Farmers utilize the transportation system to both transport goods to market and to provide mobility between their various farming operations. STH 21, 22 and 73 afford the farmers in the area access to both local and regional markets. When considering a possible STH 21 bypass, 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 crossing 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 STH 21 in the Wautoma and Redgranite area and an alternative route to the northern part of the Village of Redgranite may impact the area's natural resources (wetland areas and trout streams). 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 quarrying boon of the late 1800s, 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 of both the City of Wautoma and the Village of Redgranite and of the older residential neighborhoods in the area. For example, when widening an existing residential street, how the widening of an existing road and possible elimination of existing trees will impact the aesthetics and cultural identity of the established neighborhood should be considered.

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. New arterials, such as a potential STH 21 bypass of Redgranite and Wautoma, would likely spur development by attracting development in proximity to the new interchanges. Secondly, the relocation of traffic off of the existing STH 21 may also impact existing businesses that rely on the heavy flow of traffic 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 Wautoma and Redgranite to the Fox Cities, Oshkosh and other areas. This 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 jurisdiction to another. An efficient transportation system cannot be dependent on the decisions of one community but upon the input and cooperation of many different entities working together. The expansion of STH 21 would affect many municipal jurisdictions between Oshkosh and the Tomah area. Each of these jurisdictions, along with the State of Wisconsin, would have input into the expansion of this transportation corridor. The resulting expansion will not only impact the local jurisdictions through which it passes, 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. The plan is updated every six years to reflect changing transportation technologies, travel demand, and economic conditions in Wisconsin.

According to the Wisconsin State Highway Plan 2020, STH 21 is expected to be moderately congested in 2020 between Omro and STH 73, east of Wautoma. Traffic congestion on STH 21/73 is expected to be severe through the Wautoma area, while west of the city traffic congestion is not anticipated. 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 plans. STH 22 and STH 73 are also identified in the plan but are not expected to be congested by 2020.

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. The plan estimated that approximately $6 million would be necessary to provide adequate bicycle accommodations throughout the state.

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 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. The suitability of rural roads for bicycles is primarily determined by the paved width of the road and the volume of traffic. To be bicycle accessible, high volume roads (greater than 1,000 vehicle trips per day) should have a paved shoulder. Most State Trunk Highways located on the Priority Corridor System meet this criterion. No improvements were recommended for low volume roads (less than 1,000 vehicles per day). Finally, separated multi-use paths (trails)

were also promoted as a viable option to increase bicycle transportation opportunities within rural areas. Urban improvements should include designated bicycle lanes within the street area, widened lanes, and paved shoulders. Larger urban parks often have both paved and unimproved multi-purpose trail systems, which often parallel rivers or other scenic corridors.

For the purposes of the *WSBTP*, urban areas were defined as villages or cities with populations of 5,000 persons or greater. Although no municipalities within the planning area exceed this number, the urban strategies could be applied to the City of Wautoma and Village of Redgranite to promote safe bicycle transportation for families and visiting bicyclists.

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 recently completed at the Wautoma Municipal Airport. In fall 2004, the taxiways at the airport were expanded, and the entrance was repaired. Additional improvements scheduled for 2007 include hangar renovation and construction, runway expansion, and installation of a weather forecasting system.

Regional

East Central Wisconsin Regional Planning Commission. East Central Wisconsin Regional Planning Commission is currently preparing a regional smart growth plan. As part of this planning process, East Central has proposed 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.

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

These goals are consistent with the area's vision for the future to minimize the negative effects of sprawl development, to provide a well maintained street and road network, to provide a balance between transportation needs and the environment, to ensure that alternative modes

of transportation to the automobile exist, and that an adequate amount of funding for transportation projects is available.

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 the highway 21 corridor, 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.

Local

Airport Zoning. Airport planning is performed at several levels including federal, state, regional, and local levels. This coordinated effort allows complimentary plans to be developed for specific airports. In addition, this allows complementary land uses to be developed in the vicinity of an airport while avoiding unnecessarily duplication of services to air traffic customers. Complementary land uses to airports include noisy commercial or industrial businesses; service based commercial industries (restaurants, hotels, etc.), agriculture, and open and green space conservancies. Commercial and industrial uses must be constructed so the building height does not obstruct access to airport runways. Due to increased noise levels, residential areas, community facilities (schools, hospitals, etc.), and governmental offices are generally not appropriate adjacent to the airport area. Wetlands, retention ponds, and landfills are also incompatible as they attract birds which may interfere with aircraft navigation.

All municipal airports can enact zoning legislation to protect their future success and prevent incompatible uses within a three mile extraterritorial boundary surrounding the airport. A Height Limitation Zoning Overly Zoning Ordinance (HLZO) was enacted at the Wautoma Municipal Airport in March 1994. The HLZO regulates land use surrounding the airport. The height of natural and man-made structures within 0.5 miles of the airport must be less than 35 feet; the height of structures between 0.5 mile and 3 miles of the airport must be less than 50 feet. Structures which were constructed prior to March 1994 are exempt from this regulation. The Wautoma Board of Appeals reserves the right to remove or mark structures within the HLZO at the owners' expense. No such ordinance has been established at the Wild Rose Idlewild Airport.

City of Wautoma. The City of Wautoma Zoning Code, Chapter 2 Subdivisions regulates street design standards within the municipality. These street locations shall be consistent with the official map of the city and shall be located with regard to topographical conditions, natural features, existing and proposed streets, utilities, land uses and public convenience and safety.

Village of Redgranite. The Village of Redgranite currently does not have design standards for street and sidewalk construction and maintenance. It is the recommendation of this plan that the Village develop and adopt these standards.

Federal, State and Regional Programs

Federal Agencies

Surface Transportation Program – Rural (STP-Rural). This program allocates federal TEA-21 funds to complete a variety of improvements to rural county highways. 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 minor 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.

Local Bridge Improvement Assistance Program. This program helps counties, cities, villages, and towns rehabilitate or replace existing bridges on Wisconsin's local highway system based on their sufficiency rating. The program operates on a cost-shared basis with federal and state funds providing 80% of the total eligible project costs. More information can be found at http://www.dot.wisconsin.gov/localgov/highways/bridgeprogram.htm.

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. More information can be found at http://www.dot.wisconsin.gov/localgov/highways/connecting.htm.

Traffic Signing and Marking Enhancement Grants Program (TSMEGP). This program provides funds to local units of government to install traffic signing and roadway marking enhancements. The ultimate goal of the TSMEGP is to improve traffic safety and visibility for both elderly drivers and pedestrians. All Wisconsin counties, cities, villages, and towns are eligible to submit project proposals. The program provides up to 75% of eligible funds for project completion while the local government must fund the remaining 25%. More information can be found at http://www.dot.wisconsin.gov/localgov/highways/signing.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/signing.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 structure. 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.

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 remain 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 5-1

HIGHWAY FUNCTIONAL CLASS AND AVERAGE DAILY TRAFFIC VOLUME

EXHIBIT 5-2

WAUSHARA COUNTY BIKE ROUTES

TRANSPORTATION – Village of Redgranite

Goal TR 1. The village should ensure that its local transportation system is well maintained and safe for its residents. According to the citizens' questionnaire, respondents felt that the good (37%) to fair (37%) job of maintaining village streets. However, respondents and the committee felt that pedestrian safety was a concern along STH 21, especially near the Post Office and the school. Additionally, it was noted that access to the northern portion of the Village may be a concern if the CTH E becomes blocked.

Objectives:

- **TR 1.1. Address congestion in downtown Redgranite.** Congestion along STH 21 is causing traffic backup at Bannerman Avenue and CTH E, as well as concerns with pedestrian safety at the post office and the Redgranite Elementary School.

  Strategies:

  - **Village should contact the WisDOT regarding traffic congestion at the intersection of Bannerman Avenue and CTH E.** During certain periods of the day, the configuration of the intersection causes traffic on STH 21 to back up at the stoplight. To alleviate congestion for eastbound traffic, a dedicated left turn lane in conjunction with a dedicated right lane for through traffic may rectify this situation. Additionally, westbound drivers turning onto CTH E/EE often fail to use the right hand lane, causing major traffic backups on STH 21.
  - **Village should contact WisDOT and request that the traffic light at the corner of Bannerman Avenue and CTH E/EE be put on a timer, so that after 10 PM the signal light flashes yellow on STH 21 and red on CTH E/EE.** Currently the traffic light in downtown Redgranite continues to change from red to yellow to green regardless of the traffic volume in the area or the time of day. After 10 PM sparse traffic, consisting predominately of trucks, passes through the village and is frequently halted at the intersection by the signal, even though no other traffic exists in the area. Besides an increase in air emissions as trucks accelerate, residents are disturbed at all hours of the night by the braking and acceleration actions of the trucks as they pass through the area.
  - **Village should address pedestrian safety at the post office and the Redgranite Elementary School.** Due to congestion along STH 21, the Village should consider increasing the visibility of the crosswalk at the post office by investigating the possibility of adding signage, more visible markings and/or other features to increase motorist's awareness of this pedestrian crossing. School children attending the Redgranite Elementary School must cross STH 21 on their way to and from school. The traffic on STH 21 is a cause of concern by many of the parents. Various options to alleviate this concern may include hiring a crossing guard to help the children cross the street; requesting that the Village Police Department provide an officer and parked patrol car during certain times to slow traffic and assist children in the crossing of this street; make the crossing more visible by painting the crosswalk with a more detectable color or pattern, and/or replacing current signage with signage that incorporates a more visible paint color and or flashing lights; and exploring the option of adding a pedestrian bridge.

- **Village should contact the Waushara County Highway Department to inspect the signs within the village for compliance with existing size requirements.** The *Manual on Uniform Traffic Control Devices* designates the size of signs. Signs that do not meet these requirements as indicated in the manual may not be legally enforceable.

- **TR 1.2. Consider a STH 21 bypass of the Village of Redgranite and/or the City of Wautoma.** A permanent bypass of the Village of Redgranite may alleviate congestion through the village, and make east-west travel between USH 41, I39, I90/94 and western Wisconsin faster and more convenient. However possible economic, environmental and other potential consequences should be carefully weighed by the Village before endorsing a permanent bypass.

  Strategies:
  - **The Village Board should monitor and keep informed about any plans that may affect the STH 21 corridor.**
  - **As necessary, the Village should take appropriate action to ensure that the best interests of the Village are incorporated into any future plans.**
  - **The Village should carefully consider the possible implications of a bypass and be prepared to take a proactive role with WisDOT.**
  - **The Village should work to ensure that an access point, possibly at CTH E, is given to the Village, in the event that a bypass is undertaken.**
  - **When the time comes, the Village should form a working relationship with affected communities to coordinate this project.**

- **TR 1.3. Address the parking situation in downtown Redgranite.** The need for additional parking in the downtown area was mentioned in the citizens' questionnaire.

  Strategies:
  - **The Village of Redgranite should pursue possible locations for additional surface parking.** Parking is not permitted on Bannerman Avenue near the stop light. To increase parking in the downtown area it may be necessary to pursue additional surface parking.
  - **The Village of Redgranite should consider additional or larger signage to provide direction to existing off street parking.**

- **TR 1.4. Address safety concerns regarding access to northern portion of village.** Currently CTH E provides the only access to the northern portion of the village. The facilities for police and fire are located on the south side of Willow Creek and the Redgranite prison, industrial park and homes are located north of the creek. A concern has been expressed that situations may occur when a blockage of this road may increase the travel time for emergency vehicles in time of need. Possible routes may include a connection from Happerset Lane in the Town of Warren to Cottonville Court in the village or from Happerset Lane to Chicago Drive. Besides providing a second access point to the northern portion of the village, a road in this area may allow development to occur in this portion of the village.

Strategies:

- **The Village should work with developers to provide a second access point to the northern portion of the village.**
- **The Redgranite Economic Development Committee should determine interest by private investors in the project.**
- **The Village should consider participating in a grant to develop a road in this area.**

- **TR 1.5. Developing minimum standards for street and sidewalk construction.** Maintenance of poorly constructed roads and sidewalks, once accepted, become the responsibility of Village. The Village should review and approve all roads prior to acceptance. If a road does not meet the standards as specified in the ordinance, corrections shall be made on a timely basis.

  Strategies:

  - **The Village should develop and adopt standards for sidewalk construction.**
  - **The Village should develop and adopt standards for street and curb and gutter construction.** These standards should include minimum right-of-way and surface widths, as well as maximum cul-de-sac lengths.

- **TR 1.6. Address emergency vehicle accessibility on private roads and alleys.** Residents living on substandard private roads and poorly maintained alleys expect that fire, police and other emergency services will be provided to them in times of need. Property owners within the village who are serviced by alleys also expect timely garbage pickup and snow plowing. However, narrow, poorly maintained roads and alleys can often delay or make delivery of needed services difficult.

  Strategies:

  - **The Village of Redgranite should consider adoption of county standards for road and alley maintenance.** Private roadways should be cleared to a height of 18 feet and a width of 15 feet. Alleys should be kept free of obstructions.
  - **The Village should consider adopting a policy that would include written notification to property owners for maintenance and other violations that would obstruct the delivery of municipal services.**
  - **The Village should continue to disallow private road construction.**

- **TR 1.7. Timely responding to site-specific road maintenance and/or safety issues.** The Village encourages feedback from residents so that safety and maintenance issues and concerns can be addressed and resolved in a timely manner. PASER is one method that communities can use to inventory their roads and develop a planned maintenance and reconstruction program. An established annual meeting with the County Highway Department and WisDot ensures coordination on a regional and statewide basis.

Strategies:

- **The Village should continue to conduct a PASER evaluation of the existing road network every two years.**
- **The Village should continue to use capital improvement programming to establish appropriate funding levels.**
- **The Village should continue to replace missing and illegible road signs.**
- **The Village should continue to maintain contact with the Waushara County Highway Department and WisDOT to ensure coordination on regional and statewide transportation issues that may affect the village.**

Goal TR 2. Continue to provide a diversity of affordable transportation options for all age and income groups. The Department of Aging administers two programs on a countywide basis that serves elderly and disabled residents. These programs include a volunteer driver program and a mini-bus program. The mini-bus program provides transportation for both medical and personal trips.

Objectives

- **TR 2.1. Encourage the County Department of Aging to continue to provide transportation for elderly and disabled residents within the municipality.** While the County currently administers tow programs, these programs should periodically be assessed so that the needs of the area elderly and disabled residents are being addressed.

  Strategy:

  - **Assess current transportation programs and needs.**

- **TR 2.2. Increase ride sharing for work, shopping, and other trips.** Sharing rides for work, shopping and other trips benefits the environment and makes economic sense. Commuting to Oshkosh or the Appleton area for work or shopping does occur. "Park and ride" lots should be strategically located to benefit the residents of the area.

  Strategy:

  - **The Village should identify strategic locations that can be used for a "park and ride" lot.** Area residents already participate in carpools and utilize parking lots within the village, even though no formal areas exist. Since this need already exists, it would be beneficial to local residents that a formal lot be established for their use. Additionally establishment of a formal "park and ride" lot could encourage other people to also establish carpools. "Park and ride" lots should be established in existing Village parking lots.

Goal TR 3. Encourage the expansion and safety of non-motorized transportation and transportation opportunities. Bicycling and walking are important modes of transportation and are used for commuting to school and work, social interaction, recreation and exercise. For some people, such as children and households with no car or driver, this is the primary means of transportation. Bicycling and walking have health benefits, move people inexpensively, reduce congestion and air pollution. The availability of sidewalks near schools may also reduce the need for busing for students within walking distance.

Objectives

- **TR 3.1. Accommodate bicyclists and pedestrians in areas of high activity or concentrated development.** People may be more willing to walk or bike if using these modes can be done safely and conveniently. Until recently, roadways within the state have been generally built with little consideration for bicyclists. To accommodate bicyclists/pedestrians, roadway that are heavily used and are scheduled to undergo reconstruction or repair work should incorporate paved and striped shoulders.

  Strategies:
  - **Incorporate paved and striped shoulders on key road segment upgrades.**
  - **Provide sidewalks along collector streets to major destinations such as schools and downtown areas.**
  - **Encourage bicycle transportation and bicycle friendly road construction.**

- **TR 3.2. Consider establishing bicycle, pedestrian, and other non-motorized recreational trails.** The development of multi-use trails would provide the best way to increase pedestrian, bicycling and other non-motorized activities.

  Strategies:
  - **Recommend that the County Park Department and the Village investigate the possibilities for improving and expanding the recreational trail system that is designed to accommodate a range of compatible uses.**
    - The Village should continue to pursue parking for the Bannerman Trailhead.
    - In the future encourage and work with the county to establish a state park in the area that would link the quarries through the Bannerman Trail.
  - **Incorporate several interest areas into a recreational trail system including cultural and historical sites, geological sites, significant natural resources, etc.** James Fruechtl, a senior in Landscape Architecture at UW-Madison looked at the Redgranite area as part of his senior design project. The following recommendations are included in Mr. Fruechtl's report:
    - Provide a series of amenities, strategically placed at each of the quarries along the Bannerman trail to offer information about the trail and the corresponding quarry. These amenities could include signs and or trail markers, shelters, and strategically placed boulders.
    - Incorporate ADA accessibility features into the trail system to open the Redgranite quarry area to elderly and disabled individuals.
    - Create a panoramic informational display that overlooks the Redgranite quarry.
    - Construct buffers of pine, oak, sumac and dogwoods to shield the quarry area from adjacent industrial properties.
    - Within the Redgranite quarry area, create a trail system constructed out of local materials. Include informational signs, historical remnants and pedestrian seating.

CHAPTER 6: UTILITIES AND COMMUNITY FACILITIES

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UTILITIES AND COMMUNITY FACILITIES ELEMENT

INTRODUCTION

One responsibility of a community 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 8-2, Existing Land Use Map which illustrates the location of the various items discussed below.

Utilities and Community Facilities Vision for 2025

Each municipality and sewered area continues to provide residents with the services they offered in 2004. As new subdivisions are platted near existing sewered development, they are required to connect to existing utilities. When other subdivisions are platted within the boundaries of the sanitary district but beyond a point where the present extension of utilities is economically feasible, they are designed in a manner that enables the cost-effective provision of in-ground utilities at a future date. An ongoing program of monitoring wells and on-site disposal systems is in place elsewhere in the area where concentrated development exists. Through cooperation and other operational efficiencies, service providers are able to hold the line on user fees for water, sewer, solid waste and other municipal services. A range of educational, library, medical, financial, retail, and other business services is generally available in the two incorporated communities while a diversity of recreational and entertainment opportunities is found throughout the area.

INVENTORY AND ANALYSIS

This section describes the existing utilities and community facilities within the City of Wautoma, Village of Redgranite, and the towns of Wautoma, Dakota and Marion.

Wastewater Collection and Treatment

The **Wautoma-Silver Lake Sewer Service Area (SSA)** is a combination of both the Silver Lake Sanitary District and the City of Wautoma's SSA. The Silver Lake Sanitary District was formed in the late 1980's to address problems with failing septic systems due to the development around Silver Lake, Irogami Lake, Bugh's Lake, Hills Lake and Deer Lake. Prior to mid-1995, the City of Wautoma maintained its own treatment facility and collection system. In the early 1990's, the City of Wautoma's existing wastewater treatment facility faced a major upgrade due to its age. Since the City of Wautoma's SSA was directly adjacent to the Silver

Lake SSA, and the existing treatment facility for Silver Lake could be expanded to include flows from the city, it made economical sense to combine the two systems and form a regional facility.

The **Wautoma-Silver Lake Sewer Service Area (SSA)** includes about 3,200 acres. The service area covers the majority of the City of Wautoma and part of the towns of Wautoma, Dakota and Marion. Within the City of Wautoma, the predominant land uses are residential, commercial and industrial. Commercial development consists of a central business district with a few scattered small commercial establishments. While new industrial development is being directed to the city's industrial park, existing development is scattered. The City owns approximately eight acres for future industrial development on the community's southeast side. Sanitary sewer extends throughout the city. However, a newer 80-acre residential subdivision on the city's northeast side is currently exempt and remains unsewered. It is anticipated that in 20 years, sewer will be extended to include this area as well. A small amount of residential development north of STH 21 and west of the city outside the municipal boundaries remains unsewered. The predominant land use within the Silver Lake Sanitary District is lakeshore residential development. Strip commercial development exists along STH 21 from the east edge of the City of Wautoma to the west edge of Silver Lake.

The Silver Lake Sanitary District's (SLSD) wastewater treatment facility, located in the Town of Marion off of 19th Avenue was originally built in 1988 and expanded in 1995. The plant utilizes an Orbal activated sludge oxidation ditch and is designed for a flow of 1.025 million gallons per day (MGD), with a present average daily flow of 0.44 MGD. The plant discharges into the White River Flowage. Based on the design flow and average annual daily flow, about 57 percent of the system's capacity remains unused.

The SLSD 2005 population (including the City of Wautoma) is estimated to be 3,974 people based on the city's population and the number of residential sewer connections within the district. Assuming that the population in the sanitary district will increase at the same rate as the towns, it is projected that the population within the district will increase by about 700 people by 2030, the majority of this increase occurring within the City of Wautoma and Town of Marion. Based on this estimate, the wastewater treatment facility should be adequate to handle the additional wastewater flows resulting from the projected population increases and no upgrades to the plant are anticipated at this time.

According to the SLSD, inflow and infiltration (I/I) is significant within the system. The majority of this flow seems to come from the City of Wautoma and appears to be related to the height of the Wautoma Millpond. The City is currently looking into ways to reduce the amount of flow.

The Village of Redgranite's original plant was constructed in 1961-62 and is located south of Willow Creek on Pine River Road. In the early 1990's, a new wastewater treatment facility, utilizing an oxidation ditch, was constructed on CTH EE to handle additional wastewater loads and sludge storage. In 1999, the plant capacity was doubled to handle the additional waste load from the Redgranite Correctional Facility. With a design flow of 0.342 million gallons per day (MGD) and an annual daily flow of 0.16 MGD,[1] this plant is utilizing about 46 percent of the available capacity.

[1] *Redgranite 2003 Compliance Maintenance Annual Report.* Per WDNR design flow is 0.342 MGD.

The collection system covers the majority of the village south of Willow Creek and extends north to the prison. Within Redgranite, the predominant land uses are residential, commercial and industrial. Commercial development mainly exists along STH 21 with a few scattered small commercial establishments. While new industrial development is being directed to the village industrial park to the northeast of the prison, existing development is scattered.

The village currently has 368 residential connections. Based on 2.28 persons per household and a prison population of 990, the system currently serves about 1,829 people or 88 percent of the population. Based on a 2030 population of 2,184 (includes the entire incorporated area of the village and the prison population), the wastewater treatment facility should be adequate to handle the additional wastewater flows that result from the projected population increases. Therefore no upgrades to the plant are anticipated at this time, due to projected population growth in the Village. While the plant should be adequate to handle residential population increases and a modest increase (500 prisoners) in prison population, the Village will need to monitor increases in commercial and industrial flow. Past discussions have also included the addition of the Pearl Lake area, about 2 miles north of the Village, and the Village of Lohrville to the south. If these areas are connected to the Village system, existing capacity at the plant may need to be increased to accommodate the additional flow.

The remainder of the towns of Dakota, Wautoma, and Marion are served by private on-site wastewater treatment systems.

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 building 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[2] (CWP, 2005).

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

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

cropping is prohibited within this corridor. These requirements can be coordinated with soil and water conservation plans required under the Farmland Preservation program[3].

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

Stormwater Sewer Systems

Only the City of Wautoma and Village of Redgranite utilize curb and gutter stormwater systems. The extent of enclosed public storm sewer systems is limited within the City of Wautoma and Village of Redgranite.

Within the City, the storm sewer system covers about 15 percent of the incorporated areas of the city. Curb, gutter and storm sewer extends along STH 21 from Bugh's Lake Road westward through the city's downtown; the western terminus for curb and gutter along STH 73 is located at Oak Ridge Court. The curb and gutter system in the western portions of the city encompasses an approximately rectangular area defined by Cambridge Street (STH 21) on the east, Cummings Road on the south, Bird Creek on the west, and STH 73 on the north. This area drains into Bird Creek. The central business district and portions of surrounding areas are also drained by a curb and gutter system. This approximately rectangular area is bordered by Northwestern Avenue on the east, Elm Street on the south, Saint Marie Street on the west, and STH 21 on the north; a one square block area north of STH 21 between Saint Marie and Scott Streets is also serviced by curb and gutter. This area drains into a detention pond near Pickle Row. Water from the detention pond is slowly released into a small wetland that eventually discharges into the White River. Curb and gutter in the eastern portions of the city are located on Division Street between STH 21 and 17th Drive. The commercial district adjacent to Park Plaza Road is serviced by curb and gutter; this area extends northward along Century Drive to the intersection with Taplin Drive. A small detention basin is being constructed at this corner. The residential area along the first block of 17th Drive immediately north of STH 21 is also serviced by curb and gutter; a detention pond is located on the east side of 17th Drive. The remainder of the city is drained by open ditches that discharge into the White River and its tributaries.

Within the Village of Redgranite, curb and gutter storm sewer extends along STH 21. The remainder of the village utilizes open ditches and culverts. Stormwater within the village empties into Willow Creek. Some streets within the Village remain unimproved (gravel). It is the policy of the Village to improve the main access roads by paving and installing curb and gutter as budgets allow.

A series of open ditches, culverts and drainage channels collects stormwater in the towns of Dakota, Marion, and Wautoma. The ditches discharge water into area streams and rivers at various points throughout the area.

During heavy rains localized flooding occurs throughout the planning area. Within the City of Wautoma, a correlation between the Wautoma Millpond water level and increases in wastewater volumes have been noted at the wastewater treatment facility. A group is currently

[3] *Guide to Community Planning in Wisconsin*. 1999. Ohm, B.W.

studying the problem and will be making recommendations to the City. Localized flooding occurs along Lunch Creek near STH 22 and Witters Lake in the Town of Dakota; appropriate measures have been taken to alleviate future flooding around the lake. Within the Village of Redgranite, localized flooding occurs along Willow Creek during periods of heavy rains. In the Town of Wautoma, localized flooding occurs along the STH 21 corridor and surrounding residential areas. The Town, the Waushara County Land Conservation Department, and local landowners are collaborating to develop solutions to these situations. No major areas of flooding have been noted within the Town of Marion.

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[4]. 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[5]. 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.[6] Techniques that can be used to achieve these goals can 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[1]. These practices may be used to reduce pollutant loads, maintain groundwater recharge areas, protect stream quality, and limit development within the 100-year floodplain.

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[4] *The Watershed Approach*. 2004. Wisconsin Department of Natural Resources.
[5] *Aquatic Buffers*. 2004. Center for Watershed Protection.
[6] *Better Site Design*. 2004. Center for Watershed Protection.

Water Supply

Both the City of Wautoma and the Village of Redgranite have municipal water systems that rely on groundwater as their source of water supply. Water systems consist of four main components; supply, treatment, storage and distribution. Water supplies should be of adequate quantity to meet the most severe public demands and be of good quality. Treatment of raw water is necessary to remove objectionable constituents such as bacteria, suspended solids and high concentrations of dissolved solids. Treatment capacity should be adequate to meet service requirements. Since water pumpage capacity is fixed, often at a level below peak demand, storage capacity is needed to assure adequate flow. This is particularly important during periods of high demand (fires) and as a short-term buffer during equipment failure or processing problems.

Utilizing the elevated tanks in the community, the City of Wautoma's peak flow is 935,000 gallons per day (gpd), while the Village of Redgranite's peak flow is 345,000 gpd[7]. The distribution system brings water from the point of supply to the customer. Distribution piping must be adequately sized to provide for normal customer demands as well as meet periodic demands for high volumes for fire protection purposes. Distribution systems should be "looped" with interconnections to assure supply in the event of main breakage and to provide good circulation of water within the distribution system.

The city's current water system was constructed in 1995. It is anticipated that the existing system will be able to meet the city's projected growth demands for the next 20 years and no expansion is anticipated. With the exception of an 80-acre residential area on the northeast side of the City of Wautoma, the municipal airport, and former landfills, all incorporated areas within the city are served by municipal water. An existing agreement between the City and the developers exempts the subdivision from municipal water for the next 20 years. When this agreement expires, public water may be expanded into this portion of the city.

Public water currently serves the incorporated portion of the Village of Redgranite south of Willow Creek and a small portion north of Willow Creek, including the Redgranite Correctional Facility. Two water towers with a combined capacity of 175,000 gallons are located in the Village. A newer tower is located east of CTH EE in the Village Industrial Park, while a second tower is located in the southern portion of the Village near Bonnell Avenue and Wisconsin Street. It is anticipated that the public water system will be able to meet the village's water demands for the next 20 years.

Table 6-1. Water Facilities

Municipality	Utility Class	Ave. No. Metered Customers	Wells		Ave. Pumped Per Day MGD	Storage (000's Gallons) Elevated Tank
			Active	Inactive		
C. Wautoma	D	858	2	0	0.274	250
V. Redgranite	D	416	2	0	0.174	175

Source: Public Service Commission of Wisconsin, Municipal Annual Report, 2004

[7] PSCW Annual Report, 2004

The towns of Dakota, Marion and Wautoma are served by private wells. Elevated nitrate levels have been detected in a few of the private drinking water wells within the region. See the environmental section of the plan 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. All non-recyclable wastes are hauled to Valley Trail Landfill in Berlin, Wisconsin. Wastes generated by commercial establishments are not accepted at the sites. The City of Wautoma contracts with Onyx Waste Services, while the Village of Redgranite contracts with Waste Management of Wisconsin, Inc. to provide curbside pickup to their residents. 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 Saturday from 10:00 AM to 4:00 PM all year round; and Sunday from 12:00 PM to 3:00 PM during the months of June, July and August.

Residents are able to utilize any drop-off site within the county, but residents within the area most likely utilize one of two sites. The Wautoma site is located north of the City of Wautoma on 17th Drive. Situated in the Town of Wautoma on county-owned land, this site is the largest in the county. Two county employees operate the 2 and 4 cubic yard compactors at the site. The Redgranite site, approximately 1.5 acres in size, is located near the prison on state-owned property. Two compactors along with county personnel are provided at the Redgranite site. The County holds long-term lease agreements on all of its drop-off sites.

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.

According to Waushara County, the county is monitoring waste volumes and will provide upgrades as necessary. At this time, no upgrades are planned.

Electric

Alliant-Wisconsin Power and Light and Adams-Columbia Electric Cooperative provide electric power to the area. Wisconsin Power and Light (WP&L), a subsidiary of Alliant Energy Corporation, serves 422,000 electric customers and 164,000 gas customers. Adams-Columbia Electric Cooperative is rural electric distribution cooperative serving approximately 33,000 member/owners in parts of 12 central Wisconsin counties. It is the largest rural

cooperative in Wisconsin and was formed in 1987. According to Adams-Columbia, there are no major plans to upgrade their facilities in the area. General maintenance and upgrades due to current codes will continue to be made.

Natural Gas

Wisconsin Gas Company provides natural gas service to the area and is a subsidiary of Wisconsin Energy Corporation. The company sells and distributes natural gas to about 550,000 retail customers in 531 communities throughout the state. A gas substation is located in the southwestern corner of the Village of Redgranite on the south side of Bonnell Avenue.

Power Generation Plants and Transmission Lines

ANR Pipeline Company (ANR) owns and operates two gas pipe lines within the area; a 4"/6" line runs east/west through the Town of Dakota near CTH YY and a second 12" line runs diagonally northeast through the Town of Marion from the south county line (west of CTH N) through Spring Lake to the north town line near CTH S. According to ANR there are no problems with the line and no plans to update it at this time.

American Transmission Company (ATC) owns and maintains a number of transmission lines in the area. According to ATC's 2004 10-year Transmission System Assessment Summary Report, the 115 or 138 kV substation in Wautoma is overloaded and the 69 kV substation in Redgranite is experiencing low voltages. However, these projects are not listed as one of the notable projects planned for completion within the next 10 years. The company also owns and maintains a number of transmission lines that pass through the Wautoma Substation; these lines include the 115 or 138 kV transmission lines to the Sand Lake and Roeder substations; the 69 kV lines to the Silver Lake, Wild Rose, Montello and Chaffee Creek substations, and the 69 kV line between the Silver Lake and Redgranite substations.

One hydroelectric dam is situated within the area. This 2 MW dam, located on the Lower White River Millpond (Town of Dakota), is owned and operated by North American Hydro.

Telecommunications Facilities

Telephone

Three telephone companies, all subsidiaries of CenturyTel, Inc., provide service to the area. These companies include CenturyTel Central, Century-Kendall, and Century-Midwest WI. CenturyTel is the nation's eighth largest local exchange company whose focus is on geographically clustered markets in rural areas and small cities.

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.[8] The federal government recognized this need with the passage of the Telecommunications Act of 1996. Several zoning ordinances regulate cellular towers within Waushara County.

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

Several cell towers are located within the Group D planning area. Two cell towers are located on Wautoma's former municipal landfill site on CTH MM and are operated by Charter Communications and U.S. Cellular. Currently the City is negotiating with Nextel to place a third cellular tower on the same site. An antenna located on Wautoma's water tower provides internet service to CenturyTel, Voyager, and Wisconsin Rural Internet. There are no cell towers in the Village of Redgranite. Cell tower locations are shown on Exhibit 6-1.

Internet

Due to the proliferation of internet service providers (ISP), area residents can also choose from several national and local ISPs. Wisconsin Rural Internet, Charter, Corecomm, Dotnet and CenturyTel are among some of the providers who supply internet service to the area. High speed internet access is available through CenturyTel and Wisconsin Rural Internet to customers in the City of Wautoma and parts of the Town of Wautoma and Marion. DSL is offered through CenturyTel to the Village of Redgranite. Fiber optics is available to Wautoma High School, and the City is looking at extending wireless service into the City. Dial-up service is available throughout the entire area. Wisconsin Rural Internet is willing to work with communities to bring high speed internet to their entire residential and commercial base.

Cemeteries

The ownership and maintenance of the cemeteries within the Group D cluster varies between private organizations and public entities. According to state statues, 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[9]. In this manner, some municipalities acquire the management and care of cemeteries; in other instances, the cemetery has always been under public ownership. The Wautoma Union Cemetery was obtained by the City under this condition. A number of cemeteries are located within the area and are indicated below by municipality.

City of Wautoma

Wautoma Union Cemetery is located on the north side of STH 152 east of 17th Drive. This cemetery dates back to 1852 and is owned and maintained by the City. Hope Cemetery, established in the 1800s, is located adjacent to the Wautoma Union Cemetery. It is owned and operated by Hope Lutheran Church in Wautoma.

Village of Redgranite

Foster Road Cemetery is located on the south side of the village on Foster Road (CTH E). This village owned cemetery is over 100 years old and contains the remains of the early settlers of the village. It is still in use today, and there is room for additional burials. St. Mark's Cemetery, located on the north side of the village off of CTH EE, is over 100 years old. The grounds are owned and maintained by St. Mark's Catholic Church in Redgranite.

[9] Wisconsin State Statutes, Chapter 157.

Town of Dakota

The North Dakota Cemetery, established in the early 1910s, is located at the southeast corner of Cottonville Drive and 15th Avenue. The South Dakota Cemetery was also established in the 1910's and is located on the corner of CTH's JJ and Y. Both cemeteries are owned by the Town and maintained by both the Town and volunteers. Raymond (Maple Grove) Cemetery, dating back to the 1920s, is located on CTH YY south of the White River Flowage. It is owned and maintained by the Maple Grove Association volunteer board.

Town of Marion

The Town of Marion Cemetery was established in the 1850s and is located south of STH 21 on the west side of 22nd Avenue near the community of Spring Lake. It is owned and maintained by the Town of Marion via a volunteer board comprised of several local churches and service organizations. Marr Cemetery, dating back to the 1850s, is located on the north side of CTH N, west of its intersection with CTH Z. The Town of Marion is responsible for maintenance.

Town of Wautoma

Webb Cemetery is located west of STH 73 on the north side of Beechnut Road. The cemetery dates to the 1860s and contains the remains of several Civil War veterans. Opened in the early 1900s, the Wild Rose Union Cemetery is located on the west side of STH 22 north of CTH MM. Both cemeteries are owned and maintained by the Town of Wautoma. The West Holden Church Cemetery is located on the east side of CTH MM, south of Beechnut Drive. The cemetery has been owned and maintained by the West Holden Church ECLA for the past 110 years. Additional expansions may be necessary in the future. Calvary Cemetery is located at the corner of STH 21 and 16th Ave. This cemetery, opened in 1886, is owned and maintained by St. Joseph's Parish in Wautoma.

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 a 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 urban and rural counties. Table 6-2 identifies available information on the number of regulated childcare facilities in the area. These figures are for licensed childcare providers only[10].

[10] A license is required for those who provide care for four or more children under the age of 7 at any one time.

Child Care Resource & Referral, Inc. works with counties and the State in monitoring child care 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 Child Care Resource & Referral, Inc. works specifically with Waushara County.

A total of 16 licensed, certified or regulated facilities are located within the planning area. These facilities have a combined capacity of about 358 children. According to the 2000 census, 1,188 children 12 years old or younger lived in the planning area; 485 or about forty percent (40.8%) were 5 years or younger.

Table 6-2. Childcare

	C. Wautoma	Capacity	V. Redgranite	Capacity
Licensed Group Centers (Full day)[1]	1	34	1	50
Licensed Group Centers (Part day)	1	20	1	
Licensed Family Programs	6	48	1	8
Certified Family Programs	2	12	1	6
Dual Regulated Family Programs[2]	2	16	1	8
United Migrant Workers (UMOS)	1	60	1	96
Total Capacity		190		168

[1]One facility that is licensed for full and part day in the V. Redgranite. [2]Number included in Licensed family program.

Source: Mid-Wisconsin Child Care Resource & referral, Inc.

According to the Mid-Wisconsin Child Care Resource & Referral agency, a need exists in the Wautoma area for additional childcare, especially for children of non-traditional workers such as 2nd 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 2004, these programs provided almost 2,500 individuals with assistance.[11] 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. “God’s People”, a non-profit group working with area churches has been formed to provide transportation. However, at this time this group is still in the planning stage.

Meals are provided to seniors at six locations throughout Waushara County every weekday. These locations include the Wautoma-Waushara Senior Center (Dakota), St. Paul’s Lutheran

[11] Waushara County Department of Aging Services 2004 Summary.

Church in Wild Rose (the meal site will be transferred to the Wild Rose Community Center when it is complete), the Redgranite Civic Center, the Hancock Community Building, the Plainfield Senior Center, and the Coloma Community Center. Meals will be served at the Saxeville Town Hall on Mondays and Wednesdays only. Meals are also delivered to individual residences. Currently, the county provides this service to nearly 1,000 senior citizens.

The Information and Assistance Resource Center provides information and assistance on aging, long term care, disabilities, and other related topics. A recent grant will allow this program to be expanded within the next calendar year when a consortium is formed with similar departments in both Green Lake and Marquette Counties.

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 processes if they are denied claims or assistance.

According to the Department of Aging, needs for additional services have been identified on the eastern side of the county. Additionally, the Department has identified the need for additional transportation, a disability specialist (would assist all age groups), provision of health services to people without insurance, long term option counseling, and exercise opportunities. A disability specialist and long-term options counselor will be added through the consortium.

The **Wautoma-Waushara Senior Center** is located on STH 22 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

Several types of residential services exist for the elderly. These include Residential Care Apartment Complex (RCAC), Adult Family Home (AFH), Community Based Residential Facility (CBRF), and adult day care. 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 professionals. 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 with persons of advanced age or persons with dementia, Alzheimer's, or physical disabilities. 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. 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 are no adult day care facilities listed with the Department of Health and Family Services. However, Cooperative Care, based out of Wautoma, provides in-home personal and home care services to elderly and disabled residents. The profits from this member owned cooperative is divided up between all the members who worked in that year. Table 6-3 lists the number of adult care facilities in Waushara County and their corresponding capacities.

Table 6-3. Group D Elderly Care Facilities

Facility	Number	Capacity
Residential Care Apartment Complexes (RCAC)	3	93
Adult Family Homes (AFH)	3	11
Community Based Residential Facilities (CBRF)	7	90
Adult Day Care Facilities (AFH)	0	0
Total	14	198

Source: Wisconsin Department of Health and Family Services.

Currently, 1,661 individuals (21.6% of the total population) within the planning cluster are 65 years old or older; 448 of these individuals live alone. During the planning period they may need assistance for daily activities, healthcare, transportation, etc. Another 716 persons (9.3% of the total population) are between 55 and 64 years old. Although the elderly population is healthier and loving longer than in the past, at some point in their lives assistance will likely be needed. The type of assistance preferred should be identified with input from potential elderly users. The overall capacity for adult care facilities in the planning area is 198 persons. Within the next ten years, approximately 30 percent of the total population will be 65 years or older. 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 provide assistance to senior citizens who wish to remain in their homes.

Police Service

The City of Wautoma, Village of Redgranite, and Town of Marion each employ full-time law enforcement officers that are further supported by the Waushara County Sheriff's Department. The County instituted an enhanced county-wide 911 system about two years ago. The system is expensive and some problems have been noted. 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. As of October 31, 2003[12], for a police department serving a community of less than 50,000 residents, the state average was 1.89 sworn employees per 1,000 residents served. For a sheriff's office (includes most jail personnel), the state average was 2.77 sworn employees per 1,000 residents served.

City of Wautoma

Police protection is provided by five full-time Law Enforcement Officers (LEO)[12], who supply 24-hour service for the city. The City of Wautoma provides 2.4[12] 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.

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.

The department is housed at the Village Hall on Bannerman Avenue. Facilities include a separate office and secured storage area with shared indoor parking. The police department will be sharing a new facility with the village offices when they are complete.

Towns of Dakota, Marion and Wautoma

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. Sheriff response times in all three communities average 5 to 12 minutes.

Waushara County Sheriffs Department

The Waushara County Sheriffs Department provides around the clock law enforcement services to the towns of Dakota and Wautoma as needed. 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

[12] Crime and Arrests in Wisconsin – 2003, Office of Justice Assistance Statistical Analysis Center.

availability to county residents who do not live near the sheriff's office.[13] The department employs 25 full-time sworn officers, or 1.1 officers per 1,000 population. This is below the state average.[12] 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 both schools in Wautoma, Redgranite Elementary School, and Wild Rose High School/Middle School.

Sheriff Officers patrol the county 24 hours per day. Two shifts patrol the county: one from 5:00 AM to 5:00 PM and one from 5:00 PM to 5:00 AM. The department owns 11 traffic squads and 9 other fleet vehicles. Four officers patrol the county throughout the day. Emergency response times in the towns of Dakota, Marion, and Wautoma range from 5 to 7 minutes, while response times to the Village of Redgranite range from 8 to 12 minutes. A snowmobile patrol operates along the recreational trails when they are open.

Several specialized units, including a specialized drug enforcement unit, 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). The Sheriff office is currently developing a canine unit.

Plans exist to upgrade several facilities. In 2003, a joint effort to develop an interoperability plan was initiated between other 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.[11] 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.

Recently the Waushara County Sheriff's Department has initiated 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.

Correctional Facilities

According to the Wisconsin Adult Jail Report 2002, total adult admissions to state jails increased by 62.8 percent since 1992.[14] In more recent years (2001-2002), admissions increased by 2.3 percent at the state level, while they decreased by 14 percent in Waushara County.

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. Since the average length of stay has increased to 64 days, ADP rates have also risen.[14] 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.[10]

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[13] *Waushara County Sheriff Department Annual Report*, 2003. Waushara County Sheriff Department.
[14] *Wisconsin Adult Jail Populations*, 2002. 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 991 inmates.[15] The prison employs 182 security staff and 94 other employees.

Given the rapid increase in jail inmate populations in Wisconsin, several counties have expanded their facilities since 2002. The elevated ADP rates indicate that both the Redgranite Correctional Institution and the Waushara County Jail are over-crowded. Although there are no plans for future expansions, it may become necessary if inmate populations continue to rise. Alternatively, it may be possible to transfer some Waushara County inmates to other facilities in the state.

Fire Protection

There are 11 separate fire districts or departments that operate in Waushara County. Four fire departments or districts provide protection for the communities within this cluster. These departments or districts are the Wautoma Area Fire District, Wild Rose Fire District, Neshkoro Fire Department, and the Redgranite Area Fire District. The county has a strong mutual aid response system in place that is working well to provide service to the residents of the area.

The **Wautoma Area Fire District** serves the entire Town of Dakota, part of the towns of Marion and Wautoma as well as parts of other surrounding towns outside of the cluster. The Fire District facility is located on Fair Street in the City of Wautoma and employs 35 volunteer fire fighters. The fire department operates three front line pumpers, one 100-foot aerial ladder truck, two tankers with 3,500 gallon capacity, three brush trucks, one portable pump truck, a command post van, and a rescue squad. The building is about six years old and should be adequate to meet the needs of the area for the next 20 years. Besides providing space for equipment, the building also accommodates a meeting hall and office space for the fire chief. Response time varies from 5 to 10 minutes.

The **Wild Rose Fire District** serves the northeast corner of the Town of Wautoma, as well as the surrounding towns and municipalities. The District also has mutual aid agreements with departments in Portage (Town of Almond) and Waupaca (City of Waupaca) counties. The Fire District is located on Main Street in the Village of Wild Rose. There are 32 volunteer fire fighters who respond to both fire and rescue calls. The fire district operates two fire engines, two tankers, two brush trucks, and a 6x6 tanker for brush fires. The fire district also has an equipment utility truck and a suburban which are used for rescue calls. Specialized equipment includes the "jaws of life" and air bag extraction equipment. Response times for calls vary from 5 to 10 minutes.

[15] *Offenders Under Control Report,* 2005. Wisconsin Department of Corrections.

The Wild Rose Fire District operates a Cadet training program. This specialized program provides real-world training to individuals age 13 to 17 who are interested in a career in firefighting or becoming a volunteer firefighter. Cadets are allowed to ride along and participate in regular training drills. Currently, 15 cadets are gaining exposure to firefighting techniques.

The Wild Rose Fire District has several expansion plans in place. Within three years, the Wild Rose Fire District will outgrow its existing facilities. The headquarters will be relocated to a new building in the Wild Rose Industrial Park.

The **Neshkoro Fire Department** serves the portions of the Town of Marion which are south of CTH YY, as well as the surrounding towns and municipalities. The facility is located on Main Street in the Village of Neshkoro (Marquette County). There are 27 volunteer fire fighters who respond to both fire and rescue calls. The Neshkoro department owns eight vehicles including a 1,250 gallon engine, a 2,500 gal triple combination engine-tanker-hydraulic jaw, a 2,200 gallon tanker, a 1,500 gallon combination engine-tanker, a medical rescue surburban, a 250 gallon brush truck, and a Polaris 6X6 Ranger ATV used for wilderness rescues.

The fire department also has ten trained first responders. Response times for both fire and rescue calls average 7 to 12 minutes. Neshkoro first responders often arrive at the scene of a call in southeastern areas of the Town of Marion before the Waushara County EMS.

The current fire station allows room for future expansion. As such, no plans exist for either expansion or relocation. With the exception of a 1970s brush truck, all vehicles are less than 10 years old. The fleet is well maintained and does not require replacement within the planning period.

The **Redgranite Area Fire District**, formed on July 1, 2005, serves the Village of Redgranite and parts of the surrounding towns, including the eastern part of the Town of Marion. Located at 135 E. Bannerman in the Village of Redgranite, the fire department shares a building with the village administration offices and the police department. The building was constructed in 1996-1997. The fire district has recently purchased the building and will be taking over the entire space when a new Village Administrative Building is completed. Currently, the department has two separate offices plus garage space. Personnel include 30 volunteers, a part-time chief and 8 certified first responders. The fire department owns eight vehicles, including a ladder truck, two pumpers, two tankers, a brush truck and the Jaws of Life. Response time averages about 10 minutes and the residents are satisfied with the level of service that they receive.

The Insurance Service Office (ISO) of Wisconsin through the use of the Grading Schedule evaluates the adequacy of fire protection within the state for Municipal Fire Protection. 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 serous 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 counties within the region typically have ratings of class 8 through 10. The following table 6-4 indicates the 2002 ISO rating for the above fire departments and districts.

Table 6-4. ISO Ratings

Fire Dept.	ISO Rating
Wautoma Area Fire District	5,5/9
Wild Rose Fire Dept.	8,8/9
Neshkoro Fire Dept.	9,9/9
Redgranite Fire Dept.	5,5/9

The standards for fire station location utilized by the National Board of Underwriters are given in Table 6-5. These standards are based on the density of development in the station service area. Since the towns constitute a relatively low-density rural area, a four to six mile service radius is the recommended standard.

Table 6-5. Recommended Density/Distance Standards for Fire Protection

Land Use	Suggested Service Radius	
	Engine or Pumper Company	Ladder 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: 1988 Small Town Planning Handbook, American Planning Association, p123

Health Care Facilities/Emergency Medical Services

Within the area, there are five health care clinics. These include the Aurora Health Center (126 E. Bannerman Avenue) and Redgranite Medical Clinic (402 Preston Lane) in the Village of Redgranite; and the Aurora Health Center (E. Division Street), C H N Internal Medical Clinic (STH 22), and Family Health and Dental Center (400 S. Townline Road) in the City of Wautoma. Although there are no hospitals within the immediate area; four hospitals located within a half hour drive are utilized by area residents. The four General Medical-Surgical hospitals are Mercy Medical Center in Oshkosh, Aurora Medical Center in Oshkosh, Berlin Memorial Hospital in Berlin, and Wild Rose Community Memorial Hospital in Wild Rose. Table 6-6 indicates which hospitals are used by the residents of the various communities as well as the approximate

distance between the hospital and the municipality. Table 6-7 gives general information about the area hospitals.

Table 6-6. Distance to Hospitals (Miles)

	C. Wautoma	V. Redgranite	T. Dakota	T. Marion	T. Wautoma
Aurora Medical Center	37	27	40	30	40
Mercy Medical Center	40	30	43	33	43
Wild Rose Comm. Mem.	8	18	11	13	5
Berlin Memorial	22	12	18	13	25

Table 6-7. Area Hospitals, Level of Service

	Aurora Med. Ctr.*	Mercy Med. Ctr.	Wild Rose Comm. Mem.	Berlin Memorial
Beds		172	27	49
Adult Med-Sur, Acute		1	1	1
Orthopedic		2	2	2
Rehab & Phy. Med.		1	2	5
Hospice		4	2	5
Acute Long-Term		4	5	5
Other Acute		5	5	5
Pediatric, Acute		2	2	2
Obstetrics		1	5	1
Psychiatric		1	5	5
Alcoholism/Chem. Dep.		4	2	5
ICU/CCU:				
Med.-Sur.		2	5	2
Cardiac		2	5	2
Pediatric		2	5	2
Burn Care		2	4	5
Mixed IC		1	5	1
Step-Down (Sp. Care)		2	5	5
Neonatal Interm/IC		4	5	5
Other		5	2	5
Subacute		1	2	5
Other Inpatient		5	5	5

Note: 1=Provided-Distinct Unit, 2=Provided-Not Distinct, 3=Available in Network, 4=Contracted, 5=Service Not Provided. * No information available

Source: 2002 Wisconsin Hospital Guide, Wisconsin Department of Health & Family Services.

Emergency medical services for the entire area are provided by the Waushara County EMS. EMS administrative offices are located at 230 W. Park Street in Wautoma and provide municipal 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 alternates between Plainfield and Coloma. Two emergency response paramedic unit SUVs are also operated for rescues within rough terrain.

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.

Response time varies and depends on where the ambulance is located and where the service is required. Generally, however, response time within the City of Wautoma is about three to five minutes. Response times in the towns of Dakota, Marion, and Wautoma average between five and ten minutes, while the response time in the Village of Redgranite may be from eight to twelve minutes.

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. 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 be added to the fleet in June 2005.

The various fire districts within the county also have First Responders on staff that can assist with 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 Town of Dakota has approximately 20 trained First Responders, and the Town of Wautoma has 10 fully trained first responders. Due to the proximity of County EMS staff, both parties arrive at approximately the same time in the towns of Dakota and Wautoma.

City of Wautoma residents are satisfied with the service, while Redgranite residents would like to see faster response times. However, within the village, First Responders are able to respond within 10 minutes and are licensed to use defibrillators.

Libraries

Residents within the area use one of two libraries. The Redgranite Public Library is located at 135 W. Bannerman in the Village of Redgranite, while the Wautoma Public Library is located at 410 W. Main Street in the City of Wautoma. 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. Libraries receive the majority of their revenue from the local municipalities and county, based on resident usage. Annual donations have also been made by the Town of Dakota. 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 6-8 provides relevant information for the Redgranite and Wautoma Public Libraries.

Table 6-8. Public Library Statistical Data

	Redgranite	Wautoma
Municipal Population	2011	2110
Total Service Population	2133	9590
Volumes Owned	13,836	16,007
Periodical Titles	59	91
Audio Material	650	1,434
Video Material	828	2,621
Collection Size	15,309	20,062
Hours Open/Week	24	50
FTE Staff	0.81	2.98
Material Expenditures	$2,403	$24,226

Source:Public Library 2003 Statistical Data, www.dpi.state.wi.us

Service targets for libraries are based on quantitative standards contained in the Wisconsin Public Library Standards. These standards are based on the population served and vary for a community in regard to municipal population versus total service population. For the Village of Redgranite, there is little difference between municipal population and service population. Therefore, based on a municipal population of 2,011 people and the above items, the Redgranite library provides less than a basic level of service in the areas of staff, volumes owned, hours of operation, material expenditures, and collection size. However, in the area of audio and video, the library provides between moderate to an enhanced level of service.

For the City of Wautoma, there is a large difference between the municipal population and the service population. The service population usually comes from the surrounding area and, in the case of the Wautoma library, many people rely on the Wautoma library to supplement the smaller libraries throughout the county. Therefore, looking strictly at municipal population, the library is doing a fine job of providing service to the residents of the city, providing less than basic service for only the number of volumes in print. However, considering the total service population, the library falls short in the areas of staff, volumes held in print, periodicals, material expenditures, and total collection size.

Education

Primary and Secondary Education

The area is served by four different public school districts; Wautoma Area, Berlin Area, Wild Rose and Westfield. The bulk of the area is served by the Wautoma Area School District,

including all of the City of Wautoma and Village of Redgranite. Exceptions include the southeast corner of the Town of Dakota and the southwest corner of the Town of Marion, which are included in the Westfield School District; the northeast corner of the Town of Wautoma, which is included in the Wild Rose School District; and the southeast corner of the Town of Marion, which is part of the Berlin Area School District.

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. According to the district, enrollment is declining at all schools; there are no planned additions or renovations to any of their schools at this time. Therefore, due to declining enrollment and school capacities, it is anticipated that the schools will be able to continue to serve the area's enrollment for the foreseeable future. However, it may be necessary to provide updates at the schools in the future based on technological advances.

District administrative offices, built in the 1920's or 30's, are located at 556 S. Cambridge Street in Wautoma. The district's bus garage was built around 1975 adjacent to the administrative offices. The Wautoma High School (grades 9-12), home of the Fighting Hornets, is located nearby at 514 S. Cambridge Street. Built in 1968, the school was remodeled in 1996 and 2002. In 1996, basic renovations were made to the McComb/Bruchs Performing Arts Center and a new library was constructed. The 2002 renovations included a new band room and main gym. Riverview Elementary School (pre-k thru 3) was built in 1960 and is located at 525 S. Water Street in Wautoma. Additional classroom space was added in 1993 and in 2000 a new gym was constructed and general classroom renovations were made. Parkside School (grades 4-8) was built in 1993 and is located at 300 S. 16th Avenue on the west side of the city. No renovations have been made to this school. The Redgranite Elementary (k-5) was built around 1956 and is located within the village at 513 Bonnell Avenue.

Westfield School District

The Westfield School District operates a total of six schools; the Pioneer Westfield High School/Middle School (grades 9-12/7-8, Westfield), Oxford Elementary School (k-6, Oxford), Westfield Elementary School (pre-k thru 6, Westfield), Neshkoro Elementary School (k–6, Neshkoro) and the Coloma Elementary School (k-6, Coloma). Students within the portion of the towns of Marion and Dakota who live within the Westfield School District attend the Neshkoro Elementary School, the Pioneer Westfield Middle School and High School. All schools are being maintained by the district. With the exception of a planned athletic building at the high school/middle school site, no other improvements are planned at this time. According to the district, enrollment has remained stable or declined in all of the elementary schools. Therefore, it is anticipated that the schools will be able to continue to serve the area's enrollment for the near future. However, it may be necessary to provide updates at the schools in the future based on technological advances.

The Westfield Pioneer Middle School and High School, along with the district offices are located at N7046 CTH CH in Westfield. The high school, home of the Pioneers, was built in 1999. In 2002, a middle school addition including classrooms and office facilities were added. The schools share a common gym, auditorium, cafeteria, and athletic fields while maintaining

separate office and classroom space. The district plans on constructing an athletic building that will be used for storage and classroom space by both schools. The Neshkoro Elementary School is located at 114 E. Park Street in Neshkoro. This school is older and was remodeled about 10 or 15 years ago. Currently the school has an enrollment of about 73 students. While the elementary school has been seeing a decline in enrollment, there are no plans to close this school at this time.

Berlin Area School District

The Berlin Area School District's administrative offices are located at 295 E. Marquette St. in Berlin. The district operates a total of four schools; the Berlin High School (grades 9–12 Berlin), the Berlin Middle School (grades 6-8, Berlin), Clay Lamberton Elementary (k-5, Berlin) and Poy Sippi Elementary, (k-4, Poy Sippi). Students from the Town of Marion who live within the Berlin School District attend the Clay Lamberton Elementary School, the Berlin Middle School, and High School.

The Berlin High School was built in 1996 and is located at 222 Memorial Drive in Berlin. Enrollment 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 located at 289 E. Huron Street in Berlin. The school originally served as the high school and was designated as the middle school in 1997, when the new high school was completed. According to the district, the school is nearing capacity; at this time, however, the district has no plans to expand the facility. The Clay Lamberton Elementary School was originally built in 1962 with additions constructed in both 1989 and 1992. The school, which is located at 259 E. Marquette Street in Berlin, also houses the district swimming pool. According to the district, the school has been seeing declining enrollment in recent years. Due to declining enrollment and the capacity of the building, this school should adequately meet enrollment needs of the district for a number of years. However, it may be necessary to provide updates at the school in the future based on technological advances. The Poy Sippi Elementary School, built in 1962, is located at W2194 Liberty Street in the unincorporated community of Poy Sippi. In 2000, classroom space was added. This school is experiencing decreasing enrollment and should be adequate to meet the needs of the district for a number of years. However, it may be necessary to provide updates at the school in the future based on technological advances.

Wild Rose School District

The Wild Rose School District operates a total of four schools; the Wild Rose High School/Middle School (grades 9-12/6-8, Wild Rose), Wild Rose Elementary (pre-k thru grade 5, Wild Rose), and the Pleasant View Elementary School (k-5, Pine River). Students within the portion of the Town of Wautoma who live within the Wild Rose School District attend the Wild Rose Elementary School and the Wild Rose High School/Middle School. The district is currently seeing 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. However, it may be necessary to provide updates at the schools in the future based on technological advances.

The Wild Rose High School and Middle School, along with the district offices, are located at 600 Park Avenue in Wild Rose. The school, home of the Wildcats, sits on the site of the former

three story school building, which was built in 1902 and housed all 12 grades. Additions (small gym) and other renovations were made to the school in 1936 and again in 1952, when classroom space was added. In the summer of 1969, the original school was razed. A referendum was approved by voters in 1996, and major renovations along with classroom space were completed at the school. Since 1996, no additions have been made to the school and none are currently planned. While separate classroom areas are provided for the middle and high school students, the students do share a common area for music, art, shop, and home economics. In addition to the shared specialty classroom areas, students also share a common gym, auditorium, administrative offices and athletic fields. Besides major renovations to the district high school and middle school, voters also approved the construction of a new grade school in 1996. The Wild Rose Elementary is located at 825 Mt. Morris Street in Wild Rose.

General information about the Wautoma Area, Westfield, Berlin and Wild Rose School Districts are shown below in Table 6-9.

Table 6-9. School Districts, 2003 – 04 School Year

Category	Wautoma Area	Westfield	Berlin Area	Wild Rose
Total Enrollment	1,592	1,355	1,742	752
PreK - 8	1,076	890	1,151	524
9 - 12	516	465	591	228
Student/teacher Ratio	*	*	*	*
Valuation per Student	$468,127	$530,632	$292,943	$708,000
Expenditure/Student	$6,990	$7,912	$8,321	$9,000

* Staffing data unavailable
Source: Basic Facts About Wisconsin's Elementary and Secondary Schools, 2003-2004.
Wisconsin Department of Public Instruction.
WWW.dpi.state.wi.us/dpi/dfm/sfms/basicpdf.htm

Institutions of Higher Education

The area does not contain any institutions of higher education. However, UW-Oshkosh (Oshkosh), UW-Stevens Point (Stevens Point), and Ripon College (Ripon) are within an hour's drive of the area.

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. These districts tend to follow school district boundaries rather than county lines. While the planning area is included in three districts, the majority is included in the Fox Valley District (Appleton and Oshkosh). The Madison Area Technical College includes a small portion in the southwest corner of the Town of Dakota, while a small portion of the southeast corner is included in the Moraine Park District (Fond du Lac). 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

The McComb/Bruchs Performing Arts Center is located adjacent to the Wautoma High School. The theater schedules 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.

Other Municipal Buildings

City Hall/Maintenance Facility

The Wautoma City Hall/Maintenance facility was built about 63 years ago. Besides housing city records, this building provides office and meeting space for city officials and functions. The city maintenance facility is located in the rear of the building and includes a secure fenced-in area. Routine maintenance of city streets, parks and other public areas, including snowplowing is provided by city employees. City maintenance equipment includes a loader, plows, jetter, sweeper, and lawn mowers. This building, while older in age, has served the city well and will continue to meet the needs of the city for years to come.

Village Hall/Maintenance Garage

The Redgranite Village Hall, located at 135 E. Bannerman Avenue, was constructed in 1996-97. This facility not only houses village administrative offices but also the Redgranite Fire and Police departments. The facility accommodates a meeting and conference room and a separate area for village administrative services. The Village board meets on the third Tuesday of the month. The Redgranite Area Fire District has recently purchased the entire building. The Village currently rents space from the district and is looking at constructing a new building behind the existing one.

Village crews, consisting of one full-time and two part-time employees, provide snowplowing and routine maintenance of village streets, parks and other public areas. Village equipment includes snowplows, two riding lawn mowers, brush and yard trimming equipment and a tractor with bucket. All equipment is stored at the village garage on Warren Street. The maintenance garage was constructed in the 1960's; it contains a small office and open yard for equipment storage. Besides maintenance, the building is used as a distribution center for the food "share" program, which provides discounted food to needy residents. The village is outgrowing this facility and needs additional space, as well as storage area for sand/gravel and a salt shed. Since the Village is in need of more room, it is anticipated that something will be done within the next five years. No discussion of a new site has taken place at this time.

Town Halls/Maintenance Garages

<u>Town of Dakota</u>

The Town of Dakota opened its new town hall in May 2005. The building is located south of Wautoma on STH 22 near Meilke Lake and is open to town residents for special events. Elections and town meetings, including town board meetings which are held on the second

Monday of the month, are also held here. In addition, the building houses the town records and provides office space for town officials. The town does not operate a maintenance garage.

Town of Marion

Marion's Town Hall is located on CTH Z north of its intersection with CTH F in the Spring Lake area. The building was completed in 1997. Offices of elected officials are located on site as well as storage for town records. No plans exist for expansion within the next 20 years. The town does not own a maintenance garage; all services are contracted with a private entity.

Town of Wautoma

The Town of Wautoma does not have a town hall. Instead, town board meetings are held on the first Tuesday of the month at Parkside School in Wautoma. Town residents vote in the Wautoma City Library. These conditions are expected to change when a planned town hall is constructed. The Town recently purchased a parcel of land on Brown Deer Road near STH 22 and is currently working with a consultant to design a new town hall. Construction is expected to be completed within three years.

Town records are stored in several locations. Records used on a regular basis by the town chairman, clerk, and treasurer are stored at their respective residences. All other records are stored in a rental unit owned by the town. Once construction is completed, all records will be maintained at the new town hall.

The town does not have a maintenance garage. All maintenance responsibilities such as snowplowing are contracted with a private company.

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. The county park system is considered to primarily provide active recreational opportunities. County facilities found within the area are described below.

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. Gates have been installed at road crossings to prevent unauthorized vehicles from

gaining access to the trail. Waushara County has expressed and interest in working with the Village to pursue opportunities to provide off-street parking near the Redgranite trailhead.

Flynn's Quarry County Park is located on the Bannerman Trail in the Town of Marion. This 40-acre site and the nearby 48-acre West Point tract in the Village of Lohrville surround former granite quarries. Because of vandalism, underage drinking, after hours use, and similar problems, and the difficulty in policing these activities, the County has taken steps to discourage further public use of these two sites. Nonetheless, the near-vertical walls that surround the deep quarry ponds make these sites two of the county's most unique recreational properties. Flynn's Quarry, the more accessible of the two sites, features remnants of former mine buildings and it is claimed that a number of abandoned artifacts can be found on the floor of the ponds. While the steep rock walls and deep ponds create some safety problems, cliff diving and scuba diving have historically been unique recreational experiences enjoyed by visitors to both sites. The County has in the recent past leased the sites to local dive clubs, benefiting both the dive clubs and the County. The presence of the dive clubs has been judged to be effective in monitoring activities at these sites.

Lake Alpine County Park is a 17-acre facility located in the Town of Marion. Lake Alpine has a shelter, restrooms, playground equipment, picnic facilities, and volleyball courts. A boat ramp access provides excellent fishing opportunities. A portion of the shoreline is used for swimming. Improvements to the dams and dike rip-rapping were undertaken several years ago. Parking is considered generally adequate while the restrooms are considered inadequate.

The **Waushara County Fairgrounds** are located on a 35-acre parcel near the industrial park in the City of Wautoma. The fairgrounds include the typical complement of livestock, exhibition, and concession buildings. The grandstands, with its upgraded seating, front a half mile dirt track, which is used for harness racing. Other facilities available include picnic tables, restrooms, shelters, and drinking water. Among the more recent improvements are perimeter fencing, a new show ring, and a livestock building.

The **Waushara County Shooting Range** is located on a five acre parcel on CTH C in the Town of Wautoma. The county has a land use agreement with the WDNR to maintain the parcel 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 requires routine grading. Short-term staffing has been explored and should be looked at on an annual basis.

City of Wautoma

Bird Creek Park, occupying 40 acres in the western portion of the community, is Wautoma's most important and heavily used park. The park is bounded by STH 21 on the south, 16th Avenue on the west, River Street on the north, and the Wautoma High School property on the east. Bird Creek flows through the park. Facilities include one lit and two unlit softball diamonds with accompanying bleachers, tennis courts, picnic equipment, and a variety of playground equipment. Structures include several shelters, restrooms, a concessions stand, and storage buildings. A recreational nature trail is located in the park.

Library Park is located on the millpond between the library and the Waushara County World War II Memorial Building. Facilities at this 0.8-acre site include a limited amount of playground equipment, benches, picnic tables, and a municipal parking lot. The millpond attracts mallards, geese, and other wildlife.

Sandcrest Park is located immediately east of the Waushara County Fairgrounds. This 17 acre facility has been extensively developed for active recreational uses. Facilities include baseball diamonds, basketball courts, volleyball courts, a skateboard park, a 9-station fitness course, shelters, restrooms, drinking fountains, and parking areas. The 2.3-acre wetland area offers the potential for an ice skating pond.

Veterans Park, a 0.2 acre site located adjacent to Library Park on the northeast corner of Main and Waupaca Streets, provides the setting for the recently constructed World War II Veterans Museum. The site's attractive landscaping features a World War II artillery piece .

Wautoma Wetlands Park is located south of Main Street along the west bank of the White River. This 1.4 acre facility has an extensive boardwalk network with interpretative signage. An adjacent municipal parking area makes this park a focal point of downtown Wautoma. Severe damage to the boardwalks resulted when the river recently overflowed its banks.

Woman's Club Park is located immediately south of the Wautoma Wetlands Park on Elm Street. This landscaped area is utilized for passive recreation. Visitors can picnic on the benches and tables.

St. Joseph's Ballpark is located north of the high school on the west side of Wautoma. This four acre site contains a softball field, basketball court, volleyball court, and two soccer fields.

Village of Redgranite

East Side Park is located in the eastern portion of the village and is bounded by Division Street on the north, Wood Street on the east, Main Street on the south, and Thackery Street on the west. On-street parking is adequate except when the park hosts major community events. Existing facilities on this 4.6 acre site include two fenced softball diamonds, a sand volleyball court, shelter, restrooms, picnic and playground equipment, and horseshoe courts. The ball fields host Little League, T-ball, and other organized games. The local Lions Club maintains use of a storage structure through a long-term lease.

Redgranite Quarry Park is located near the Redgranite downtown on approximately 30 acres. The former quarry and its surroundings are owned by the village. The seven acre quarry with its steep walls makes the site one of the village's most unique assets. The quarry is used by scuba divers from throughout the state. Although presently undeveloped, the site has excellent potential for both passive recreational activities and trail development. To facilitate these activities, steps have been taken to maintain a path around the quarry. The quarry was the focus of a recent senior project by a student from the University of Wisconsin, Department of Landscape Architecture. His presentation included a number of proposals for improving the quarry environs, making the quarry a viable tourist attraction which could ignite additional economic development in the village.

Downtown Park is located in the business district of Redgranite on STH 21. This 0.5-acre site, once the location of the old Redgranite-Lohrville High School, serves as a focal point for the downtown area and provides an important setting for community events. Facilities include a large pavilion with adjoining concessions stand, restrooms, picnic facilities, sitting areas, and playground equipment. The Women's Club maintains a small floral display. A red pump provides access to an artesian well. More than 15 children, along with artist Lee Bellin, recently completed a historical mural on the park shelter. The mural shows the Village at a time when the quarry was the busiest.

Willow Creek Park is a 10.4-acre facility located in the northwestern portion of the village. Since Willow Creek is a Class I trout stream, this facility provides excellent fishing opportunities. Primary recreational facilities include a baseball field, shelter with restroom facilities, tennis courts, and a concessions stand. The ball diamond serves as the home field of the Redgranite Quarriers, a local amateur team. Erosion control devices were recently installed around the creek.

Town of Dakota

The Town of Dakota has a limited amount of open space associated with its new town hall on STH 22 adjacent to Meilke Lake. This attractive site served as a former wayside and offers picnic facilities which can be used by passers-by. Dakota residents can rent out the town hall for special occasions and gatherings. The Town also maintains a village green at the intersection of CTH JJ and CTH Y in the unincorporated village of Dakota. The green is a popular picnicking spot for area residents.

Town of Marion

Little Hills Lake Park, located on the southeast shore of Little Hills Lake, is a former county park that was transferred to town ownership in 2002. Facilities at the 3.0-acre site include a boat ramp, restrooms and picnic tables. Excellent fishing opportunities await visitors.

A small wayside is located on STH 21 west of CTH S. Travelers can utilized the picnic facilities and enjoy Willow Creek.

Town of Wautoma

The Town of Wautoma has no town park facilities. Plans exist to develop a park adjacent to the new town hall when it is completed.

According to the National Park and Recreation Association, local communities should provide 10 acres of park and open space for every 1,000 residents.[16] Generally, smaller communities such those in the Group D study area may require more acreage if all recreational needs are to be met. This is particularly the case when a community, such as the City of Wautoma, is expected to provide recreational opportunities not only for its residents, but also for residents of the surrounding area and a sizable number of visitors.

[16] Recreation, Park, and Open Space Guidelines. 1990. National Park and Recreation Association.

These standards suggest that Wautoma's present acreage need is 20 acres. This figure is expected to remain relatively constant through 2020. With over 100 acres of park and open space, the City of Wautoma has adequate park and recreational land to meet existing and projected needs. The Village of Redgranite also has adequate park and recreational land to meet these standards. The Town of Marion far exceeds this standard due to the presence of several county parks. The towns of Dakota and Wautoma, on the other hand, do not meet this standard. Emphasis may be needed on developing recreational parks within the towns.

Lakes

Many significant lakes can be found within the area. The lakes provide a diversity of recreational opportunities including boating, swimming, and fishing. Many of the lakes within the area have public access.

City of Wautoma

The **Wautoma Millpond** is a 35-acre impoundment located in the City of Wautoma. Library park provides walk-in access; however, there are no developed boat launch facilities on this lake.

Village of Redgranite

The **Redgranite Quarry** encompasses 7 acres. Walk-in access is available for recreational purposes on the village-owned park.

Town of Dakota

Witters Lake is located just south of the Wautoma Municipal Airport on Witters Dr. This lake encompasses approximately 51 acres. Facilities include a public boat landing and parking area at the northeast corner of the lake off of Witters Drive. Walk-in access is also available from Meilke Way Road. Both access points are maintained by the town. There are no plans to expand the facilities at this time.

The **White River Flowage**, a 133-acre impoundment of the White River, is located on the eastern edge of the town. Two public boat ramps with parking are located on the east shore of the impoundment. One is located on Pine View Drive; the other on White River Trail. Both boat ramps are maintained by the town. The WDNR maintains a public walk-in access off South White River Road.

Meilke Lake is located on STH 22. Walk-in access to the lake is available at the town hall site.

Bass Lake, a State Natural Area, has walk-in access.

The following lakes within the town do not have public access: Lucky (Fratzke) Lake, Pickerel Lake, and Wilcox Lake. There are also several unmanned lakes in Dakota that do not have public access.

Town of Marion

Irogami (Fish) Lake is located in the northwestern corner of the Town of Marion. It covers 289 acres and has three public access points. Two boat ramps are located on the south side of the lake on Irogami Trail. Both ramps are maintained by the town. Walk-in access is available from STH 21 on the south side of the lake and is maintained by the state.

(Big) Silver Lake is located immediately south of Irogami Lake. The lake spans 328 acres and offers three public access points. There is a boat landing on the northwest corner of the lake on STH 21. The other two boat launch facilities are on the southern shore of the lake, one near the intersection of STH 73 and CTH F and the other on Silver Lake Road on the southeasterly most area of the lake. Two walk-in access points are also located on Silver Lake Lane. All public access points are maintained by the town.

Deer Lake is less than ½ mile southeast of Silver Lake. One public boat ramp is located on the northern half of the lake on Deer Ridge. Walk-in access is available on Cree Avenue. Both access points are maintained by the town. The 15-acre lake offers excellent fishing opportunities.

Little Hills Lake is immediately east of Deer Lake. The lake spans 81 acres. The Town of Marion operates a public boat landing at its park near the intersection on 21st Street. Walk-in access is also available on Cree Avenue. Both access points are maintained by the town.

Lake Alpine is located on 22nd Avenue in the northwestern corner of Marion. A public boat ramp within the county park allows access to this 66-acre lake. Several improvements make this lake a popular recreational site.

Lake Lucerne is located in west central portion of the Town of Marion. A public boat ramp located on 20th Lane offers public access to this 48-acre lake.

Spring Lake is located in the southeastern portion of the Town of Marion. Two public boat ramps are found on the 71-acre waterway. One is located on the southwestern edge of the lake on Holiday Lane; the other is located on the northeastern shore off Spring Lake Estates Drive. Walk-in access is also available on Windwood Drive. All access points are maintained by the town.

Squaw Lake is a 5-acre water body located southwest of Silver Lake. Walk-in access is available at the intersection of Indian Mounds Circle and Chicago Avenue. The access point is maintained by the town.

Walk-in access is available but discouraged at both **Flynn's Quarry** and **West Point Quarry**. The county allows scuba diving clubs to utilize these facilities for training exercises.

The following lakes do not have public access: Bannerman Lake, Cedar Springs Lake, Hayes Lake, Hidden Springs Lake, Katy Lake, and Lohrville Quarry. There are also several unnamed lakes and quarries in the Town of Marion.

Town of Wautoma

Beans (Hensel) Lake is located in the northeastern portion of the town. This 22-acre lake has a public boat ramp on Beechnut Avenue. The ramp is maintained by the town. Motorboats are restricted from the lake.

Bughs Lake is located in both the towns of Dakota and Wautoma. A public boat ramp on Bughs Lake Road in the Town of Wautoma offers access to this 25-acre water body. As such, the Town of Wautoma maintains the facilities. No motor boats are allowed on the lake.

There is no public access to Little Beans Lake, Mud Lake, Round Lake, Turtle Lake, and Lake Wautoma. There are also several smaller unnamed lakes in the Town of Wautoma.

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. Several of these facilities are located in the area.

Town of Marion

The **Lake Lucerne Camp and Retreat Center** is a 538-acre year-round facility located on CTH YY. The camp is operated by the Wisconsin Conference United Methodist Church for youth and adult ministry programs. Facilities include a ropes challenge course, recreational ball fields (soccer, softball, volleyball, etc.), recreational trails, mountain bikes, cross country skiing, a chapel, a dining hall, five winterized cabins, offices, and multi-purpose buildings. Waterfront facilities offer access to Lake Lucerne.

Camp Webb is located on STH 21. The Episcopal Diocese of Milwaukee operates and maintains the 135-acre camp for youth ministry activities. Facilities at the camp include two general purpose lodges, offices, three winterized cabins, approximately 40 summer cabins, an archery range, a ropes “challenge” course, a playground, several lodges for specialized activities, an outdoor pavilion, and stables. Waterfront facilities offer access to Little Hills Lake. The facilities are available for rent to the general public throughout the year.

Town of Dakota

The Whiting Community Baptist Church owns a 67-acre parcel on Chicago Road northwest of the intersection with 19th Avenue. Church members utilize the site for camping retreats throughout the year. Some improvements such as buildings and electrical and water hookups have been made to the site.

School and Town Forests

The Wautoma High School grounds include several acres of a natural wooded area that adjoins Bird Creek and Bird Creek Park. A nature study/hiking trail is located on the property; the trail joins with the trail system in Bird Creek Park. Another small area of forest is maintained by the school near the intersection of STH 22 and Chicago Road in the Town of Dakota.

Campgrounds

A number of private campgrounds are located throughout Waushara County. These facilities occupy an estimated 250 acres and provide an estimated 1,750 camping sites.

The **White River Campground**, located on CTH YY in the Town of Dakota, offers 40 sites on five acres along the White River. Reservations are accepted from May to October. Amenities include water and electric hookups, showers, restrooms, a pumping station, boat rental, and fishing.

Snowmobile Trails

About 250 miles of state-funded snowmobile trails are available in Waushara County. The public trail network and 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. A notable exception is the previously discussed Bannerman Trail between Redgranite and Neshkoro. The private trails within the area are maintained by the Wautoma Snow Drifters in the Town of Wautoma and City of Wautoma. Other snowmobiling clubs within the area include Gone Snowmobiling (City of Wautoma), the Neshkoro EZ Riders, and the Wild Rose Sno-Rovers.

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, which total an estimated 800 acres, accommodate a variety of uses including trap and other shooting ranges, hunting and fishing grounds, and other areas set aside for preservation.

Town of Dakota

The Wautoma Rod and Gun Club owns a parcel of land in the area immediately south of the City of Wautoma. A trap shooting range is located on the property. The Crystal Lake Sportsmen Club owns a parcel on CTH JJ along the Mecan River. This property is primarily utilized for hunting and other recreational purposes by club members.

Town of Wautoma

Pine Ridge Farms is a privately owned multi-purpose facility approximately two miles northwest of the intersection of STH 21 and STH 73. Guests can utilize the 3-D archery range, 10 station sporting clay range, recreational nature trails, or private snowmobile trails. In addition, guided hunts are offered for upland birds, turkey, and white tail deer on over 500 acres of diverse habitats. Guides also lead fishing expeditions to local trout streams.

Golf Courses

Two golf courses are located in the Wautoma area. The Waushara Country Club is a 27-hole golf course located on STH 21 east of the City of Wautoma. The Two Oaks North Golf Course is 18-hole course located on CTH F in the Town of Marion. The courses offer challenging opportunities for golfers of all skill levels. Both courses are open to the public.

Other Recreational Opportunities

This area is rich in trout fishing opportunities. Trout streams within the Town of Dakota include Bird Creek, Little Pine Creek, Lunch Creek, the Mecan River, and the White River. Trout streams within the Town of Marion include Sucker Creek, Willow Creek, and the White River. Trout streams within the Town of Wautoma include Bird Creek, Bowers Creek, and Soules Creek.

Post Office

Residents within the area use one of three post offices: the City of Wautoma Post Office, the Village of Redgranite Post Office or the Village of Neshkoro Post Office. The Wautoma Post Office is located on Main Street in the City of Wautoma. The post office serves the City of Wautoma and the towns of Dakota, Marion, and Wautoma; mail is also delivered to portions of the towns of Deerfield, Mount Morris, and Richford. The Village of Redgranite Post Office is located on Bannerman Avenue in the Village of Redgranite. It serves the villages of Redgranite and Lohrville and the Town of Warren. In addition, mail is delivered to portions of the towns of Leon and Marion. The Neshkoro Post Office is located on Main Street in the Village of Neshkoro (Marquette County). Mail carriers deliver to limited areas in the towns of Dakota and Marion.

To better serve postal customers, facility expansions may be needed at two of the post offices. Additional parking may be needed at the Wautoma Post Office. The Redgranite Post Office will be relocating to a larger facility within five years. The existing building, constructed of native quarried stone, is adjacent to the quarry and its preservation should be considered a valuable component of any effort to upgrade the quarry area and revitalize the downtown.

INTERRELATIONSHIPS WITH OTHER COMPREHENSIVE PLAN ELEMENTS

Economic Development

Rising heath 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 region. 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. Farmland losses are not just a local concern; if the food that we need to survive can not be grown in the United States, where will the food be grown and what will be the implications of going to a global food supply? Educating and training future farmers to manage efficient, cost-effective operations is needed in order to survive in this new market.

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 waste-water 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 such as garbage pickup; sewer and water; emergency; electric, gas, and telecommunication and elderly services.

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 is currently working on a regional smart growth plan. As part of this planning effort, East Central has proposed six draft 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. These goals are consistent with the Group D vision for the future to provide residents with the services they need, to protect the surface and groundwater of the area, to cooperatively work to keep down service fees for water, sewer, solid waste and other municipal services, to supply a range of educational, library, medical, financial, retail and other business services, and to offer a diversity of recreational and entertainment opportunities.

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.

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, of the Waushara County Code of Ordinance regulates private on-site wastewater treatment systems within the unsewered portions of the towns of Dakota, Marion and Wautoma and the Village of Redgranite. This section regulates the proper siting, design, installation, inspection, and maintenance of private on-site wastewater systems (POWTS). The prerequisites 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 onsite wastewater treatment systems be inspected on 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 from the date of installation. 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 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 should be placed on communication towers. Due to their height, cell towers should be placed a minimum of 3 miles from the Wautoma Municipal airport. This will prevent possible collisions with the cell towers within the airport's extra-territorial planning area. Currently, all communication facilities meet these requirements.

Waushara County Park and Open Space Plan. The Waushara County Park and Open Space 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, dated November 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.

Local

City of Wautoma Open Space and Recreation Plan. The City of Wautoma Open Space and Recreation Plan, dated May 2001, inventories existing recreational facilities, discusses park and recreational needs, presents goals and objectives that can be used to set City policy, and makes recommendations to address the system's growth and development. The adoption of this plan allows the City to compete for state-funded grants that are available through the DNR-administered Stewardship Program and other programs administered by the WDNR.

Village of Redgranite Open Space and Recreation Plan. The Village of Redgranite Open Space and Recreation Plan, dated October 1991, inventories existing recreational facilities, discusses recreational needs and presents a five year action plan. The village's open space and recreational plan should be updated to address changing needs.

Wautoma/Silver-Irogamie Lakes Sewer Service Area Plan. The Wautoma/Silver-Irogamie Lakes Sewer Service Area Plan, last updated February 1996, is an important planning and development guide. It identifies wastewater treatment and collection needs, forecasts the amount and location of future urban development areas, identifies environmentally sensitive areas, contains land use development forecasts and recommendations, and establishes "holding tank" service areas for isolated and rural special uses. While this plan should be updated every five years, actual updates are dependent on available funds and priorities established by WDNR.

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.

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, train facilities, and several other projects.

Water and Waste Grant and Loan Program. The Water and Waste Grant and Loan Program offer 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.

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.

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.

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). Recently revised in the early 1990s, 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.

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.

Wisconsin Fund. The Wisconsin Fund provides grants to homeowners and small commercial business 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.

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.

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 WNDR'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.).

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.

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.

Wisconsin Pollutant Discharge Elimination System (WPEDS) Storm Water Program. The NPDES program is administered by the WDNR through NR-216. The Wisconsin Pollutant Discharge Elimination System (WPEDS) 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 ($\geq$ 1 acre in size), post construction site stormwater management, and pollution prevention.

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.

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.

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.

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 6-1

COMMUNITY FACILITIES

UTILITIES AND COMMUNITY FACILITIES – Village of Redgranite

Goal CF 1: Encourage orderly development by providing a level of municipal services and facilities adequate to maintain public health, welfare and sustain a vital economy.

Objectives:

- **CF 1.1. Provide adequate services and facilities in a fiscally responsible manner.**

  Strategies:

  - **Prepare a Capital Improvement Program (CIP) to comprehensively and systematically address the community's future needs by programming the timing and funding for undertaking identified projects.**
    - Monitor the growth occurring within the Village and appropriately plan any necessary public and community facilities.
    - Evaluate options for addressing the identified inadequacy of the village's existing maintenance facility.
    - Consider incorporating innovative cost-saving measures such as "green" architecture and other energy conservation practices in the planning, design, and construction of the new village facilities.
  - **Continue to explore opportunities for shared services with Waushara County, neighboring municipalities, the school district, and other public entities.**
    - Conduct a cost-benefit analysis for service consolidation.
    - Work with local school districts to plan new facilities and community based educational and recreational programs.
    - Support community-based organizations involved in re-vitalization and other community betterment activities.
    - Work with Waushara County to cooperatively address the needs of the area's aging population when planning new facilities.
    - Investigate the possibility of combining the school and public libraries into a dual use facility. Appoint a committee, made up of representatives from the local library, school and village boards, school district, Winnefox Library System, local citizens and others to study the issues and make recommendations to the various entities.
  - **Promote the exchange of information with utilities, adjacent municipalities, Waushara County and WisDOT to encourage the coordinated scheduling of planned roadway and utility improvements.**
    - Set up annual meetings with utilities, adjacent municipalities, Waushara County and WisDOT and others.
  - **Accommodate new development in ways that its infrastructural costs are not a tax burden for existing residents.**
    - Require land developers to pay a fair share of services costs up front.
    - Discourage over-development by giving developers a limited grace period before assessing at full value all unsold platted lots. In many cases, platted lots are not assessed at full value until they are sold, encouraging developers to plat more lots than the market will demand. Long standing

subdivisions with few developed lots are very inefficient from a service perspective, costing much more for services (utilities, road maintenance, snowplowing, mail delivery, etc.) than they generate in tax revenue.
    - Require developer to provide a fiscal surety at the time of application for final plat approval, if all required improvements are not completed. This fiscal surety should be sufficient to satisfactorily construct and install the uncompleted portion of the required improvements.
    - Require that all improvements be developers within two (2) years of the final plat approval. (Sec. 42-127)
  - **Maintain an up-to-date municipal website to educate residents about available services and facilities.**
  - **Encourage Waushara County to expand its normal countywide patrol operation from two squads to three.** Some concern has been expressed that rural areas are often underserved and frequently experience extended response times. The County is encouraged to investigate the cost-benefit of an added patrol car during its normal operations throughout the week. With three north-south routes (I-39, STH 22, and STH 49) roughly bisecting each third of the county, the logistics provided by this arrangement appear to have significant merit.

- **CF 1.2. Encourage the use of existing structures for placement of new communication system towers.**

  Strategies:
  - **Encourage the Village to review and adopt the Waushara County cell tower ordinance.** The Federal Telecommunications Act of 1996 allows the retention of local control over many aspects of wireless facilities. Municipalities can exert reasonable control over tower aesthetics, including height restrictions, co-location, setbacks, safety and other design issues. Towers must be located where they do not interfere with aviation, specifically in the flight paths of airport facilities or in areas where activities such as aerial crop dusting is prevalent.
  - **Promote opportunities for shared mountings.** Some types of structures are conducive to hosting more than one provider. When possible, structures should be utilized that can accommodate multiple installations, thus reducing the total number of separate towers.

- **CF 1.3. Provide adequate active and passive recreational opportunities for municipal residents.**

  Strategies:
  - **Update the village's comprehensive park and open space plan.** The village's open space plan is over ten years old and in need of an update. A current open space plan, once adopted, would enable the Village to compete for matching funds for park acquisition and development through WDNR's Stewardship Program.
  - **Survey residents to determine the need for additional recreational opportunities within the community. If the need exists, investigate the use of school facilities for evening and weekend activities for adults**

and children. These facilities can include adult volleyball, basketball, fitness and hobbies (holiday crafts, sewing, etc.)

- **Consider implementing various proposals identified in a recent student project to expand and improve Quarry Park.** The quarry is a unique resource that provides the village a cornerstone project for sparking redevelopment of its downtown. The proposals suggest a number of actions the Village can take to transform Quarry Park and its surroundings into an attraction that can bring tourism dollars into the community.
- **Evaluate the age and condition of the facilities at the East Side Park and include these recommendations in the Village's comprehensive park and open space plan.**
- **Consider the feasibility of a new village south side park.**
- **Encourage Waushara County to maintain a quality county park system and provide improvements identified in its Outdoor Recreation Plan.** The county park system not only provides recreational opportunities for local residents, it also helps meet some of the demand created by visitors to the county.
- **Actively recruit the manpower and funding support of volunteers and service organizations for undertaking local park improvements.** Parks in many small communities, where little funds are budgeted for park improvements, often suffer from deteriorated facilities, lack of upkeep, and inadequate day-to-day maintenance. Soliciting the support of volunteers can be an effective way to make local parks more attractive and provide the funding for building or upgrading facilities.
- **Encourage local residents to consider estate planning techniques that gift land and/or money for local parks or specific park projects.** Major donations can be effective in enabling a community to provide parks and recreational facilities it could not undertake relying strictly on local taxes. To stimulate future donations, communities must demonstrate their appreciation of gifted parks and facilities by providing adequate funds to ensure they are well-maintained.
- **Investigate the use of mandatory park dedication/fees to help fund new parks and facilities.** This could be an add-on payment that would accompany the issuance of a building permit for new residential construction or upfront fees by the developer at the time the subdivision is recorded.
- **Encourage the County to reinvestigate the possibility of establishing a state park in the area.** The Village of Redgranite supports the County in the establishment of a state park that would link the quarries in the area by way of the Bannerman Trail.
- **Encourage the Village, County and State to continue to pursue the establishment of a public parking area for the Bannerman Trail.**

- **CF 1.4. Within the Village of Redgranite, encourage new development to occur adjacent to existing development and within proximity to existing sanitary sewer and public water.**

  <u>Strategies:</u>
  - **Where feasible, give preference to extending sanitary sewers and public water to areas immediately adjacent to existing infrastructure**

over those areas further removed. Even if the developer underwrites the cost of extending utilities, there is a long-term cost to the utility in maintenance and replacement. Logical extensions of existing lines to areas immediately adjacent to those already served, minimizes this cost. Modifying taxation/payment methods to penalize longer, less desirable extensions to reflect the increased long-term cost to the utility to service these areas is one technique that should be considered.

- **New development within the Village of Redgranite, should be served by (connected to) public sewer and water.** Exceptions could be considered if it is determined that the sewer is not cost-effective at the present time. However, provisions for future extension/connection to sewer should be made as part of any development approval. Lot size, building placement, street configuration and (future) sewer easements should be taken into account.
- **Consider extension of sanitary sewer and municipal water to the Village of Lohrville and Pearl Lake Sanitary District in the future.** The Village of Lohrville and the Pearl Lake Sanitary District are within a short distance to the Village of Redgranite and regionalization may be a feasible option.
- **The Village should adopt criteria for assessing the feasibility of providing sewer to properties as a condition of annexation.**
- **The Village should consider the feasibility of providing public sewer for properties already within the village boundaries, but not adjacent to public sewer, prior to honoring any rezoning request.**

- **CF 1.5. Develop and implement a communications plan with adjacent communities to ensure that public sewer infrastructure is utilized in a cost-effective manner.**

Strategies

- **Request that the County prepare an annual report regarding the status of on-site wastewater treatment issues for the Village of Lohrville and the Pearl Lake Sanitary District.** This report should be presented to the Village Plan Commission and Board.
- **Notify the Village of Lohrville when the WWTF's capacity has reached a point where it might preclude sewer service from being extended from the village.**
- **Request assistance from ECWRPC in dealing with any issues associated with wastewater treatment.**

- **CF 1.6. Consider the preparation of a formal NR-121 Sewer Service Area (SSA) Plan to assist in long-term planning for public sewer.** A formal NR-121 Sewer Service Area Plan would be a regulatory tool if prepared by ECWRPC and adopted by the WDNR. However, if the village does not want to adopt a formal plan, it could develop a plan that would not be regulated through WDNR.

- **CF 1.7. Reduce the frequency and scale from future flood events.**

Strategy:

- **New development should consider stormwater management provisions.**

CHAPTER 7: AGRICULTURE, NATURAL, AND CULTURAL RESOURCES

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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 south central Waushara County, a tapestry of working farms interwoven with large stands of woodland continue to dominate the rural landscape and help shape its identity and culture. Its natural features, such as its topographic relief, lakes, streams, wetlands, soils, and other environmental characteristics, also have a significant bearing on historic and contemporary land use and development patterns and contribute to a strong heritage of outdoor recreational pursuits. Fishing, swimming, hunting and other outdoor activities are important past-times, and the area's numerous lakes and other scenic landscape features provide attractive home sites for many permanent and seasonal residents. At the same time, many of these same environmental characteristics have limiting conditions that make them less than ideal for supporting certain 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 for a community's future land use.

Agricultural, Natural, and Cultural Resources Area Vision for 2025

By 2025, the South Central Waushara County area has been able to successfully preserve large blocks of its most productive farmland. Family farms and small corporate farms comprised of extended families and/or neighbors have become profitable by working closely with the educational and business community to identify new markets, products, and processes. Their efforts have been aided by new agricultural-based industrial development. Although farmers are still selling off individual parcels for rural residential home sites and small hobby farms, they are taking care to minimize the potential for conflict with these activities by keeping their most profitable agricultural lands intact and steering new homes to areas where their impact on farming operations is minimal.

Local residents have taken steps to identify and protect the area's most highly valued environmental and visual features, including its "wild" lakes and streams, wetlands, and largest blocks of woodland, from rampant development. While new residential growth continues to occur in proximity to these features, developers and individuals are taking care to ensure that the results of their activities do not jeopardize the integrity of the resource. These efforts have not only helped preserve the rural character so valued by local residents, they have resulted in improved water quality in the area's lakes and streams.

Area residents continue to rely on easy access to outlying urban centers to meet many of their cultural and entertainment needs but the McComb/Bruchs Performing Arts Center is an important community asset that attracts professional talent. In addition, both performing arts and fine arts at the amateur level have gathered impetus locally as concerted efforts have been made to involve residents of all age groups into local productions, and community-sponsored art fairs have continued to grow and attract new local talent. The area now sports several excellent examples of historically accurate architectural restorations.

Inventory and Analysis

This chapter provides an inventory of existing agricultural, natural, and cultural resources of the area. In addition, existing policies associated with these resources are discussed, along with a vision and supporting goals and objectives.

Agricultural Resources

This section will look at important farmland classifications, agricultural land cover and farmland losses and sales between 1990 and 1997.

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). Together they make up over 51 percent of the total area of the towns of Dakota, Marion, and Wautoma and about 56 percent of the total land area in the county (Table 7-1).

Table 7-1. Percent of Land Cover,1991-1993

Municipality	Row Crop	Forages	Grassland	Total Farmland
T. Dakota	24.6%	4.5%	22.5%	51.6%
T. Marion	24.8%	4.0%	24.0%	52.8%
T. Wautoma	14.9%	4.3%	39.8%	59.0%
County	26.6%	9.0%	20.4%	56.0%

Source: Wisconsin Towns Agriculture Trends in the 1990's.

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 though that, while the number of farms has declined, the acreage per farm has increased.

In 1997 an estimated 88 farms (defined as producing at least $1,000 worth of agricultural products in that year) existed within the area (towns of Dakota, Marion and Wautoma), or about 0.9 farms per square mile (Table 7-2). This represents a net loss of 13 farms from 1990, when it was estimated that 101 farms met this definition. Decreases in farm numbers were seen in the towns of Marion and Wautoma (9 farms each), while in the Town of Dakota, five additional farms were added. However, while the area experienced a net loss, Waushara County actually saw a net gain of one farm.

Dairy farms within the area and county also decreased significantly between 1989 and 1997. In 1989 there were 35 dairy farms in the area and 232 dairy farms in the county. By 1997 this number had fallen to 13 and 131 respectively.

Table 7-2. Trends in Farm Numbers, 1989 – 1997

Municipality	Estimated Farms				Dairy Farms			
	1990	1997	% Change	per Sq. Mi 1997	1989	1997	% Change	per Sq. Mi 1997
T. Dakota	25	30	20.0%	0.9	12	5	-58.3%	0.1
T. Marion	26	17	-34.6%	0.5	9	6	-33.3%	0.2
T. Wautoma	50	41	-18.0%	1.2	14	2	-85.7%	0.1
County	709	710	0.1%	1.2	232	131	-43.5%	0.2

Source: Wisconsin Towns Agriculture Trends in the 1990's.

While the number of farms decreased in two of the three towns, the total acreage decreased in all three towns, including a loss of 1,213 acres in the Town of Wautoma (11.2%), 930 acres in the Town of Marion (9%), and 755 acres in the Town of Dakota (Table 7-3). During this same time period the average farm size in the Town of Dakota and Waushara County decreased in size from 370 acres to 283 acres and 291 acres to 278 acres respectively. In the Town of Marion, however, the average farm size increased significantly from 398 acres to 554 acres. The percent of town taxed as farmland represents the percentage of the town that is considered agricultural by the local assessor.

Table 7-3. Loss of Farm Acres

Municipality	Farmland (Acres)		Percent Change	% of Town Taxed as Farmland 1997
	1990	1997		
T. Dakota	9,246	8,491	-8.2%	39.6%
T. Marion	10,346	9,416	-9.0%	43.9%
T. Wautoma	10,850	9,638	-11.2%	44.0%
County	206,263	197,197	-4.4%	54.1%

Source: Wisconsin Towns Agriculture Trends in the 1990's.

When agricultural land is sold in the State of Wisconsin, information is collected by the Wisconsin Department of Revenue regarding whether or not the land is going to remain in agricultural uses. It should be noted that this information is only collected on larger parcels. In 1990 this included parcels that were over 20 acres, while in 1997, it included parcels over 35 acres. From 1990 to 1997, 154 parcels of agricultural land representing 6,177 acres were sold in the area (Table 7-4). Approximately 70 percent of this land remained in agricultural use, while 30 percent was converted to other uses. The Town of Dakota retained the highest percentage of agricultural land (85%), while only two-thirds of the lands that changed hands in the towns of Marion (64%) and Wautoma (67%) continued in agriculture. At the county level, of the 43,439 acres of land that were sold, 78 percent of the acreage remained in agricultural uses.

Table 7-4. Farmland Sales, 1990 – 1997

Municipality	No. of Parcels Sold	Cont. in Agriculture Acres	Converted Out of Ag Acres	Total Acres
T. Dakota	46	1,283	228	1,511
T. Marion	46	1,415	803	2,218
T. Wautoma	62	1,647	801	2,448
County	974	33,881	9,558	43,439

Source: Wisconsin Towns Agriculture Trends in the 1990's.

Farmland Soils

Waushara County's farmlands contribute to the quality of life, provide an open agricultural landscape, and contribute to the economy of the area. Each year, some of these lands are converted to other uses. Based on the soils within the county, five important farmland classifications were developed. These classifications are in order of their importance: 1.) prime farmlands, 2.) unique farmlands, 3.) farmlands of statewide importance, 4.) farmlands of local importance, and 5.) other lands (Table 7-5 and Exhibit 7-1).

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, they cannot be urban, built-up, or water areas. Prime farmland produces the highest yields with minimal inputs of energy and economic resources, and farming it results in the least damage to the environment. Criteria used to determine prime farmland include: adequate and dependable supply of moisture from precipitation or irrigation, few or no rocks, permeable to water and air, not excessively erodible or saturated with water for long periods, is not frequently flooded during the growing season, and has slopes that range from 0 to 6 percent. 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 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, air 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 that are important to the State of Wisconsin for crop production.

Farmlands of local importance are lands in addition to prime, unique, and statewide farmlands that are important to Waushara County for crop production.

Other lands are lands that are considered to have little value for producing crops.

Table 7-5. Important Farmland Classes

Farmland Class	C. Wautoma		V. Redgranite		T. Dakota		T. Marion		T. Wautoma		Total Area	
	Acres	Percent	Acres	Percent	Acres	Percent	Acres	Percent	Acres	Percent	Acres	Percent
Prime Farmland	43	2.5%	62	4.1%	775	3.6%	3,110	13.9%	2,188	10.1%	6,178	9.0%
Unique Farmland	462	26.1%	919	60.4%	9,697	45.0%	10,857	48.5%	9,401	43.4%	31,335	45.5%
State Importance	66	3.7%	38	2.5%	221	1.0%	1,269	5.7%	1,883	8.7%	3,476	5.0%
Local Importance	1,038	58.6%	464	30.5%	9,299	43.1%	3,598	16.1%	2,765	12.8%	17,164	24.9%
Other Lands	131	7.4%	30	2.0%	1,161	5.4%	2,537	11.3%	5,296	24.4%	9,156	13.3%
Water	31	1.7%	8	0.5%	403	1.9%	1,025	4.6%	142	0.7%	1,610	2.3%
Total	**1,771**	**100.0%**	**1,521**	**100.0%**	**21,556**	**100.0%**	**22,397**	**100.0%**	**21,674**	**100.0%**	**68,919**	**100.0%**

Source: USDA-SCS, Soil Survey of Waushara County, Wisconsin 1982. NRCS. Waushara County, 2005.

According to the above criteria, approximately 9 percent (6,178 acres) of the land within the area is considered prime farmland. The majority of this classification is located within the Towns of Marion and Wautoma. Prime farmland comprises about 14 percent of the land area in the Town of Marion and 10 percent in the Town of Wautoma. Within the Town of Marion this land is scattered throughout the town but appears more concentrated within the southeast quadrant of the town. Prime farmland is also scattered throughout the Town of Wautoma. However, unlike the Town of Marion, the majority of prime farmland in the Town of Wautoma does not have to be drained in order to fall under this classification.

The highest percentage of land (45.5%, 31,335 acres) within the area falls under the category of unique farmland. With the exception of the City of Wautoma (26%), this category garners the highest percentage of land area within the individual municipalities as well. Over 60 percent of the land within the Village of Redgranite falls under this classification; slightly less than half the land within the towns of Dakota (45.0%), Marion (48.5%) and Wautoma (43.4%) also is included. Again, this classification appears to be scattered throughout the towns of Marion and Wautoma. Within the Town of Dakota, unique farmland appears to be more concentrated in the southeast quadrant, in the wetter areas of the town along the West Branch of the White River, Lunch Creek, and Pine Creek, in sections 16 and 17, and on the hilly area in sections 20 and 21. Within the Village of Redgranite this classification is found surrounding Willow Creek and areas north of Willow Creek and southwest of Dearborn Street. In the City of Wautoma it is found surrounding Bird Creek, Bowers Creek and east of the White River.

Farmlands of statewide importance comprise about 5 percent (3,476 acres) of the area. A larger proportion of this soil class is found in the towns of Wautoma and Marion. This classification makes up about 9 percent of the Town of Wautoma and 6 percent in the Town of Marion.

Farmlands of local importance, the second largest classification, encompass about a quarter (24.9% or 17,164 acres) of the area's total acreage. This classification makes up the highest percentage of land in the City of Wautoma (58.6%) and the second highest percentage in the Village of Redgranite (30.5%). It is concentrated in the western half of the City of Wautoma, the central section of the Village of Redgranite, and scattered throughout the Town of Marion. Within the Town of Dakota, locally important soils are also scattered throughout the town; however, these soils are not as prevalent in the town's southeastern quadrant or along some of its streams and rivers.

Other lands and water comprise about 13 percent (9,156 acres) of the land within the area. Roughly a quarter of the Town of Wautoma falls in this category as well as 11 percent of the Town of Marion. Within the Town of Wautoma these soils are scattered throughout the town but tend to be found in higher concentrations in the central portion of the town between STH 22 and STH 73.

Natural Resources

Soils

Soils support the physical base for development and agriculture within the town. Knowledge of their limitations and potential difficulties is helpful in evaluating crop production capabilities and other land use alternatives such as residential development, utility installation and other various projects. 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. Severe soil limitations do not necessarily exclude areas from being developed, but indicate more extensive construction measures must be taken to prevent environmental and property damage. The maps reflect information contained within the Soil Survey of Waushara County, issued by the USDA in September 1989.

Seven soil associations, or groupings of individual soil types based on geographic proximity and other characteristics, are present within the area. These include:

Plainfield-Okee-Richford soils are sloping to steep and are found on the sides of ridges, knolls, and hills on moraines and terraces. Slopes range from 6 to 30 percent. The soils within this association range from Plainfield soils that are excessively drained and rapidly permeable to Okee and Richford soils which are somewhat excessively drained and moderately permeable to moderately rapidly permeable. While some areas of the Richford soils are used for cropland, most acreage in this association is used as woodland and is especially well suited for pine trees.

Soils in this association include the majority of the Town of Wautoma, excluding its northwest corner and its southern quarter; localized areas in the eastern portion of the Town of Dakota; and throughout much of the Town of Marion.

Plainfield-Richford-Boyer soils are nearly level and gently sloping and are found on flats, ridgetops and knolls on outwash plains and terraces. Slopes range from 0 to 6 percent. The soils within this association vary from well drained and moderately permeable for Boyer soils to excessively drained and rapidly permeable for Plainfield soils. Most of the acreage in this association is used as cropland, much of it irrigated.

Soils in this association are found in the northwest, southwest, and southeast corners of the Town of Wautoma; along the Mecan and West Branch of the White River in the Town of Dakota; and in the northwest, northeast, and southwest corners of the Town of Marion. Parts of Wautoma and Redgranite also lie in this association.

Kingsville-Meechan soils are nearly level and gently sloping and are found in drainageways and depressions on outwash plains and in glacial lake basins. Slopes

range from 0 to 3 percent. The soils within this association are somewhat poorly to poorly drained and rapidly permeable. Most of the acreage in this association is used for cropland and many areas are drained and used as irrigated cropland. Some areas are used as pasture or woodland.

Soils in this association are found in and near the City of Wautoma; throughout the central portions of the Town of Dakota; and along Willow Creek in the northeastern corner of the Town of Marion.

Houghton-Adrian-Willette soils are nearly level, very poorly drained mucky soils found in depressions on outwash plains, in glacial lake basins and on moraines. Slopes range from 0 to 1 percent. Soils within this association range from moderately slowly permeable to moderately rapidly permeable. Most of the acreage in this association is used for native vegetation and the main plants are water-tolerant trees, marsh grasses, cattails, sedges, reeds, red osier dogwood, and alder. A few areas are drained and used for corn or specialty crops.

Soils in this association are found in the Town of Dakota along Lunch Creek; in the Town of Wautoma along Bowers and Bird and Soules Creeks; and in isolated areas in the Town of Marion.

Plainfield-Pearl-Leola soils are nearly level and gently sloping, sandy soils found on flats and in slight depressions and drainageways on outwash plains. Slopes range from 0 to 3 percent. The soils within this association range from moderately well drained for Plainfield and Pearl soils to somewhat poorly drained for Leola soils. Permeability ranges from rapid for Plainfield soils to moderately rapid in the subsoil and rapid in the substratum for Pearl and Leola soils. Most of the acreage in this association is used for cropland, especially irrigated cropland; pasture; or woodland and is well suited for trees.

Soils in this association are found surrounded by the Kingsville-Meechan soils between the West Branch of the Little Pine Creek and Lunch Creek in the Town of Dakota.

Poy-Zittau-Poygan soils are nearly level and gently sloping, clayey and silty soils, found in glacial lake basins and on moraines. Slopes range from 0 to 3 percent. The soils within this association range from poorly drained for Poy and Poygan soils to somewhat poorly drained for Zittau soils. Permeability is slow in the subsoil.

Soils in this association are found in the Town of Marion near the stream outlet of Spring Lake.

Morocco-Kingsville-Keowns soils are nearly level and gently sloping, sandy and silty soils, found in glacial lake basins. Slopes range from 0 to 3 percent. The soils within this association range from somewhat poorly drained for Morocco soils to poorly drained for Kingsville and Keown soils. The main concerns for Morocco and Kingsville soils are wetness, low available water capacity, and hazard of blowing soils, while wetness is the major concern for the Keowns soils. While Morocco and Keowns soils are suited for trees, Kingsville soils are not.

Soils in this association are found in isolated areas along the southern borders of the

towns of Dakota and Marion. This association also comprises much of the developed portions of the Village of Redgranite.

On-Site Waste Disposal

Exhibit 7-2 portrays the relative suitability for development of specific locations within the area based on their underlying soils. The soil map identifies suitability for on-site waste disposal options based on an evaluation of soil characteristics. The evaluation is represented by a numerical rating indicating whether the soil type is a candidate location for a conventional system, a mound system, or unsuitable for all currently approved on-site systems. It must be noted that this map is not intended to serve as a substitute for on-site soils investigation, but rather as an indicator of reasonable expectations for soils underlying a site.

Evaluation of the soil data indicates that approximately 80 percent (55,061 acres) of the soils in the area are rated suitable for conventional or at-grade in-ground pressure or mound systems (Table 7-6). 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 (Kingsville-Meechan, Houghton-Adrian-Willette, Plainfield-Pearl-Leola, Poy-Zittau-Poygan and Morocco-Kingsville-Keowns associations) are likely to be more unsuitable for on-site systems.

About 67 percent of the area's total acreage (46,475 acres) is suitable for conventional septic systems. This ranges from 85 percent in the Town of Wautoma, to 69 percent in the Town of Marion, and about 50 percent in the other three municipalities. Overall, an additional 13 percent (8,587 acres) of the area is suitable for at-grade systems and another six percent (4,415 acres) is suitable for holding tanks. The remaining 14 percent (9,442 acres) of the area's soils are rated unsuitable for on-site systems due primarily to wet soil conditions. Water, included in the above, accounts for about two percent of the surface area within the area. Of the five municipalities, the Town of Dakota has the highest percentage of land (18.5%) considered unsuitable for on-site systems.

Currently public sanitary sewer collection and treatment is available in the Village of Redgranite, the City of Wautoma, and around the Silver Lake area east of the city. Therefore, within these areas, soil suitability for on-site waste disposal is not an issue. However, the majority of land within the towns is not sewered, and these soil capabilities should be of concern.

Table 7-6. Soil Limitations for On-Site Waste Disposal

	Conventional		At-Grade[1]		Holding Tank[2]		Unsuitable[3]		Suitable[4]		Total
Community	Acres	Percent	Acres	Percent	Acres	Percent	Acres	Percent	Acres	Percent	Acres
C. Wautoma	957	54.0%	525	29.6%	143	8.1%	146	8.3%	1,481	83.7%	1,771
V. Redgranite	859	56.5%	433	28.5%	57	3.7%	173	11.3%	1,292	84.9%	1,521
T. Dakota	10,866	50.4%	4,545	21.1%	2,157	10.0%	3,987	18.5%	15,412	71.5%	21,556
T. Marion	15,393	68.7%	2,212	9.9%	1,389	6.2%	3,402	15.2%	17,606	78.6%	22,397
T. Wautoma	18,400	84.9%	871	4.0%	669	3.1%	1,734	8.0%	19,271	88.9%	21,674
Total	**46,475**	**67.4%**	**8,587**	**12.5%**	**4,415**	**6.4%**	**9,442**	**13.7%**	**55,062**	**79.9%**	**68,919**

Notes: [1]Includes In-Ground Pressure and Mound Systems.

[2]Includes New Technology Systems producing 10^4 or less coliform fecal units (cfu) per 100 ml.

[3]Includes not rated and water.

[4]Includes Conventional and At-Grade

Source: USDA-SCS, Soil Survey of Waushara County, Wisconsin, 1982. NRCS. Waushara County, 2005.

Building Site Development

Exhibit 7-3 identifies soil potential for building site development. The NRCS has evaluated soil characteristics and rated soil potential for building site development taking into consideration wetness, shrink-swell potential, bearing strength, susceptibility to flooding, slope steepness, and frost action. The ratings range from very low to very high potential. About 40 percent (27,464 acres) of the area has soils that are considered to have a very high suitability for building site development while an additional 22 percent (15,263 acres) has soils considered to have medium suitability (Table 7-7). A third (36%, 24,576 acres) of the area has soils that are rated very low for building site development. Water accounts for about two percent of the area. Typically, areas near flowages and in wetland areas have the lowest ratings.

Table 7-7. Soil Potential for Building Site Development

	Very High		Medium		Very Low, No Rating		Water		Total
Community	Acres	Percent	Acres	Percent	Acres	Percent	Acres	Percent	Acres
C. Wautoma	757	42.8%	443	25.0%	533	30.1%	37	2.1%	1,771
V. Redgranite	636	41.8%	464	30.5%	414	27.2%	8	0.5%	1,521
T. Dakota	8,142	37.8%	4,433	20.6%	8,578	39.8%	403	1.9%	21,556
T. Marion	9,184	41.0%	4,568	20.4%	7,619	34.0%	1,025	4.6%	22,397
T. Wautoma	8,745	40.3%	5,356	24.7%	7,431	34.3%	142	0.7%	21,674
Total	**27,464**	**39.8%**	**15,263**	**22.1%**	**24,576**	**35.7%**	**1,616**	**2.3%**	**68,919**

Source: Waushara County, 2005.

Septage Spreading

Exhibit 7-4 identifies soil limitations for septage spreading. The Waushara County Land Conservation Office has evaluated soil characteristics based on groundwater depths, permeability, soil texture, slope, wetness, and soil depth. 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 easy to overcome. Soils with moderate limitations can normally be overcome with correct planning, careful design and good management. Soils rated with severe limitations are severe enough to make the use of the soil doubtful for the proposed use. Additional criteria used for spreading are: no spreading should be allowed within 300 feet of rivers, streams, creeks, etc. or within 1,000 feet of lakes without the incorporation of the septage into the soil within 72 hours or less of application. Spreading rates will need to be based on current soil tests, type of vegetation grown on the site, and a septic nutrient test.

Soil limitations are relatively evenly split among the three classifications. Approximately 34 percent (23,210 acres) of the area has none to slight limitations for septage spreading, 28.5 percent (19,656 acres) has moderate limitations, and 35.2 percent has severe limitations. The remaining three percent of the area is either water or not rated. Approximately 40 percent of the soils in the City of Wautoma and Village of Redgranite have none to slight limitations. Of the three towns, the Town of Wautoma has the lowest percent (27.9%) of land with none or slight limitations while the Town of Dakota has highest percentage (39.9%) with severe limitations (Table 7-8).

Table 7-8. Soil Limitations for Septage Spreading

Community	None to Slight		Moderate		Severe		No Rating, Water		Total
	Acres	Percent	Acres	Percent	Acres	Percent	Acres	Percent	Acres
C. Wautoma	707	39.9%	493	27.9%	504	28.5%	66	3.8%	1,771
V. Redgranite	636	41.8%	463	30.5%	399	26.2%	23	1.5%	1,521
T. Dakota	7,749	35.9%	4,826	22.4%	8,571	39.8%	410	1.9%	21,556
T. Marion	8,061	36.0%	5,829	26.0%	7,451	33.3%	1,055	4.7%	22,397
T. Wautoma	6,057	27.9%	8,044	37.1%	7,315	33.7%	259	1.2%	21,674
Total	**23,210**	**33.7%**	**19,656**	**28.5%**	**24,239**	**35.2%**	**1,814**	**2.6%**	**68,919**

Source: Waushara County, 2005.

Steep Slopes

Exhibit 7-5 indicates areas that have slopes greater than 12 percent. Approximately 12 percent (7,902 acres) of the area's total acreage falls in this category (Table 7-9). Most of these areas are found in conjunction with moraines, drumlins, kettle lakes, and other glacial features. These areas are most prevalent in the towns of Wautoma (21.2% of the town's area), where the undulating topography created by glacially deposited materials is found throughout much of the town, and Marion (10.1%). In the Town of Dakota, they are found northeast of the White River and south of Wautoma while in the City of Wautoma, they are found northwest of the Wautoma Millpond and near the White River and Bugh's Lake. The Village of Redgranite has the lowest percentage of steep slopes (1.0%).

Table 7-9. Steep Slopes

Community	0 - 12 Percent		> 12 Percent		No Rating, Water		Total
	Acres	Percent	Acres	Percent	Acres	Percent	Acres
C. Wautoma	1,640	92.6%	64	3.6%	66	3.8%	1,771
V. Redgranite	1,483	97.5%	15	1.0%	23	1.5%	1,521
T. Dakota	20,181	93.6%	964	4.5%	410	1.9%	21,556
T. Marion	19,084	85.2%	2,257	10.1%	1,055	4.7%	22,397
T. Wautoma	16,815	77.6%	4,601	21.2%	259	1.2%	21,674
Total	**59,203**	**85.9%**	**7,902**	**11.5%**	**1,814**	**2.6%**	**68,919**

Source: USDA-SCS, Soil Survey of Waushara County, Wisconsin, 1982. NRCS. Waushara County, 2005.

Geology and Topography (Scenic Resources)

The towns of Dakota, Marion, and Wautoma, the Village of Redgranite, and the City of Wautoma have significant natural features that help to define the community. Evidence of several phases of the Wisconsin Glacier can be found within this area. Two moraines, the Outer and Second moraines, cut diagonally across the western part of the county. The Second or easternmost moraine intersects the northwest corner of the Town of Wautoma. East and parallel to this moraine is a belt of well drained hills and kettles that runs diagonally through the Town of Wautoma from the southwest corner to the northeast corner. The southeast corner of the Town of Wautoma, the majority of the towns of Dakota and Marion, all of the City of Wautoma, and part of the Village of Redgranite are found within a belt of drumlins, moraines, sand plains, bedrock mounds and marshes. The eastern third of the county is part of a glacial lake plain. This plain encroaches upon portions of the Town of Marion and the Village of Redgranite.

The topographic divide follows the crest of the Second moraine from the northwest corner of the Town of Rose, south within the Town of Rose, then diagonally from the northeast corner of the Town of Deerfield to the southwest corner of the Town of Coloma. The topographic divide separates the surface water drainage between the Upper Wisconsin River Basin to the west and the Upper Fox River Basin to the east.

Total elevation change within the area is approximately 400 feet, ranging from 1190 feet above sea level near the northwest corner of the Town of Wautoma to less than 790 feet above sea level at Sucker Creek near the southeast corner of the Town of Marion and Willow Creek in the Village of Redgranite.

Water Resources

Watersheds and Drainage

The area is located within two major drainage basins; the Upper Fox River and the Wolf River Basins. The Wolf River Basin (3,690 square miles) includes the entire Wolf River and most of the Lake Winnebago Pool Lakes. It joins the Upper Fox River Basin (2,090 square miles) in Lake Butte des Morts. Together, they form the Lower Fox River Basin, which includes Lake Winnebago and areas downstream. The basins are all part of the Lake Michigan drainage system.

The area is divided into four subwatersheds; the Pine and Willow Rivers, Mecan River, White River, and the Fox River/Berlin Watersheds. The Pine and Willow Rivers Watershed is part of the Wolf River Basin and includes the northeast quadrant and the southeast corner of the Town of Wautoma, the northeast corner of the Town of Dakota, the northern third of the Town of Marion, and most of the Village of Redgranite. Flow within this watershed is predominately east. The *State of the Wolf Basin*, dated August 2001, indicates that the Pine and Willow Rivers Watershed is a current priority watershed project focusing on protection, as well as restoration. The watershed ranked “high” as a priority for stream and “medium” as a priority for groundwater under the Nonpoint Source Priority Watershed selection process. There was insufficient data on lakes in this watershed to rank them.

The Mecan River, White River, and the Fox River/Berlin Watersheds are all part of the Upper Fox River Basin. The Mecan River Watershed is located in the southwest corner of the Town of Dakota, land use is primarily agricultural, and it supports a high quality cold water fishery. Drainage is predominantly southeasterly with the Mecan River flowing into Marquette County. The White River Watershed covers all but the northeast quadrant and the southeast corner of the Town of Wautoma, the entire City of Wautoma, all but the northeast corner and the southwest corner of the Town of Dakota, and the southern two-thirds of the Town of Marion. Drainage is predominately southerly and southeasterly. Land use is predominately agricultural with a significant amount of woodlands and wetlands. The Fox River/Berlin Watershed is located along the east boundary of the Town of Marion and southwest corner of the Village of Redgranite. Drainage in this area is predominately southerly and land use is primarily agriculture.

The *State of the Upper Fox River Basin Plan*, dated October 2001, indicates that Mecan River, White River and the Fox River/Berlin Watersheds have an overall nonpoint source ranking of “medium”. Streams are ranked medium in the Fox River/Berlin watershed while in the Mecan

and White River watersheds they are not rated. Lakes are unrated in all three watersheds. There is high potential for groundwater contamination in all three watersheds.

Lakes, Ponds and Quarries

The majority of lakes within Waushara County are natural and of glacial origin. Sandy soils readily allow the percolation of precipitation and thawing snow and ice into the ground rather than overland flow directly to surface waters. This leads to the continual recharge of the shallow aquifer underlying the county and surrounding region. Table 7-10 lists the lakes and quarries found within the five municipalities.

City of Wautoma

Wautoma Millpond, the only lake located within the city, is an impoundment of the main branch of the White River. Soules Creek flows into this pond.

Village of Redgranite

Redgranite Quarry, a hard water quarry with vertical sides, is located near the center of the village.

Town of Dakota

Six Lakes are found within the Town of Dakota: *Pickerel*, *Witters,* and *Meilke* lakes, all landlocked seepage lakes; *Lucky (Fratzke) Lake*, a spring fed seepage lake; *Bass Lake*, the headwaters of Little Lunch Creek; and the *White River Millpond (Lower)*, an impoundment on the main branch of the White River. Bass Lake, whose source of water originates from a minor inlet on the north end and numerous springs around the shoreline, is also classified as a State Natural Area.

Town of Marion

Twelve Lakes and four quarries are located within the Town of Marion. The lakes include; *Irogami (Fish) Lake, Deer Lake*, *Squaw Lake*, all seepage lakes; *(Big) Silver Lake, Little Hills Lake* and *Lake Lucerne (Egan)*, are spring fed seepage lakes; *Bannerman* and *Spring* lakes, spring fed lakes with outlets; *Lake Alpine*, an impoundment of Thorstad (Bruce) Creek; and *Hidden Springs, Katy Lake* and *Cedar Springs,* excavated ponds. (Big) Silver and Irogami (Fish) Lake are largest and second largest lakes respectively in the county. Lake Lucerne (Egan) has been designated as an Outstanding Resource Water under the state's antidegradation policy. The quarries include Flynn's Quarry, West Point Quarry, and two unnamed quarries in section 27.

Town of Wautoma

Seven landlocked seepage lakes are located within the town and include: *Bughs Lake, Beans Lake, Little Beans Lake, Mud Lake, Round Lake, Turtle Lake and Wautoma Lake.*

Table 7-10. Lakes, Ponds and Quarries

Name	Municipality	Acres	Max. Depth Feet	Developed/ Undeveloped
Wautoma Millpond	C. Wautoma	35	4	Partial
Redgranite Quarry	V. Redgranite	7	163	Undeveloped
Pickerel Lake	T. Dakota	28	51	Partial
White River Millpond	T. Dakota	133	20	Partial
Witters Lake	T. Dakota	51	18	Developed
Bass Lake	T. Dakota	14	28	Undeveloped
Lucky (Fratzke) Lake	T. Dakota	17	46	Undeveloped
Meilke (Pickerel) Lake	T. Dakota	19	5	Undeveloped
Irogamie (Fish) Lake	T. Marion	289	5	Partial
(Big) Silver Lake	T. Marion	328	50	Developed
Deer Lake	T. Marion	15	14	Developed
Little Hills Lake	T. Marion	81	23	Partial
Lake Alpine	T. Marion	56	18	Developed
Squaw Lake	T. Marion	5	5	Developed
Bannerman Lake	T. Marion	5	6	Undeveloped
Lake Lucern (Egan)	T. Marion	48	33	Partial
Spring Lake	T. Marion	40	37	Partial
Hidden Springs	T. Marion	NA	NA	Developed
Katy Lake	T. Marion	NA	NA	Partial
Cedar Springs	T. Marion	38	NA	Developed
Flynn's Quarry	T. Marion	3	70	Undeveloped
West Point Quarry	T. Marion	2	64	Undeveloped
Unnamed Quarry (sec.27)	T. Marion	1	21	Undeveloped
Unnamed Quarry (sec. 27)	T. Marion	2	3	Undeveloped
Bugh's Lake	T. Wautoma	25	18	Developed
Bean's Lake	T. Wautoma	20	12	Partial
Little Bean's Lake	T. Wautoma	1	9	Partial
Mud Lake	T. Wautoma	10	6	Undeveloped
Round Lake	T. Wautoma	26	14	Undeveloped
Turtle Lake	T. Wautoma	6	27	Undeveloped
Wautoma Lake	T. Wautoma	11	4	Undeveloped

Source: WDNR and ECWRPC.

Rivers/Streams

Major waterways (parent streams), tributaries, and secondary feeder tributaries within each watershed in the area include:

Mecan River Watershed:

Mecan River (T. Dakota)

Little Pine Creek (T. Dakota)

North Fork of Little Pine Creek (T. Dakota)

White River Watershed:

White River (Main Branch) (C. Wautoma, T. Dakota and T. Marion),

Lunch Creek (T. Dakota)

Little Lunch Creek (T. Dakota)

West Branch of the White River (T. of Wautoma and T. Dakota)

Mud Creek (T. Dakota)

Bird Creek (T. Wautoma, C. Wautoma and T. Dakota)
Bowers Creek (T. Wautoma)
Soules Creek (T. Wautoma)
Sucker Creek (T. Marion)
Spring Creek (T. Marion)

***Willow Creek Watershed*:**

Willow Creek (T. Marion and V. Redgranite)
Thorstad (Bruce) Creek (T. Marion).

Many of the tributaries within the Mecan River watershed support high quality cold water fisheries and land use is primarily agricultural. The Mecan River originates at the Mecan Springs and flows through the southwest corner of the Town of Dakota, where it is considered an Exceptional Resource Water and classified as a class II trout fishery. Little Pine Creek and the North Fork of Little Pine Creek are also located in the southwestern part of the Town of Dakota. Little Pine Creek is considered a class I trout stream; south of its confluence with the North Fork it is considered an Outstanding Resource Water.

Also located in the Upper Fox River Basin, the White River watershed contains a number of high quality streams and Exceptional Resource Waters. Land use within this basin is predominately agricultural, though significant amounts of woodlands and wetlands are also present. The White River above the White River Flowage is a class I trout stream and an Exceptional Resource Water. Below the flowage, the river is considered a warm water sport fishery. The West Branch of the White River originates in an impounded spring area known as the Upper White River Millpond (Town of Deerfield) and flows into the White River south of Wautoma. This river is considered a class I trout stream and an Outstanding Water Resource. Mud Creek, a tributary of the White River south of Wautoma, is also considered a class I trout stream and an Exceptional Water Resource. Bird Creek, originating in the public hunting and fishing grounds two miles west of Wautoma, joins the White River south of Wautoma. This creek is considered a class I trout water and an Exceptional Water Resource. Bowers Creek, which joins Bird Creek west of Wautoma, is considered a class I trout water and an Exceptional Water Resource. Soules Creek originates northeast of Wautoma and flows southwesterly into the White River at the Wautoma millpond. This creek is considered a class I trout water and an Exceptional Water Resource. Lunch Creek originates about 3.5 miles west of Wautoma and flows southeast out of Waushara County to join the White River at the Neshkoro Millpond. Above STH 22 Lunch Creek is classified as class I trout water and Exceptional Resource Water; downstream it is class II trout waters. Little Lunch Creek, fed by seepage and springs, is a tributary to Lunch Creek. Sucker Creek originates in the Town of Marion, then flows out of Waushara County and eventually joins the White River in Green Lake County. This spring fed stream is considered a class I trout water above CTH N and rated as class II trout water downstream to near the county line. Below its confluence with Spring Creek, the stream is non-trout. A small portion of the stream is considered an Exceptional Water Resource.

Willow Creek is class II trout water. This creek originates from springs and the outlet of Silver Lake in the Town of Springwater. Thorstad (Bruce) Creek, which originates from springs and the outfall of Tippetts (Tibbetts) Lake and flows southeasterly into Willow Creek, is rated class II trout water. Part of Willow Creek is also considered an Outstanding Resource Water.

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 Towns of Dakota, Marion and Wautoma. Because the City of Wautoma and the Village of Redgranite are incorporated, a FEMA Flood Hazard Boundary Map was used to plot the floodplain areas within these two municipalities. A *Floodplain Management Study*, dated November 1985, was completed for the City of Wautoma and is referenced below. All identified areas are within Zone A, which means that no base flood elevations have been determined (Exhibit 7-6).

City of Wautoma

Within the corporate limits of the City of Wautoma, the FIA Flood Hazard Boundary Map indicates that floodplains are located adjacent to the White River, Bird Creek and Bowers Creek. According to the Floodplain Management Study, areas surrounding the Wautoma Millpond are within the 500 year flood hazard. Some areas surrounding the White River and Bird Creek are included in both the 100 and 500 year flood hazard area.

Village of Redgranite

The area surrounding Willow Creek and an undeveloped area south of STH 21 (Dearborn Street, across CTH N to the Village of Lohrville), is part of zone A.

Towns of Dakota, Marion, Wautoma

Within the towns, floodplains are found adjacent to the various lakes, streams and rivers.

Table 7-11 shows the acres and percentages of floodplains for each of the municipalities. Overall, 11 percent or 7,492 acres of the total area is floodplains. This includes less than 10 percent of the land area in the City of Wautoma and Town of Wautoma, representing only 61 acres and 1,811 acres, respectively. The other three municipalities have between 10 and 14 percent of their land area in floodplains.

Waushara County, the City of Wautoma and the Village of Redgranite have adopted floodplain ordinances 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. This program requires all structures that are to be constructed or purchased in designated flood hazard areas utilizing loans from federally insured banks to be insured by a flood insurance policy.

Table 7-11. Floodplains

	Acres	Percent
C. Wautoma	61	5%
V. Redgranite	148	10%
T. Dakota	2,934	14%
T. Marion	2,538	11%
T. Wautoma	1,811	8%
Total	**7,492**	**11%**

Source: FEMA, Flood Insurance Rate Map, Waushara County, 1885.

Wetlands

Wetlands act as natural filtering systems for nutrients such as phosphorus and nitrates and serve as a natural buffer protecting shorelines and stream banks. Wetlands are also essential in providing wildlife habitat, flood control, and groundwater recharge. Consequently, local, state, and federal regulations have been enacted that place limitations on the development and use of wetlands and shorelands. The Shoreland/Wetland Ordinance adopted by Waushara County regulates shoreland use and development within 300 feet of navigable rivers or streams and within 1,000 feet of the ordinary high water mark of navigable lakes, ponds or flowages. The Army Corps of Engineers has authority over the placement of fill materials in virtually all wetlands two acres or larger adjacent to navigable waterways. 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 shown on Exhibit 7-7 are based on the Wisconsin Department of Natural Resources (WDNR) Wisconsin Wetlands Inventory Map. They were identified on aerial photographs by interpreting vegetation, visible hydrology, and geography based on the U.S. Fish and Wildlife Service's "Classification of Wetland and Deepwater Habitats of the United States". The following wetlands and wetland types are found in this area:

City of Wautoma

Wetlands are mainly found along the White River south of West Division Street, Bird Creek, and the Wautoma Millpond. These wetlands predominately fall into the following classes and subclasses (subclasses are shown in parenthesis): scrub/shrub (broad-leaved persistent), forested (broad-leaved deciduous), and emergent/wet meadow.

Village of Redgranite

Wetlands are concentrated along Willow Creek and south of CTH N in the southwestern corner of the village. These wetlands predominately fall into the following classes and subclasses (subclasses are shown in parenthesis): forested (broad-leaved deciduous), scrub/shrub (broad-leaved deciduous), and emergent/wet meadow (persistent).

Town of Dakota

Wetlands within the Town of Dakota are generally found as narrow strips along each of the streams. Additionally, there are several larger wetland areas in the town. Among the larger wetland complexes is one associated with Lunch Creek in the center of the town, another associated with the North Fork of Little Pine Creek in the west central portion of the town, and several others scattered throughout the town. The largest of these is found at the headwaters of Little Lunch Creek in the southeastern corner. These wetlands predominately fall into the following classes and subclasses (subclasses are shown in parenthesis): scrub/shrub (broad-leaved deciduous and deciduous), forested (broad-leaved deciduous and deciduous), and emergent/wet meadow (persistent and narrow leaved persistent). The streams are basically forested or scrub/shrub while some of the larger wetland areas are emergent/wet meadow.

Town of Marion

Wetlands within the Town of Marion generally parallel each of its streams. Larger wetland areas are generally located in the southern quadrant as well as interspersed among the lakes in the northwest corner of the town. These wetlands predominately fall into the following classes and subclasses (subclasses are shown in parenthesis): scrub/shrub (broad-leaved deciduous), forested (broad-leaved and needled-leaved deciduous), and emergent/wet meadow (persistent and narrow leaved persistent).

Town of Wautoma

Wetlands within the Town of Wautoma are mainly located in the southern half of the town near the streams. The two largest wetland areas are located in the headwaters area of Soules Creek and Bowers Creek. The former is known locally as the Wautoma Swamp. There are also a number of smaller wetlands associated with Beans Lake and other smaller lakes and kettle ponds that are found in the hillier portions of the town. These wetlands predominately fall into the following classes and subclasses (subclasses are shown in parenthesis): scrub/shrub (broad-leaved deciduous), forested (broad-leaved deciduous and deciduous), and emergent/wet meadow (persistent). The center of the Wautoma Swamp is mainly forested (broad-leaved deciduous), while the fringes are made up of forested (deciduous to evergreen), scrubs/shrubs, and emergent/wet meadow.

Table 7-12 compares the distribution of wetlands among the five municipalities. Not including small wetland areas (less than five acres), approximately fourteen percent of the land is classified as wetlands. The Town of Dakota, with 4,569 acres or 21 percent, has the highest percentage of its total area as wetlands, compared to the Village of Redgranite (8%) and the City of Wautoma (9%). The amount and variety of wetland features may have moderate limitations on the future growth and development of the area.

Table 7-12. Wetlands

	Acres	Percent
C. Wautoma	136	11%
V. Redgranite	128	8%
T. Dakota	4,569	21%
T. Marion	2,695	12%
T. Wautoma	1,988	9%
Total	**9,516**	**14%**

Source: WDNR, Waushara County.

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 rain and snow is the source of nearly all the county's groundwater. Recharge is generally greatest in spring, when water from melting snow and heavy rains saturates the ground and percolates downward to the water table. If discharge (the drawing out and use of groundwater) is greater than recharge, then the elevation where the groundwater is found will fall, causing a depression to occur. Lower water levels cause the pumping lifts to increase and may reduce the yields of some of the wells. In Waushara County, there are no areas where the constant pumping of a

water supply well has resulted in the continued lowering of the water table over a long period of time. 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 is said to occur 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 through the county diagonally from the Marquette County line through the Town of Coloma and the Village of Hancock, east of the Village of Plainfield, and northeasterly 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. The groundwater table within the area varies in elevation from a high of about 1040 feet above sea level near the northwest corner of the Town of Wautoma to less than 790 in the southeast corner of the Town of Marion. Groundwater depth near the Village of Redgranite varies from about 780 to 800. While the majority of the wells within the town are low capacity, a few high capacity irrigation wells did exist in 1957 when the Geological Survey Water Supply Paper for Waushara County was completed. One well is shown north of Round Lake in the Town of Wautoma and two others are shown west of Lohrville in the Town of Marion. Springs provide a source of groundwater for Lunch Creek, Pine Creek, the West Branch of the White River, Bird Creek, Bowers Creek, the tributaries of Soules Creek, Sucker Creek, the outfall of Spring Lake, and Thorstad Creek.

According to well water information obtained from the Central Wisconsin Groundwater Center in Stevens Point, some private wells located in this area contain nitrate levels that are higher than EPA's Safe Drinking Water Act standards of 10 mg/l. These standards apply to municipal water sources only, but are suggested thresholds for private systems. Nitrates are used in fertilizers and are found in sewage and wastes from human and/or farm animals. Excessive levels of nitrate in drinking water have caused serious illness and sometimes death in infants under six months of age. Pregnant women are also advised not to drink water in which nitrate levels exceed 10 mg/l. Because of the sandy soils that exist in the county, there is potential for groundwater contamination in the shallower aquifers of the county. However, in the deeper aquifers this potential is greatly diminished. Table 7-13 lists the results of water sample tests that were conducted between 1990 and 2001.

Table 7-13. Nitrate-Nitrite

Community	None Detected	0.1 - 2.0 ppm	2 - 10 ppm	10 - 20 ppm	> 20 ppm
T. Dakota	17	14	12	6	2
T. Marion	56	27	22	5	1
T. Wautoma	5	22	43	2	0

Source: Central Wisconsin Groundwater Center, Stevens Point.

According to the *Wisconsin Administrative Code, Chapter ATCP 30, Atrazine, Pesticides; Use Restrictions,* atrazine prohibition areas have been established within the Town of Wautoma and the Village of Redgranite. In prohibition areas no person can apply, mix or load any atrazine product, except under special conditions. The prohibition area includes all of sections 12 and 13 in the Town of Wautoma and the southern portion of the Village of Redgranite, south of CTH N, Bonnell Avenue and STH 21. The Department of Agriculture has determined these areas

based on well samples taken there. These areas are monitored, and if atrazine is not applied in these areas, the levels will diminish and these areas may be removed from the list.

According to Waushara County, the majority of homes within the towns of Dakota, Marion and Wautoma are on private septic systems and wells. The City of Wautoma and the Village of Redgranite each have two active municipal wells that pumped an average of 0.222 MGD and 0.137 MGD respectively in 2001. The majority of the towns rely on private wells for drinking water.

The depth to groundwater varies throughout the study area (Table 7-14 and Exhibit 7-8). In approximately 68 percent of the study area (46,539 acres), the depth to groundwater exceeds 6 feet. Groundwater depths exceed 6 feet in 84 percent of the Town of Wautoma and 70 percent of the Town of Marion; only about half the area in the other three municipalities falls within this category: the City of Wautoma (53.8%), Village of Redgranite (55.7%) and the Town of Dakota (50.4%). About 12 percent (8,278 acres) of the area has groundwater depths of 2 and 6 feet. The areas with the highest percentages falling within this category are the City of Wautoma (525 acres, 29.6%) and the Village of Redgranite (433 acres, 28.5%). Groundwater depths are less than 2 feet in 17.8 percent (12,288 acres). These areas are mainly in the Town of Dakota (5,741 acres, 26.6%) and the Town of Marion (3,843 acres, 17.2%). The remaining three percent (1,814 acres) of the area is either water or has no ratings. Groundwater is closer to the surface along the flowages in the area. In the Town of Marion high groundwater depths are also found along the eastern column of sections and the southeastern corner of the town. In the Town of Dakota, this area includes the western column of sections, southwestern corner, and the center of the town. Within the City of Wautoma this area is found between Fair Street and Sandcrest Avenue, north of Madison Street, and west of STH 21 (16th Drive). There is a strong parallel between areas of high groundwater and those areas designated as wetlands.

Table 7-14. Depth to Groundwater

	< 2 Feet		2 - 6 Feet		> 6 Feet		No Rating, Water		Total
Municipality	Acres	Percent	Acres	Percent	Acres	Percent	Acres	Percent	Acres
C. Wautoma	227	12.8%	525	29.6%	953	53.8%	66	3.8%	1,771
V. Redgranite	217	14.3%	433	28.5%	848	55.7%	23	1.5%	1,521
T. Dakota	5,741	26.6%	4,545	21.1%	10,860	50.4%	410	1.9%	21,556
T. Marion	3,843	17.2%	1,903	8.5%	15,596	69.6%	1,055	4.7%	22,397
T. Wautoma	2,261	10.4%	871	4.0%	18,283	84.4%	259	1.2%	21,674
Total	**12,288**	**17.8%**	**8,278**	**12.0%**	**46,539**	**67.5%**	**1,814**	**2.6%**	68,919

Souce: Waushara County, 2005.

Wildlife Resources

Wildlife Habitat

Numerous habitat types enable the area to support varied and abundant wildlife and fish communities. These habitats consist of streams, lakes, rivers, woods, swamps, open wet meadows, and farmland. White tailed deer and ruffed grouse are abundant in the wooded areas, the many lakes in the area support a warm water fishery, trout are found in the many spring fed streams, and the wetlands in the area are attractive to waterfowl during spring and

fall migrations. Other wildlife found in the area include: grassland and wetland birds, sandhill cranes, cottontail rabbits, gray squirrels, mink, otter, muskrats, beaver, songbirds, raccoons, red fox, raccoon, and ducks.

Two State Natural Areas are present within the Town of Dakota and are further described under parks, open space and recreational resources. These areas provide unique natural communities and diverse wildlife habitats. In addition, the WDNR website contains a list of sensitive natural communities in the area. These communities include: Dry Prairie (grassland community, Town of Wautoma), Emergent Aquatic (open, marsh, lake, riverine and estuarine communities with permanent standing water, Town of Dakota), Floodplain Forest (lowland hardwood forest that occurs along large rivers, Town of Dakota), Lake-Deep, hard, seepage (Town of Dakota), Shrub-Carr (wetland dominated by tall shrubs and various willows, T. Dakota), and Southern Sedge Meadow (open wetland, Town of Dakota).

Rare, Threatened and Endangered Species and Natural Communities

The Wisconsin Department of Natural Resources maintains a database of rare, threatened and endangered species and natural communities in Waushara County. In order to protect these species and communities, the exact location is not available to the public; however, Waushara County does have a copy of this database. Whenever a request comes into the County for development, this database is consulted prior to granting approval. A copy of the Rare, Threatened and Endangered Species and Natural Communities per town is included in the appendix of this report.

Exotic and Invasive Species

Non-native aquatic and terrestrial plants and animals, commonly referred to as exotic species, have been recognized in recent years as a major threat to the integrity of native habitats and the species that utilize those habitats. Some of these exotic species include purple loosestrife, buckhorn, garlic mustard, multi-colored Asian lady beetles, Eurasian water milfoil, and gypsy moths. They displace native species, disrupt ecosystems, and affect citizens' livelihoods and quality of life. They hamper boating, swimming, fishing and other water recreation and take an economic toll on commercial, agricultural, and aquacultural resources. The WDNR requires that any person seeking to bring any non-native fish or wild animals into the state for introduction must first obtain a permit as required under the Wisconsin Statutes 29.736 and 29.745.

Woodlands

Originally much of Waushara County ranged from a mixture of oak forest species to more open oak forest and oak openings with an understory of prairie grasses and other prairie plants. Today, upland woods dominated by tree species in the oak-hickory association, often interspersed with pines, are found in much of the county. Woodlands cover 53 percent of the area and are sometimes found in wetland areas (Table 7-15). They are also found along the moraines and in the kettle and hill portion of the region. Woodlands within the area can be classified into one of three categories: 1) general woodlands (naturally occurring forests or woods and hedgerows), 2) planted woodlots (tree plantations or trees planted in rows, orchards and timber tracts, not including nurseries) and 3) silviculture (Christmas tree production).

Woodlands comprise about fifty percent of the total land area in the Village of Redgranite and the towns of Dakota, Marion and Wautoma, while in the City of Wautoma they comprise only 20 percent. These woodlands are prime wildlife habitat areas and efforts to protect them from encroaching development should be evaluated.

Table 7-15. Woodlands

	General Woodlands		Planted Woodlots		Silvaculture		Total Woodlands		Total
	Acres	Percent	Acres	Percent	Acres	Percent	Acres	Percent	Acres
C. Wautoma	274	15%	37	2%	27	2%	338	19%	1,771
V. Redgranite	430	28%	205	13%	85	6%	720	47%	1,521
T. Dakota	10,101	47%	1,779	8%	673	3%	12,554	58%	21,557
T. Marion	9,071	40%	1,352	6%	483	2%	10,907	49%	22,402
T. Wautoma	8,202	38%	2,693	12%	1,015	5%	11,910	55%	21,674
Total	**28,078**	**41%**	**6,067**	**9%**	**2,283**	**3%**	**36,428**	**53%**	**68,926**

ECWRPC, Local Comprehensive Planning Committees.

The Forest Crop Law (FCL), enacted in 1927, the Managed Forest Law (MFL), enacted in 1985, and the Woodland Tax Law (WTL) were established to encourage sound forestry on private lands and to ensure the growth of future commercial crops while recognizing individual property owners' objectives and society's need for compatible recreational activities, forest aesthetics, wildlife habitat, erosion control, and protection of endangered resources. As of January 1, 2000, approximately 285 acres of land within the area were enrolled in MFL program. The Town of Dakota had 238 acres enrolled while the towns of Marion (40 acres) and Wautoma (7 acres) had a much smaller acreage enrollment. As of January 1, 2000, 245 acres of land within the area were enrolled in FCL program, including 115 acres in the Town of Dakota. On December 31, 2002, all land enrolled in the Town of Wautoma expired. See Table 7-16.

Table 7-16. Managed Forest Law/Forest Crop Law

	Managed Forest Law		Forest Crop Law		Total		Total
	Acres	Percent	Acres	Percent	Acres	Percent	Acres
T. Dakota	238	1.10%	115	0.53%	353	1.64%	21,556
T. Marion	40	0.18%	25	0.11%	65	0.29%	22,397
T. Wautoma	7	0.03%	105	0.48%	112	0.52%	21,746
Total	**285**	**0.43%**	**245**	**0.37%**	**530**	**0.81%**	**65,699**

Source: WDNR

Parks, Open Space and Recreational Resources

Public open space lands 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, flood and stormwater management, habitat preservation, air and surface water quality improvements, protection of groundwater recharge areas, and aesthetics. They also can enhance the value of nearby properties.

WDNR and Public Lands

The Wisconsin Department of Natural Resources (WDNR) owns a total of 3,734 acres in the five Group D Planning Cluster communities (Table 7-17). State fishery areas primarily located in the towns of Dakota and Wautoma comprise most of this acreage. These areas are purchased by the State to protect important waterways from improper land use due to agricultural abuse or urban runoff as well as to help preserve and manage headwaters and springs that often form the biological base for stream fisheries. In addition, they protect and improve spawning grounds for lake fisheries and prevent private blocking of important waterways, game lands, and lakes. Other holdings in the area include two state natural areas (SNA) and miscellaneous DNR properties. State natural areas are devoted to scientific research, the teaching of conservation biology, and especially to the preservation of their natural value and genetic diversity for future generations. Although found elsewhere in Waushara County, there are no state wildlife areas in any of the Group D Planning Cluster municipalities. These areas are managed to protect and provide important habitat for wildlife and prevent the destruction of wetlands and the private blockage of important waterways, game land, and lakes.

Components of the White River, Mecan River, and Willow Creek State Fisheries Areas comprise the bulk of the area's state fisheries acreage. These public lands are found along Bird Creek, the West Branch of the White River, Soules Creek, the Wautoma Swamp, Bowers Creek, Willow Creek, Lunch Creek, the White River, Little Pine Creek, and the Mecan River.

The two State Natural Areas include:

Lunch Creek Wetlands State Natural Area. Located in sections 16, 17 and 21 of the Town of Dakota and totaling 457 acres, the Lunch Creek Wetlands SNA contains one of the most diverse and species-rich sedge meadows in Wisconsin. This large wetland complex is free from exotic species and dominated by fen and sedge meadow communities.

Bass Lake Fen State Natural Area*.* Located in sections 23 and 26 of the Town of Dakota and 77 acres in size, the Bass Lake Fen SNA is a calcareous fen that is considered exceptionally diverse with many small springs, openings, and ponds that provide a calcium-rich habitat.

There is also a small amount of federally owned land in the area. The U.S. Fish and Wildlife Service owns about 232 acres in the Town of Dakota south of the White River Flowage. This property (Wilcox Waterfowl Production Area) is preserved as a breeding ground for waterfowl and other migratory birds.

Table 7-17. WDNR Land

Municipality	Acres
C. Wautoma	2
V. Redgranite	56
T. Dakota	1,937
T. Marion	228
T. Wautoma	1,512
Total	3,734

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 important travelways for a variety of wildlife and bird species. These features are sensitive natural resources; preserving these 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.

Many of the streams and rivers in the study area are considered Exceptional Resource Waters and have been designated as a class I or class II trout fishery. In addition, Lake Lucerne is considered an Outstanding Resource Water and Bass Lake, as noted, has been classified as a State Natural Area. It is important that these areas be preserved for future generations. The WDNR has purchased land along the streams and rivers in the area to preserve these resources and, more specifically, to protect the invaluable trout habitat these streams provide. However, land still remains unprotected in these areas. It is important that development is directed away from these areas and that they continue to be recognized as important environmental corridors.

Mineral Resources

Nonmetallic Mineral Resources. "Nonmetallic" mineral resources include all mined materials other than those mined as a source of metal. Economically important nonmetallic minerals include building stone, lime, sand, gravel, and crushed stone used in construction of building and roads. At one time granite was actively mined in the Redgranite area and a number of old quarries exist today. There are currently six inactive quarries in the Town of Marion and one inactive quarry in the Village of Redgranite. In addition, a number of active gravel pits permitted under NR-135 are located in the area, including five in the Town of Wautoma. See Exhibit 8-1.

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 and silver. There are no metallic mineral resources in the area.

Solid and Hazardous Waste

According to the Wisconsin Department of Natural Resources Registry of Waste Disposal Sites in Wisconsin, June 1999 update, the following sites are listed:

Town of Dakota	- NW ¼ of Section 1
	- W ½ of the SW ¼ of Section 11 (Former City of Wautoma Site)
	- NW ¼ of the SW ¼ of Section 11
Town of Marion	- SE ¼ of the NE ¼ of Section 12
	- NW ¼ of the NW ¼ of Section 22 (Former Town of Marion Site)
Town of Wautoma	- NE ¼ of the SW ¼ of Section 14
	- S ½ of SW ¼ of Section 22 (Former City of Wautoma Site)
	- SW ¼ of the SW ¼ of Section 22 (Former City of Wautoma Site)
	- NE ¼ of Section 13
	- Highway 21

These landfills are indicated on Exhibit 8-3. This registry is from a statewide list of WDNR's known solid and hazardous waste disposal sites. The list includes active, inactive, and abandoned sites where solid or hazardous wastes were known, or likely to have been disposed. Inclusion of a site on the Registry does not mean that environmental contamination has occurred, is occurring, or will occur in the future. However, new development should avoid these areas and future reuse of these areas should be considered in the proposed land use plan.

Air Quality

Air quality, especially good air quality, is often taken for granted. Sound local and regional planning can minimize negative impacts to the air. Development patterns can impact automobile use, which in turn impacts air quality. Emissions from certain industries can also impact air quality. As more rural residential development occurs, there are increased conflicts between non-farm residents and certain agricultural operations that emit dust and odors. Noise can also be a factor impacting environmental quality.

Vehicle travel including the number and length of trips has increased significantly in recent decades. This can be attributed to changing development patterns. Development patterns are becoming more spread out, with the location of jobs and housing becoming more segregated and distant from one another. This is apparent in Waushara County, as increasing numbers of residents are commuting to distant urban centers where greater employment and shopping opportunities as well as medical services exist. Since alternative modes of transportation are less viable, particularly in outlying rural areas, people rely more on the automobile to get around. Changing lifestyles are also a major factor. Two income families are causing people to find housing that splits the difference between the two employment locations. Since vehicle travel generates air pollutant emissions, greenhouse gas emissions, and noise, local decisions about what types, where and how new development occurs can have an impact on air quality.

CULTURAL RESOURCES

Cultural resources include an inventory of historic buildings, sites, structures, objects and districts. It also includes an inventory of local archeological sites. Cultural resources define a community's unique character and heritage.

State and National Register of Historic Places

The Wisconsin Historical Society's Division of Historic Preservation (DHP) is the clearinghouse for information relating to the state's cultural resources: its historic buildings and archaeological sites. A primary responsibility of the DHP 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 National Park Service in the U.S. Department of the Interior maintains the program. The State Register is Wisconsin's official listing of state properties determined to be significant to Wisconsin's heritage, and is maintained by the DHP. Both listings include sites, buildings, structures, objects and districts that are significant in national, state or local history, architecture, archaeology, engineering and culture.

(For ease of discussion, "National Register" is used generally to refer to both programs. In Wisconsin, if a property is listed on one then it is typically listed on the other.)

- At present, only one property within the Group D cluster, the Waushara County Courthouse/ Waushara County Sheriff's Residence and Jail, located at 209 St. Marie St. (alternate listed street address: 221 S. St. Marie St.), City of Wautoma is listed on the National Register.

It should be noted that the National Register is not a static inventory. Properties are constantly being added and, less frequently, removed. It is important therefore to access the most up-to-date version of properties listed on the National Register. The list can be found at http://www.wisconsinhistory.org/histbuild/register/index.html, or by contacting the DHP at (608) 264-6500.

Architecture & History Inventory

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 Department of Transportation highway projects. Very little of this type of survey work has been done in Waushara County. A moderate amount has been undertaken in the City of Wautoma and Village of Redgranite, but little has been done in the Towns of Dakota and Marion. A survey of the Town of Wautoma has never been undertaken.

A search of the DHP's on-line Architecture & History Inventory (AHI) reveals the following about these communities:

- Eighty-eight properties in the City of Wautoma are included in AHI. (The National Register-listed Waushara County Courthouse/ Waushara County Sheriff's Residence and Jail mentioned above represent one of the 88 properties.)

- Twenty-five properties in the Village of Redgranite are included in AHI.

- One property in the Town of Dakota is included in AHI.

- Seven properties in the Town of Marion are included in AHI.

- Two properties in the Town of Wautoma are listed in AHI.

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. AHI is primarily used as a research and planning tool.

It is important to note that like the National Register, AHI is not a static inventory. Properties are constantly being added and, less frequently, removed. It is therefore important to use the most up-to-date list of properties within a given area. This information can be found at http://www.wisconsinhistory.org/ahi/index.html. Otherwise, contact the DHP at (608) 264-6500.

Archaeological Sites Inventory

The Archaeological Sites Inventory (ASI), similar to AHI exists for known archaeological sites across the state. However, because of the sensitive nature of archaeological sites, information as to the whereabouts of these sites is not currently made available on-line. This information is only distributed on a need-to-know basis. Archaeological sites are added to ASI as they are discovered, and 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.

Local History[1]

The earliest inhabitants of Waushara County were Native Americans. Considerable evidence of this occupation has been found. A total of 332 mounds, 49 camp and village sites, two spirit stones, two cemeteries, and several other archeological sites have been discovered. Some of these sites are located within the Group D cluster. A trail used by Native Americans and early settlers followed the north shore of Silver Lake. Known campsites were found near the Wautoma Millpond, south of the City of Wautoma near the White River, and along several lakes. Evidence of Indian burial mounds can be found near Silver Lake, Hills Lake, and near the source of the White River. On October 18, 1846, the Menominee Indians 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). This road basically followed present day CTH F. Later, a dirt road was built that connected "Sand Prairie" (Redgranite) to the "Strong's Landing"-"Shumway Road". The Wisconsin Legislature established Waushara County on February 15, 1851. The county was initially comprised of one town; the Town of Waushara and the county seat was established in Sacramento, near the City of Berlin. However during that same year, the towns of Dakota (November 11th), Marion (April 1st) and Wautoma (April 1st) were created. A sawmill and store were built near the Wautoma Millpond (Shumway's Mill) and soon other business establishments followed. The original plat of the Village of Wautoma was recorded on December 24, 1853, and soon a small community existed. In 1854, after a bitter debate, the county seat was moved from Sacramento to Wautoma. The first court house was built in 1857 for $10,000. During this same time period, early settlers or farmers were also moving into the Town of Warren. Wautoma was incorporated into a village in 1901 and a city in 1940.

Granite was discovered in Wisconsin in 1880 near Wausau. However, the mahogany-colored granite was not discovered in the "Sand Prairie" area until 1887. This granite was exposed near the surface, and a number of residents developed quarries in the area. Ed Ashback (Redgranite) and Frank Macholl (Lohrville) developed quarries on their homesteads. The largest deposit was on the George Cronk farm north of present day STH 21 in Redgranite. This farm was purchased by the Berlin Granite Company in 1887 and run as a subsidiary of the Berlin quarry. In 1902, the Chicago and Northwestern Railroad built a seven mile spur line from

[1] A History of Redgranite-Lohrville and its High School, vol. 1 and 2 by Howard Evans; www.rootsweb.com, www.visitwaushara.com; www.explorewisconsin.com; The Wisconsin Archeologist, by Geo. Fox and E. C. Tagatz; www.1waushara.com; The Plainfield Sun, 4/7/1933; Hancock News, 11/1/1928; Waushara Argus, 2/9/1876; Waushara Argus, 6/20/1923; Waushara Argus, 2/13/1924.

its Fond du Lac-Princeton-Marshfield line to Redgranite. This connection to the mainline was called Bannerman Junction after William Bannerman, one of the original owners of the Berlin Granite Company. The postmaster changed the name from Sand Prairie to Red Granite. Eventually, the two words were merged into one. The business district and housing within the community were slow to develop. By 1900, there were only a few businesses and houses since most workers lived in Berlin and commuted by bicycle to work on a daily basis. However, development quickly hastened after 1902, and the village was incorporated in 1904.

In April of 1901, a fire nearly destroyed the village of Wautoma. The only buildings left standing were the newspaper office and the old grist mill. Redgranite also sustained devastating fires in 1905 and 1908. By the late 1920s the demand for red granite as a paving stone decreased as more highways were constructed out of concrete and asphalt. For a period of time, however, the demand for breakwater stone sustained the quarries. In August 1931, the Red Granite quarry closed permanently; the Lohrville quarry closed in November of that year.

INTERRELATIONSHIPS WITH OTHER COMPREHENSIVE PLAN ELEMENTS

Agriculture, Natural and Cultural Resources are dependent upon one another and the other elements of the comprehensive plan.

Wisconsin's important agricultural land base is strongly integrated with its natural resources. Complex agricultural patterns are mixed with the state's natural features to form a natural 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 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 contributions to these environmental problems.

Although agricultural activities can have a negative impact 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.

Farming in Wisconsin has been going on for a long time. Over the years, tilling of fields has exposed many of our state's archaeological sites. It is not uncommon in the area to find evidence of old houses or burial mounds. Architecturally distinctive houses, barns or entire farmsteads could 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, because as long as financial conditions remain difficult, farmers will continue to find it tempting to quit farming and explore other alternative uses for their land. Natural resources can provide a positive economic benefit to the area in the form of forest-related industries, nature-based recreation, aesthetics, and other tourism-related contributions. Additionally, the area's woodlands are also integral to the local economy, even as a component of individual farm operations. 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 an area. Historic preservation can be used to enhance unique qualities that are found in area communities. The downtown areas of the City of Wautoma and the Village of Redgranite are unique; any development should incorporate existing buildings and preserve the historic character of the area. Artifacts, dating back to mining in the Redgranite-Lohrville-Marion area, can be found abandon in and near the old quarries. These objects, along with the quarries in the area could be developed as an example of life and mining in Wisconsin in the early 1900's.

Housing

Agriculture, natural and cultural resources need to be considered when planning for the housing element. Most new residential construction is occurring on agricultural land or adjacent to or within a natural resource feature such as a lake, stream, river, woods, steep slope, wetland, or on land that provides a pleasing view. Housing is also needed for people who work on farms or within other industries in the local economy. In many areas housing development patterns are rather haphazard. These scattered housing patterns generate high costs to the community in terms of lost farmland, demands for public services (road, school, water, sewer), and conflicts between homeowners, farmers, hunters, recreationalists, and environmentalists. Demand for home sites also drives up land costs, which reduces the ability of young farmers to buy land and makes it more expensive for existing farmers to purchase additional land to expand their operations.

Existing 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 fix-up programs. Abandoned historic industrial buildings and old schools can be adapted and preserved to provide attractive affordable housing for the community.

Transportation

Transportation planning should consider the transportation needs of the area. Transportation is critical to the agriculture community since it provides access to suppliers, processors, haulers, and other support industries. It also allows for the transport of goods to local, regional, national, and international markets. An efficient transportation network can improve the income for the Wisconsin farmer. At the same time, when planning for transportation, it is important to consider the potential conflicts between rural non-farm residential development and new or expanding agricultural operations and how they may impact the transportation infrastructure or safety of the area. For example, as rural non-farm development increases,

slow-moving farm vehicles are more likely to interfere with the free flow of traffic desired by other motorists.

Development and subsequent transportation improvements of STH 21 in the Wautoma and Redgranite area may impact the area's natural resources, wetland areas, historical and cultural resources and farmland adjacent to both the existing highway corridor as well as any possible bypass routes. To minimize this impact, it will be important for the communities and Waushara County to monitor this situation and consider development techniques that offer greater 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 upon the preservation of its historic character and distinctive features. 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.

Community and Public Facilities

Preplanned development leads to an efficient use of public infrastructure and reduces the spread of sprawl, which leads to the consumption of the rural landscape and natural resources. Educating local officials and citizens about local land use decisions and their implications for farming 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 by-product of the wastewater treatment process. As large areas of farmland close to suburban areas decrease, communities must travel longer distances to dispose of this waste, thereby increasing costs.

Similar to farmland, our natural resources are limited and are being used up at an alarming rate. Renewable energy, or green energy, an alternative energy source, comes from natural resources that do not diminish over time since they are naturally and continually replenished. Fossil fuel emissions lead to persistent health and environmental problems, regional haze, acidification of lakes, streams 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.

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 systems. Improper treatment and discharge of human waste and bacteria can contaminate public and water supplies. The impact of increased development and impervious areas can adversely affect groundwater quality and quantity.

Public buildings such as city or town halls, county courthouses, schools, water treatment plants, water towers, public libraries, and fire stations are often architecturally significant landmarks in a community and are important part of the community's image. Even when these buildings have outgrown their original use, they are often converted into a community center, senior center, housing, or some other productive use because of a community's attachment to them.

Land Use

Land use is an integral part of all the elements in the plan. Residents have clearly indicated through the community survey that the preservation of agricultural land and the area's natural resources is very important to them. People also expressed the need for planning 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 downwind or downstream. Regional development patterns and neighboring municipal land use policies also affect the prices and 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 the area 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 could be sought either independently or collectively with neighboring communities to fund architectural and historical surveys. Communities should also 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

State

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 the specific characteristics of the installation. This rule gives owners more on-site wastewater treatment system options, while at the same time protecting our natural resources and groundwater. Within Waushara County, holding tanks are banned for new construction and are not allowed for replacement systems unless no other system will work.

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 within their respective jurisdictions.

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 non-metallic 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 cover, 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.

Wisconsin State Statutes. The towns of Dakota, Marion and Wautoma have adopted village powers under Wis. Stats. Ch 60, Sec. 60.62. This allows the towns to adopt their own zoning regulations, provided they are at least as restrictive as the county's. However, since Waushara County already has a county ordinance, the towns would need to obtain permission from the County prior to adopting town zoning.

Regional

East Central Wisconsin Regional Planning Commission. East Central is currently working on a regional comprehensive plan. As a part of this planning effort, East Central has proposed 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 insure that valuable farming lands are not lost or disrupted by incompatible 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 non-metallic mineral deposit sites.
- Ensure sufficient natural public open space is provided to meet the active and passive recreation 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 goals.
- 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, archaeological, and cultural heritage.
- Ensure that decision makers have 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 home 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 it to 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 curriculums of K-12 and higher education institutions throughout our 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.

These policies and goals are consistent with the Group D cluster's vision for the future to preserve the natural resource base while allowing for environmentally sound development and provision of recreational needs.

County

Waushara County Zoning Ordinance. The Waushara County Zoning Ordinance regulates zoning in the towns of Dakota, Marion, and Wautoma. The following chapters contain relevant information.

Chapter 22, 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 currently does not regulate large animal farming operations.

Chapter 58, Zoning defines the different zoning categories and identifies what land uses are permitted in a given zone (Exhibit 8-2). The ordinance includes a General Agricultural Zone (A-G), Agricultural Residential Zone (A-R) and Shoreland/Wetland Zone (O-SW). Exclusive agricultural zoning is not practiced within the county. A-G zoning is designed primarily for large scale agricultural uses of land related to growing of crops and raising of livestock; however, other uses such as single family dwellings are allowed. A-R provides a semi-rural type of environment that allows for general agricultural uses. In both zones, the minimum parcel size for a rural home site is one acre. 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 or within 300 feet of the ordinary high water mark of a navigable river or stream fall under the Shoreland Jurisdictional Area. Restrictions meant to protect these areas address such things as lot sizes, setbacks, buildings, permitted uses, vegetative shore cover, grading and filling.

Waushara County Farmland Preservation Plan. Waushara County adopted a Farmland Preservation Plan on June 9, 1981. Adoption of this plan allows farmers in preservation areas (existing farms with at least 35 acres of productive cropland that are mapped as preservation areas) to sign agreements on a voluntary basis 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 and more people seek homesites in rural areas.

Local

City of Wautoma Zoning Ordinance. The City of Wautoma Zoning Ordinance regulates zoning in the city.

Floodplain Zoning Ordinance (#06-003). The City of Wautoma Floodplain Zoning Ordinance was adopted in February 2006. This ordinance allows for the safe discharge of floodwaters; preserves the storage capacity of the floodplain to protect public health, safety, and general welfare; minimizes property damage and the cost of flood prevention; and allows for flood relief. This ordinance also regulates land use and activities within the floodplain.

Local Landmarks Ordinance. The City of Wautoma enacted a local landmarks ordinance in 1996. This ordinance provides for an historic preservation commission with the authority to designate local landmarks. However, the commission does not meet on a regular basis and has not met in years. As of March 2002, it had not designated any local landmarks.

Historic Preservation Ordinance. This ordinance was drafted shortly after the passage of Wisconsin Act 471 of 1994, which requires cities containing National Register and/or State Register properties to enact local historic preservation ordinances. The City of Wautoma is home to the National Register-listed Waushara County Courthouse/Waushara County Sheriff's Residence and Jail, and thus was obligated to enact such an ordinance.

Village of Redgranite Zoning Ordinance. The Village of Redgranite Zoning Ordinance regulates zoning in the village.

Chapter 4, Floodplain and Shoreland-Wetland Zoning Ordinance regulates the wetlands that are 5 acres or more in size and areas within 1,000 feet of the ordinary high water mark of navigable lakes, ponds or flowages or within 300 feet of the ordinary high water mark of a navigable river or stream.

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 erodible 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 the cropland to less

intensive use and to assist with the cost, establishment, and maintenance of conservation practices.

Grassland Reserve Program (GRP). This program is used to protect grassland and shrubland. Private grassland, shrubland, and land containing forbs are eligible under this program as well as land that historically has contained these features. Producers need to develop and comply with a plan for an easement or restoration agreement. They also need to assist with the remaining installation costs.

Wildlife Habitat Incentives Program (WHIP). WHIP is used to develop or improve fish and wildlife habitat on privately owned land. All private land is eligible for this program, unless it is already enrolled in CRP, WRP or other similar program. Producers must prepare and follow a wildlife habitat development plan and assist in the installation costs.

Grazing Lands Conservation Incentive. This program provides cost sharing to improve grazing land management.

Environmental Quality Incentives Program (EQIP). EQIP provides technical and financial help to agricultural producers for conservation practices that protect soil and water quality. All private land in agriculture is eligible including cropland, grassland, pastureland, and non-industrial private forestland. Producers are required to develop and follow an EQIP plan that describes the conservation and environmental purposes to be achieved. They also need to assist with installation costs.

Forest Land Enhancement Program (FLEP). FLEP places a permanent easement on farmland. All non-industrial private forestlands are eligible for financial, technical, and educational assistance. Producers need to develop and implement a management plan and assist with the remaining installation costs.

USDA Farmland Protection Program (FPP). The purpose of this program is to maintain prime farmland in agricultural uses through agricultural conservation easements. This program provides funding for state, tribal, or local government programs to purchase development rights on prime agricultural land.

Wetland Reserve Program. The purpose of this program is to restore wetlands. Most private wetlands that were converted to agricultural use prior to 1985 are eligible. However, the wetland must be restorable and suitable for wildlife benefits. Producers must develop and follow a plan for the restoration and maintenance of the wetland and, if necessary, assist in the cost of restoration.

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 Pollutant Discharge Elimination System (NPDES) Storm Water Program. The NPDES program addresses the non-agricultural sources of storm water discharges 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 provide tax relief for participating landowners. Landowners qualify if their land is in an exclusive agricultural zoning district or if they sign an agreement to use their land exclusively for agricultural purposes.

Wisconsin Department of Revenue

Farmland Tax Relief Credit Program. The Farmland Tax Relief Credit Program provides direct 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.

Wisconsin Department of Natural Resources

Wisconsin Pollutant Discharge Elimination System Permits (WPDES). The U.S. Environmental Protection Agency and the U.S. Department of Agriculture issued the Unified National Strategy for Animal Feeding Operations in March of 1999. The purpose of the strategy is to provide a blueprint for a significant expansion of EPA's regulatory and voluntary efforts related to Animal Feeding Operations (AFO). These efforts include increased enforcement of regulatory requirements affecting CAFOs (Concentrated Animal Feeding Operations), regulation of the land application of manure as a "point source", and expanded data collection on animal feeding operations. A recommended program for Comprehensive Nutrient Management Planning for all AFO's also exists.

The Wisconsin DNR requires a Wisconsin Pollution Discharge Elimination System permit when any CAFO facility exceeds 1,000 animal units, or more than 300 animal units that meet discharge criteria. This same permit is also issued to all businesses and industries in the state that discharge water or wastewater to surface water, groundwater and/or wetlands. The permits require applicants to provide a plan for runoff management for outdoor lots and feed storage areas, a manure storage facility plan/diagram, a comprehensive manure management plan to be updated annually, willingness to submit to monitoring and reporting requirements, and a daily record keeping log system. The permit essentially regulates land application, manure storage, and runoff management, but it does not address noise, land value, traffic, or other types of similar issues because there is no statutory authority for the permits to address these types of impacts. These types of concerns 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. This law allows landowners to pay taxes on timber only after harvesting, or when the contract is terminated. It has promoted and encouraged long-term investments as well as the proper management of woodlands. Enrollment in FCL was closed on January 1, 1987 and renewal is not allowed. The Managed Forest Law (MFL), enacted in 1985, combined the FCL

and a companion law, the Woodland Tax Law (WTL). The purpose of the MFL is to encourage the growth of future commercial crops through sound forestry practices while recognizing individual property owners' objectives and society's need for compatible recreational activities, forest aesthetics, wildlife habitat, erosion control, and protection of endangered resources.

Wisconsin Forest Landowner Grant Program (WFLGP). The purpose of this program is to assist private landowners in protecting and enhancing their forested land, prairies, and waters.

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.

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 identifies target communities during each funding cycle. In recent years the DHP has favored underrepresented communities: unincorporated communities or villages or fourth-tier cities under 5,000 population. A set of funds is also earmarked for use by Certified Local Government (CLG) status communities—another reason to participate in this program. 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 their 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 7-1

IMPORTANT FARMLAND CLASSES

EXHIBIT 7-2

SOIL LIMITATIONS FOR ON-SITE WASTE DISPOSAL

EXHIBIT 7-3

SOIL POTENITAL FOR BUILDING SITE DEVELOPMENT

EXHIBIT 7-4

SOIL LIMITATIONS FOR SEPTAGE SPREADING

EXHIBIT 7-5

STEEP SLOPES

EXHIBIT 7-6

FLOODPLAINS

EXHIBIT 7-7

WDNR WETLANDS

EXHIBIT 7-8

DEPTH TO GROUNDWATER

AGRICULTURAL RESOURCES – Village of Redgranite

Goal AG 1. Maintain the economic viability of the area's agricultural community.

Objectives:

- **AG 1.1. Preserve the area's most productive farmland for continued agricultural activities.** While the Village of Redgranite has very little farmland within its corporate limits, they do recognize the influence that farming has contributed to the character, well being and vitality of the area.

- **AG 1.2. Maintain a critical mass of farmers needed to sustain the agribusiness community and other support businesses.** The decline in the number of farms has hurt many support businesses, some of which no longer exist in the area. As a result, farmers often have to travel greater distances for equipment, supplies, and other services. To sustain the agribusiness community, enough farmers need to remain in farming to make it cost effective for support businesses to remain or relocate to the area. Additionally, while Christmas tree production has been a relatively stable commodity, the production of this crop has been declining in recent years. As more acreage is taken out of Christmas tree production, other crops that are well suited to the soils of Waushara County will need to be explored. Nurseries as well as pine or oak for lumber production may be among the possibilities.

  Strategy:
  - **Encourage farmers in the county to explore opportunities for alternative crop production**.
    - Village to join the county, towns, cities and villages in the area to support the farming community.
    - County to form a committee to explore alternative options. (Committee should include representation from local farmers, local communities, UW-Extension, county agricultural departments, as well as local businesses, Chamber of Commerce, Economic Development Corporation and the Village of Redgranite economic development group.)

- **AG 1.3. Ensure that agricultural activities are not compromised or restricted by adjacent land uses in significant agricultural areas.** In many ways, modern day agriculture is an industrial activity; too often, residents new to living in rural areas find that many aspects of a farming operation are objectionable. Their collective voices can often make it difficult for a farmer to operate at his convenience and, more importantly, at maximum efficiency and profitability. While the Village of Redgranite does not have significant areas of agriculture, it does recognize the importance of protecting existing operating farms from development.

  Strategy:
  - **Support a County action to create protective zoning or "green belts" around productive farm areas.**

- **AG 1.4. Encourage farmers to work with educators and other resource specialists to make their operations more economically viable.** Farmers need to

be aware of new tools, techniques and trends in equipment, products, crops, purchasing, and record keeping to enhance their ability to compete profitably, not only locally but also globally. A sound business plan combined with adequate financing at a favorable rate could well be the key driver in a farmer's decision to continue in agriculture.

Strategy:

- **The county and UW-Extension should provide information and resources to farmers who are seeking to innovate, modernize or maintain their operation.**

- **AG 1.5. Solicit the expansion and/or creation of new complementary industrial and commercial agribusinesses and support local farm product processing and marketing initiatives.** Waushara County has a rich and vibrant agricultural history. Agriculture still remains an important part of the local economy and on the citizens questionnaire, respondents stated that they value the rural atmosphere that they find in the county. Residents and tourists strive for a simpler life and appreciate the benefits of buying fresh food, and other products that are grown or made locally.

Strategies:

- **Organize a local farmers market.**
  - Select a location that is visible to "drive by traffic". (A possible location could include the park in downtown Redgranite.)
  - Explore the possibility of combining the Village's weekly farmers market with a countywide agricultural marketing effort.
  - Promote the farmers market countywide.
  - Invite various community partners to participate. (These partners could include the local Amish, bakery, florist, craftsmen and artists.)
  - Look at expanding the farmers market into a year-round indoor activity during the colder months of the year. (The winter program could be structured differently, a 2-4 hour educational presentation could be combined with baked goods, crafts, and meat sales.)
  - As part of a countywide effort to promote agriculture, look at establishing a rotating small scale "Farm Breakfast". (Partner this activity with a local church or farm producer.)
- **Work with the County to organize, promote and market agriculture as a tourist attraction.**
  - Work with the Economic Development Corporation of Waushara to explore various options:
    - Bed and breakfast that incorporates life on the farm.
    - Expansion of "Breakfast on the Farm". (Additional weekends around the county along with weekend long community activities.)
    - Marketing of farm or homemade products.
    - Restaurant that promotes farm or Amish cooking.
    - Country store.

        - Promotion of Amish or homemade wood products that are made locally.
        - Pumpkin patch, wagon rides, apple orchard.
        - Lease tree or hive for a year.
        - Life on the farm 100 years ago.

    - **Promote the expansion of commercial agribusinesses within the county.**
        - Work with the Economic Development Corporation of Waushara County to help keep agriculture viable by giving farmers an outlet to market or buy their products.
            - Explore the option of bringing a cannery or ethanol plant to the county.
            - Encourage local restaurants to buy, use and promote local products in their meals.
            - Encourage local stores to market and sell products that are produced locally.
    - **Promote specialized farming methods or products.**
        - Work with the county to explore the possibility of establishing and marketing organic foods.

Goal AG 2. Minimize conflicts between ongoing agricultural operations and rural non-farm residents.

Objectives:

- **AG 2.1. Steer residential and commercial development to areas that are less productive for agricultural uses.** While the Village supports this concept, the Village feels that residential or commercial uses should be located within the Village limits. The Village of Redgranite recognizes the incompatibility of competing land uses and supports the county in its efforts to identify and promote alternatives to traditional farming operations. Currently there are no areas within the Village that are preserved for agricultural uses.

  Strategy:
    - **The Village of Redgranite supports Waushara County in its promotion of opportunities for viable agricultural operations that minimize potential for conflict with rural non-farm residential development.**

- **AG 2.2. Educate new rural residents about the rural lifestyle and its implications.** An understanding of rural lifestyles and its implications has the potential to eliminate many of the conflicts that occur between residents and farming operations. Education will give the non-farm community more awareness of farming issues and lifestyles. Community suppers could promote the "sense of community" and would allow neighbors and other members of the community to connect with each other for a common bond. These suppers could rotate throughout the county, between the various communities and could be expanded to include family activities. Farming could also be promoted through the county fair.

Strategies:

- **Work with the Waushara County and other area communities to develop community suppers.**

- **Encourage the Farm Bureau, UW-Extension and Future Farmers of America to work with the non-farm community to promote rural lifestyles and activities.**
  - Encourage farm implement dealer in a neighboring county to provide farm machinery for the county fair.
  - Investigate additional agricultural events that could be added to the county fair that would promote rural lifestyles and encourage youngsters to explore future agricultural employment opportunities.

Goal AG 3. Provide opportunities for farmers to profit from the equity in their land.

Objectives:

- **AG 3.1. Educate farmers on how to take advantage of their land's development potential in ways that maintain the utility of remaining lands for productive agricultural activities.** Many farmers hope to use proceeds from the sale of a portion of their lands for non-farm uses to help underwrite their ability to continue a viable farming operation. Farmers benefiting the most from selling off parts of their farm are those who carefully weigh the profits earned from the sale of smaller less productive parcels with the loss of productivity on the farm's remaining acreage. Without adequate forethought, the ability to maintain a viable farming operation (and the remaining raw land value) once portions of a farm are sold can be inadvertently compromised. Another option may include a farmer subdividing his land for hobby farms.

- **AG 3.2. Identify ways to enable retiring farmers to pass farms on to their heirs or other farmers.** Not all farmers can or want to sell off their farms for development. Many hope that their children or someone else will continue to operate their farms following their death. Estate planning can help make the ensuing transfer orderly and less financially painful.

  Strategies

  - **Encourage farmers to become educated in the various methods that may enable them to pass their farm onto their heirs or other farmers.**
    - Encourage the UW-Extension in cooperation with Waushara County Agricultural Department to present information to county farmers on deed restrictions, permanent easements, estate planning or use value assessment.
  - **Encourage high schools to incorporate education in their curriculum that encourages and educates young people about farming.**
    - Encourage the Wautoma Area School District to contact and work with Future Farmers of America (FFA) to bring curriculum into the high school that would educate and encourage farming careers.

NATURAL RESOURCES - Village of Redgranite

Goal NR 1. Preserve the quality and quantity of our groundwater supplies.

Objectives:

- **NR 1.1. Ensure that adequate amounts of safe drinking water are available throughout the village.** While the village is predominately served by a municipal water system, newer development in the northern part of the village continues to be serviced by individual private wells. Since private wells continue to serve part of the village, maintaining an adequate supply of safe drinking water is critical to the well-being of both existing and future residents. A portion of the village, that lies south of CTH N, Bonnell Avenue and STH 21 is presently designated as an atrazine prohibition area.

  Strategy:
  - **Monitor on-site waste disposal systems.**
    - Encourage the County to set up appropriate mechanisms to ensure monitoring on a regular basis.
      (Currently new systems installed after 1999 are monitored every 3 years, older systems are not)
    - Encourage the County to require on-site system testing as part of ownership transfers.
      (While most banks require testing as part of the requirements to grant a loan, legally this is not a requirement nor is there a set standard on how these systems should be tested.)

Goal NR 2. Maintain and improve the water quality of our quarry and stream.

Objective:

- **NR 2.1. Reduce non-point nutrient runoff into our quarry and stream.**
  Maintaining the water quality in the village's quarry and Willow Creek helps preserve a high-quality aquatic ecosystem. Since Willow Creek contains a naturally reproductive trout fishery, its tolerance for nutrient-enrichment is extremely limited. Nutrient loads raise water temperature, contributing to the growth of excessive aquatic vegetation including invasive species. When these conditions exist, opportunities for quality water-based recreation (boating and swimming as well as fishing) are greatly diminished. Additionally, particularly for shoreline residents, poor surface water quality adversely impacts the aesthetic values of the water resource and can lead to decreased property values.

  Strategies:
  - **Minimize nutrient runoff into Willow Creek.**
    - Encourage local property owners to maintain a buffer of native vegetation along shorelines.
    - Make residents more award of environmental risks associated with improper use of an application of lawn fertilizers, salt, and other chemicals.

- **Control storm water runoff from construction activities and impervious surfaces.**
  - Enforce mandatory construction site erosion requirements.
  - Incorporate storm water runoff and detention requirements from impervious surfaces such as building footprints, parking areas, and other hardscapes as specific site criteria in the building permit application.
  - Address highway runoff in downtown area.
  - Provide an informational fact sheet that describes new techniques for storm water management from land disturbing activities.
- **Minimize nutrient contributions from private on-site septic systems.**
  - Discourage development in areas poorly suited for on-site waste disposal by using available regulatory tools to protect critical areas from development.

Goal NR 3. Protect key natural features and resources.

Objectives:

- **NR 3.1. Work toward the eradication of invasive species in the area quarry, streams, wetlands, and forests.** Since most invasive plant and animal species have been introduced from overseas, they generally have no natural enemies to control their spread. Their unchecked growth destroys native habitat, reduces the ability of the natural resource base to accommodate high-quality recreational experiences, and can result in significant economic loss for individuals as well as the area in general.

  Strategies:
  - **Increase public awareness of its role/responsibility in introducing/containing invasive species.**
    - Encourage UWEX and DNR to use media and educational materials to inform the public of issues and preventative measures.
  - **Encourage property owners and other groups to address their local problems.**
    - Encourage UWEX and DNR to provide technical assistance and funding incentives for undertaking control and preventative measures.
    - Coordinate annual work days involving conservation groups, youth organizations, service clubs, etc.
  - **Structure a coordinated approach to deal with specific problem species on a countywide basis.**
    - Participate with other public and private entities to seek local input to conduct an inventory and establish priorities for addressing concerns at the countywide level.

- **NR 3.2. Preserve the natural shorelines of the undeveloped quarry, streams and ponds.** Few water bodies in the area remain undeveloped; those that do are usually small, shallow, and limited in their ability to accommodate most types of water-based recreation or surrounded by wetlands and other conditions that restrict development. Most are also environmentally fragile and their naturally vegetated shorelines are essential to protect them from materials that result in diminished water

quality. Since the amount of shoreline is a relatively finite resource, however, these water bodies may face development pressure in the future and could quickly suffer environmental degradation unless their shoreline areas are preserved.

Strategy:

- **Discourage future shoreline development of area water bodies identified by the community as worth preserving in their natural state.**
  - Support efforts to encourage landowners to consider enrolling these shoreline areas in a land trust.
  - Support efforts to enact requirements that restrict shoreline vegetation removal.
  - Encourage efforts to implement innovative development techniques such as conservation subdivisions.
  - Target these sites for acquisition as public open space.

- **NR 3.3. Protect all designated class I and class II trout streams from degradation.** Willow Creek and Waushara County's other trout streams are considered to be a fisheries resource of statewide and perhaps even national significance. The trout habitat offered by these coldwater streams is extremely sensitive to any impact that elevates their temperature, including damming, nutrients, and stream bank vegetation removal.

  Strategies:

  - **Encourage the Village, WDNR and land trusts to purchase stream bank easements.**
    - Identify funding sources for these purchases.
  - **Encourage landowners to maintain shoreline buffers in natural vegetation.**
    - Use educational materials to promote this practice.
    - Continue to enforce setbacks and other site criteria for development adjacent to these streams.

- **NR 3.4. Maintain wetland areas in native vegetation.** Wetlands provide important benefits in maintaining water quality, minimizing potential flooding, and providing habitat for a variety of native wildlife species. Although the loss of wetlands has been significant and dates back to the area's early settlement, for the most part, current regulations have been relatively effective in protecting remaining wetlands from a similar fate.

  Strategies:

  - **Maintain a buffer of native vegetation adjacent to all designated wetlands.**
    - Evaluate the adequacy of present setback requirements in existing codes.
    - Strictly enforce the non-removal of native vegetation adjacent to wetlands and water bodies.
  - **Control the spread of invasive species such as purple loosestrife.**
    - Advocate that DNR be provided with adequate funding and manpower to be effective.

Goal NR 4. Preserve the intrinsic visual qualities of our landscape that define its rural character.

Objectives:

- **NR 4.1. Protect the visual integrity and heritage of important scenic features and/or vistas, like outcroppings, quarry ponds, and undisturbed glacial landforms.** These scenic features are highly prized by area residents and contribute significantly to the quality of life they presently enjoy. Preserving them so that they can be enjoyed by future generations is a priority.

  Strategies:
  - **Target areas of importance for protection.**
    - Develop committee consensus on key areas/features.
    - Identify historic properties or properties of local significance.
    - Encourage the surrounding towns to preserve their important scenic features.
  - **Restrict development of these areas.**
    - Use zoning and other available tools to limit development options.
  - **Keep the area adjacent to the quarry pond in public ownership.**
    - Develop a long-range plan to enhance the site as a recreational/interpretive resource.

- **NR 4.2. Eliminate unsightly properties and other elements generally regarded as eyesores.** Community image for local residents and visitors passing through, more often than not, is defined by its appearance. Tidy, well-maintained properties with a lack of unnecessary clutter presents a positive image while a proliferation of eyesores such as unkempt properties, improperly discarded household items, and other evidence of blight reflects poorly on all the residents who live there. When these conditions exist, it is difficult to achieve a high level of community pride.

  Strategies:
  - **Enforce existing nuisance/litter ordinances and building codes.**
    - Strengthen the commitment to enforcement on a consistent basis.
    - Continue to work with a private partner in the salvage business.
  - **Reduce roadside littering.**
    - Continue a strong commitment to enforcement of litter ordinances.
    - Continue to sponsor an annual community clean-up day.

CULTURAL RESOURCES – Village of Redgranite

Goal CR 1. Preserve the community's important cultural resources.

Objectives:

- **CR 1.1. Compile an updated inventory of the significant cultural resources.** Integral to the tapestry of structures, fields, woodlands, and other features that define a community's visual character are those cultural resources that over time have been intrinsically interwoven into its growth and development. Preserving those resources deemed by residents to having made meaningful contributions to their community's heritage allows them to connect with its past history and provides an opportunity to pass on this heritage to future generations. These cultural resources often include archaeological sites dating from the area's pre-history, more recent historical sites and structures, important and unique architecture, elements reflecting its ethnic heritage, and other significant cultural features. Perhaps no other community in Waushara County has a cultural history as rich as Redgranite's, with its downtown quarry so intrinsically tied to its past growth and development.

  Strategies:

  - **The Village of Redgranite should seek - either independently or collectively with neighboring municipalities – grant money to fund architectural and historical surveys.** The Wisconsin Historical Society's (WHS) Division of Historic Preservation (DHP) provides funds for surveys to identify and evaluate historical, architectural, and archaeological resources, nominating properties and districts to the National Register of Historic Places (NRHP), and carrying out a program of comprehensive historic preservation planning and education. In addition to identifying properties that are potentially eligible for the NRHP, these surveys would contribute a base of information to the Architecture and Historic Inventory (AHI) for future planning endeavors. As an example, the survey might identify buildings in the area constructed of the local red granite—the official State stone. The quarry itself and the artifacts it contains are also historically important.

    These funds are available to local units of government and non-profit organizations. Although funding is limited, the DHP identifies target communities during each funding cycle. In recent years the DHP has favored under-represented communities: unincorporated communities or villages or fourth-tier cities under 5,000 population. In addition, many private funding sources specifically target smaller communities in the more rural parts of the state.
  - **The Village of Redgranite should seek Certified Local Government (CLG) status through the DHP.** A set of funds is also earmarked for use by Certified Local Government (CLG) communities. Participation in this program gives a local government certain benefits. It allows the government to apply for subgrants for certain preservation activities, review State and National Register nominations for properties within the municipal boundaries, and use the Wisconsin Historic Building Code for locally designated historic buildings. It should be noted that entrance into the CLG program is not automatic. Moreover, funding is limited, and only a few communities receive grant money each year.

For details on these any of these programs, visit http://www.wisconsinhistory.org/histbuild/index.html or call (608) 264-6500.

- **CR 1.2. Develop and utilize existing local expertise on historic preservation issues.** Most counties and/or municipalities often have a local historical society with a membership that has a diverse and broad perspective on the area's history, including past events and personalities, as well as sites and structures. They and other individuals may also have an extensive collection of early photographs, artifacts and other memorabilia. This is an excellent resource that should be involved when decisions are needed regarding the potential remodeling/renovation or removal/demolition of key sites and structures.

  Strategies:
  - **Encourage the Village of Redgranite to establish a historic preservation commission.** It is recommended that the Village of Redgranite adopt an historic preservation ordinance that provides for the creation of a commission having the authority to actively landmark local properties. Such legislation allows for communities to protect those resources that are important to their history and sense of place. The DHP provides a "boilerplate" ordinance that the village board may choose to enact, if so desired. DHP staff can also provide technical assistance on such matters.
  - **Encourage the establishment of a museum within the Village.** This museum could be either established independently by the village; as a joint venture between the Village and a local non-profit organization; or independently by a local non-profit organization. This museum could be used to protect and display area historical memorabilia which may otherwise be forever lost to future generations.

- **CR 1.3. Consistent with smart growth, consider opportunities for historic preservation in all future planning, zoning, and development decisions.** Smart Growth is an umbrella term for a set of tools that communities can use to ensure that the growth they get is the growth they want. Smart Growth is also a broad movement embraced by environmentalists and public officials across the country who seek, not to prevent progress, but to ensure that growth is planned, in order to produce a high quality of life. Historic preservationists care about Smart Growth because they understand that larger land-use decisions made about transportation, zoning, and subdivisions can directly impact local efforts to preserve a historic building, an archaeological site or a historic downtown.

  Strategies:
  - **The Village of Redgranite should include cultural resources and historic preservation in any local land use plans it may undertake in the future.** The DHP provides written information on this topic, a document entitled *Smart Growth Guide to Historic Preservation: A Manual for Communities*. This document is available on the WHS website. For information on smart growth and preservation, visit the WHS website at http://www.wisconsinhistory.org/histbuild/smartgrowth/index.htm, or call (608) 264-6500.

- **The Village of Redgranite should consistently seek the input of a local historic preservation group and other informed individuals when making decisions that involve existing sites and structures.** Available information that has been assembled by the committee and other informed individuals on historic sites and historic and/or architecturally significant structures in the community is an important tool that provides a valuable reference for sound decision-making.

- **CR 1.4. Educate local officials and the public at large on the importance of historic preservation.** Too often, local officials and residents alike have little understanding of why it is important to preserve certain sites and structures in their community. Preserving important sites and structures not only enables a community keep in touch with its past, it also can help promote a "sense of place". Communities that have made a particularly strong commitment to retain the historic integrity of their downtowns or residential areas have also found that they can use these historic resources to attract visitors as well as other forms of economic development.

  Strategies:
  - **Work with owners of historic properties to seek available grants and other favorable funding sources.** The UWEX working in tandem with the WHS should take a lead role in making educational materials that provide guidance on building renovation and restoration projects readily available. This information would be geared toward helping property owners preserve the architectural integrity of their structures when they undertake remodeling or renovation projects. Experience has shown that insensitive "remodels" not only compromise the original appearance of the structure, they often detract from the architectural character of nearby structures.
  - **Provide educational materials related to the benefits available to properties enrolled on the National Register.** The benefits afforded properties on the National Register need to be publicized within the area. These benefits include protective consideration during state and federal projects, and two tax credit programs for historic buildings: the 25% Historic Preservation Tax Credit for Income-Producing Properties, and the 25% Historic Homeowners Tax Credit. Both of these typically require that the property in question be listed on the National Register. The Archaeological Sites Property Tax Exemption program is also available for listed archaeological sites.
  - **Encourage the Village of Redgranite and its business community to enroll in Wisconsin's Main Street Program.** There are economic benefits to individual property owners as well as to the economic health of the community as a whole for communities interested in preserving the historic integrity of their downtowns. The Village of Redgranite is encouraged to investigate the potential for enrolling its downtown in this program.

CHAPTER 8: LAND USE

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LAND USE

INTRODUCTION

Land use directly influences all the various elements presented in the previous chapters. Many aspects of daily life within the planning area 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.

Land Use Vision for 2025

New growth has been accommodated in ways that the fabric of woodlands, farmlands, water bodies, wetlands, and other open space that comprises the area's rural character is not compromised. Great success has been achieved in clustering new residential development in areas that protect the integrity of existing land uses and the area's most highly valued environmental and scenic features. As a result, land use conflicts such as those between rural residential development and ongoing farming operations are minimal.

The existing commercial strip east of Wautoma has experienced some additional commercial development but measures taken to address safety issues associated with the increased traffic have included landscaping and other amenities to create an attractive gateway to the city. New highway-oriented commercial development occurring along Highway 21 and other roadways is also attractive and well landscaped. New industrial development has been successfully directed to industrial parks in Wautoma and Redgranite. Major commercial and industrial traffic generators have good access to the state highway system, helping to keep unnecessary traffic off of the local road network.

INVENTORY AND ANALYSIS

Existing Land Use

A detailed field inventory of land uses was conducted in all five communities in 2000. Subsequent updates to the original inventory were completed during the comprehensive planning process. Land use information was compiled into the general land use categories and is presented in Table 8-1 and Exhibit 8-1. As a result of this inventory, a number of conclusions

and issues have been identified, and recommendations have been made to guide future land use planning efforts in the Group D planning cluster.

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 inhabitation. Residential land uses are divided into single and two-family residential, farmstead, multi-family and mobile home parks. Single and two-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 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 massagers), 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. Mining and quarry sites are separated from other industrial uses. 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 divided into three subcategories: general woodlands, planted woodlands and silviculture. 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 and orchards (nurseries are not included). Silviculture areas are dedicated to Christmas tree production.

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.

Land Use Breakouts by Municipality

Developed land has been altered from its natural state to accommodate human activities. Although agricultural areas are considered developed 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. Within the towns of Dakota, Marion, and Wautoma, less than 13 percent of the total land is developed (Table 8-1). In the Village of Redgranite, this figure increases to approximately one-third (36.3%) of total land

area. The City of Wautoma is the most developed; almost half (48.4%) of the land is developed. The primary developed land uses in all five municipalities are single family residential and transportation. Woodlands (general woodlands, planted woodlots, and silviculture), cropland (irrigated and non-irrigated), and other open areas are three most common land uses within the towns. With the exception of the Town of Marion (49.2%), woodlands comprise over half of the total land area in all three towns. Cropland and other open areas combined comprise another one-third of the land area in all three towns. Woodlands were also prevalent in the city and village. About one-fifth (19.1%) of Wautoma and almost half (47.3%) of the village have woodlands. The woodlands in Redgranite are, in large part, associated with WDNR owned lands.

Table 8-1. Group D Existing Land Use Summary, 2005.

Land Use	Percent of Total				
	T. Dakota	T. Marion	T. Wautoma	C. Wautoma	V. Redgranite
Single Family Residential	2.2%	5.7%	4.0%	12.2%	15.4%
Farmsteads*	0.8%	0.6%	0.7%	0.3%	0.0%
Multi-family	0.0%	0.0%	0.0%	1.9%	0.7%
Mobile Home Parks	0.1%	0.0%	0.0%	0.5%	0.4%
Commercial	0.3%	0.0%	0.2%	3.7%	2.3%
Industrial	0.1%	0.0%	0.1%	1.7%	1.2%
Recreational Facilities	0.6%	2.2%	0.4%	4.1%	1.9%
Institutional Facilities	0.2%	0.0%	0.1%	8.1%	5.9%
Utilities/Communications	0.1%	0.1%	0.0%	1.4%	0.6%
Airport	0.0%	0.0%	0.0%	5.6%	0.0%
Transportation	2.6%	3.5%	2.9%	9.0%	7.9%
Total Developed	6.9%	12.2%	8.4%	48.4%	36.3%
Non-Irrigated Cropland	11.5%	18.4%	10.3%	8.1%	2.5%
Irrigated Cropland	8.8%	3.9%	1.8%	0.0%	0.0%
Silviculture	3.1%	2.2%	4.7%	1.5%	5.6%
Planted Woodlands	8.1%	6.0%	12.4%	2.1%	13.5%
General Woodlands	46.9%	40.5%	37.8%	15.5%	28.2%
Quarries	0.0%	0.0%	0.4%	0.0%	0.0%
Other Open Land	12.5%	12.0%	23.6%	22.1%	13.5%
Water Features	2.2%	4.9%	0.6%	2.3%	0.5%
Total Acreage	100.0%	100.0%	100.0%	100.0%	100.0%

*Indicates categories with 1 acre or less of land (T. Marion, Village of Redgranite).

Source: East Central Wisconsin Regional Planning Commission.

A detailed analysis of existing land use for each community is found below. Residential land uses have been subdivided according to their specific category: single family residential, farmsteads, multi-family units, and mobile home parks. Single family residential land use includes single family dwellings and duplexes.

City of Wautoma

The City of Wautoma is the most developed community within the study area. Approximately half (48.4%) of the 1,771 acres are developed (Table 8-2 and Figure 8-1). Single family residential (25.3%), transportation (18.6%), and institutional facilities (16.7%) are the most prevalent developed land uses; they comprise about 61 percent of the total developed land. The Wautoma Municipal airport (11.6%), commercial areas (7.7%), and recreational facilities (8.4%) comprise an additional one-quarter of the developed land.

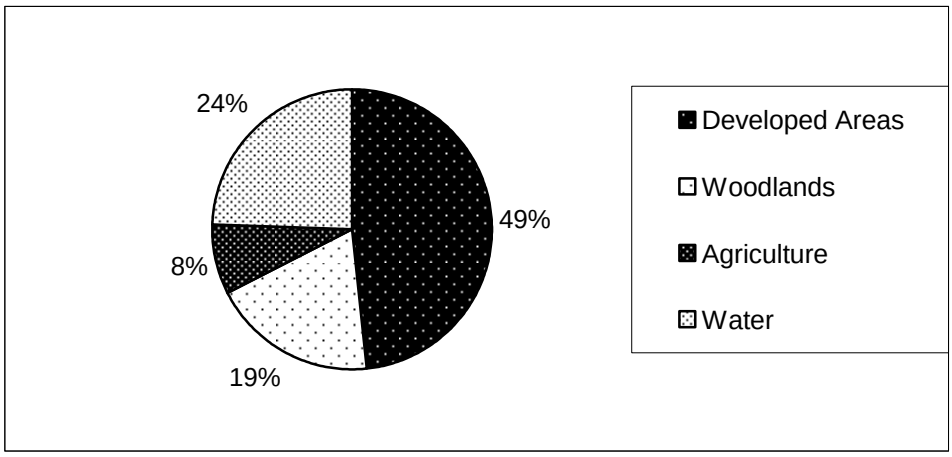
Other open land (22.1%), woodlands (19.1%) and single family residential (12.2%) are the most common overall land uses found in the city. General woodlands account for over 80 percent of forested areas in Wautoma. Non-irrigated cropland makes up 8.1 percent of the total land use in the city.

Table 8-2. City of Wautoma Existing Land Use, 2005.

Land Use	Acres	Percent of Developed Land	Percent of Total
Single Family Residential	216	25.3%	12.2%
Farmsteads	5	0.6%	0.3%
Multi-family	34	3.9%	1.9%
Mobile Home Parks	8	1.0%	0.5%
Commercial	66	7.7%	3.7%
Industrial	29	3.4%	1.7%
Recreational Facilities	72	8.4%	4.1%
Institutional Facilities	143	16.7%	8.1%
Communications	24	2.8%	1.4%
Airport	100	11.6%	5.6%
Transportation	159	18.6%	9.0%
Total Developed	857	100.0%	48.4%
Non-Irrigated Cropland	144		8.1%
Irrigated Cropland	0		0.0%
Silviculture	26		1.5%
Planted Woodlands	37		2.1%
General Woodlands	274		15.5%
Quarries	0		0.0%
Other Open Land	392		22.1%
Water Features	41		2.3%
Total Acreage	1,771		100.0%

Source: East Central Wisconsin Regional Planning Commission.

Figure 8-1. City of Wautoma Existing Land Use, 2005.



Village of Redgranite

The Village of Redgranite contains 1,521 acres. Over a third (36.3%) of the incorporated area is developed (Table 8-3 and Figure 8-2). The most prevalent developed uses comprising about

80 percent of the village include single family residential (42.4%), transportation (21.7%), and institutional facilities (16.3%). Commercial (6.3%), other residential uses (3.3%), industrial (3.3%), recreational facilities (5.1%), and utilities/communications (1.5%) make up the remaining developed land uses.

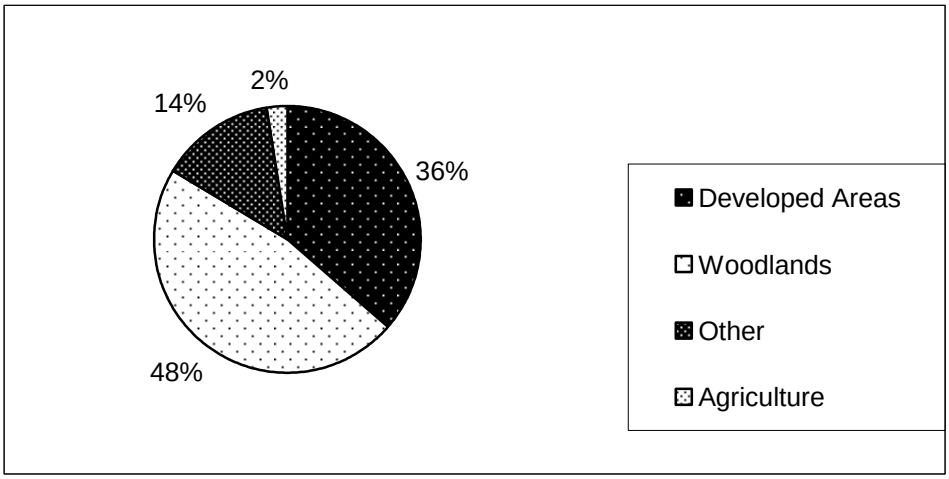
About half (47.3%) of the total land area of the village is woodlands; other prevalent uses include other open land (13.5%) and single family residential (15.4%). General woodlands account for a majority (63.8%) of the forested areas.

Table 8-3. Village of Redgranite Existing Land Use, 2005.

Land Use	Acres	Percent of Developed Land	Percent of Total
Single Family Residential	234	42.4%	15.4%
Farmsteads	1	0.1%	0.0%
Multi-family	11	2.0%	0.7%
Mobile Home Parks	6	1.2%	0.4%
Commercial	35	6.3%	2.3%
Industrial	18	3.3%	1.2%
Recreational Facilities	28	5.1%	1.9%
Institutional Facilities	90	16.3%	5.9%
Communications	8	1.5%	0.6%
Airport	0	0.0%	0.0%
Transportation	120	21.7%	7.9%
Total Developed	552	100.0%	36.3%
Non-Irrigated Cropland	38		2.5%
Irrigated Cropland	0		0.0%
Silviculture	85		5.6%
Planted Woodlands	205		13.5%
General Woodlands	430		28.2%
Quarries	0		0.0%
Other Open Land	205		13.5%
Water Features	7		0.5%
Total Acreage	1,521		100.0%

Source: East Central Wisconsin Regional Planning Commission.

Figure 8-2. Village of Redgranite Existing Land Use, 2005.



Town of Dakota

The Town of Dakota encompasses 21,557 acres (Table 8-4. and Figure 8-3). Approximately 7 percent (6.9%) of the total area is developed. The primary developed uses include single family residential (483 acres) and transportation (555 acres). Collectively, these uses accounted for about 70 percent (69.6%) of the developed area. Farmsteads (11.7%) and parks and recreational facilities (8.3%) account for one-fifth of the developed area.

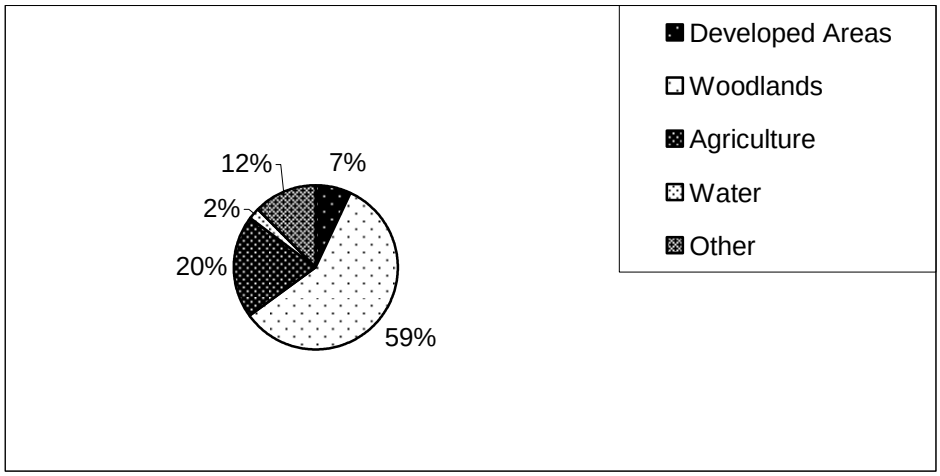
Overall, woodlands (silviculture, planted woodlots, and general woodlands) account for over half (58.1%) of the total land use. Irrigated and non-irrigated cropland collectively account for about one-fifth (20.3%) of land uses. Water features (2.2%) and other open land (12.5%) comprise the remaining land uses.

Table 8-4. Town of Dakota Existing Land Use, 2005.

Land Use	Acres	Percent of Developed Land	Percent of Total
Single Family Residential	483	32.4%	2.2%
Farmsteads	175	11.7%	0.8%
Multi-family	5	0.3%	0.0%
Mobile Home Parks	27	1.8%	0.1%
Commercial	56	3.7%	0.3%
Industrial	17	1.1%	0.1%
Recreational Facilities	124	8.3%	0.6%
Institutional Facilities	33	2.2%	0.2%
Utilities	20	1.3%	0.1%
Airport	0	0.0%	0.0%
Transportation	555	37.2%	2.6%
Total Developed	1,493	100.0%	6.9%
Non-Irrigated Cropland	2,472		11.5%
Irrigated Cropland	1,905		8.8%
Silviculture	673		3.1%
Planted Woodlands	1,741		8.1%
General Woodlands	10,101		46.9%
Quarries	0		0.0%
Other Open Land	2,691		12.5%
Water Features	481		2.2%
Total Acreage	21,557		100.0%

Source: East Central Wisconsin Regional Planning Commission.

Figure 8-3. Town of Dakota Existing Land Use, 2005.



Town of Marion

The Town of Marion encompasses 23,402 acres (Table 8-5 and Figure 8-4). Approximately 12 percent (12.2%) of the town is developed. The development consists primarily of single family residential (47.0%) and transportation (28.8%). Parks and recreation (17.9%) are also an important developed land use within the town. The predominant land uses in the town are woodlands (48.7%) and cropland (22.3%). The most prevalent woodland type was general woodlands. Over 80 percent of the cropland is non-irrigated. The remaining land uses are comprised of water features (4.9%) and other open land (12.0%).

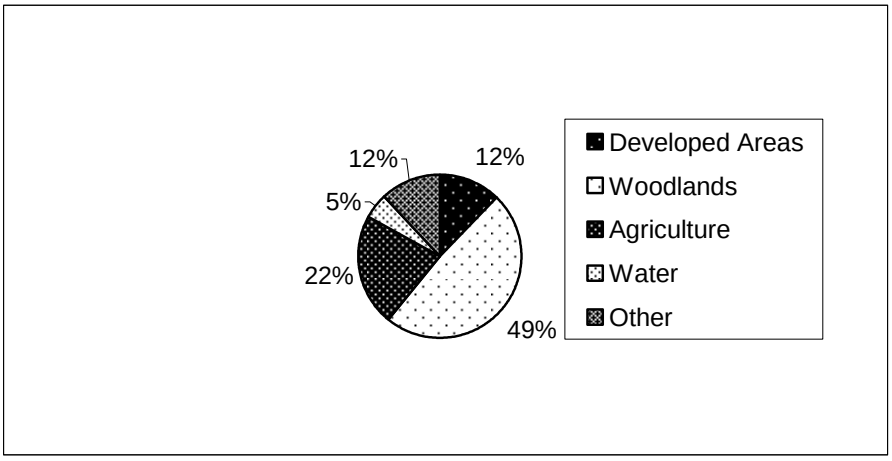
Table 8-5. Town of Marion Existing Land Use, 2005.

Land Use	Acres	Percent of Developed Land	Percent of Total
Single Family Residential	1,284	47.0%	5.7%
Farmsteads	131	4.8%	0.6%
Multi-family*	0	0.0%	0.0%
Mobile Home Parks	0	0.0%	0.0%
Commercial	8	0.3%	0.0%
Industrial	4	0.1%	0.0%
Recreational Facilities	488	17.9%	2.2%
Institutional Facilities	9	0.3%	0.0%
Utilities	12	0.4%	0.1%
Airport	9	0.3%	0.0%
Transportation	786	28.8%	3.5%
Total Developed	2,730	100.0%	12.2%
Non-Irrigated Cropland	4,112		18.4%
Irrigated Cropland	863		3.9%
Silviculture	483		2.2%
Planted Woodlands	1,352		6.0%
General Woodlands	9,071		40.5%
Quarries	0		0.0%
Other Open Land	2,683		12.0%
Water Features	1,106		4.9%
Total Acreage	22,402		100.0%

Source: East Central Wisconsin Regional Planning Commission.

*Indicates categories with < 1 acre of land.

Figure 8-4. Town of Marion Existing Land Use, 2005.



Town of Wautoma

The Town of Wautoma covers 21,674 acres (Table 8-6 and Figure 8-5). Over 8 percent (8.4%) of the town is developed. The most common developed land uses include single family residential and transportation; they account for 47.8 percent and 34.6 percent of the developed area, respectively. Other prevalent developed uses include farmsteads and recreational facilities.

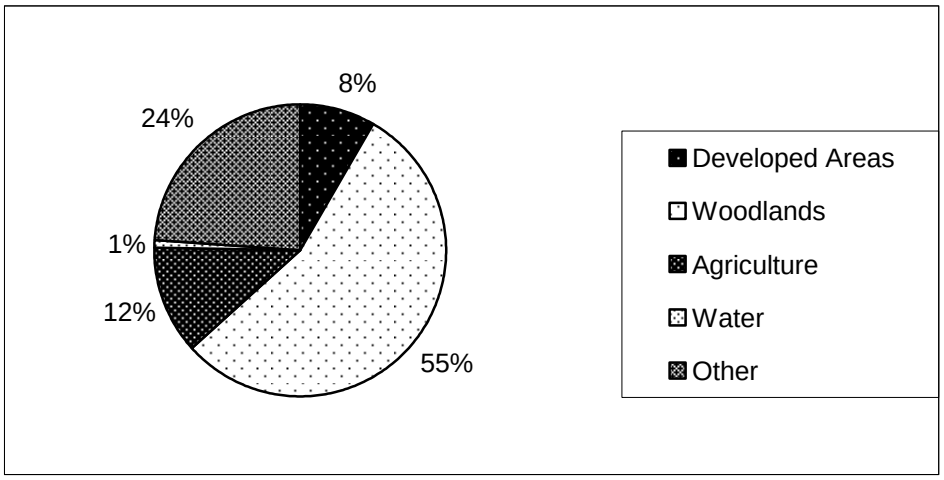
General woodlots, planted woodlots, and silviculture account for over half (54.9%) of the landscape, while other open land accounts for approximately one-quarter (23.8%) of the area. Cropland accounts for 12.1 percent of the total land area; over 80 percent of the cropland is not irrigated.

Table 8-6. Town of Wautoma Existing Land Use, 2005.

Land Use	Acres	Percent of Developed Land	Percent of Total
Single Family Residential	869	47.8%	4.0%
Farmsteads	143	7.9%	0.7%
Multi-family	1	0.1%	0.0%
Mobile Home Parks	0	0.0%	0.0%
Commercial	41	2.3%	0.2%
Industrial	25	1.4%	0.1%
Recreational Facilities	84	4.6%	0.4%
Institutional Facilities	18	1.0%	0.1%
Utilities	6	0.3%	0.0%
Airport	0	0.0%	0.0%
Transportation	629	34.6%	2.9%
Total Developed	1,817	100.0%	8.4%
Non-Irrigated Cropland	2,226		10.3%
Irrigated Cropland	390		1.8%
Silviculture	1,015		4.7%
Planted Woodlands	2,693		12.4%
General Woodlands	8,202		37.8%
Quarries	81		0.4%
Other Open Land	5,121		23.6%
Water Features	131		0.6%
Total Acreage	21,674		100.0%

Source: East Central Wisconsin Regional Planning Commission.

Figure 8-5. Town of Wautoma Existing Land Use, 2005.



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 the unincorporated areas of the county.[2] However, a general county zoning ordinance only becomes effective if individual towns approve the county ordinance. The City of Wautoma and the Village of Redgranite have each adopted their own zoning ordinance. The towns of Dakota, Marion, and Wautoma have each adopted the general Waushara County Zoning ordinances. 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]

City of Wautoma

The City of Wautoma has an extensive zoning ordinance of its own (Exhibit 8-2 and Table 8-7). All zoning district information is contained within the City of Wautoma Zoning Ordinance (1997). A summary of the usage requirements and restrictions of the districts found within the city is listed below.

- *O-N (Natural Resources Preservation District):* This district is designed to encourage the preservation, conservation, and development of land areas for a wide range of conservation and recreational purposes. Generally, this district includes swamps, marshlands, rivers, lakeshores, and other land of natural aesthetic value. Wildlife preservation and agricultural uses such as beekeeping, field crops, forestry, wild crop harvesting, horticulture, and other related practices are permitted.

- *A-G (General Agriculture District):* This district is designed to provide for and encourage agricultural use of land, related uses, and farm residential uses in a rural environment. Large-scale agricultural uses of land related to the growing of crops are encouraged.

[1] *Wisconsin Statues* 62.23 for cities and *Wisconsin Statute*s 61.35 for villages.
[2] *Wisconsin Statues* 69.69.
[3] *Wisconsin Statues* 60.22.

Generally, all agricultural uses and other land uses associated with traditional agricultural are permitted. Livestock operations, however, are limited to 100 animal units.

- *RS-12 (Residential Single Family District):* This district is designed to encourage a suitable environment for single family residential family life on large lots. Lot sizes within the district are a minimum of 12,000 square feet. Under certain conditions, ancillary uses such as churches, playgrounds, and schools are permitted to encourage a suitable environment for family life. Some agricultural uses are also permitted.

- *RS-8 (Residential Single Family District):* This district is designed to encourage a suitable environment for single family residential family life. This district provides moderate size lots which are a minimum of 8,000 square feet. Under certain conditions, ancillary uses such as churches, playgrounds, and schools are permitted to encourage a suitable environment for family life. Some agricultural uses are also permitted.

- *RS-2F (Residential Two-family District):* This district provides for two family dwellings such as duplexes in a residential environment. Permitted uses include one and two-family dwellings on a minimum lot area of 10,000 square feet. Some agricultural uses are also permitted.

- *RS-M (Residential Multi-family District):* This district is designed to encourage a suitable environment for multi-family dwellings in a residential environment. Minimum lot areas vary from 8,000 square feet for single family to 10,000 square feet for two-family; all other uses require a minimum of 12,000 square feet. Permitted uses include multifamily dwellings, duplexes, townhouses, and community based residential facilities. Some agricultural uses are also permitted.

- *C-N (Neighborhood Commercial District):* This district is intended to facilitate the development of commercial uses found in small commercial districts located throughout the city. These developments should promote the typical neighborhood business such as corner convenience stores, medical offices, banks, and other service oriented businesses.

- *C-C (Community Commercial District):* This district is intended to facilitate the development of commercial uses found in the central business district of the City. A variety of services are encouraged including professional offices, eating establishments, and banking institutions.

- *C-S (Service Commercial District):* This district provides for commercial service type uses or uses specifically oriented towards the traveler, tourist, or vacationer. Typically, these uses are located near major highways or other major arterials. Lot sizes are a minimum of one acre. Appropriate landscaping is required. Adequate paved off-street parking must be provided.

- *M-G (General Manufacturing District)*: This district is intended for any manufacturing or industrial operation which, based on physical and operational characteristics, would not be detrimental to the surrounding area or to the City as a whole. Industrial uses which produce excess noise, dirt, smoke, odor, traffic, physical appearance, or similar factors are not allowed. Permitted uses include, but are not limited to, automotive heavy repair upholstery; cleaning, pressing, and drying establishments; commercial bakeries and

greenhouses; distributors; farm machinery sales and/or service; and manufacturing, fabrication, processing, packaging, and assembly of selected products. Storage facilities, power supply, and other such uses normally incidental to the principal use are also permitted uses that fall under this classification. Minimum lot sizes are one-half acre.

- *M-I (Intensive Manufacturing District)*: This district is intended to provide for uses which by their nature may exhibit characteristics harmful, noxious, or detrimental to surrounding uses of the land. Permitted uses include all those permitted under General Manufacturing Zone, as well as freight yards and depots, breweries, cold storage warehouses, and inside storage. Minimum lot sizes must be one acre.

- *M-P (Manufacturing Park District)*: This district is intended to accommodate a limited range of general businesses and light industrial uses. All structures should be designed and constructed to provide an overall aesthetically pleasing and harmonious development throughout the district. Individual business must address specific landscaping requirements to present a healthy, neat, and orderly appearance. Service related industries including, but not limited to, offices, medical practices, financial institutions, and newspapers, are permitted within a business park.

- *O-P (Public and Semi-public District)*: This district provides orderly and attractive groups of public and semi-public buildings and services which exhibit open space characteristics of a recreational and/or estate nature. Agriculture, historic preservation areas, and wildlife preservation areas are permitted uses. Other uses such as active recreational facilities and community facilities require a conditional use permit. Each specific project must be pre-approved by the Planning Commission after public hearings have been held regarding the proposed development. Active recreational uses which require conditional use permits include golf courses, campgrounds, and fraternal or church related recreational facilities. Community facilities such as libraries, parks, schools, and hospitals also require conditional use permits. Minimum lot sizes within residential districts are one acre; other uses do not have minimum lot size restrictions.

- *F-P (Floodplain District)*: This district allows for the safe discharge of floodwaters. This district also preserves the storage capacity of the floodplain; protects the public health, safety, and general welfare; minimizes property damage and the cost of flood prevention; and allows for flood relief. Permitted uses include general agriculture, boat docks, forestry, irrigation pumps, navigation, outdoor plant nurseries, and recreational trails.

Several generalizations can be made about zoning in the City of Wautoma (Table 8-7). About half of the city is zoned either general agricultural (26.4%) or residential (22.2%). Manufacturing districts comprise another 17.0 percent of the city. Other zoning districts include public and semi-public (8.6%), commercial (4.5%) and floodplain (3.6%). Roads and the former city landfill are not zoned.

Table 8-7. City of Wautoma Zoning.

Zoning Classification	Acres	Percent
General Agriculture (A-G)	468	26.4%
Neighborhood Commercial District (C-N)	7	0.4%
Community Commercial (C-C)	51	2.9%
Service Commercial (S-C)	22	1.2%
General Manufacturing (M-G)	121	6.8%
Intensive Manufacturing (M-I)	63	3.6%
Natural Resource Preservation (O-N)	61	3.5%
Manufacturing Park (M-P)	116	6.6%
Public & Semi-Public District (O-P)	152	8.6%
Floodplain District (F-P)	64	3.6%
Residential Single Family (RS-12)	209	11.8%
Residential Two-Family (RS-2F)	9	0.5%
Residential Multiple Family (RS-M)	25	1.4%
Residential Single Family (RS-8)	151	8.5%
NA (NA)▪	117	6.6%
Water	0	0.0%
Roads*	135	7.6%
Total	1,771	100.0%

*City of Wautoma does not include roads in zoning data.

▪Areas not zoned include the former city landfill north of the City.

Areas shown as water are included in other zoning classifications.

Village of Redgranite

The Village of Redgranite has an extensive zoning ordinance of its own (Exhibit 8-2 and Table 8-8). All zoning district information is contained within the Municipal Code of Village of Redgranite Zoning Ordinance (1997). A summary of the usage requirements and restrictions of the six zoning districts found within the village is listed below.

- *R (Residential):* This district provides a suitable environment for residential uses of various densities. Permitted uses include agricultural uses, home occupations, group homes (8 or fewer residents), single family units, and duplexes. Under certain conditions, ancillary uses such as day care centers, multi-family dwellings, public or semi-public buildings, and public parks and recreation areas are permitted. Single family uses must have a minimum lot size of 10,000 square feet, two family dwelling units are required to have a minimum lot size of 12,000 square feet.

- *CC (Community Commercial District):* This district preserves and enhances the appearance and function of the community's core by providing for a variety of commercial and institutional uses. Business such as banks, professional offices, dental and medical clinics, funeral homes, laundromats, restaurants, department stores, grocery stores, specialty businesses, and public and semi-public buildings are permitted. The ordinance has a provision to allow residential accommodations for storekeepers within the same building.

- *HC (Highway Commercial District):* This district provides for commercial services and uses requiring larger land areas and which are oriented towards highway transportation. Permitted uses include automobile sales and services, boat sales and service, hotels,

restaurants, retail home and building supply stores, and retail stores. The minimum lot size is 10,000 square feet.

- *I (Industrial Manufacturing District)*: This district establishes areas for industrial development that are compatible with adjoining land uses. Permitted uses include all those permitted under the Highway Commercial Zone, as well as commercial bakeries, greenhouses; recycling operations; cleaning, pressing, and drying establishments; light industrial operations; printing and publishing establishments; warehousing; transportation terminals; and non-alcoholic beverage manufacturing and bottling. Lot areas must be a minimum of 20,000 square feet.

- *AH (Agricultural/Holding District)*: This district provides for the continuation of general farming and related uses in areas of the Village not yet committed to urban development. It is further intended to protect lands from urban development until their orderly transition into urban-oriented districts is required. The area allows for all types of general farming provided that all farm buildings housing animals, barnyards, and feedlots are located at least 100 yards from any navigable waterway or district boundary. Associated single family residences and other farm buildings are also permitted. Minimum lots standards are 20,000 square feet for single family residences after the consolidation of existing farms and 5 acres for all other uses.

- *MH (Mobile Home Park District)*: This district is established to promote improved environmental design in the establishment and development of mobile home parks, while insuring substantial compliance with the basic intent of the zoning code and the Community Development Plan. Mobile home parks are the only permitted use within the district. Individual parks are not to exceed five acres in size or a density of six mobile home sites per acre. A minimum of two off-street parking spaces must be provided for each unit. Strict guidelines require that a minimum of 250 square feet of open space per unit and a landscaped buffer of at least 30 feet surround the entire mobile home park.

Over three-quarters of the village is zoned either residential (58.9%) or agricultural/holding (19.4%). Other zoning districts include community commercial (7.2%), industrial (3.7%), highway commercial (2.7%) and mobile home park (0.5%).

Table 8-8. Village of Redgranite Zoning.

Zoning Classification	Acres	Percent
Agricultural/Holding (AH)	295	19.4%
Residential (R)	896	58.9%
Mobile Home Park (MH)	8	0.5%
Community Commercial (CC)	110	7.2%
Highway Commercial (HC)	41	2.7%
Industrial (I)	57	3.7%
Water	0	0.0%
Roads	114	7.5%
Total	1,520	100%

*Village of Redgranite does not include roads in zoning data.

Waushara County

The towns of Dakota, Marion, and Wautoma adhere to Waushara County Zoning. All zoning district information is contained within the Waushara County Zoning Ordinance adopted in 2003. A summary of the usage requirements and restrictions of the districts found within the area is 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. Lot sizes must be a minimum of one acre.

- (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, 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 dying 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 allowed 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 heath, 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.

Several generalizations can be made about zoning in the towns of Dakota, Marion, and Wautoma (Table 8-9 and Exhibit 8-2). The predominant zoning district in all three towns is General Agriculture. This category ranged from a minimum of 79.2 percent of the total land area in the town of Marion to 91.8 percent in the Town of Wautoma. The Natural Resource Preservation district comprises the next largest area in the towns of Dakota and Wautoma. This district accounted for 3.0 percent of the total area in the Town of Wautoma, 6.14 percent in the Town of Marion, and 8.5 percent in the Town of Dakota. With the exception of the Town of Marion, less than 4 percent of the land area in the towns is zoned residential; 7.4 percent is zoned residential in Marion. Less than one percent of all three towns is zoned for either commercial or manufacturing uses.

Table 8-9. Waushara County Zoning.

Zoning Classification	T. Dakota		T. Marion		T. Wautoma	
	Acres	Percent	Acres	Percent	Acres	Percent
Gen. Ag. (A-G)	18,832	87.3%	17,743	79.2%	19,908	91.8%
Ag. Res. (A-R)	47	0.2%	286	1.3%	139	0.6%
Gen. Comm. (C-G)	38	0.2%	11	0.1%	94	0.4%
Community Comm. (C-C)	0	0.0%	0	0.0%	0	0.0%
Service Comm. (S-C)	56	0.3%	9	0.0%	2	0.0%
Gen. Man. (M-G)	0	0.0%	5	0.0%	43	0.2%
Intensive Man. (I-G)	0	0.0%	0	0.0%	3	0.0%
Nat. Res. Pres. (O-N)	1,823	8.5%	1,361	6.1%	646	3.0%
Forestry (O-F)	0	0.0%	0	0.0%	285	1.3%
Park and Re. (O-P)	40	0.2%	594	2.7%	0	0.0%
Shoreland/Wetland (O-SW)	0	0.0%	0	0.0%	0	0.0%
Res. S. F. (RS-10)	1	0.0%	40	0.2%	25	0.1%
Res. S. F. (RS-20)	579	2.7%	1,568	7.0%	476	2.2%
Res. M. F. (R-M)	65	0.3%	23	0.1%	6	0.0%
Res. S. F. Plan. Dev. (RSP-10)	20	0.1%	0	0.0%	0	0.0%
Res. M. F. Plan. Dev. (RM-P)	9	0.0%	2	0.0%	29	0.1%
NA (NA)■	53	0.2%	762	3.4%	20	0.1%
Roads*	0	0.0%	0	0.0%	0	0.0%
Total	21,562	100.0%	22,404	100.0%	21,675	100.0%

*Waushara County does not include roads in zoning data.

■Includes areas not zoned and surface water.

Development Trends

The growth of the area has been influenced by a number of factors. These factors include the abundance of natural lakes and the proximity of the area to the southern half of the state, the Fox Cities, and Oshkosh. Early settlers began to arrive in the late 1840s, and soon small farming communities were scattered throughout the county. These early communities were located along former military and logging roads at creek and river crossings. Most featured a church and a few commercial establishments such as gristmills, sawmills, taverns, and stage houses. The present City of Wautoma was one of these early communities. The initial development was a sawmill on the Wautoma Millpond; further growth followed as a small community began to grow. Early settlers included merchants, doctors, attorneys, and other business people. A small commercial area was established in the present downtown area. In the fall of 1901, rail service was established. As a result, industrial development prospered along Northwestern Avenue in the Pickle Row area. Early development of the Village of Redgranite is tied to the discovery of red granite in the late 1800s. Excavation of red granite brought skilled stone cutters, quarry workers, and their families to the area. Initially these skilled laborers and quarry workers commuted to the Redgranite area on a daily basis. Houses, stores, hotels, taverns, and other commercial establishments were created by the early 1900s. While people were settling in small communities of the area, others were coming to the county in search of agricultural land. These early settlers established the farming base that remains today.

Current residents highly value the abundance of natural resources including the many lakes, trout streams, woodlands, wildlife, and other open spaces. These aspects as well as the friendly small community atmosphere are some factors that have drawn people to the area and retained existing residents. The lakes have attracted vacation home development; many residential structures serve as a second home. Development around Silver Lake, Irogami Lake, and others necessitated the construction of a sanitary sewer system in the early 1990s to protect these resources. While the water quality of the lakes has improved, the addition of the sanitary sewer system has resulted in an increase in both residential and commercial development.

Similar to many rural areas in the state, the planning cluster has faced development pressures. Large portions of farmland and woodlands have been converted to small parcel residential development. The central location of the planning cluster with respect to the rest of the state and easy access to I-39, and STH 21 have contributed to the development of the area. Highway commercial development continues to occur to the east of the City of Wautoma along STH 21/73. This development, as well as the popularity of STH 21 as a cross-state route has caused congestion and traffic problems for the residents of the area. The opening of the Redgranite State prison has been an economic boon to the community. Due to the influence of the prison, the village has seen the construction of a motel, doctor's clinic and housing starts in the community.

As growth occurs, land use changes in intensity and net density. Analyzing the patterns in land use changes 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 Department of Revenue (DOR), and housing information from the Department of Administration (DOA).

Several limitations in the data all three data sets necessitated these general summaries. A brief discussion of the limitation follows.

ECWRPC conducted land use inventories in 1980 and again in 2000. This information was updated in 2005 by the planning committees representing the communities in the cluster. ECWRPC data indicated several trends. Two distinct classification systems were used in the 1980 and 2000/2005 land use inventories. This made is 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 2004. The DOR collects information by real estate class for each minor civil division in the state. Acreage figures from DOR do not include Department of Natural Resource (DNR) lands or other tax-exempt properties. 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. Therefore, some land use changes between 1990 and 2004 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. This data is annually reported by communities and includes single-family, two-family, multi-family and mobile homes. This data set only 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 uses 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 within the planning cluster. The collective summary utilizing all three sources is presented for each individual community; general trends are discussed.

City of Wautoma

During the last 25 years, annexations have increased the size of the City of Wautoma. These annexations have occurred predominately in the northeast and eastern sections of the city and

in the southern part of the airport (prior to construction of the northeast runway). New residential development has occurred predominately in the northeast and western sections of the city. Commercial development has occurred along STH 21/73 and Division Street and the western sections of the city. Institutional development (new schools) has occurred in the western sections. According to historical information gathered by ECWRPC and the DOR, the city has experienced a slight decrease in residential land acreages and a slight increase in institutional and agricultural land during this time period. However, DOA has reported that a total of 194 residential units were added in the city. The majority of these were multi-family units. It is highly unlikely that residential acreages decreased with the development of new housing units.

Village of Redgranite

During the last 25 years, acreage has been added to the village through annexation. Annexations have basically occurred in the northern half of the village. Recent residential growth has been in the northern part of the village, while commercial growth has occurred near STH 21. According to historical information gathered by ECWRPC and DOR, the village has experienced gains in residential, commercial and institutional land use, while losses have occurred in both agricultural and manufacturing. Some of these losses can be attributed to farm acreage that was moved from agricultural to residential (DOR). The gain in institutional land use is a direct result of the prison that opened in the community in the early 2000s. DOA has indicated that 59 housing units were added in the village between 1990 and 2003.

Town of Dakota, Marion and Wautoma

Historical data from both ECWRPC and DOR have indicated that the towns of Dakota, Marion and Wautoma have experienced gains in residential land uses with simultaneous losses in agricultural land over the last 25 years. These local trends mirror state and national trends. A portion of the decline can be attributed to a conversion of agricultural land to residential development, while other losses are a result of differences in classification/delineation of agricultural properties and farmsteads. Some losses in farmland for the towns of Dakota and Wautoma are probably due to annexations to the City of Wautoma. Large gains in residential acres were experienced in all three towns; this corresponds to DOA data that indicates that 92 residential units were added in the Town of Dakota, 344 residential units were added in the Marion, and 134 units were added in the Town of Wautoma. According to DOR data, increases have also occurred in commercial land uses. Forestland losses have been seen in the towns of Dakota and Wautoma. This is most likely due to the conversion of woodlands to new residential development.

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 2004, 887 net units were added within the planning area. This averages to about 59 units per year (units/yr).

City of Wautoma

Nineteen single-family dwelling units were added in the City of Wautoma since 1990; this averages slightly more than one per year. The most rapid growth rates in the city have

coincided with the construction of new subdivisions. Subdivisions were built in the late 1990s and 2004. Between 1990 and 2004, 126 multi-family units (8.4 units/yr), 24 two-family units (1.6 units/yr), and 31 mobile homes (2.1 units/year) were added.

Village of Redgranite

Seventy-nine additional units were added in the Village of Redgranite between 1990 and 2004; about half (36) of these units were multi-family (2.4 units/yr). The village also experienced a net increase in single-family (25, 1.7 units/yr), two-family (12, 0.8 units/yr), and mobile homes (6, 0.4 units/yr). The most rapid growth periods occurred in 1997 and 2001; the latter coincided with the opening of the new prison.

Town of Dakota

Net single family additions were much higher in the towns than in the incorporated areas, while additions of other residential dwellings were similar. Within the Town of Dakota, 99 single-family units (6.6 units/yr) and one two-family unit were added between 1990 and 2004. The largest growth in single family units happened in 1993 (14). Single-family growth since 1993 has remained relatively constant in the town.

Town of Marion

The Town of Marion has experienced the largest increase in residential construction. Between 1990 and 2004, 347 single-family units (23 units/yr) were added. This time period also saw the addition of 9 two-family and 6 mobile homes. The most rapid increase in housing units occurred between 1998 and 2003. During this timeframe, a total of 177 single-family units (30 units/yr) were added.

Town of Wautoma

The Town of Wautoma saw the second highest increase in single family units between 1990 and 2004. During this timeframe, 144 single-family units (10 units/yr) and one mobile were added in the town. The fastest period of growth occurred between 1995 and 1999; a total of 73 single-family units (15 units/yr) were added.

Density and Intensity

Density

Residential densities are defined as the number of housing units per square mile of total land area (units/ sq. mile). Between 1990 and 2000, residential densities increased throughout the area, county and state. As the population of the area has grown, so has the overall housing density (Table 8-10). Overall, the total number of housing units has increased by 11 percent.

Residential densities varied by municipality. By 2000, the residential density in the Town of Marion (48.88 units/sq. mile) continued to outpace the densities in the Town of Dakota (20.75 units/sq. mile), the Town of Wautoma (18 units/sq. mile), Waushara County (21.83 units/sq. mile) and the state (42.74 units/sq. mile). Densities within suburban areas are typically much higher due to smaller lot sizes and more compact development. Densities in the City of Wautoma were 346 units/sq. mile; the Village of Redgranite was 227 units/ sq. mile.

Table 8-10. Housing Unit Density, 1990 to 2000.

	Land Area in sq.miles	1990		2000	
		Tot Units	Units/sq mi	Tot 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
City of Wautoma	2.5	815	326.00	865	346.00
Village of Redgranite	2.2	474	213.51	503	226.58
Town of Dakota	33.2	653	19.69	688	20.75
Town of Marion	33.6	1,417	42.24	1,640	48.88
Town of Wautoma	33.9	515	15.17	611	18.00

Source: U.S. Census, 1990, 2000

Note: Total housing units includes single family, duplex, multi-family, mobile home, trailer and other.

Intensity

Intensity is a measure of the units per acre of residential development. 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 categories single and two family residential, farmsteads, and mobile homes were all classified as "single family."

The nature of single family uses and apartment complexes result in intensity differences. Since multi-family are comprised of three or more units in one building, these developments are typically a more intense land use than single-family residential. Several housing units are incorporated into one building.

Several important factors create more intense development patterns in incorporated communities. Single-family residential development is typically a less intense land use than multi-family. Multi-family development has been restricted to areas on public sewer. Thus, a greater number of multi-family units are located in both the City of Wautoma and Village of Redgranite than any of the towns. Second, incorporated areas in Waushara County are smaller in overall land area than the surrounding towns. This results in a more intensive land use in incorporated areas. Finally, the City of Wautoma and the Village of Redgranite have areas of older residential development dating back to the early 1900s. These older areas, constructed during a period when society was less dependent on cars for transportation, necessitated the need for smaller lot development that allowed for closer proximity to neighbors and services.

Land use was more intense in the City of Wautoma and the Village of Redgranite than the three towns in the planning cluster. In 2000, single-family land use ranged from a high of 3.13 units per acre in the City of Wautoma to a low of 0.91 units per acre in the Town of Wautoma. Multi-family land use in 2000, ranged from a high of 6.56 units per acre in the City of Wautoma to a low of 0.65 in the Town of Dakota. Since less than one acre of land in the Town of Marion is utilized for multi-family development, the overall intensity is negligible.

Table 8-11. Intensity, 2000.

Municipality	Single-Family[1]			Multi-Family[1]		
	Units	Acres	Unit/Ac.	Units	Acres	Unit/Ac.
C. Wautoma	720	230	3.13	221	34	6.56
V. Redgranite	490	241	2.03	38	11	3.43
T. Dakota	703	685	1.03	3	5	0.65
T. Marion	1763	1,414	1.25	2	0	0.00
T. Wautoma	649	1,012	0.64	2	1	2.02

[1]Includes mobile homes and mobile home parks
Source: U.S. Census 2000, Department of Administration, ECWRPC.

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 decisions 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. 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 is currently developing a regional comprehensive plan. As a part of this planning process, East Central has identified several key policies:

- Facilitate cost-effective, centralized, compact, and contiguous urban growth.
- Encourage urban development that is environmentally sound and compatible with the natural resource base.
- Facilitate urban levels of development where facilities and services are readily available to support the development.
- Encourage individual community character and identity.
- Avoid intermingling urban and rural land uses.
- Promote rural land development which meets the needs of rural residents and landowners in a compatible, cost-effective, and environmentally sound manner.
- Provide government services in an efficient, environmentally sound, and socially responsible manner.
- Build community identity by improving overall appearance and attractiveness to visitors.
- Ensure that open space is available to meet the recreational needs of all residents.
- Preserve and protect natural and cultural resources.

These goals are consistent with the Group D cluster's vision for land use development and future growth.

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

Citizen questionnaires were distributed to residents and landowners within the planning cluster to gather opinions regarding land use and development issues. According to responses that were received, the top issues that were identified included: the attraction of good paying jobs; the protection of natural resources, private property rights, and woodlands; and improving the quality of life.

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 the Group D cluster is finite. Factors that limit the amount of developable land include environmental restrictions (atrazine prohibition areas, floodplains, high groundwater, wetlands, steep slopes, and water quality), zoning (setbacks, conservancy and development easements, permitted uses), and conflicts between uses and full-time and seasonal residents.

Land Price

The price of developable lands 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. Real estate professionals in the area can provide updated information on land values.

The Wisconsin Department of Revenue (WDOR) annually sets and reports equalized value by real estate class per municipality in Wisconsin. Additionally the WDOR reports the individual clerk's statement of assessments that includes the number of parcels (improved and unimproved), acres and the local assessment per real estate class (Appendix K, Tables K-1 to K-8).

While data from the WDOR can offer insight into historical land prices, this data is not complete. Historical land prices within the towns of Dakota, Marion and Wautoma were derived using acreage and equalized value, while data within the City of Wautoma and the Village of Redgranite were derived utilizing the number of parcels and the equalized value.

Within the towns, some of the changes in land acreages and price per acre can be directly attributed to the changes that have occurred since 1980 in the way that agricultural land is assessed. Starting in 2000, agricultural land must be based on use value instead of full market value. At that time, land formally classified as agricultural was moved to other categories based on the use of the property. For example the portion of agricultural land that contained the house and buildings were transferred to residential. Agricultural land is currently taxed at a lower rate than forestland, wetlands, or other land uses within agricultural properties. Although equalized values indicate that residential properties decreased in the 1980's; this may not be the case. According to the Census Bureau, housing values have increased each decade since the 1980's; the lowest increase (8.2%) occurred during the 1980's. During the 1980's, the housing market slowed down due to high interest rates. WDOR equalized valuations are independent on accurate reporting from individual municipalities but are based on sales by real estate class.

City of Wautoma

According to the WDOR, the number of residential land parcels in the City of Wautoma decreased slightly between 1980 and 2000, then increased between 2000 and 2005. Throughout this time period (1980 to 2005), the average value of a residential parcel increased (Appendix K, Table K-9). In 1980, 754 residential parcels had an average value of $4,707; by 2005 the number of parcels had decreased to 711, while the average value had increased 165 percent to $12,469. During this same time frame, the number of commercial parcels steadily rose from 118 in 1980 to 199 in 2005. The price of an average parcel increased significantly from $5,655 in 1980 to $43,101 in 2005. Although the number of manufacturing parcels remained relatively steady from 1980 to 2005, the average price per parcel increased by about 44 percent from $12,450 to $17,867. Either agricultural land was not reported in the city for the years 1980 through 2000 or the reported data was incomplete. Therefore, a historical trend of average agricultural land price was not available. It is important to note that the average size of a parcel of land may have changed over time and that part of the difference in the average price of a parcel may be attributed to parcel size increases.

Village of Redgranite

WDOR data indicates that between 1980 and 2005, about 5 new residential parcels per year were added in the Village of Redgranite (Appendix K, Table K-10). In 1980, 470 residential parcels were valued at an average cost of $2,489. By 2005, the number of residential parcels had grown to 600, and the value per parcel had increased by about 166 percent to $6,629. The largest increase in the number of residential parcels occurred between 2000 and 2005. Between 1980 and 1990, the number of commercial parcels fell from 58 to 47, while the cost per parcel more than doubled, rising from $3,638 to $7,936. During the 1990's and continuing to 2005, the number and value per parcel of commercial property increased, so that by 2005, there were 78 parcels, with an average cost per parcel of $24,585. While the number of manufacturing parcels fell from a high of seven in 1980 to one in 2005, the cost per parcel rose by over 500 percent from $7,343 to $45,400. The number of agricultural parcels remained relatively steady during this time period, while the price per parcel decreased from $12,977 in 1980 to $2,838 in 2005. As stated above, it is important to consider that the average size of a parcel may change over time. This fact may be especially true of an agricultural parcel of land that tends to be larger in size and becomes smaller as land is removed for other uses. Wisconsin Act 27 mandated that agricultural land be based on a use value instead of a full market value. This change affected the equalized value of the agricultural property between the 1990 and 2005 assessments.

Town of Dakota

According to the WDOR, the number of residential acres in the Town of Dakota steadily rose between 1980 and 2005 (Appendix K, Table K-11). The largest increase, for the years reviewed, occurred between 1980 and 1990. During the 1980's residential acreage increased by over 88 percent from 838 acres to 1,579 acres. While residential acreage continued to rise, the growth rate slowed to 34 percent between 1990 and 2000 and fell to only one percent between 2000 and 2005. In 2005, WDOR reported that 2,136 acres were designated as residential. The average value of residential land per acre, fell by 45 percent between 1980 ($5,573) and 1990 ($3,049). Since 1990, the value of residential acreage has steadily risen; in 2005, it was worth, on average, about $7,651 per acre. Commercial acreage remained relatively constant at about 200 acres between 1980 and 2005. While the acreage remained constant, the average value of land increased from $4,986 per acre in 1980 to $16,141 per acre in 2005. The largest increase occurred between 2000 and 2005, when the average value of commercial land increased by 97 percent. Following state, county and area trends, acreage devoted to agricultural use has declined since 1980. In 1980, 9,338 acres of land was designated as agricultural use, while in 2005, this number fell by 28 percent to 6,762 acres. The value of an acre of agricultural land declined from a high of $497 per acre in 1980 to a low of $116 per acre in 2005.

Town of Marion

Residential land acreage and average cost per acre have progressively increased in the Town of Marion since 1990 (Appendix K, Table K-12). Between 1990 and 2005, residential land acreage grew by about 36 percent, while the average cost per acre rose by over 200 percent. In 1990, according to the WDOR, there were 2,670 acres of residential land in the town with an average value of $8,730 per acre. By 2005 the number of residential acres had increased to 3,632, while the average cost per acre had risen to $27,494. From 1990 to 2005, commercial acreage in the town increased from 25 acres to 169 acres, while manufacturing acreage fell from 39 to 4. Similar to residential acreage, the average value of an acre of commercial and manufacturing land also rose. Commercial acreage increased by over 28 percent from $5,383

in 1990 to $6,929 in 2005, while manufacturing acreage increased by a staggering 871 percent from $767 to $7,450 per acre during this same time frame. Keeping in mind the changes in reporting and assessing agricultural land and other related real estate classes between 1990 and 2005, the number of agricultural acres fell by 42 percent from 10,346 acres to 6,049 acres; whereas forest land remained relatively constant at around 5,400 acres. Similar to other communities, the value of an agricultural acre fell from $467 in 1990 to $108 in 2005. Forest land, however, rose in value from $584 per acre in 1990 to $2,223 per acre in 2005.

Town of Wautoma

According to the WDOR, the overall value and number of residential and commercial acreage increased between 1980 and 2005 (Appendix K, Table K-13). Even though land values increased overall, data collected in 1990, indicates a decrease in land values for both categories. In 1980, 1,141 acres of residential land was worth an average of $2,424 per acre in the Town of Wautoma. By 2005, residential land acreage and value had more than doubled; 2,600 acres of land classified as residential was worth an average of $5,722 per acre. Land classified as commercial increased from 23 acres in 1980 to 248 acres in 2005, while the average value of commercial land increased from $10,522 per acre in 1980 to $16,755 per acre in 2005. The town experienced a loss in manufacturing acreage and an increase in price per acre during this time period. In 1980, 108 acres of land was classified as manufacturing. Land classified as manufacturing fell to 79 acres in 1990 followed by a further decline in 2000 to five acres, before rising to nine acres in 2005. The town experienced a steady decline in agricultural land acreage and average price per acre during this time period. Agricultural land decreased by 44 percent from 11,150 acres in 1980 to 6,225 acres in 2005. Similar to other communities in the Group D cluster, the average price of an acre of agricultural land decreased from $465 per acre in 1980 to $123 per acre in 2005.

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 Group D cluster. 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 860 seasonal units in the Group D towns. An increase in gas prices may cause some residents to move closer to their place of employment and out of 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 cluster.

FUTURE LAND USE PROJECTIONS

Future Land Use Map

Future land use needs and the resulting future land use map represents a compilation of the previous elements (Exhibit 8-1). This map was developed using:

- Existing land use maps and patterns
- Demographics (population, housing)

- Natural resource areas with limiting conditions (wetlands, floodplains, water resources)
- Development limitations (quarries, abandoned landfills, atrazine prohibition and wellhead protection areas)
- Future land use projections
- Results from public input including the citizen questionnaire
- Committee input including the SWOT analysis and visioning exercise
- Waushara County, City of Wautoma and Village of Redgranite Zoning Ordinances

The following land use categories were used in the Future Land Use Map

- **Future Residential:** Future residential land is classified as land that that will be used primarily for future human habitation. Future residential land uses include single-family residential, farmsteads, individual mobile homes and duplexes. This land use category can include mobile homes in communities that have not made a distinction between these uses.

- **Future Multi-Family:** Future multi-family land is classified as land that will be used primarily for future residential uses of more than two residential units per building.

- **Future Commercial:** Commercial land uses represent the sale of goods and services and other general business practices. Commercial uses include retail and wholesale trade; services; and other related businesses.

- **Future Industrial:** Industrial land uses represent a broad category of activities not classified as future commercial such as construction, manufacturing, and other industrial facilities

- **Future Recreational:** Recreational facilities are defined as land uses that provide opportunities for citizens to enjoy leisure activities. This category encompasses both active and passive activities. It includes designated parks; hunting and fishing areas; nature areas; areas for spectator sports, hiking, mini-golf, bowling, bicycling, skiing, golf courses, country clubs; and other related activities.

These maps should be used as a planning tool by the communities in accordance with the Smart Growth Law. Elected and appointed officials should use these maps as a guide for making future land use decisions.

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. A summary of future land use projections and criteria used is follows.

However it should be noted that while projections can provide extremely valuable information for community planning; 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 area.

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 sanitary sewers by encouraging denser growth patterns which maximize the use of land resources while minimizing the impact on the natural resource base.

City of Wautoma

Future residential land acreage projections were estimated by utilizing historical data from the U.S. Census and past building trends. In 2000, 1998 people lived in the City of Wautoma; 223 of these people resided in group quarters.[4] There were 865 housing units in the city that were divided between single family (583), two-family (79), mobile homes (36) and multi-family units (167). The residents of the city comprised a total of 806 individual households. Based on ECWRPC projections, it is estimated that there will be 2,588 people living in the city in a total of 1,105 individual households in 2025. The vacancy rate of 6.8 percent (includes seasonal units and units that are available for rent and sale) from the 2000 census was held constant. Utilizing historical trends for single family versus multi-family units in the city, it is estimated that there will be 114 additional single-family, two-family, mobile home housing units in 2025 and an additional 207 multi-family units. Residential land use acreages were estimated by using existing zoning requirements (RS-8, RS-12, RS-2F and RS-M) and residential intensities (Table 8-11). Therefore, an additional 21 to 37 acres will be needed for single-family, two-family and mobile home uses by 2025. In addition, it is estimated that about 32 acres will be needed for multi-family uses during this same time period (Table 8-12).

While these are estimates, actual uses will depend on land and housing availability and affordability; local and state economies; and other factors. According to the future land use map, residential land use (single-family, two family, mobile home and multi-family) is anticipated to occur as infill and in designated areas throughout the city (Exhibit 8-2). Some of these new residential units should be targeted toward low to mid-income households.

Commercial and industrial land use projections are assumed to mirror population growth. New commercial development is currently occurring on East Division Street. It is difficult to estimate the exact acreage that will be added during the life of the plan. However, for planning purposes, it is reasonable to assume that an additional 20 acres will be added for commercial growth and an additional 15 acres will be added for industrial growth (Table 8-12). Commercial growth is expected to occur near the intersection of STH 21 and East Division Street; East Plaza Road; and STH 73 at the western side of the city. Industrial growth is anticipated to occur in and adjacent to the city's existing industrial park (Exhibit 8-2). Agricultural land use is basically located on the Wautoma Municipal Airport property and in the southwest corner of the city, west of STH 22. It is anticipated that little development will occur in these areas and therefore little change in agricultural use will be realized within the city.

[4] U.S. Census 2000.

Table 8-12. City of Wautoma Future Land Use Projections, 2005 – 2025.

Future Land Use Acreages	2000	2005	2010	2015	2020	2025
Residential S.F.	223	230	238	245	253	260
Residential M.F.	26	34	40	46	52	58
Commercial	-	66	71	76	81	86
Industrial	-	29	33	37	40	44
Agricultural	144	144	144	144	144	144

Village of Redgranite

Utilizing historical data from the U.S. Census and past building trends, future residential land acreage projections were estimated. In 2000, 1,040 people lived in the Village of Redgranite; of this total, 26 people resided in group homes.[4] Since the Redgranite Prison opened in 2001, the population of the village has nearly doubled. In 2025, it is expected that 2,193 people will live in the village (includes 945 in group homes, the majority at the prison). In 2000, there were 503 housing units and 440 households in the village. The housing units were divided between single family (360), two-family (11), mobile homes (98), and multi-family units (34). Based on ECWRPC projections, it is estimated that there will be a total of 572 households in 2025. Assuming a constant vacancy rate of 5 percent and a constant seasonal vacancy of 14 units[4], it is assumed that there will be a total of 84 additional new single-family, two-family, and mobile home units; and an additional 30 new multi-family units. Residential acreages were estimated using existing zoning requirements and residential intensities. Based on these requirements it is estimated that an additional 19 to 41 acres will be needed for new single-family, two-family, mobile home development and that an additional 3 to 9 acres will be needed for multi-family uses (Table 8-13).

It should be noted that these are estimates. The actual amount of land required may vary depending on land and housing affordability and availability; the economy; and other factors. According to the future land use map, it is anticipated that the majority of residential development will occur in the area north of Willow Creek and west of the prison (Exhibit 8-2) where soils are best suited for development. While this area is not currently served by public sanitary sewer or water, all future residential growth should be phased to allow for sewered development. Multi-family residential development should occur in areas that can be served by public sewer and water. While an area is identified on the map for future multi-family development, actual development should be allowed to occur in other areas of the community.

Commercial and industrial land use projections are assumed to mirror population growth. While it is difficult to estimate the exact acreage that will be added during the life of this plan, it is assumed that an additional 10 acres each will be added for commercial and industrial growth (Table 8-13). Commercial and industrial growths are anticipated to occur near STH 21 and the village industrial park.

Agricultural land uses are not expected to change over time. A majority of the land currently used for agricultural purposes is unsuitable for development due to environmental constraints.

Table 8-13. Village of Redgranite Future Land Use Projections, 2005 – 2025.

Future Land Use Acreages	2000	2005	2010	2015	2020	2025
Residential S.F.	225	235	243	251	258	266
Residential M.F.	10	11	13	15	17	19
Commercial	-	35	38	40	43	45
Industrial	-	18	21	23	26	28
Agricultural	38	38	38	38	38	38

Town of Dakota

The Town of Dakota had a population of 1,259 persons in 2000. There were 679 housing units in the town that were divided between single family detached (491), single family attached (4) two-family (13), mobile homes (168), and three multi-family units. The residents of the town comprised a total of 806 individual households. Based on ECWRPC projections, the population will increase by four individuals by 2025; there will be an estimated 535 individual households. Assuming a constant vacancy rate of 5.0 percent (units that are available for rent and sale) and a constant seasonal percentage of 21.2 percent, this indicates 725 housing units are estimated to be inhabited in 2025. Since both current and projected multi-family units account for less than 1 percent of the total housing units, it is assumed all new units will be single family dwellings. This indicates 46 new single family houses should be built by 2025.

Between 2000 and 2004, 27 new homes were built. Since it is improbable that only 19 new homes will be constructed between 2005 and 2025, slight modifications must be made to ECWRPC population modeling scenarios. Past building permit data indicates an average of 7.3 new single family homes are constructed each year. If past construction trends remain constant, 146 new homes are anticipated over the course of the plan.

The planning committee developed a consensus that it was necessary to acknowledge the slower projected growth rates while allowing future development to occur. Housing projections were completed assuming 67 percent of the growth (97.82 homes) predicted by a linear trend would occur. To simplify calculations, future land use calculations were based on the construction of 100 new single family homes.

Four primary areas were targeted for development in the town; specific developments were also recommended. Lot sizes in the unincorporated village of Dakota were established to be 0.50 acres. Compact lot development was recommended in areas currently serviced by the sanitary district and areas immediately adjacent to the southwestern portions of the City of Wautoma. Lot sizes should range between 0.5 and 1 acre in sections 1, 2, 3, and 4 of the town; lots in sections 10, 11, and 12 should be between 1 and 2 acres. Scattered rural development in the eastern and southern areas outside the sanitary sewer planning areas is appropriate if lots sizes are five acres and larger. Lots within agricultural corridors should be a minimum of 35 acres.

Land use projections were calculated assuming development would be evenly distributed among the four areas. Utilizing these and previously discussed parameters for residential intensities, an additional 198 acres are expected to be allocated single-family homes. In most standard residential developments, 25 percent of the gross land area will be needed to construct streets, stormwater management facilities, and other infrastructure that will be required by current and future legislation. It is anticipated that 260 acres are necessary for

future residential growth (Table 8-14). While this in an estimate, actual development will depend on land and housing availability and affordability; the local and state economies; and other factors. It must be taken into consideration that:

- It is not the intent of the plan to see an entire area within the specified zones to develop. Instead, the specified use shall be allowed if consistent with the type, location, and density of the development; and

- Some of the land would hinder development based on soil suitability, adjacent natural resources, conflicting land uses, or other factors.

To calculate commercial land use projections, the current ratio of residential acreage was compared to commercial land use acreage (55.5 acres) based on the current land use inventory. This ratio (13:1) was held constant over the planning period. Based on this methodology, the Town of Dakota is anticipated to develop approximately 16 acres. In order to account for the increased imperviousness of commercial areas, this total was doubled to 32 acres to facilitate on-site infiltration and other innovative stormwater management strategies. On the Future Land Use Map, the town has designated several areas along STH 21 and adjacent to the Wautoma Industrial Park in the northern portions of the town for commercial development. Additional service based commercial uses are also likely to develop in other appropriate areas such as the unincorporated village of Dakota.

Industrial lands are projected in the same manner as the commercial lands. According the 2005 land use inventory, the current ratio of residential acreage to industrial acreage is 42:1. After additional land is factored in for stormwater management purposes, it is anticipated the town will develop one (1) acre for industrial uses. Since this is a small amount of land, this will most likely occur in one development. Therefore, five year projections were not completed for industrial uses.

The Town of Dakota does not see itself as being a community that would attract large industries; thus, industrial development will be directed primarily to the existing industrial park in the City of Wautoma areas or areas immediately adjacent. This area contains adequate public facilities and services for more intensive industrial uses. However, areas designated as commercial may be considered for future light industrial developments. If light industrial uses are allowed to develop in the Town of Dakota, they shall fit the character of the town and be environmentally friendly.

Table 8-14. Town of Dakota Land Use Projections.

Future Land Use Acreages	2005	2010	2015	2020	2025
S.F. Residential	689	754	819	884	949
Commercial	55	63	71	79	87
Industrial	16	16	17	17	17
Agricultural	4,377	4,312	4,247	4,182	4,117

The majority of the agricultural lands in the Town of Dakota are found in the western portions of town. It is the town's intention to preserve as much of these remaining farmlands as possible over the next 20 years. "Agricultural preservation corridors" have been indicated on the Future Land Use Map. New residential uses in these areas should be set back from existing agricultural operations to minimize potential conflicts and serve as a buffer area. As

development pressures continue to grow, a portion of the lands currently being used for agricultural purposes may be developed over the planning period. Most development is recommended east of STH 22. Agricultural projections were made assuming that all new residential development would convert existing agricultural land into new housing. Although this may not be the case, it presents the "worst case scenario." Thus, it is anticipated there will be a net loss of 260 acres of agricultural land during the planning period.

The Town of Dakota currently exceeds national standards for recreational facilities. A golf course and several smaller village greens and passive recreational parks are located within the town. There are also several parcels of state fishery areas and natural areas which allow for fishing, hunting, and other nonconsumptive wildlife recreational pastimes. The town does plan to make improvements to its park adjacent to the town hall. A county-wide committee is also studying the feasibility of establishing a proposed swimming beach at Bugh's Lake. Future recreational facility expansions can also be explored as the need and demand occur.

To ensure that these development guidelines are implemented, it may be necessary to rezone specific areas within the Town of Dakota. The town is proposing several new zoning districts (Exhibit 8-4). With the Wautoma – Silver Lake Sewer Service Planning Area, two residential districts are needed: RS-44M and RS-87M. These districts are proposed to maintain appropriate housing densities as previously discussed. The RS-44M district would allow single family development with a minimum lot size of 20,000 square feet and a maximum lot size of one (1) acre. The RS-87M district would allow single family residential development with a minimum lot size of one acre and a maximum lot size of two acres. Another new residential district, RS-20M, would allow single family residential development with a maximum lot size of 20,000 square feet. The RS-20M district would be located in and adjacent to the unincorporated village of Dakota. Two agricultural districts would also be established: A-35 and A-35BF. Both districts would allow agricultural developments with an accompanying farmstead on parcels a minimum of 35 acres in area; these districts correspond to the aforementioned "agricultural corridors." The A-35BF district would be the only area within the town to allow medium or large concentrated feeding operations (CAFOs) of 500 animal units or more. Animal feeding operations of less than 500 animal units will be permitted in the A-35 district and other areas agricultural zones.

Town of Marion

Expected increases in residential acreage can be estimated by projecting a variety of historical data into the future. An anticipated range of population growth and the amount of land that would be required to accommodate that population increase were derived using past building trends and ECWRPC population projections. Land use projections were made using population figures from the 2000 Census and historical building permit data.

In 2000, The Town of Marion had 2,063 permanent residents. There were 1,630 housing units in the Town of Wautoma. Of these, 908 were occupied year round, 653 were seasonally occupied and 69 were vacant. Collectively, residential land uses occupied 1,415 acres; this resulted in an average density of approximately 0.87 acres per dwelling unit. Nearly all of the units were single-family residential. Of the 1,415 residential units 131 were farmsteads. Based on the town's projected population growth, the total number of dwelling units is expected to increase by approximately twenty new residences per year. These projections correspond well to historical building permit data. Between 1990 and 2000, an average of 21 new homes were built in the town. More recently, Marion averaged about 18 new home starts per year.

Land use projections were made assuming historic residential densities would remain constant over the next 20 years. This data implies that it is reasonable to expect between 18 and 21 new housing units will be added to the town's housing supply annually. This suggests a range of between 360 and 420 new dwelling units will be constructed in the town during the next 20 years. In 20 years, the town's housing supply would increase to between 1,990 and 2,050 housing units. Using the previous average density of 0.87 acres per unit, the new residential acreage can be expected to grow to somewhere between 15 to 18 acres per year. This means the Town of Marion would likely expect between 300 and 360 acres of new residential development during the twenty year planning interval. This would increase the amount of land allocated for residential development from 1,415 acres to a range of 1,715 and 1,775 acres.

There are a significant number of vacant existing platted lots now available for infill development, which could accommodate some of the expected growth. Much of the expected growth is targeted to occur in the northwest corner of the Town where the Silver Lake Sanitary Sewer District provides services. It is also anticipated that single lot development will continue to occur as infill to existing subdivisions as well as around the community of Spring Lake. Scattered single lot development may continue elsewhere throughout the town.

Commercial and industrial development are expected to be rather limited. The Town generally wishes to target larger commercial and industrial uses to appropriately zoned areas including the industrial park in City of Wautoma or areas adjacent to the City where municipal services currently are available. Traditional neighborhood serving commercial uses of a scale compatible with the surrounding residential market may be appropriate in or adjacent to the Spring Lake area. Small businesses of a commercial or cottage industries in a home which do not have significant impacts could be considered on a case by case basis. There may be some infill commercial or industrial development permitted along STH 21 near the east entry of the City of Wautoma. A reasonable estimate of approximately 25 to 30 acres of new commercial development can be expected in the combined area of the Silver Lake Sanitary District, the Highway 21 corridor, the Spring Lake area. There are no major industrial uses existing in the Town of Marion; none are anticipated. Therefore, no additional industrial acreage is allocated in this plan.

Table 8-15. Town of Marion Land Use Projections.

Future Land Use Acreages	2000	2005	2010	2015	2020	2025
Residential S.F.	1,415	1,500	1,585	1,669	1,754	1,839
Commercial	8	12	16	20	24	28
Industrial	4	6	8	10	12	14

Town of Wautoma

There are several ways to project the amount of land that would be needed for future development in the Town of Wautoma over the next twenty years. Expected increases in residential acreage can be estimated by projecting a variety of historical data into the future. Two methodologies were used to derive an expected range: past building trends and ECWRPC population projections.

Land use projections were made assuming historic residential densities would remain constant over the next 20 years. In 2000, there were 611 housing units in the Town of Wautoma. Of these, 523 were occupied and 88 were vacant. Collectively, residential land uses occupied

1,013 acres in 2005 (Table 8-6). According to the WDOA 40 units were added between 2000 and 2004. Based on the town's projected population growth and housing trends, the total number of dwelling units is expected to increase by approximately six new residences per year. However, between 1990 and 2000, an average of 10 new houses were built in the town and, more recently, from 2000 to 2004, the average was eight.

This data implies that it is reasonable to expect 5 to 10 new housing units will be added to the town's housing supply annually. This suggests a range of between 100 and 200 new dwelling units will be constructed in the town during the next 20 years (2005 to 2025). This increases the town's housing supply to between 751 and 851 housing units. Assuming an average lot size of one acre, the amount of new residential acreage can be expected to increase from about 5 to 10 acres per year. This means the Town of Wautoma would likely anticipate between 100 to 200 acres of new residential development during the twenty year planning interval. This assumes that the majority of residential development would occur on smaller lots within the sewer planning area boundary. Land allocated for residential development is anticipated to increase from 1,013 acres to a range of 1,113 and 1,213 acres. There are presently about 35 vacant platted lots available for infill development, which could accommodate some of the expected growth. While much of the remaining growth is targeted for areas within the sewer planning area boundary, single lot development could occur in other areas of the town that have been targeted for a minimum of 5 and 10 acres. It should also be noted that there is no expectation that the targeted growth area will be fully developed over the next twenty years.

For commercial and industrial development, the Town generally wishes to target these types of growth to the City of Wautoma or adjacent areas where municipal services currently are or can be made available. Traditional industrial uses that are manufacturing oriented do not exist in outlying portions of the town. Therefore, no additional acreage is allocated in these areas. There may be some infill industrial development along STH 21/73 near the east entry to the city. For new commercial development, targeted areas include the east side of STH 22 directly north of the city and along STH 21/73 on the east edge of the city; development will be secondarily along STH 73 on the city's west edge. A reasonable estimate of 20 to 25 acres of new commercial development can be expected in these three areas.

Table 8-16. Town of Wautoma Land Use Projections.

Future Land Use Acreages	2005	2010	2015	2020	2025
Residential S.F.	1013	1051	1088	1126	1163
Commercial	41	47	54	60	66
Industrial	25	25	25	25	25
Agricultural	2616	2595	2574	2552	2531

Land Use Issues and Conflicts

With the exception of the Village of Redgranite, the Group D communities usually met either as a single group or individually in the same room. Planning committees were free to discuss controversial items that arose with other Group D communities as the issues came up. Joint discussions were held regarding future planning efforts and the development of exterritorial zoning within 1.5 miles of the City of Wautoma during the intergovernmental cooperation element. All committees recognized the area-wide benefit of extra-territorial zoning. This practice was generally well received by all. Equal representation on the extraterritorial zoning

board was stressed as the most vital need to ensure the success of these endeavors. Individual future land use plans for all communities were presented to the group. Everyone had not only the opportunity to see what other committees were planning, but also the chance to comment on the other individual land use plans. Even though an effort was made to resolve conflicts during the planning process, some land use conflicts did arise; these issues will have to be resolved in the future. These conflicts included the expansion of the City of Wautoma's existing industrial park and future residential development near the city's southwest border both within the Town of Dakota.

During the Village of Redgranite's planning effort, concern was raised by adjoining communities regarding extraterritorial zoning and the annexation of adjacent town lands. The village has stated that it has neither desire nor have the ability to begin annexation proceedings. All petitions for annexation must be initiated by town landowners per state statutes.

Natural resource preservation and development may be in conflict with each other. High quality trout streams, natural seepage lakes, wetlands, floodplains, and other features comprise the natural resource base for the Group D communities. 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.

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 where public sanitary sewer and water are available. Restoring the downtowns of the city and village, incorporating historic elements of the region, and directing unique businesses to these areas are important to the economic vitality of the communities. Industrial parks with available land and expansion capacity for commercial and industrial development are located in both the City of Wautoma and the Village of Redgranite.

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 the area. 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 reasonable 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 should carefully consider the creation of a STH 21 by-pass to relieve congestion and safety concerns in the downtown areas of Redgranite and Wautoma and on STH 21/73 on the eastern edge of the city. Congestion and safety issues are already occurring and can only be expected to increase as traffic volumes go up on these segments of the highway. Current plans are to widen STH 21 to four lanes from Oshkosh to Omro. While WisDOT does not have immediate plans to widen STH 21 in the Redgranite-Wautoma area, current traffic volumes and the projected increase in traffic indicate a by-pass may be necessary. In view of the rate of development and environmental concerns in the area, it will be less costly to preserve land for a future highway corridor before development is allowed to occur.

Community and Public 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. Areas within the City of Wautoma and the Village of Redgranite should be served by public water if it is readily available. In rural areas, scattered residential development increases the cost or makes costs prohibitive to provide 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 of the area 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 farm operational conflicts and limits farm expansion for farmers who wish to remain in farming.

Natural Resources

An abundance of natural resources including spring fed and seepage lakes, streams, woodlands, wetlands, wildlife habitat, agricultural land and other open spaces can be found in the area. People who visit and live in the area value these resources. Increased development can adversely affect these very resources that drew people to the area and caused them to remain. New development should be directed away from sensitive environmental areas including floodplains, wetlands and trout streams. 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 of the area 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. The downtown areas of both the City of Wautoma and the Village of Redgranite should be developed to enhance the historical significance of the area. The abandoned quarries in the Redgranite-Lohrville-Marion area should be developed as an example of life in the early 1900's.

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.

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. 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.

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 system 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.

Currently, the Waushara County Zoning Department is drafting a **wind energy ordinance**. The existing ordinance permits wind energy facilities in areas that have been zoned for either general agricultural (A-G) or forestry (O-F) uses. 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.

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 110.

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.

Farmland Preservation Plan. Waushara County adopted the county Farmland Preservation Plan on June 9, 1981. The goal of plan 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. 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.

Pine River/Willow Creek/Poygan South Priority Watershed Plan. The Pine River/Willow Creek/Poygan South Priority Watershed was selected as a priority watershed in 1995. The watershed drains 308 square miles in Waushara and Winnebago Counties. Both waterways are clear, hard water streams that drain the southern two-thirds of Waushara County. The local soils, geology, and other physical resources present in the watershed are highly susceptible to groundwater and surface water contamination from poor land use practices. The high occurrence of agricultural uses exacerbates this vulnerability. The overall goal of the High Priority Watershed program is to reduce sedimentation and nutrient loading to local water resources. The project will end in 2009. In 1997, the Pine River/Willow Creek/Poygan South Priority Watershed Plan was adopted to protect this watersheds.

Land and Water Resource Management (LWRM) Plan. The Waushara County LWRM plan was written in 1999. In 2005, it was revised in response to 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

Annexation. In Wisconsin, cities and villages cannot initiate annexation procedures. Instead, town residents must petition the municipality for annexation. Once annexation procedures have begun, municipalities must approve the annexation of those parcels in order for the annexation to take place. Cities and villages have the option not to proceed with the annexation. Town residents may petition for annexation for a variety of reasons including access to public utilities and services such as sewer and water extensions, garbage pickup, snow removal and street

maintenance. Annexation may be appropriate in areas of the town adjacent to the City of Wautoma and the Village of Redgranite.

The towns of Dakota, Marion, and Wautoma have expressed a strong interest to retain their local identity. The towns should explore alternative options such as boundary agreements, shared revenue, or other forms of intergovernmental agreements.

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. The City of Wautoma and the Village of Redgranite currently do not have an official map and may want to adopt one as part of this planning effort. The towns of Dakota, Marion, and Wautoma may want to utilize the Waushara County parcel map as a basis for their official map.

Existing Comprehensive/Land Management Plans. The City of Wautoma and towns of Dakota, Marion, and Wautoma adopted the Wautoma Area Land Use and Development Plan in 1995. The current planning process will update this planning effort to make it compliant with Wisconsin State Statutes 66.1001. This is the first planning effort for the Village of Redgranite. Several adjacent towns in Waushara County have already adopted land management plans (Town of Deerfield, 2005; Town of Leon, 2002; Town of Mount Morris, 2002; Town of Richford, 2002; Town of Springfield, 2003). The Town of Rose and the Village of Wild Rose are currently preparing comprehensive plans. The towns of Crystal Lake, Neshkoro, and Newton (Marquette County) and the Town of Seneca (Green Lake County) were all scheduled to adopt comprehensive plans in 2005. To date, the Town of Warren and the Village of Lohrville have not been involved in land use planning.

City of Wautoma

Chapter 2 of the City of Wautoma Zoning Ordinance requires that all sewage disposal facilities within the incorporated limits be connected to the sewage disposal system of the city[5]. In any district where public sewage service is not available, no building permits are to be issued unless the minimum lot size is sufficient to allow the use of on-site septic systems.

The **Wellhead Protection Ordinance**, contained within Chapter 2 of the City's Zoning Ordinance regulates and places restrictions on land use within 1,200 feet of the city's existing wells.

All municipal airports can enact zoning legislation to protect their future success and prevent incompatible uses within a three mile extraterritorial boundary surrounding the airport. A **Height Limitation Zoning Overly Zoning Ordinance (HLZO)** was enacted at the Wautoma Municipal Airport in March 1994. The HLZO regulates land use surrounding the airport. The height of natural and man-made structures within 0.5 miles of the airport must be less than 35 feet; the height of structures between 0.5 mile and 3 miles of the airport must be less than 50 feet. Structures which were constructed prior to March 1994 are exempt from this regulation. The Wautoma Board of Appeals reserves the right to remove or mark structures within the HLZO at the owners' expense.

[5] Section 10-1-3 (7) Sewage Disposal Requirements

The **City of Wautoma Subdivision Ordinance** is contained within Chapter 2 of the City of Wautoma's Municipal Ordinance. This ordinance contains design standards for streets, blocks, lot sizes, setbacks, and other standards. Provisions of the ordinance also set requirements for lot divisions.

The City of Wautoma **Floodplain Zoning Ordinance** (#06-003) was adopted in February 2006. This ordinance allows for the safe discharge of floodwaters; preserves the storage capacity of the floodplain to protect public health, safety, and general welfare; minimizes property damage and the cost of flood prevention, and allows for flood relief. This ordinance also regulates land use and activities within the floodplain.

Village of Redgranite

The **Wellhead Protection Ordinance** is contained within Chapter 5 of the Village of Redgranite Zoning Ordinances. This ordinance institutes land use regulations and restrictions to protect the Village's municipal water supply and well fields within the village limits that lie within 1,200 feet of well field #1 and #2.

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.[6] 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.[7] Counties are required to develop and periodically revise LWRM plans. Citizens and professionals in each county identify local needs and priorities 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 system.[8] 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.

[6] Wisconsin Legislative Reference Bureau. 1997. *Budget Brief 97-6*.
[7] Wisconsin Legislative Reference Bureau. 2000. *Budget Brief 00-7*.
[8] Wisconsin Statures 66.0401

EXHIBIT 8-1

EXISTING LAND USE

EXHIBIT 8-2

EXISTING ZONING

EXHIBIT 8-3

FUTURE LAND USE

LAND USE – Village of Redgranite

Goal LU 1. Encourage a pattern of community development and growth that preserves and enhances the quality of life for the residents of the Village.

Objectives:

- **LU 1.1. Protect environmentally sensitive areas such as wetlands, floodplains, Willow Creek and the Redgranite quarry.** Wetlands, found near Willow Creek (class I trout stream) and a few other locations in the southern half of the Village, act as a natural filtering system to remove nutrients. They also minimize the potential for flooding by providing an area free of development for water to safely go. Floodplains, found along Willow Creek and elsewhere, are susceptible to flooding and are usually considered unsuitable for development due to potential health risks and property damage. While both of these features are found near Willow Creek, the Village should consider adopting a buffer of native vegetation to cover areas that are not included within designated wetland areas or floodways from development.

  Strategies:
  - **Encourage the Village to adopt a minimum 100 foot buffer of native vegetation along the Willow Creek shoreline.** Willow Creek contains a naturally reproductive trout fishery. A buffer of native vegetation may help protect this resource from nutrients that could raise water temperature and contribute to the growth of aquatic vegetation and invasive species.
  - **Encourage the Village to adopt a minimum 50 foot buffer strip of native vegetation around wetlands.** Current regulations allow for development to occur to the edge of the wetland. Instituting a buffer of native vegetation will protect this valuable resource.
  - **Consult the future land use map about environmentally sensitive areas prior to approving a proposed development.**
  - **Discourage future shoreline development of Willow Creek.**
    - Encourage the Village, WDNR and land trusts to purchase stream bank easements.
    - Develop a native park along shoreline.
  - **Protect the visual integrity and heritage of the Redgranite quarry.**
    - See report "Experience the Heritage" by James Fruechtl, Senior Capstone Project, May 2005 **(Appendix H)**.
    - Consider the visual integrity of the quarry area when approving development proposals in the areas adjacent to the quarry.

- **LU 1.2. Protect and preserve the areas groundwater supply.** The residents of the area depend exclusively on groundwater for a safe drinking water supply. Certain land use practices and activities can seriously threaten and/or degrade groundwater quality.

  Strategies:
  - **Encourage notification of landowners at the time of sale and prior to approval of a building permit if they are within 1,200 feet of an existing landfill.** Not all homes and businesses within the Village of Redgranite are

served by public water. Notification should specify that more information be attained before constructing a private well.

- **Protect the village's existing and future municipal wellhead locations from land uses that could potentially contaminate the groundwater.** The Village of Redgranite currently has a Wellhead Protection Ordinance. This ordinance regulates land uses within 1,200 feet of the existing municipal wells.

- **LU 1.3. Reinforce and preserve the cultural and historical heritage of the Village.** Granite was discovered in the Redgranite area in the late 1800's and the area took off. Some of the buildings in downtown Redgranite date back to these early days and many artifacts still exist in Quarry Park. It is important that the Village is proactive in preserving their history for future generations.

  Strategies:
  - **Identify and preserve significant cultural and historical resources.**
  - **Restore and enhance the downtown to promote the heritage of the area.**
  - **Identify a future museum site.**

- **LU 1.4. Promote economic growth and vitality while preserving the Village's natural amenities and historic and cultural heritage.** The historical and cultural elements of the Village along with its valuable natural amenities contribute to the community's character. While economic viability is important, the elements that make the Village special and people value should not be lost in the process.

  Strategies:
  - **Identify areas within the Village for future industrial and commercial growth that are compatible with existing land uses.**
  - **Continue to promote the Village of Redgranite Industrial Park.**
    - Emphasize development of businesses that support agriculture and the local economy.
  - **Develop a Downtown Economic Development Plan that encourages the enhancement of the historic background of the area.**
    - Build on community strengths and resources.
  - **Develop design standards for future commercial and industrial development.**

- **LU 1.5. Protect and enhance the visual aesthetics of existing development.**

  Strategy:
  - **Protect existing development from incompatible land uses.**

- **LU 1.6. Provide a sufficient supply of land for housing choices.** An adequate supply of housing choices is needed to meet the needs and preferences of a growing community. Providing areas for future residential development helps assure that these needs will be met.

Strategy:

- **Identify areas within the Village for residential development, include mixed use.**

- **LU 1.7. Ensure that the future transportation system is integrated with the existing and future land use plan.** A quality transportation system provides mobility to the various types of land uses within the Village. These land use patterns are dependent upon the condition and effectiveness of the transportation system.

  Strategies:
  - **Monitor and keep informed about any plans that may affect the STH 21 corridor.**
  - **Identify areas for additional surface parking in the downtown area.**
  - **Identify areas for possible park and ride lot.**
  - **Work with developers to provide a second access point to the northern portion of the Village.**
  - **Work with developers to provide healthy community designs.**
    - Pedestrian friendly land use planning.
  - **Identify potential locations for future through streets north of Willow Creek to ensure that good access can be achieved to all areas of the Village.**
  - **Ensure that new development incorporates a street pattern that provides connection to existing and future areas of the village.**
  - **Develop and adopt street and sidewalk standards.**
  - **Adopt standards for road and alley maintenance.**
  - **Accommodate bicyclists and pedestrians throughout the village.**
  - **Develop a bicycle friendly route from Pearl Lake to STH 21.**

- **LU 1.8. Encourage new development to utilize areas that can be conveniently and efficiently served by existing infrastructure and public services.** It is more cost effective to locate new development in areas where infrastructure (street and utility) exists or is readily available. Costs to provide garbage pickup, snow plowing and police and fire protection are also less when densities are higher and located closer to the origin of these services.

  Strategies:
  - **When evaluating new proposals, give preference to developments immediately adjacent to existing infrastructure.**
  - **Give preference to pedestrian friendly designs to allow residents more transportation choices.**

- **LU 1.9. Provide adequate active and passive recreational opportunities for Village residents**. Parks and open space not only preserve and protect green areas for future generations, they also provide opportunities for residents to relax, exercise and socialize.

  Strategies:
  - **Update the Village's comprehensive park and open space plan.**

- **Identify a possible location for a future park sites.**
- **Survey residents to determine the need for additional recreational opportunities within the community.** If the need exists, investigate the use of school facilities for evening and weekend activities for adults and children. These activities can include adult volleyball, basketball, fitness, and hobbies (holiday crafts, sewing, etc.).

- **LU 1.10. Encourage coordination and cooperation between nearby communities, Waushara County, schools districts and units of government (WDNR, WisDOT).** Cooperation and coordination between different entities can result in cost savings for all. Coordinating road projects with the County highway department, WisDOT, utilities and others can result in a long-term project that will fulfill the needs of the area. Working with school districts to construct a new facility can ensure that community needs (additional meeting space, library, recreation, etc.) can also be met.

  Strategy:
  - **Investigate the possibility of combining the school and public libraries into a dual use facility.** Appoint a committee made up of representatives from the local library, school and village boards, school district, Winnefox Library System, local citizenry, and others to study the issues and make recommendations to the various entities.

CHAPTER 9: INTERGOVERNMENTAL COOPERATION

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INTERGOVERNMENTAL COOPERATION

INTRODUCTION

The relationship a municipality has with school districts, neighboring communities, the county, the Regional Planning Commission, the state, and the federal government can impact residents in terms of taxation, planning, the provision of services, and siting of public facilities. An examination of these relationships and the identification of existing or potential conflicts can help a municipality address these situations in a productive manner.

Intergovernmental Cooperation Area Vision for 2025

In 2025, the five participating municipalities in the Group D Planning Cluster are cooperating with each other and neighboring municipalities on a variety of issues. They also have a strong working relationship with area sanitary districts, school districts, and Waushara County. This spirit of cooperation has led to a more cost-effective delivery of municipal services by eliminating duplication and achieving larger economies of scale. Additionally, the interchange of ideas and information gained from ongoing dialogue among the entities has helped each entity better plan for its future needs. Local officials readily acknowledge that projects slated for one community have benefits for the entire area.

INVENTORY AND ANALYSIS

Governmental Units and Relationships to Communities

Communities

The City of Wautoma shares its borders with the towns of Dakota and Wautoma. While a border agreement exists between the City and Town of Wautoma, a similar agreement has not been made with the Town of Dakota. The agreement between the City and Town of Wautoma, signed about five years ago, essentially identifies areas where the City will not seek annexations, areas where the town will not fight annexations and areas where the town would like to be notified before annexation requests are acted on. Even though the City does not have a border agreement with the Town of Dakota, few conflicts have arisen that have not been resolved to everyone's satisfaction.

The Town of Wautoma shares its borders with the City of Wautoma and the towns of Deerfield, Mt. Morris, Oasis, Rose, Springwater, Marion, Dakota and Richford. With the exception of a border agreement with the City of Wautoma, no other border agreements exist. Towns cannot annex land from one another and therefore, borders between these entities are fixed and boundary disputes are non-existent. The towns in the area share a common rural character and enjoy a good working relationship.

The Town of Dakota shares a common border with the City of Wautoma and the towns of Deerfield, Wautoma, Marion, Mt. Morris and Richford in Waushara County and the towns of Neshkoro, Crystal Lake and Newton in Marquette County. There are no boundary agreements

between the town and its adjoining municipalities. The town enjoys a good working relationship with its neighbors.

The Town of Marion shares a common border with the Village of Lohrville and the towns of Dakota, Leon, Mt. Morris, Warren, and Wautoma in Waushara County and the towns of Seneca, Neshkoro and Crystal Lake in Marquette County. There are no boundary agreements between the town and its adjoining municipalities. The town maintains a good working relationship with each of these entities and no current areas of conflict exist.

The Village of Redgranite shares municipal borders with the Village of Lohrville and the towns of Leon and Warren. There are no existing boundary agreements between the Village of Redgranite and its neighbors. In the past, the village has attempted to form an agreement with the Village of Lohrville and the Town of Leon for the provision of public sanitary sewer and water. While neither community has entered into a formal agreement with the village, the village would be willing to enter into a discussion with its neighbors at any time in the future if the need arises. The village has a good working relationship with its neighbors and there are no current areas of conflict.

The Wautoma-Silver Lake Sewer Service Area (SSA) includes the Silver Lake Sanitary District and the City of Wautoma SSA. The service area covers the majority of the City of Wautoma and a portion of the towns of Marion, Wautoma, Dakota and Mt. Morris. The sanitary district works closely with the County and towns to monitor new construction within the sewer service and planning area boundaries and with the City of Wautoma on sanitary sewer related issues.

School Districts

The area is served by four different public school districts; Wautoma Area, Berlin Area, Wild Rose and Westfield. In the past, the Wautoma Area School District has worked with the community to provide space for the McComb/Buchs Performing Arts Center. The school district has also worked with area businesses to provide unique opportunities to its students. This has included a home building program that provided affordable housing for area residents. While the Westfield School District serves a minor portion of the municipalities in this planning cluster, it has partnered with the Town of Coloma to provide area residents recreational access to the school forest. The Town of Wautoma has also partnered with the school district and utilizes space at Parkside Middle School for a town office and meetings.

While school districts are working with area communities, additional communication and cooperation can be done that will benefit both the school districts and the communities. 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. Local governments 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 services, and related amenities.

Although the planning area is served by three technical college districts, only the Fox Valley Technical College (FVTC) holds classes within the Group D cluster. Service areas of other districts found within the planning cluster include the Madison Area Technical College and the

Moraine Park Technical College. Classes are limited and the opportunity exists for area residents and communities to work with FVTC to increase the class selection.

Community Facilities

Due to the rural nature of Waushara County, many facilities are located in the City of Wautoma, Village of Redgranite or one of the other incorporated communities in the area. Ambulance, sheriff, fire and emergency medical services are dispatched from the City of Wautoma to neighboring communities. Fire protection is also dispatched from the villages of Wild Rose, Neshkoro and Redgranite, while the Waushara County EMS operates a service center in Poy Sippi and another service center that alternates between the villages of Coloma and Plainfield. Area school children travel daily to one of the incorporated communities (cities of Wautoma and Berlin, or the villages of Redgranite, Westfield, Wild Rose and Neshkoro) to attend public school. Finally, library facilities are located in the City of Wautoma and the Village of Redgranite.

Communities should also periodically meet with providers of utility infrastructure (gas, electric, telephone, etc.) to discuss upcoming road construction and utility upgrades. Coordinating construction projects (both community and utility) saves everyone time and money.

Currently all communities within the planning area have various intergovernmental agreements with one another in regard to public services and facilities. The four fire districts/departments have mutual aid agreements with each other and the other districts/departments in both Waushara County and the adjoining counties.

County

The towns of Dakota, Marion and Wautoma, the Village of Redgranite, and the City of Wautoma are located in Waushara County. All three towns have adopted county zoning and have therefore given the county jurisdiction over zoning matters including land divisions and private on-site wastewater systems. The Village of Redgranite and the City of Wautoma have adopted their own zoning. However, within these areas, the County is the permitting agent for on-site wastewater systems.

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 recreation facilities and programs. The communities and the County continue to maintain open communications with one another that works to foster good working relationships and mutual respect.

Region

Waushara County is a member 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 towns of Dakota, Marion, and Wautoma, the City of Wautoma, and the Village of Redgranite on

several projects over the years including the preparation of local and county park and open space plans, sewer service area planning, land use plans, and the current comprehensive plan.

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 quality management, habitat preservation, air quality management, 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.

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 planning 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 planning area. WisDOT evaluates existing transportation infrastructure for bicycle and pedestrian trails as well as assists in planning efforts for future trails. The County maintains through an agreement with WisDOT the maintenance of the STH 21, STH 22, and STH 73 corridors. Although there are no major expansion plans for these highways, the County and communities should collaborate with WisDOT to address transportation issues including a long-term vision for the STH 21 corridor.

Intergovernmental Comprehensive Planning Efforts

With the exception of the Village of Redgranite, the communities within the Group D planning cluster have held joint meetings throughout the planning process to discuss issues related to each of the nine elements. By doing so, the municipalities have had the opportunity to discuss common goals and work together to resolve differences. Periodically, representatives from various agencies and businesses (WDNR, CAP Services, Waushara Area Chamber of Commerce, Waushara County Economic Development Corporation) have been invited to talk and/or provide input into the planning process.

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.[1] The majority of municipal boundary agreements are conducted between a town and an incorporated village or city. Cooperative boundary plans,

[1] *Wisconsin State Statutes* s.66.0307.

which are subject to a minimum of a ten-year period, must be approved by the Wisconsin Department of Administration. A cooperative boundary agreement exists between the City of Wautoma and the Town of Wautoma.

Extra-territorial Subdivision Regulation. Incorporated villages and cities can exercise plat review authority in unincorporated areas adjacent to their communities.[2] 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.

Extra-territorial 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.[3] 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.[4] 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 3 members from the city or village and 3 members from each affected town. This ensures that zoning cannot happen unless everyone agrees.

INTERRELATIONSHIPS WITH OTHER 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 the Group D cluster is dependent on the economy of

[2] *Wisconsin State Statutes* s.236.10.
[3] *Wisconsin State Statutes* s.62.23.
[4] Ohm, B. 1999. *Guide to Community Planning in Wisconsin.*

all the municipalities in the area, all communities within Waushara County and the Tri-County region must 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 work with WisDOT, Waushara County and ECWRPC to resolve local, regional and state transportation related issues. Congestion and safety concerns in the downtown areas of the Village of Redgranite and the City of Wautoma should be resolved through coordination with WisDOT and the County. A possible STH 21 corridor realignment should be collaborated through a joint effort with input from all communities along the corridor; WisDOT, WDNR and other state agencies; regional planning commissions; interested citizens; and others.

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.

Community and Public 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 key. 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 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 area are dependent on a viable agricultural economy. Preserving productive agricultural land and maintaining a critical mass of farmers in the area 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. The goals, objectives and strategies that communities and the County develop during the comprehensive planning effort will have a direct impact on the agricultural economy.

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. A topographic divide separates surface water drainage between the Upper Wisconsin River Basin to the west and the Upper Fox River Basin to the east in Waushara County. For this reason, the area has a number of pristine class 1 trout streams and exceptional water resources. The success of the County and the individual community's protection of these resources will impact the quality of the surface and groundwater for communities downstream and down gradient. To protect these valuable resources, communities must work with the WDNR and County to ensure that the actions and policies that they are using are effective in protecting water quality.

Cultural Resources

The cultural and historical features of a community help shape 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 joint 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. Both the City of Wautoma and

the Village of Redgranite may consider exercising extraterritorial jurisdictions within a 1.5 mile boundary of their communities. Extraterritorial zoning would not only give the city and village input on how these areas are to develop, but it would also strengthen ties in the area. Joint planning would give the area cohesiveness in the direction development should take and area-wide consensus in the decision making process that will ultimately shape the future of the entire area.

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 Waushara County. 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.[5] 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.[6] Although the plans are adequate to 2020, these plans will be periodically updated. Group D communities should take a proactive role in all transportation planning processes in the future to ensure that, as existing transportation facilities are expanded to meet the existing and future needs of the individual communities, the planning area, Waushara County, and the State of Wisconsin, other local concerns are addressed.

Regional

East Central Wisconsin Regional Planning Commission. East Central Wisconsin Regional Planning Commission has adopted the first two of four milestones in their regional comprehensive planning process. It is anticipated that the final milestone report will be adopted in 2006. The communities within the planning cluster should use the information

[5] Wisconsin DNR. 2005. *Property Master Planning*. http://dnr.wi.gov/master_planning/.
[6] Wisconsin DOT. 2005. *Plans and Projects*. http://www.dot.state.wi.us/projects/mode.htm.

identified in the first two milestone reports and actively participate in the remaining planning effort.

County

Waushara County Comprehensive Plan. While Waushara County has not adopted a smart growth comprehensive plan in accordance with s.66.1001, it does anticipate completion of a county-wide plan within the next 5 years. It is the responsibility of the communities within the Group D planning cluster to actively participate in the county-wide plan and to promote the incorporation of their land use planning decisions into the overall Waushara County plan.

Waushara County Land and Water Management Plan. Waushara County has recently adopted the 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, NRCS, CWWP, and Watershed Lakes Council. It is the responsibilities of the communities within the planning cluster to review and implement this plan within their respective jurisdiction.

INTERGOVERNMENTAL COOPERATION – Village of Redgranite

Goal IC 1. Work with neighboring municipalities, Waushara County, state and federal departments and agencies when opportunities and/or issues arise that can be more effectively addressed cooperatively.

Objectives:

- **IC 1.1. Strengthen existing partnerships and build new relationships to promote economic growth in the village, area and county.**

  Strategies:
  - **Monitor monthly meetings of area economic development organizations.**
  - **Work with Waushara County, the Village of Lohrville and the Town of Marion to promote the Bannerman Trail, the quarries and the establishment of a state park in the area.**
  - **Work with others to promote the historical significance of the quarries in the area.**
  - **Encourage the Wautoma Area School District, FVTC, UW-Extension, CAP Services and the business community to work together to provide programs that strengthen the economy of the area and promote life long learning opportunities.** Program areas could include:
    - Business Development
    - Financing
    - Financial Planning
    - Business Plan Development
    - Job Skill Training
    - Technical Curriculum Development
    - Job Shadowing
    - Career Direction
    - "At Risk" Students
    - Youth Apprenticeship
    - Junior Achievement
    - Future Farmers of America (FFA)

- **IC 1.2. Participate in a countywide effort to promote the agricultural economy.**

  Strategies:
  - **Support ongoing efforts of the county to explore opportunities for alternative crop or product development and the corresponding support industries.**
  - **Promotion the expansion of commercial agribusiness.**
  - **Participate in a county agricultural marketing effort.**
    - Farmers markets.
    - Educate non-farmers about the importance and benefits of farming.
    - Promote the support of locally grown food and products.
    - Promote agriculturally based tourist attractions.
    - Explore possible specialty products

- **IC 1.3. Improve communication within the village and between utilities, Wautoma Area School District, neighboring municipalities, Waushara County and state and federal agencies.**

  Strategies:
  - **Establish annual meetings with the Village of Lohrville and the towns of Warren, Marion, Mt. Morris and Leon to discuss issues of common interest.**
  - **Continue to set up periodic meetings with community organizations and others to discuss community needs.**
    - Share and solicit information
    - Recruit manpower and funding
  - **Increase community involvement through public participation in all relevant policy decisions.**
  - **Maintain and promote the village website.**
  - **Establish annual meetings with the County Highway Department and WisDOT to ensure coordination of transportation projects.**
  - **Consider the establishment of a Village newsletter to improve the level of communication.**
  - **Set up annual meetings with public and private utilities in the area to discuss current needs and upcoming projects.**
  - **Work with the Wautoma Area School District and the Wisconsin Department of Corrections to plan new facilities when they are needed.**

- **IC 1.4. Provide a unified voice to secure state and federal funding.**

  Strategy:
  - **Work with neighboring communities to secure grant money to fund architectural and historical surveys.**

- **IC 1.5. Encourage joint efforts to protect the natural resources.**

  Strategies:
  - **Partner with the WDNR, towns and the county to protect the Willow Creek from degradation.**
    - Encourage the WDNR to purchase additional land within the Village that surrounds Willow Creek.
  - **Encourage the involvement and participation of the WDNR in local planning decisions regarding land use.**
  - **Partner with the WDNR, county and other municipalities to control specific problem (invasive) species on a countywide basis.**
    - Conduct a countywide inventory of invasive species.
    - Establish priorities for addressing concerns.
    - Establish a countywide plan of action.
  - **Discuss the expansion of public sewer and water to surrounding areas, if needed.**

- **IC 1.6. Work with Waushara County, WisDOT and adjoining municipalities to insure that the transportation system is safe and fills the diverse needs of area residents.**

  Strategies:
  - **Contact WisDOT to address the identified congestion and safety issues on STH 21.**
  - **Participate with WisDOT in future STH 21 corridor planning activities.**
  - **Partner with area communities to establish strategic locations for park and ride lots for area residents.**
    - Pursue state funding to build and maintain facilities.
  - **Collaborate with the County Department of Aging to insure that the needs of the elderly and disabled residents of the village are being met.**
  - **Collaborate with the Waushara County Highway and park departments, WisDOT, utilities and others to coordinate roadway improvement projects.**

- **IC 1.7. Explore opportunities for cost efficiencies through shared services.**

  Strategies:
  - **Work with adjoining municipalities to share road maintenance contracts.**
  - **Where appropriate, utilize and share limited resources and offer joint services (i.e. fire district, police, park programs and facilities, police, etcetera).**

- **IC 1.8. Establish effective intergovernmental land use policies and cooperative agreements with adjoining municipalities.**

Strategies:
  - **Establish a method of effective communication with nearby municipalities so that all can stay apprised of development within 1,000 feet (or other agreed upon distance) from common borders.**
  - **Create a joint committee with surrounding areas to discuss planning issues within the area, if a situation arises.** This committee could review development proposals within both the village and a 1.5 mile radius of the village municipal borders. This committee could address jurisdictional boundaries, land use and service levels.
  - **Consider cooperative boundary agreements with all surrounding towns.** All cooperative boundary agreements should have sunset clauses so that these agreements can be periodically reviewed and updated.

- **IC 1.9. Consider establishing extraterritorial jurisdiction.** Wisconsin Statutes 62.05 gives cities and villages certain extraterritorial authorities over adjacent town lands. Under state law, extraterritorial jurisdiction of a class 4 city or village extends 1.5 miles. The Village should consider adopting extraterritorial authority to promote orderly growth. These powers can include planning, land division approvals, official map coverage and others (offensive industry, garbage regulation, and smoke regulation).

Strategy:

- **Consider extraterritorial authority that would grant the village the authority to review land division proposals and make planning decisions within the 1.5 miles of the village.**

CHAPTER 10: IMPLEMENTATION

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IMPLEMENTATION

INTRODUCTION

A Smart Growth comprehensive planning document serves a community by establishing priorities for the future, evaluating available resources, and providing a means for dealing with change. The purpose of the planning effort is to develop a plan that will guide both public and private decisions. In order to follow the plan as described in the previous chapters, it is necessary to implement the goals, strategies, and objectives as outlined. If a plan is to be successful it must be implemented.

This chapter prescribes a specific series of sequential actions to be completed by the individual communities within the planning cluster. Each goal serves as an identification of a priority based on committee discussions, issue identification, and the survey responses. The objectives define "why" the goal is important from a planning perspective. The strategies discuss a specific action plan on how the goal can be achieved via regulations, ordinances, incentives, expenditures, information, and education.

Implementation Vision for 2025

In 2025, planning is recognized by the five municipalities as their best and most consistent tool in ensuring they provide for the type of community desired by their residents. They rely heavily on their plan to steer development to appropriate locations and prevent incompatible land use, and encourage creative design solutions to protect important community natural and man-made resources and promote cost-effective government. They value the opinions of their residents and business owners and respect the responsible efforts of landowners to protect their property and community.

ROLE OF THE PLAN

All land controls governing the town must be consistent with the community's adopted comprehensive plan.[1] The individual planning commissions for each community within the Group D cluster are responsible for ensuring that current ordinances are in compliance with the plan. When the planning commission reviews any petitions for development, the plan should be reviewed; any recommendations for future development must be based on the identified goals, objectives, and strategies, visions, and proposed land use patterns within this plan. If the planning commission must ultimately make a decision that is inconsistent with the plan, the plan must be amended to reflect the change in policy.

[1] Wisconsin Statutes 66.1001

RESPONSIBILITY

Elected Officials

Elected officials must make their decisions on criteria regarding how development will affect the entire community as well as how it will influence a specific site. As a result, elected officials make complex decisions based upon the comprehensive plan, the goals of the applicant, technical advice from planning staff, citizen input from advisory boards, and their own judgment on the specific development. The comprehensive plan provides much of the factual information an elected official will need for decision making. The elected officials within the planning cluster must familiarize themselves with the contents and overall goals of the plan in order to assure that the individual communities provide the support and resources to ensure the plan remains viable.

Community Planning Commission

The powers and duties of the individual planning commissions have been established by Wisconsin Statutes.[2] The planning commission is the primary entity responsible for implementing and updating the comprehensive plan. As such, the planning commission must promote good planning practices in its municipality. Commission members should be knowledgeable about the contents, visions, and goals of the comprehensive plan. Moreover, the commission must promote active citizen participation in future planning efforts. The commission must keep the citizens and elected officials informed of any technical issues and proceedings within the current planning issues. The planning commission is responsible for periodic amendments to the plan so that regulations and ordinances are in compliance with plan. Likewise, the planning commission must review all new and existing ordinances to verify they are compliant with the goals and objectives of the plan.

INTERNAL CONSISTENCIES

The comprehensive plan was developed sequentially with supportive goals, objectives, and strategies. Utilizing the community survey and SWOT analysis as a basis, key issues were identified within each of the nine elements of the plan. Using these issues along with factual information regarding natural features; past population and housing data; population and housing projections; and an analysis of existing infrastructure, a desired vision for the Group D planning communities was created. The identified vision, goals, and objectives expressed in this plan were used to prepare the Future Land Use Map as well as the specified strategies and implementation actions which the individual communities need to employ throughout the lifespan of the plan. In several instances objectives and strategies pertain to more than one element and are therefore listed more than once. To maintain internal consistency, any amendment to the plan should be accompanied with an overall review of all nine elements and their associated goals, objectives, and strategies.

Beginning January 1, 2010, if a local governmental unit engages in any of the following actions, those actions should be consistent with that local governmental unit's comprehensive plan[3]:

[2] Wisconsin Statutes 62.23 and 60.62
[3] Wisconsin Statutes 66.1001

official mapping, local subdivision regulation, town, city, village and county zoning ordinances, and zoning of shorelands or wetlands in shorelands.

EXTERNAL CONSISTENCIES

Not only is it important to maintain internal consistencies but communities should also be aware of state and other planning documents and their relevance to their individual comprehensive plan. An attempt should also be made to maintain consistencies with these plans if possible. Some examples of these plans include:

State Plans:
- Wisconsin State Airport System Plan 2020
- Wisconsin State Bicycle Transportation Plan 2020
- Wisconsin State Highway Plan 2020

Regional Plans:
- East Central Wisconsin Regional Planning Commission Comprehensive Plan, 2030
- NorthEast Wisconsin (NEW) Economic Opportunity Study

County Plans:
- Waushara County Outdoor Recreation Plan, adopted 2006
- Waushara County Solid Waste Plan Update
- Waushara County Comprehensive Plan (when adopted)
- Waushara County Farmland Preservation Plan, adopted 1981
- Waushara County Land and Water Resource Management (LWRM) Plan, adopted 2006
- Pine River/Willow Creek/Poygan South Priorty Watershed Plan, adopted 1995

Local Plans:
- City of Wautoma Open Space and Recreation Plan, adopted 2001
- Village of Redgranite Open Space and Recreation Plan, adopted 1991
- Wautoma/Silver-Irogamie Lakes Sewer Service Area Plan, adopted 1996

MONITORING PROGRESS

It is the community planning commission's responsibility to monitor the progress of implementation, utilizing the schedules that are found at the end of this chapter. The progress of plan implementation should periodically be reported to the town or village board or city council. Additionally, the planning commission should annually review the goals, objectives and strategies and address any conflicts which may arise between the elements of the plan. While it is the planning commission and elected officials responsibility to monitor progress, others may also check progress, including community staff persons, zoning administrators, planners and citizen groups.

UPDATING THE COMPREHENSIVE PLAN

A comprehensive plan must be updated at least once every ten years.[4] However, it is strongly recommended that the planning commission annually review both the implementation schedule and current planning processes to ensure compliance with the overall goals and objectives of the plan and continued consistency with the overall vision of the community. This annual review should also be used to determine if a "major" plan amendment is required.

The comprehensive plan is a dynamic document. The plan should be updated when new demographic, economic, and housing data are released by the U.S. Census Bureau. It is anticipated that the land use element will likely require updating over the course of the plan due to growth and change that most communities are likely to experience. Other elements are less likely to need updates. Furthermore as community values change, some goals, objectives and strategies may be no longer relevant. The update to a plan should take less time than the comprehensive planning process, but should include public participation. A recommended review timeline is presented for the elements of this comprehensive plan (Table 10-1)

The first "major" update of the plan should be completed by 2016. It is strongly recommended that the City of Wautoma; the Village of Redgranite; and the towns of Dakota, Marion, and Wautoma undertake this process as part of a multi-jurisdictional effort. This will allow for increased efficiency and reduce the overall cost of the planning efforts. The 2016 update should involve a review of the inventory and goals, objectives and strategies presented in each chapter, a revised future land use map, and a timetable of updated implementation strategies.

ADOPTION OF THE PLAN OR UPDATE

As directed by §66.1001(4), any Plan Commission or other body of a local governmental unit authorized to prepare or amend a comprehensive plan shall adopt written public participation procedures that foster public participation, adopt a resolution by a majority vote of the entire commission or governmental unit (vote shall be recorded in the official minutes of the plan commission, the resolution shall refer to maps and other descriptive materials that relate to one or more elements of the comprehensive plan). One copy of the recommended plan shall be sent to the following:

- Every governmental body that is located in whole or part within the boundaries of the local governmental unit (county, utility districts, school districts, sanitary districts, drainage districts).
- The clerk of every local governmental unit that is adjacent to the local governmental unit that is the subject of the plan or update.
- The Wisconsin Land Council.
- The Wisconsin Department of Administration.
- East Central Wisconsin Regional Planning Commission.
- The public library that serves the area in which the local government unit is located.
- Others identified in the adopted public participation procedures.

[4] Wisconsin Statutes 66.1001

Table 10.1. Recommended Review Timeline

Plan Components	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Goals, Objectives, Strategies/ Vision Statement		Review Chapter Goals	Review Chapter Goals	Review Chapter Goals	Review Chapter Goals			Review Chapter Goals		Review & Update Plan Goals
Issues and Opportunities		Review Chapter Goals	Review Chapter Goals	Review Chapter Goals	Evaluate			Review Chapter Goals		Evaluate & Update
Population/Housing		Review Chapter Goals	Review Chapter Goals	Review Chapter Goals	Review Chapter Goals			Evaluate Against WDOA/ ECWRPC Estimates		Evaluate & Update
Economic Development		Review Chapter Goals	Review Chapter Goals	Review Chapter Goals	Evaluate			Review Chapter Goals		Update
Agricultural, Natural, Cultural Resources		Review Chapter Goals	Review Chapter Goals	Review Chapter Goals	Inventory & Evaluate			Review Chapter Goals		Inventory & Evaluate; Update Recommendations
Transportation		Review Chapter Goals	Review Chapter Goals	Review Chapter Goals	Inventory & Evaluate			Review Chapter Goals		Inventory & Evaluate; Update Recommendations
Community Facilities		Review Chapter Goals	Review Chapter Goals	Review Chapter Goals	Inventory & Evaluate			Review Chapter Goals		Inventory & Evaluate; Update Recommendations
Land Use		Review Chapter Goals	Review Chapter Goals	Review Chapter Goals	Inventory & Evaluate			Review Chapter Goals		Inventory & Evaluate; Update Recommendations
Intergovermental Cooperation	Form Joint Planning Commission	Evalutate Shared Goals	Evalutate Shared Goals	Evalutate Shared Goals	Evaluate Shared Goals			Evaluate Shared Goals		Evaluate Shared Goals

The elected officials may spend time reviewing, revising and requesting the plan commission revision to the recommended plan. The governing body shall draft an ordinance adopting the plan. A class 1 public notice shall be published 30 days prior to the hearing on the proposed ordinance to adopt the final "recommended plan". The local governing body must provide an opportunity for written comments by the public and must respond to those comments. A public hearing must be held on the ordinance. By majority vote, the governing body must approve the ordinance. Finally, the adopted plan and the ordinance must be distributed to the list above.

LAND USE PLANNING CONTROLS

Although zoning and subdivision ordinances are the two most commonly utilized land use planning tools, there are several innovative tools which can be utilized to ensure that new development occurs in an organized and desired fashion. Local communities and counties can choose to utilize a few or several of these implementation tools. The communities in the Group

D planning cluster may want to establish local ordinances which regulate new development. Furthermore, the communities may want to collaborate with Waushara County to adopt uniform county-wide development tools.

Zoning

Authority for zoning jurisdiction falls under several parties in the Group D planning cluster. The City of Wautoma and Village of Redgranite administer their own zoning ordinances, while the towns of Dakota, Marion, and Wautoma fall under jurisdiction of county zoning. Both the city and village have the option to exercise extraterritorial zoning rights according to state statutes. This authority allows the incorporated areas within the planning cluster to actively participate in land use planning, extraterritorial land divisions, zoning, and official mapping to a distance of 1.5 miles outside of the incorporated boundaries.

Land use plans and zoning perform differently. Land use plans provide a vision for 10 to 20 years, while zoning ordinances have an immediate impact on land use decisions. In order to rectify this difference, re-zoning is completed on an on-going basis in a manner that is consistent with the overall vision of the plan. The timing of re-zoning is dependent on market forces, political climate, and the accuracy of the plan's predictions.

Individual planning commissions and elected officials must continually ensure that any future zoning changes are consistent with the local comprehensive plan as well as the future Waushara County Comprehensive Plan. Several actions can be taken to ensure that zoning decisions are made that accommodate the preferred future land uses as indicated on the Future Land Use Map.

- Compare intended future land uses with existing local and county zoning in each of the communities. Amend current zoning to reflect the intended future uses for all areas within each of the five communities.
- Encourage local citizens and elected officials to actively participate in ongoing Waushara County meetings regarding all zoning and planning issues.
- Persuade local citizens and elected officials to participate in the Waushara County comprehensive planning process which will occur within the next five years.
- Cooperate with Waushara County to amend existing ordinances and develop new ordinances which are reflective of the goals, objectives, and strategies of all elements in the comprehensive plan.

Official Maps

Cities, villages, and towns which have adopted village powers have the authority to develop an official map.[5] An official map is a diagram which delineates the current and future roadways such as local streets, highways, historic districts, parkways, and parks. Additionally, an official map may delineate railroad right-of-ways, waterways (only if included on a comprehensive surface water drainage plan) and public transit facilities. Additionally the map may establish exterior lines of future streets, highways, historic districts, parks, parkways, public transit facilities, waterways, and playgrounds. Once an official map is adopted by ordinance, no

[5] Wisconsin Statutes 62.23(6).

building permits may be issued to construct or enlarge any building within the limits of the features listed above.

Official maps serve several important functions which ensure that future land use decisions will remain compliant with the comprehensive plan.

- Future costs for land acquisitions for city/village/town streets and other delineated features are lowered or minimized because the land will remain vacant.
- Future subdivisions of land will be streamlined because future streets have already been established; developers will be required to adhere to guidelines set forth within the official map unless it is amended by an ordinance.
- Potential home and land buyers can be readily informed that land has been designated for specific public uses.
- Acceptable route(s) for a potential by-pass for a major state highway can be delineated. Local governments can preserve sensitive environmental features (i.e. trout streams) while establishing a preferred corridor for a by-pass.

Sign Regulations

Many communities are interested in regulating signage for local business in order to preserve a rural atmosphere and "community character." Restrictions are especially important in major transportation corridors, historic downtowns or neighborhoods, or other culturally or environmentally significant areas. As signs have become increasingly larger and bolder due to illumination, roadways have become more cluttered and communities have become less distinctive.

Erosion and Stormwater Control Ordinances

Local communities may adopt a construction site erosion control and stormwater management ordinance. The purpose of these ordinances is to protect surface water quality and minimize the amount of sediment and other pollutants in stormwater runoff from construction sites to lakes, streams, and wetlands.

Historic Preservation Ordinance

As development continues to modernize the appearance of an area, the use of an historic preservation ordinance can help a community protect and enhance key cultural and historical features. A historic preservation ordinance can designate local landmarks and protect these properties by regulating new construction, alterations or demolitions that affect them.

Design Review Ordinance

Design review can accompany many different development aspects and will assist communities in achieving an identified look and character expressed within the individual vision statements. These ordinances, however, need to be based upon well defined sets of criteria. Signage, lighting, exterior building material types, structural guidelines, colors, and other aspects will have to be specifically identified within any ordinance.

Building/Housing Codes

Waushara County enforces the Uniform Dwelling Code in the towns of Aurora, Bloomfield, Coloma, Dakota, Deerfield, Hancock, Leon, Marion, Mt. Morris, Oasis, Plainfield, Poy Sippi, Richford, Rose, Saxeville, Springwater, Wautoma, and the villages of Coloma, Hancock, Lohrville, Plainfield and Redgranite. The City of Wautoma enforces the Uniform Dwelling Code in the city. The Uniform Dwelling Code promotes health, safety, and general welfare; protects property values; and provides for orderly, appropriate development and growth in the communities. The enforcement of the uniform dwelling code along with enforcement of other local codes can help ensure properties are adequately maintained and that property values are protected.

Floodplain Ordinance

Waushara County, the City of Wautoma and the Village of Redgranite regulate development within the FEMA designated floodplain areas through a Floodplain ordinance. These ordinances regulate development within the identified floodplain areas. In some instances, it may be important to readjust the floodplain boundaries in specific areas. In order to do so, local communities must follow these steps:

1) Contract with an engineering firm to conduct hydrologic and hydraulic engineering studies and modeling to calculate the floodplain for the specified area. It is recommended that 2 foot contour intervals be utilized.
2) Submit the recalculated floodplain boundaries to the WDNR and FEMA for review.
3) If approved, amend existing zoning maps to reflect the re-calculated floodplain boundaries.

Sanitary Systems

Waushara County regulates private on-site wastewater treatment systems within the Group D communities. Development within the Wautoma/Silver-Irogamie Lakes Sewer Service Area (includes the City of Wautoma) and the Village of Redgranite should be connected to public sewer if feasible. Groundwater and surface water protection is of great importance to not only the immediate planning area, but also areas downstream of the numerous headwater streams. Uncontrolled waste can have detrimental and wide ranging impacts on health and property values. Communities will want to periodically review codes to ensure that current efforts are effective and to keep abreast of changes to new minimum code standards.

Subdivision Ordinances

Wisconsin Statutes, the Waushara County Zoning Ordinance (Chapter 42), and the City of Wautoma Subdivision Ordinance (Chapter 2) regulate the division of raw land into lots for the purpose of sale for building development. Communities under county zoning may also regulate, by ordinance, the subdivision of land within their jurisdiction. The subdivision ordinance is related to the zoning ordinance in that it regulates the platting, or mapping, or newly created lots, streets, easements, and open areas. A subdivision ordinance can help implement the comprehensive plan and must be consistent with and conform with the local comprehensive plan goals. Furthermore, subdivision ordinances can incorporate construction standards and timelines for completion of community facilities such as transportation networks or curb and gutter systems. Communities can also require dedication of parks, playgrounds, or open space or a fee-in-lieu of dedication as a condition of approval of a subdivision. Individual communities,

under county zoning, may wish to develop their own subdivision ordinance or petition the county to amend their subdivision ordinance to include specific goals.

Lighting Controls/Ordinances

As development pressures occur, communities discover that not only are the natural features being altered, but also the scenic views of the night sky are being diminished. Both yard lighting and signage can change the character of a community as significantly as new development. This is especially true in areas where new lighting has become over-excessive in new commercial or industrial districts or residential subdivisions which have incorporated street lights. Newly developed lakefronts may also become over-lighted at night. Direct lighting or glare can and should be regulated in order to maintain the community character of rural and historic areas.

Currently, lighting and its evening glare is one of the chief complaints residents have in many communities across this state and nation. Many light manufactures have responded positively to complaints about the increased amounts of light pollution in rural areas. There are many examples of development and lighting structures which have reduced scatter light through new non-glare technologies. Many light manufactures have light cutoff shields that will remove glare, thus increasing the light's effectiveness and reducing its overall energy consumption. Other lights may direct light at ground height only. Since non-glare lighting and other similar technologies are similarly priced to current lighting practices, communities should consider developing lighting ordinances which not only reduce light pollution, but also improve energy consumption and costs.

IMPLEMENTATION SCHEDULE

The goals established in the implementation schedule (Table 10-2) should be applied over the planning period which begins in 2006 with the adoption of the comprehensive plan and runs through 2025. They represent priorities for the communities of the Group D cluster. Objectives provide more detailed and readily measurable steps toward reaching each goal, while strategies are specific actions used to ensure plan implementation.

As seen in previous chapters, the goals and objectives of each particular element are inter-related. To ensure that implementation of the plan is achieved in a timely fashion, landmark dates have been set for each strategy. During periodic reviews, the planning commission should verify that these deadlines have been met and consider additional strategies to better achieve the stated goal, if necessary. Specific landmark dates have been established to ensure that individual objectives complement one another in their implementation. The landmark dates have been reviewed by the public, the planning committees, plan commission and elected officials to assure that they are feasible expectations.

The primary responsibility for implementing the plan recommendations contained in the implementation schedule lies with the community's elected officials. Secondary responsibility for performing the recommended strategies in the plan lies with the planning commission which is appointed by the elected officials.

The following implementation tables indicate the comprehensive plan goals and strategies by element; primary and secondary responsibility for implementation; and a milestone date for completion. An abbreviation list precedes the tables; the list should be used to interpret the responsible parties involved with implementation of specific strategies.

ABBREVIATION LIST

CAP – Cap Services
DOA – Wisconsin Department of Administration
DATCP – Wisconsin Department of Agriculture, Trade, & Consumer Protection
DWD – Wisconsin Department of Workforce Development
ECWRPC – East Central Wisconsin Regional Planning Commission
FFA – Future Farmers of America
FVTC – Fox Valley Technical College
JPC – Wautoma Area Joint Planning Commission
NEW ERA – Northeast Wisconsin Educational Resource Alliance
NEW REP – Northeast Wisconsin Regional Economic Partnership
NRCS-USDA – United States Department of Agriculture Natural Resources Conservation Service
SBDC – Small Business Development Corporation
SLSD – Silver Lake Sanitary District
TCREDC – Tri-County Regional Economic Development Corporation
UMOS – United Migrant Opportunity Services
USDA RD – United States Department of Agriculture Rural Development
UWEX – University of Wisconsin Extension
WACC – Waushara Area Chamber of Commerce
WAFD – Wautoma Area Fire District
WAJPC – Wautoma Area Joint Planning Commission (not formed)
WASD – Wautoma Area School District
WCDA – Waushara County Department of Aging
WCDHS – Waushara County Department of Human Services
WCEDC – Waushara County Economic Development Corporation
WCFB – Waushara County Farm Bureau
WCHD – Waushara County Highway Department
WCHH – Waushara County Habitat for Humanity
WCHTSC – Waushara County Highway Traffic and Safety Commission
WDHP – Wisconsin Department of Historic Preservation
WCHS – Waushara County Historical Society
WCPD/SWMI – Waushara County Park Development/Solid Waste Management Information
WCSD – Waushara County Sheriff Department
WCVB – Waushara Convention and Visitors Bureau
WCVSO – Waushara County Veterans' Service Office
WCZLC – Waushara County Zoning and Land Conservation Department
WDNR – Wisconsin Department of Natural Resources
WEDC – Wautoma Economic Development Corporation
WHEDA – Wisconsin Housing & Economic Development
WHS – Wisconsin Historical Society
WisDOT – Wisconsin Department of Transportation

City of Wautoma:
W:AC – Airport Commission
W:CC – Wautoma City Council
W:FPC – Finance and Personnel Committee

W:HA – Wautoma Housing Authority (not formed)
W:HSC – Health and Sanitation Committee
W:LB – Library Board
W:PC – Wautoma Planning Committee
W:PD – Wautoma Police Department
W:PSC – Public Safety Committee
W:PWC – Public Works Committee

Village of Redgranite:
RG:AFD – Redgranite Area Fire District
RG:BA – Board of Appeals
RG:CDA – Community Development Authority
RG:EDC – Economic Development Committee
RG:FPIC – Finance, Personnel and Insurance Committee
RG:JPC – Redgranite Area Joint Planning Commission
RG:MBC – Municipal Building Committee
RG:MGOC – Machinery, Garbage and Ordinance Committee
RG:PC – Plan Commission
RG:PCC – Parks and Cemetery Committee
RG:PD – Redgranite Police Department
RG:PFC – Police and Fire Committee
RG:SSDC – Streets, Sidewalks and Ditches Committee
RG:SWC – Sewer and Water Committee
RG:VB – Redgranite Village Board

APPENDIX A

WAUSHARA COUNTY GROUP D QUESTIONNAIRE RESULTS SUMMARY
City of Wautoma, Village of Redgranite, Town of Dakota, Town of Marion and Town of Wautoma

The following report is a summary of the group D questionnaire results. A complete copy of the report is available for review at the respective community city, village and town halls, Wautoma and Redgranite Public Libraries and the Waushara County Zoning Office.

A questionnaire was conducted for the City of Wautoma, Village of Redgranite and the towns of Dakota, Marion and Wautoma Comprehensive Planning Committees to gather opinions from residents and landowners regarding land use and development issues. A representative sample of questionnaires was sent out to the Town of Marion. Within the remaining municipalities, questionnaires were sent out to all landowners. Additional questionnaires were available at the respective municipalities for renters and other residents or landowners who did not receive a questionnaire by mail. The questionnaire was translated into Spanish and was available through the UW-Extension office and St. Joseph's Church in Wautoma. Each household was asked to complete one questionnaire. Three thousand five hundred and fifty seven questionnaires were distributed among the five municipalities and 1,230 were returned, resulting in an overall response rate of 35 percent.

Waushara County Group D

	No. of Questionnaires		Response
Municipality	Sent	Returned	Rate
C. Wautoma	702	235	33%
V. Redgranite	413	151	37%
T. Dakota	735	248	34%
T. Marion	947	342	36%
T. Wautoma	760	254	33%
Total	3,557	1,230	35%

The questionnaire contained 16 questions for the City of Wautoma and Village of Redgranite and 17 questions for the towns of Dakota, Marion and Wautoma. There was one open ended question and two additional questions where written input was solicited. Some respondents did not answer all the questions.

SUMMARY OF FINDINGS

General Information

- 70 percent of the respondents indicated that they were full-time (permanent) residents of their respective municipalities.

- 41 percent of the respondents indicated that they were retired, corresponding to the 36 percent of the respondents who noted that they were 65 years old or older.

- 66 percent of the respondents signified that they had lived in their municipality for 11 or more years and 64 percent own less than 5 acres.

- The majority of the respondents indicated that they live on a typical city or village lot (23.4%), lakeshore/lake view or waterfront lot (22.1%) or rural property of under (18.9%) or equal to 5 acres or more (17.7%).

Rate Your Municipality

- The majority of the respondents rated the quality of the environment (82.4%), recreational opportunities (67.2%), and parks/public recreation lands (76.6%) as good or very good.

- Respondents also felt that municipalities were doing a good or very good job of providing fire protection (76.8%), law enforcement (73.9%), school facilities (66.2%), library (62.6%) and emergency medical services (71.4%).

- 65 percent of the respondents rated economic opportunities as poor to fair.

- People indicated that small town living/rural atmosphere, quiet/peaceful, scenery/environment, low crime rate and the friendliness of the area were the top aspects of their municipalities that they value most.

- The top issues that people felt were facing their municipalities included: lack of job opportunities; new businesses and activities for youth; increase in taxes and land prices; low wages; and vacant buildings and storefronts.

Existing Development

- Generally the majority of people indicated that there was about the right amount of all types of housing in their respective municipalities and the overall area.

- A third of the respondents in the Village of Redgranite felt that there was not enough low to moderate income development, while a third in the City of Wautoma felt that there was too much.

- A quarter of all respondents and a third in the City of Wautoma said that more condominiums were needed.

- A third of the respondents saw a need for more assisted living for the elderly; this percentage was higher in the towns than in the two incorporated municipalities.

- Over forty percent of the respondents felt that there were too many mobile home parks in the municipalities and within the overall area.

Future Development

- Approximately 80 percent of the respondents from all municipalities support small scale retail (79.7%) and industrial development (80.3%).

- Over 80 percent of the respondents indicated that they would support or accept service (65.4%/18.2%), tourism (63.0%/19.5%), and small scale agricultural (65.8%/17.5%) development.

- Large scale agricultural development garnered the lowest support of all types of development surveyed.

Planning for the Future

- Protection of groundwater, wetlands, lakes, rivers and streams was the number one overall issue and the most important issue in the towns of Dakota, Marion and Wautoma.

- Protection of private property rights was the second most important overall issue.

- Improving the quality of life for our children and grandchildren was the third most important issue overall and second most important in the City of Wautoma and Village of Redgranite.

- Attraction of good paying jobs was the most important issue in the City of Wautoma and Village of Redgranite.

- Protection of woodlands was the second most important issue in the Town of Dakota and the third most important issue in the towns of Marion and Wautoma.

- Providing cost effective community facilities was the fourth most important issue in the Village of Redgranite.

CHARACTERISTICS OF RESPONDENTS

Overall, about 70 percent of the respondents indicated that they were permanent year round residents within their respective communities and this category captured the highest percentage of respondents in all five municipalities. About 21 percent of the respondents were seasonal residents, the highest percentage being in the Town of Marion (40.6%). Forty-one percent, or a significant number of people indicated that they were retired. This corresponds to the 36 percent of respondents who noted that they were 65 years old or older. Overall, 66 percent of the people said that they had lived here for 11 or more years, (this figure includes part-time residents) and 64 percent own less than 5 acres. The majority of people live on a typical city or village lot (23.4%), lakeshore/lake view or waterfront lot (22.1%), rural property of less than 5 acres (18.9%), or rural property of 5 or more acres (17.7%).

RATE YOUR COMMUNITY

Respondents were asked to rate their municipality on the quality of the environment; economic, educational and recreational opportunities; access to goods and services; the quality of public facilities and services; on the aspects that they value most; and the top issues facing their municipalities.

The majority of respondents rated the quality of the environment (82.4%), recreational opportunities (67.2%), parks/public recreation lands (76.6%), fire protection (76.8%), law enforcement (73.9%), school facilities (66.2%), library (62.6%), and emergency medical (71.4%) as good to very good. Slightly lower approval ratings (fair to good) were given to educational opportunities (63.5%), access to goods and services (71.5%), maintenance/condition of roads/streets (73.7%), snow removal (66.9%), adult educational opportunities (56.2%), and availability of hospitals and medical services. On the other hand, economic opportunities were rated poor to fair by 65 percent of the respondents.

The top five aspects that respondents valued most included: small town living/rural atmosphere (22.4%); quiet/peaceful (20.2%); the scenery/environment (15.4%); low crime rate (9.0%); and the friendliness of the area (9.4%).

While respondents were in basic agreement regarding the top issues facing their municipalities, respondents in the City of Wautoma, Village of Redgranite and the Town of Wautoma felt that the top issue was the lack of job opportunities, while respondents in the Town of Dakota and the Town of Marion rated increase in taxes as the number one issue. Other issues that ranked within the top five included lack of new businesses (second overall), increase in land prices (fifth overall), and low wages (fourth overall). While not ranking as top five issues collectively, lack of activities for youth and vacant buildings/storefronts were among the top five issues within the respective municipalities.

EXISTING DEVELOPMENT

Respondents were asked if they felt if there was too much, about right, or not enough of the following housing types: single family; low to moderate income; duplexes; multi-unit apartments; condominiums; assisted living – elderly; mobile home parks; and high income development. Generally, the majority of people indicated that there was about the right amount of all types of housing in their respective municipalities and the overall area. However, even though respondents indicated that they overwhelmingly thought that there was enough single family and duplex development, the response to the remaining housing types was more mixed.

A third of the respondents in the Village of Redgranite felt that there was not enough low to moderate income development, while a third in the City of Wautoma felt that there was too much. Twenty-one percent of the respondents in the village thought that more apartments were needed. A quarter of all respondents and a third in the City of Wautoma said that more condominiums were needed. A third of the respondents saw a need for more assisted living for the elderly, this percentage was higher in the towns than in the two incorporated municipalities.

Over forty percent felt that there were too many mobile home parks in the municipalities and within the overall area. A quarter of the respondents indicated that the amount of high income housing was too much and an equal number said there wasn't enough.

Between 20 to 30 percent of the respondents failed to answer the questions in this category. A lower response rate, however, is not calculated into the overall total responses for the questions in this section.

FUTURE DEVELOPMENT

Respondents were asked if they felt that there was a need for new development in the area and, if there was, what type of new development they believe would be best. People were asked if they supported; do not support, but accept; do not support; or have no opinion on the following types of development: Large, moderate and small scale industrial development; service and tourism development; small, and moderate to large agricultural development; and small and large retail development.

Respondents from all municipalities overwhelmingly threw their support behind small scale retail (79.7%) and industrial development (80.3%). However, even though people were willing to support or accept larger industrial and retail development, as the scale of the proposed development increased, the support and acceptance decreased. Over 80 percent of the respondents indicated that they would support or accept service (65.4%/18.2%), tourism (63.0%/19.5%), and small scale agricultural (65.8%/17.5%) development. Large scale agricultural development garnered the lowest support among the types of development surveyed. A third of the respondents indicated that they would support this, while a third indicated that they would accept this and a quarter indicated that they could neither support nor accept large scale agricultural development.

PLANNING FOR THE FUTURE

Respondents were asked to indicate the importance of various decisions that should be considered when planning for the future. These issues involved: the promotion of development that minimizes costs and the redevelopment lands with existing infrastructure; encouragement of coordination and cooperation between municipalities and neighborhood designs that support a range of transportation choices; the protection of groundwater, wetlands, lakes, rivers, streams, agricultural lands, woodlands and private property rights; preservation of cultural, historic and archaeological sites; provision of an adequate supply of affordable housing for all income levels; attraction of good paying jobs; community participation in land use planning and decision making; attractiveness of the community; and improving the quality of life for our children and grandchildren.

While people indicated that all issues were important, some issues emerged as more important than others. Differences were also seen among the municipalities. The top issues were the protection of groundwater, wetlands, lakes, rivers and streams (1st overall and in the towns of Dakota, Marion and Wautoma); protection of private property rights (2nd overall and in the towns of Dakota, Marion and Wautoma); improving the quality of life for our children and

grandchildren (3rd overall and 2nd in the City of Wautoma and Village of Redgranite); attraction of good paying jobs (4th overall and 1st in the City of Wautoma and Village of Redgranite); protection of woodlands (5th overall and 2nd in the Town of Dakota, 3rd in the towns of Marion and Wautoma); and providing cost effective community facilities (9th overall and 4th in the Village of Redgranite).

APPENDIX B

ISSUES & OPPORTUNITIES
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Table B-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	23.88%
C. Wautoma	1,376	1,466	1,624	1,629	1,784	1,998	2,070	2,118	2,110	2,115	2,096	12.00%
V. Coloma	338	312	336	367	383	461	460	467	461	467	469	20.37%
V. Hancock	449	367	404	419	382	463	462	463	462	460	453	21.20%
V. Lohrville	206	225	213	336	368	408	409	409	415	414	411	10.87%
V. Plainfield	680	660	642	813	839	899	898	896	899	894	893	7.15%
V. Redgranite	648	588	645	976	1,009	1,040	1,037	2,001	2,011	2,019	2,051	3.07%
V. Wild Rose	582	594	585	741	753	765	754	756	759	758	746	1.59%
T. Aurora	731	780	802	890	846	971	980	1,005	1,038	1,061	1,057	14.78%
T. Bloomfield	801	770	798	931	922	1,018	1,020	1,027	1,032	1,045	1,043	10.41%
T. Coloma[a]	339	355	382	437	499	660	758	699	704	722	735	32.26%
T. Dakota	400	521	752	994	1,092	1,259	1,262	1,273	1,272	1,265	1,269	15.29%
T. Deerfield	417	340	367	445	454	629	639	650	653	653	666	38.55%
T. Hancock	480	354	346	426	467	531	539	547	546	560	566	13.70%
T. Leon	546	520	651	844	992	1,281	1,312	1,355	1,371	1,389	1,411	29.13%
T. Marion	746	700	877	1,333	1,478	2,065	2,077	2,121	2,129	2,163	2,207	39.72%
T. Mount Morris	451	422	517	685	767	1,092	1,112	1,133	1,125	1,121	1,119	42.37%
T. Oasis	389	364	346	403	389	405	403	403	402	396	399	4.11%
T. Plainfield	476	449	447	574	529	533	534	547	549	549	558	0.76%
T. Poy Sippi	830	809	823	913	929	972	974	974	971	974	971	4.63%
T. Richford	386	317	322	404	455	588	595	602	606	608	608	29.23%
T. Rose	420	287	319	515	486	595	597	600	606	611	615	22.43%
T. Saxeville	535	506	612	776	846	974	982	991	997	999	1,014	15.13%
T. Springwater	389	366	584	924	1,011	1,389	1,401	1,405	1,413	1,420	1,423	37.39%
T. Warren	636	708	637	573	550	675	693	707	710	712	708	22.73%
T. Wautoma	636	672	723	1,087	1,088	1,312	1,314	1,326	1,329	1,347	1,347	20.59%
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	18.99%
Region[a]	366,887	413,397	475,090	511,033	542,712	609,438	614,213	622,920	628,125	633,581	638,699	12.29%
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	9.65%

[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 B-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 B-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	65497.82	82

Source: U. S. Census, 2000.

Table B-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 B-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 B-6. Persons per Household, 1990

Jurisdiction	Household Size												Total Househol	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	18.18%	8	36.36%	0	0.00%	3	13.64%	7	31.82%	0	0.00%	22	3.05
C. Wautoma	254	33.96%	256	34.22%	109	14.57%	78	10.43%	35	4.68%	16	2.14%	748	2.25
V. Coloma	53	33.33%	44	27.67%	24	15.09%	23	14.47%	14	8.81%	1	0.63%	159	2.41
V. Hancock	58	35.37%	52	31.71%	18	10.98%	22	13.41%	10	6.10%	4	2.44%	164	2.33
V. Lohrville	30	21.13%	55	38.73%	23	16.20%	18	12.68%	11	7.75%	5	3.52%	142	2.59
V. Plainfield	94	29.01%	95	29.32%	49	15.12%	47	14.51%	29	8.95%	10	3.09%	324	2.55
V. Redgranite	130	30.88%	146	34.68%	60	14.25%	50	11.88%	18	4.28%	17	4.04%	421	2.40
V. Wild Rose	125	40.45%	89	28.80%	42	13.59%	35	11.33%	14	4.53%	4	1.29%	309	2.15
T. Aurora	42	14.19%	109	36.82%	56	18.92%	49	16.55%	26	8.78%	14	4.73%	296	2.86
T. Bloomfield	55	17.46%	97	30.79%	62	19.68%	49	15.56%	33	10.48%	19	6.03%	315	2.93
T. Coloma	31	17.13%	70	38.67%	30	16.57%	29	16.02%	12	6.63%	9	4.97%	181	2.76
T. Dakota	84	20.44%	167	40.63%	58	14.11%	50	12.17%	30	7.30%	22	5.35%	411	2.66
T. Deerfield	33	18.54%	71	39.89%	39	21.91%	20	11.24%	10	5.62%	5	2.81%	178	2.55
T. Hancock	30	16.85%	75	42.13%	27	15.17%	31	17.42%	9	5.06%	6	3.37%	178	2.62
T. Leon	78	19.65%	174	43.83%	64	16.12%	49	12.34%	20	5.04%	12	3.02%	397	2.50
T. Marion	133	20.75%	318	49.61%	90	14.04%	65	10.14%	32	4.99%	3	0.47%	641	2.31
T. Mount Morris	76	23.24%	154	47.09%	38	11.62%	34	10.40%	18	5.50%	7	2.14%	327	2.35
T. Oasis	19	13.97%	52	38.24%	24	17.65%	20	14.71%	15	11.03%	6	4.41%	136	2.86
T. Plainfield	46	24.08%	61	31.94%	21	10.99%	37	19.37%	15	7.85%	11	5.76%	191	2.77
T. Poy Sippi	71	20.06%	137	38.70%	50	14.12%	58	16.38%	27	7.63%	11	3.11%	354	2.62
T. Richford	23	15.33%	55	36.67%	15	10.00%	32	21.33%	12	8.00%	13	8.67%	150	3.03
T. Rose	49	25.52%	66	34.38%	36	18.75%	20	10.42%	14	7.29%	7	3.65%	192	2.53
T. Saxeville	58	18.35%	124	39.24%	45	14.24%	55	17.41%	21	6.65%	13	4.11%	316	2.68
T. Springwater	98	22.58%	199	45.85%	64	14.75%	51	11.75%	17	3.92%	5	1.15%	434	2.33
T. Warren	35	16.67%	90	42.86%	36	17.14%	30	14.29%	9	4.29%	10	4.76%	210	2.62
T. Wautoma	75	17.86%	176	41.90%	59	14.05%	79	18.81%	20	4.76%	11	2.62%	420	2.59
Waushara County	1,784	23.42%	2,940	38.60%	1,139	14.96%	1,034	13.58%	478	6.28%	241	3.16%	7,616	2.52
Wisconsin	443,673	24.35%	596,883	32.76%	302,563	16.61%	284,151	15.59%	129,821	7.12%	65,027	3.57%	1,822,118	2.61

Source: U.S. Census, 1990

Table B-7. Persons per Household, 2000

Jurisdiction	Household Size												Total Household	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	38.89%	8	22.22%	6	16.67%	5	13.89%	3	8.33%	0	0.00%	36	2.31
C. Wautoma	326	40.45%	242	30.02%	93	11.54%	82	10.17%	38	4.71%	25	3.10%	806	2.20
V. Coloma	51	27.57%	63	34.05%	34	18.38%	23	12.43%	10	5.41%	4	2.16%	185	2.42
V. Hancock	58	30.05%	73	37.82%	27	13.99%	16	8.29%	11	5.70%	8	4.15%	193	2.40
V. Lohrville	38	22.62%	72	42.86%	27	16.07%	19	11.31%	7	4.17%	5	2.98%	168	2.43
V. Plainfield	98	28.65%	120	35.09%	38	11.11%	43	12.57%	26	7.60%	17	4.97%	342	2.60
V. Redgranite	143	32.50%	154	35.00%	63	14.32%	47	10.68%	19	4.32%	14	3.18%	440	2.30
V. Wild Rose	115	36.86%	92	29.49%	53	16.99%	28	8.97%	15	4.81%	9	2.88%	312	2.26
T. Aurora	49	13.92%	144	40.91%	65	18.47%	53	15.06%	29	8.24%	12	3.41%	352	2.76
T. Bloomfield	73	19.06%	144	37.60%	67	17.49%	61	15.93%	27	7.05%	11	2.87%	383	2.65
T. Coloma	49	19.29%	126	49.61%	27	10.63%	32	12.60%	9	3.54%	11	4.33%	254	2.51
T. Dakota	111	22.52%	200	40.57%	67	13.59%	64	12.98%	27	5.48%	24	4.87%	493	2.55
T. Deerfield	48	18.25%	136	51.71%	27	10.27%	37	14.07%	12	4.56%	3	1.14%	263	2.39
T. Hancock	52	24.64%	89	42.18%	25	11.85%	21	9.95%	8	3.79%	16	7.58%	211	2.52
T. Leon	127	23.56%	249	46.20%	61	11.32%	58	10.76%	30	5.57%	14	2.60%	539	2.38
T. Marion	216	23.79%	459	50.55%	104	11.45%	75	8.26%	28	3.08%	26	2.86%	908	2.27
T. Mount Morris	118	24.53%	245	50.94%	42	8.73%	39	8.11%	26	5.41%	11	2.29%	481	2.27
T. Oasis	32	21.05%	61	40.13%	17	11.18%	19	12.50%	16	10.53%	7	4.61%	152	2.66
T. Plainfield	38	19.19%	78	39.39%	33	16.67%	25	12.63%	14	7.07%	10	5.05%	198	2.69
T. Poy Sippi	91	23.21%	148	37.76%	66	16.84%	57	14.54%	22	5.61%	8	2.04%	392	2.48
T. Richford	26	13.68%	87	45.79%	14	7.37%	26	13.68%	16	8.42%	21	11.05%	190	3.09
T. Rose	49	20.08%	115	47.13%	35	14.34%	26	10.66%	8	3.28%	11	4.51%	244	2.44
T. Saxeville	71	18.07%	184	46.82%	59	15.01%	48	12.21%	23	5.85%	8	2.04%	393	2.48
T. Springwater	157	25.45%	296	47.97%	69	11.18%	54	8.75%	30	4.86%	11	1.78%	617	2.25
T. Warren	53	20.31%	103	39.46%	45	17.24%	34	13.03%	15	5.75%	11	4.21%	261	2.59
T. Wautoma	119	22.75%	221	42.26%	75	14.34%	62	11.85%	31	5.93%	15	2.87%	523	2.46
Waushara County	2,322	24.87%	3,909	41.87%	1,239	13.27%	1,054	11.29%	500	5.36%	312	3.34%	9,336	2.43
Wisconsin	557,875	26.76%	721,452	34.61%	320,561	15.38%	290,716	13.95%	127,921	6.14%	66,019	3.17%	2,084,544	2.50

Source: U.S. Census, 2000

Table B-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, STF1A, 1990.

Table B-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, STF1A, 2000.

Table B-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, STF1A.

Table B-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, STF1A, 2000.

Table B-12. 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 B-13. Top 5 Ancestries for Each Group D Communities

Minor Civil Division	Ancestry	Total Population in Sample	Percent of Population
C. Wautoma	Unclassified or Not reported	537	27.43%
	German	532	27.17%
	Polish	158	8.07%
	United States or American	97	4.95%
	Norwegian	88	4.49%
	Total Population	1,958	100.00%
V. Redgranite	German	378	35.29%
	Unclassified or Not reported	242	22.60%
	Polish	120	11.20%
	Italian	54	5.04%
	United States or American	51	4.76%
	Total Population	1,071	100.00%
T. Dakota	German	550	44.21%
	Unclassified or Not reported	209	16.80%
	Polish	113	9.08%
	Irish	72	5.79%
	English	47	3.78%
	Total Population	1,244	100.00%
T. Marion	German	773	37.76%
	Unclassified or Not reported	354	17.29%
	United States or American	133	6.50%
	Polish	127	6.20%
	Irish	107	5.23%
	Total Population	2,047	100.00%
T. Wautoma	German	539	40.16%
	Unclassified or Not reported	312	23.25%
	Polish	87	6.48%
	Norwegian	73	5.44%
	English	57	4.25%
	Total Population	1,342	100.00%
Waushara County	German	8,805	38.03%
	Unclassified or Not reported	4,629	19.99%
	Polish	1,681	7.26%
	Irish	1,101	4.76%
	United States or American	1,055	4.56%
	Total Population	23,154	100.00%

**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 B-14. Persons of Hispanic Origin, 1990 and 2000

Jurisdiction	1990		2000	
	Number	Percent	Number	Percent
C. Berlin (pt.)	0	0.00%	4	4.82%
C. Wautoma	41	2.30%	144	7.21%
V. Coloma	16	4.18%	14	3.04%
V. Hancock	22	5.76%	40	8.64%
V. Lohrville	4	1.09%	9	2.21%
V. Plainfield	37	4.41%	161	17.91%
V. Redgranite	40	3.96%	32	3.08%
V. Wild Rose	12	1.59%	17	2.22%
T. Aurora	7	0.83%	19	1.96%
T. Bloomfield	0	0.00%	1	0.10%
T. Coloma	0	0.00%	27	3.61%
T. Dakota	58	5.31%	109	8.66%
T. Deerfield	0	0.00%	7	1.11%
T. Hancock	14	3.00%	25	4.71%
T. Leon	8	0.81%	9	0.70%
T. Marion	10	0.68%	27	1.31%
T. Mount Morris	1	0.13%	9	0.82%
T. Oasis	5	1.29%	11	2.72%
T. Plainfield	42	7.94%	52	9.76%
T. Poy Sippi	12	1.29%	20	2.06%
T. Richford	0	0.00%	24	4.08%
T. Rose	0	0.00%	17	2.86%
T. Saxeville	12	1.42%	11	1.13%
T. Springwater	4	0.40%	7	0.50%
T. Warren	5	0.91%	15	2.22%
T. Wautoma	29	2.67%	37	2.82%
Waushara County	379	1.96%	848	3.66%
Wisconsin	93,194	1.91%	192,921	3.60%

Source: U. S. Census, STF1A, 2000.

Table B-15. Earnings as a Portion of Household Income, 1999

Jurisdiction	Total Households	Households With Earnings		Aggregate Household Income		Average Household Income	Average Earnings Per	Percent of Income from
		Number	Percent	Total household income	Income From Earnings			
C. Berlin (pt.)	34	24	70.59%	$1,643,100	$1,208,900	$48,326	$50,371	73.57%
C. Wautoma	795	591	74.34%	$29,945,300	$20,618,400	$37,667	$34,887	68.85%
V. Coloma	187	139	74.33%	$7,060,700	$5,072,000	$37,758	$36,489	71.83%
V. Hancock	193	144	74.61%	$7,405,700	$5,861,200	$38,372	$40,703	79.14%
V. Lohrville	161	114	70.81%	$6,006,600	$4,152,700	$37,308	$36,427	69.14%
V. Plainfield	331	260	78.55%	$13,704,700	$10,556,000	$41,404	$40,600	77.02%
V. Redgranite	455	296	65.05%	$14,902,500	$10,636,200	$32,753	$35,933	71.37%
V. Wild Rose	303	229	75.58%	$13,478,000	$10,773,000	$44,482	$47,044	79.93%
T. Aurora	356	296	83.15%	$19,998,600	$16,023,900	$56,176	$54,135	80.13%
T. Bloomfield	382	320	83.77%	$19,397,000	$16,145,600	$50,777	$50,455	83.24%
T. Coloma	238	186	78.15%	$10,672,600	$8,151,500	$44,843	$43,825	76.38%
T. Dakota	485	364	75.05%	$22,734,400	$16,153,200	$46,875	$44,377	71.05%
T. Deerfield	266	198	74.44%	$13,414,100	$8,142,000	$50,429	$41,121	60.70%
T. Hancock	216	176	81.48%	$9,893,800	$7,932,900	$45,805	$45,073	80.18%
T. Leon	530	414	78.11%	$23,330,000	$16,709,600	$44,019	$40,361	71.62%
T. Marion	903	637	70.54%	$44,028,800	$25,619,500	$48,758	$40,219	58.19%
T. Mount Morris	481	368	76.51%	$23,161,600	$15,389,400	$48,153	$41,819	66.44%
T. Oasis	153	125	81.70%	$6,713,400	$4,911,900	$43,878	$39,295	73.17%
T. Plainfield	216	189	87.50%	$9,593,300	$7,431,600	$44,413	$39,321	77.47%
T. Poy Sippi	387	300	77.52%	$17,928,800	$13,710,200	$46,328	$45,701	76.47%
T. Richford	200	155	77.50%	$8,213,700	$5,384,500	$41,069	$34,739	65.56%
T. Rose	242	184	76.03%	$10,332,800	$7,703,300	$42,698	$41,866	74.55%
T. Saxeville	405	304	75.06%	$20,164,500	$15,077,900	$49,789	$49,598	74.77%
T. Springwater	616	439	71.27%	$28,287,100	$18,250,900	$45,921	$41,574	64.52%
T. Warren	252	207	82.14%	$10,417,900	$7,942,200	$41,341	$38,368	76.24%
T. Wautoma	525	389	74.10%	$23,735,000	$17,470,300	$45,210	$44,911	73.61%
Waushara County	9,312	7,048	75.69%	416,164,000	$297,028,900	$44,691	$42,144	71.37%
Wisconsin	2,086,304	1,706,803	81.81%	$112,374,261,000	$90,604,137,400	$53,863	$53,084	80.63%

Source: U. S. Census, STF3A, 2000.

Table B-16. 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 B-17. 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 B-18. 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	100.00%	0	0.00%	18	100.00%	0	0.00%
C. Wautoma	1,399	100.00%	301	21.52%	466	100.00%	64	13.73%
V. Coloma	340	100.00%	53	15.59%	108	100.00%	4	3.70%
V. Hancock	245	100.00%	120	48.98%	88	100.00%	23	26.14%
V. Lohrville	320	100.00%	52	16.25%	105	100.00%	14	13.33%
V. Plainfield	737	100.00%	103	13.98%	229	100.00%	25	10.92%
V. Redgranite	826	100.00%	160	19.37%	266	100.00%	27	10.15%
V. Wild Rose	587	100.00%	78	13.29%	171	100.00%	16	9.36%
T. Aurora	744	100.00%	75	10.08%	225	100.00%	13	5.78%
T. Bloomfield	827	100.00%	124	14.99%	255	100.00%	21	8.24%
T. Coloma	424	100.00%	51	12.03%	141	100.00%	11	7.80%
T. Dakota	872	100.00%	214	24.54%	320	100.00%	42	13.13%
T. Deerfield	414	100.00%	43	10.39%	140	100.00%	12	8.57%
T. Hancock	407	100.00%	54	13.27%	136	100.00%	13	9.56%
T. Leon	861	100.00%	132	15.33%	287	100.00%	27	9.41%
T. Marion	1,319	100.00%	159	12.05%	496	100.00%	39	7.86%
T. Mount Morris	680	100.00%	84	12.35%	250	100.00%	23	9.20%
T. Oasis	363	100.00%	18	4.96%	123	100.00%	7	5.69%
T. Plainfield	390	100.00%	129	33.08%	131	100.00%	25	19.08%
T. Poy Sippi	799	100.00%	123	15.39%	268	100.00%	28	10.45%
T. Richford	353	100.00%	130	36.83%	136	100.00%	31	22.79%
T. Rose	449	100.00%	53	11.80%	130	100.00%	8	6.15%
T. Saxeville	743	100.00%	59	7.94%	233	100.00%	13	5.58%
T. Springwater	884	100.00%	125	14.14%	324	100.00%	32	9.88%
T. Warren	478	100.00%	93	19.46%	173	100.00%	18	10.40%
T. Wautoma	979	100.00%	109	11.13%	342	100.00%	28	8.19%
Waushara County	16,521	100.00%	2,642	15.99%	5,561	100.00%	564	10.14%
Wisconsin	4,754,103	100.00%	508,545	10.70%	1,284,297	100.00%	97,466	7.59%

Source: U.S. Census, 1990

Table B-19. Persons in Poverty by Age, 1989

Jurisdiction	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.)	26	100.00%	0	0.00%	72	100.00%	0	0.00%	9	100.00%	0	0.00%
C. Wautoma	410	100.00%	118	28.78%	1,015	100.00%	253	24.93%	384	100.00%	48	12.50%
V. Coloma	103	100.00%	12	11.65%	262	100.00%	38	14.50%	78	100.00%	15	19.23%
V. Hancock	103	100.00%	46	44.66%	189	100.00%	106	56.08%	56	100.00%	14	25.00%
V. Lohrville	106	100.00%	19	17.92%	274	100.00%	44	16.06%	46	100.00%	8	17.39%
V. Plainfield	268	100.00%	35	13.06%	620	100.00%	78	12.58%	117	100.00%	25	21.37%
V. Redgranite	253	100.00%	50	19.76%	638	100.00%	128	20.06%	188	100.00%	32	17.02%
V. Wild Rose	133	100.00%	19	14.29%	425	100.00%	46	10.82%	162	100.00%	32	19.75%
T. Aurora	187	100.00%	30	16.04%	622	100.00%	71	11.41%	122	100.00%	4	3.28%
T. Bloomfield	280	100.00%	46	16.43%	728	100.00%	103	14.15%	99	100.00%	21	21.21%
T. Coloma	102	100.00%	11	10.78%	377	100.00%	34	9.02%	47	100.00%	17	36.17%
T. Dakota	293	100.00%	99	33.79%	718	100.00%	201	27.99%	154	100.00%	13	8.44%
T. Deerfield	108	100.00%	14	12.96%	326	100.00%	41	12.58%	88	100.00%	2	2.27%
T. Hancock	118	100.00%	16	13.56%	335	100.00%	46	13.73%	72	100.00%	8	11.11%
T. Leon	227	100.00%	29	12.78%	738	100.00%	104	14.09%	123	100.00%	28	22.76%
T. Marion	274	100.00%	44	16.06%	1,001	100.00%	132	13.19%	318	100.00%	27	8.49%
T. Mount Morris	148	100.00%	30	20.27%	499	100.00%	77	15.43%	181	100.00%	7	3.87%
T. Oasis	93	100.00%	2	2.15%	307	100.00%	13	4.23%	56	100.00%	5	8.93%
T. Plainfield	170	100.00%	61	35.88%	361	100.00%	114	31.58%	29	100.00%	15	51.72%
T. Poy Sippi	240	100.00%	45	18.75%	673	100.00%	91	13.52%	126	100.00%	32	25.40%
T. Richford	169	100.00%	61	36.09%	321	100.00%	112	34.89%	32	100.00%	18	56.25%
T. Rose	117	100.00%	20	17.09%	363	100.00%	43	11.85%	86	100.00%	10	11.63%
T. Saxeville	192	100.00%	23	11.98%	632	100.00%	50	7.91%	111	100.00%	9	8.11%
T. Springwater	184	100.00%	38	20.65%	673	100.00%	107	15.90%	211	100.00%	18	8.53%
T. Warren	163	100.00%	42	25.77%	400	100.00%	80	20.00%	78	100.00%	13	16.67%
T. Wautoma	266	100.00%	39	14.66%	777	100.00%	90	11.58%	202	100.00%	19	9.41%
Waushara County	4,733	100.00%	949	20.05%	13,346	100.00%	2,202	16.50%	3,175	100.00%	440	13.86%
Wisconsin	1,271,165	100.00%	188,863	14.86%	4,152,291	100.00%	453,739	10.93%	604,812	100.00%	54,806	9.06%

Source: U.S. Census, 1990

Table B-20. Distribution of Persons in Poverty by Age, 1989

Jurisdiction	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.)	26	32.10%	0	0.00%	72	88.89%	0	0.00%	9	11.11%	0	0.00%
C. Wautoma	410	29.31%	118	39.20%	1,015	72.55%	253	84.05%	384	27.45%	48	15.95%
V. Coloma	103	30.29%	12	22.64%	262	77.06%	38	71.70%	78	22.94%	15	28.30%
V. Hancock	103	42.04%	46	38.33%	189	77.14%	106	88.33%	56	22.86%	14	11.67%
V. Lohrville	106	33.13%	19	36.54%	274	85.63%	44	84.62%	46	14.38%	8	15.38%
V. Plainfield	268	36.36%	35	33.98%	620	84.12%	78	75.73%	117	15.88%	25	24.27%
V. Redgranite	253	30.63%	50	31.25%	638	77.24%	128	80.00%	188	22.76%	32	20.00%
V. Wild Rose	133	22.66%	19	24.36%	425	72.40%	46	58.97%	162	27.60%	32	41.03%
T. Aurora	187	25.13%	30	40.00%	622	83.60%	71	94.67%	122	16.40%	4	5.33%
T. Bloomfield	280	33.86%	46	37.10%	728	88.03%	103	83.06%	99	11.97%	21	16.94%
T. Coloma	102	24.06%	11	21.57%	377	88.92%	34	66.67%	47	11.08%	17	33.33%
T. Dakota	293	33.60%	99	46.26%	718	82.34%	201	93.93%	154	17.66%	13	6.07%
T. Deerfield	108	26.09%	14	32.56%	326	78.74%	41	95.35%	88	21.26%	2	4.65%
T. Hancock	118	28.99%	16	29.63%	335	82.31%	46	85.19%	72	17.69%	8	14.81%
T. Leon	227	26.36%	29	21.97%	738	85.71%	104	78.79%	123	14.29%	28	21.21%
T. Marion	274	20.77%	44	27.67%	1,001	75.89%	132	83.02%	318	24.11%	27	16.98%
T. Mount Morris	148	21.76%	30	35.71%	499	73.38%	77	91.67%	181	26.62%	7	8.33%
T. Oasis	93	25.62%	2	11.11%	307	84.57%	13	72.22%	56	15.43%	5	27.78%
T. Plainfield	170	43.59%	61	47.29%	361	92.56%	114	88.37%	29	7.44%	15	11.63%
T. Poy Sippi	240	30.04%	45	36.59%	673	84.23%	91	73.98%	126	15.77%	32	26.02%
T. Richford	169	47.88%	61	46.92%	321	90.93%	112	86.15%	32	9.07%	18	13.85%
T. Rose	117	26.06%	20	37.74%	363	80.85%	43	81.13%	86	19.15%	10	18.87%
T. Saxeville	192	25.84%	23	38.98%	632	85.06%	50	84.75%	111	14.94%	9	15.25%
T. Springwater	184	20.81%	38	30.40%	673	76.13%	107	85.60%	211	23.87%	18	14.40%
T. Warren	163	34.10%	42	45.16%	400	83.68%	80	86.02%	78	16.32%	13	13.98%
T. Wautoma	266	27.17%	39	35.78%	777	79.37%	90	82.57%	202	20.63%	19	17.43%
Waushara County	4,733	28.65%	949	35.92%	13,346	80.78%	2,202	83.35%	3,175	19.22%	440	16.65%
Wisconsin	1,271,165	26.74%	188,863	37.14%	4,152,291	87.34%	453,739	89.22%	604,812	12.72%	54,806	10.78%

Source: U.S. Census, 1990

Table B-21. 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.)	83	100.00%	3	3.61%	22	100.00%	0	0.00%
C. Wautoma	1,998	100.00%	207	10.36%	430	100.00%	22	5.12%
V. Coloma	461	100.00%	81	17.57%	128	100.00%	16	12.50%
V. Hancock	463	100.00%	46	9.94%	122	100.00%	7	5.74%
V. Lohrville	408	100.00%	13	3.19%	123	100.00%	2	1.63%
V. Plainfield	899	100.00%	97	10.79%	231	100.00%	17	7.36%
V. Redgranite	1,040	100.00%	119	11.44%	269	100.00%	17	6.32%
V. Wild Rose	765	100.00%	48	6.27%	187	100.00%	8	4.28%
T. Aurora	971	100.00%	43	4.43%	282	100.00%	11	3.90%
T. Bloomfield	1,018	100.00%	82	8.06%	298	100.00%	17	5.70%
T. Coloma	748	100.00%	83	11.10%	195	100.00%	6	3.08%
T. Dakota	1,259	100.00%	153	12.15%	357	100.00%	27	7.56%
T. Deerfield	629	100.00%	45	7.15%	204	100.00%	14	6.86%
T. Hancock	531	100.00%	20	3.77%	148	100.00%	0	0.00%
T. Leon	1,281	100.00%	98	7.65%	385	100.00%	15	3.90%
T. Marion	2,065	100.00%	138	6.68%	655	100.00%	22	3.36%
T. Mount Morris	1,092	100.00%	82	7.51%	345	100.00%	20	5.80%
T. Oasis	405	100.00%	24	5.93%	113	100.00%	4	3.54%
T. Plainfield	533	100.00%	65	12.20%	147	100.00%	16	10.88%
T. Poy Sippi	972	100.00%	68	7.00%	287	100.00%	10	3.48%
T. Richford	588	100.00%	127	21.60%	158	100.00%	22	13.92%
T. Rose	595	100.00%	60	10.08%	182	100.00%	6	3.30%
T. Saxeville	974	100.00%	89	9.14%	312	100.00%	17	5.45%
T. Springwater	1,389	100.00%	114	8.21%	430	100.00%	24	5.58%
T. Warren	675	100.00%	49	7.26%	193	100.00%	6	3.11%
T. Wautoma	1,312	100.00%	130	9.91%	380	100.00%	20	5.26%
Waushara County	23,154	100.00%	2,084	9.00%	6,583	100.00%	346	5.26%
Wisconsin	5,363,675	100.00%	451,538	8.42%	1,386,815	100.00%	78,188	5.64%

Source: U.S. Census, 2000

Table B-22. Poverty Status by Age, 1999

Jurisdiction	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.)	12	100.00%	0	0.00%	56	100.00%	1	1.79%	12	100.00%	2	16.67%
C. Wautoma	459	100.00%	49	10.68%	1,405	100.00%	136	9.68%	388	100.00%	71	18.30%
V. Coloma	139	100.00%	34	24.46%	398	100.00%	65	16.33%	88	100.00%	16	18.18%
V. Hancock	142	100.00%	16	11.27%	401	100.00%	33	8.23%	84	100.00%	13	15.48%
V. Lohrville	102	100.00%	0	0.00%	327	100.00%	7	2.14%	88	100.00%	6	6.82%
V. Plainfield	244	100.00%	25	10.25%	714	100.00%	78	10.92%	136	100.00%	19	13.97%
V. Redgranite	264	100.00%	21	7.95%	839	100.00%	96	11.44%	230	100.00%	23	10.00%
V. Wild Rose	193	100.00%	8	4.15%	595	100.00%	31	5.21%	133	100.00%	17	12.78%
T. Aurora	247	100.00%	8	3.24%	861	100.00%	35	4.07%	117	100.00%	8	6.84%
T. Bloomfield	243	100.00%	24	9.88%	888	100.00%	69	7.77%	121	100.00%	13	10.74%
T. Coloma	106	100.00%	2	1.89%	487	100.00%	40	8.21%	203	100.00%	43	21.18%
T. Dakota	308	100.00%	71	23.05%	1,011	100.00%	145	14.34%	222	100.00%	8	3.60%
T. Deerfield	145	100.00%	6	4.14%	527	100.00%	38	7.21%	116	100.00%	7	6.03%
T. Hancock	124	100.00%	0	0.00%	468	100.00%	14	2.99%	74	100.00%	6	8.11%
T. Leon	265	100.00%	29	10.94%	1,054	100.00%	79	7.50%	219	100.00%	19	8.68%
T. Marion	375	100.00%	44	11.73%	1,547	100.00%	102	6.59%	484	100.00%	36	7.44%
T. Mount Morris	241	100.00%	24	9.96%	892	100.00%	73	8.18%	226	100.00%	9	3.98%
T. Oasis	109	100.00%	0	0.00%	344	100.00%	20	5.81%	66	100.00%	4	6.06%
T. Plainfield	164	100.00%	32	19.51%	511	100.00%	62	12.13%	58	100.00%	3	5.17%
T. Poy Sippi	247	100.00%	11	4.45%	820	100.00%	52	6.34%	157	100.00%	16	10.19%
T. Richford	176	100.00%	68	38.64%	481	100.00%	119	24.74%	87	100.00%	8	9.20%
T. Rose	112	100.00%	9	8.04%	478	100.00%	47	9.83%	106	100.00%	13	12.26%
T. Saxeville	216	100.00%	34	15.74%	800	100.00%	81	10.13%	167	100.00%	8	4.79%
T. Springwater	256	100.00%	34	13.28%	1,008	100.00%	85	8.43%	353	100.00%	29	8.22%
T. Warren	153	100.00%	7	4.58%	543	100.00%	34	6.26%	103	100.00%	15	14.56%
T. Wautoma	325	100.00%	28	8.62%	1,081	100.00%	80	7.40%	259	100.00%	50	19.31%
Waushara County	5,367	100.00%	584	10.88%	18,536	100.00%	1,622	8.75%	4,297	100.00%	462	10.75%
Wisconsin	1,342,950	100.00%	150,166	11.18%	4,548,790	100.00%	402,293	8.84%	662,813	100.00%	49,245	7.43%

Source: U.S. Census, 2000

Table B-23. Distribution of Persons in Poverty by Age, 1999

Jurisdiction	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.)	12	17.65%	0	0.00%	74	89.16%	1	1.35%	9	10.84%	2	22.22%
C. Wautoma	459	25.60%	49	23.67%	1,528	76.48%	136	8.90%	470	23.52%	71	15.11%
V. Coloma	139	28.60%	34	41.98%	366	79.39%	65	17.76%	95	20.61%	16	16.84%
V. Hancock	142	29.28%	16	34.78%	370	79.91%	33	8.92%	93	20.09%	13	13.98%
V. Lohrville	102	24.58%	0	0.00%	326	79.90%	7	2.15%	82	20.10%	6	7.32%
V. Plainfield	244	28.71%	25	25.77%	764	84.98%	78	10.21%	135	15.02%	19	14.07%
V. Redgranite	264	24.70%	21	17.65%	811	77.98%	96	11.84%	229	22.02%	23	10.04%
V. Wild Rose	193	26.51%	8	16.67%	561	73.33%	31	5.53%	204	26.67%	17	8.33%
T. Aurora	247	25.26%	8	18.60%	862	88.77%	35	4.06%	109	11.23%	8	7.34%
T. Bloomfield	243	24.08%	24	29.27%	893	87.72%	69	7.73%	125	12.28%	13	10.40%
T. Coloma	106	15.36%	2	2.41%	558	74.60%	40	7.17%	190	25.40%	43	22.63%
T. Dakota	308	24.98%	71	46.41%	1,050	83.40%	145	13.81%	209	16.60%	8	3.83%
T. Deerfield	145	22.55%	6	13.33%	510	81.08%	38	7.45%	119	18.92%	7	5.88%
T. Hancock	124	22.88%	0	0.00%	450	84.75%	14	3.11%	81	15.25%	6	7.41%
T. Leon	265	20.82%	29	29.59%	1,049	81.89%	79	7.53%	232	18.11%	19	8.19%
T. Marion	375	18.46%	44	31.88%	1,565	75.79%	102	6.52%	500	24.21%	36	7.20%
T. Mount Morris	241	21.56%	24	29.27%	860	78.75%	73	8.49%	232	21.25%	9	3.88%
T. Oasis	109	26.59%	0	0.00%	342	84.44%	20	5.85%	63	15.56%	4	6.35%
T. Plainfield	164	28.82%	32	49.23%	466	87.43%	62	13.30%	67	12.57%	3	4.48%
T. Poy Sippi	247	25.28%	11	16.18%	819	84.26%	52	6.35%	153	15.74%	16	10.46%
T. Richford	176	30.99%	68	53.54%	507	86.22%	119	23.47%	81	13.78%	8	9.88%
T. Rose	112	19.18%	9	15.00%	496	83.36%	47	9.48%	99	16.64%	13	13.13%
T. Saxeville	216	22.34%	34	38.20%	807	82.85%	81	10.04%	167	17.15%	8	4.79%
T. Springwater	256	18.81%	34	29.82%	1,040	74.87%	85	8.17%	349	25.13%	29	8.31%
T. Warren	153	23.68%	7	14.29%	566	83.85%	34	6.01%	109	16.15%	15	13.76%
T. Wautoma	325	24.25%	28	21.54%	1,059	80.72%	80	7.55%	253	19.28%	50	19.76%
Waushara County	5,367	23.51%	584	28.02%	18,699	80.76%	1,622	8.67%	4,455	19.24%	462	10.37%
Wisconsin	1,342,950	25.77%	150,166	33.26%	4,661,122	86.90%	402,293	8.63%	702,553	13.10%	49,245	7.01%

Source: U.S. Census, 2000

Table B-24. 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%

*Population estimates include anticipated impact of the Redgranite prison.

[+]Includes correction to 2000 Census.

1015/04

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

Table B-25. Total Number of Households in Waushara County, 1970 to 2000

Minor Civil Division	1970		1980		1990		2000		1970 to 2000	
		Persons		Persons		Persons		Persons	Change in HHs	
	No. HH	per HH	No. HH	per HH	No. HH	per HH	No. HH	per HH	Number	Percent
C. Berlin (pt.)	15	2.73	31	2.94	22	3.05	36	2.31	21	140.00%
C. Wautoma	570	2.76	695	2.18	748	2.25	806	2.20	236	41.40%
V. Coloma	139	2.42	159	2.31	159	2.41	185	2.42	46	33.09%
V. Hancock	136	2.87	167	2.51	164	2.33	193	2.40	57	41.91%
V. Lohrville	62	3.15	127	2.65	142	2.59	168	2.43	106	170.97%
V. Plainfield	250	2.57	318	2.52	324	2.55	342	2.60	92	36.80%
V. Redgranite	231	2.79	367	2.66	421	2.40	440	2.30	209	90.48%
V. Wild Rose	224	2.61	275	2.45	309	2.40	312	2.26	88	39.29%
T. Aurora	239	3.36	303	2.94	296	2.86	352	2.76	113	47.28%
T. Bloomfield	223	3.58	301	3.09	315	2.93	383	2.65	160	71.75%
T. Coloma	114	3.35	145	3.01	181	2.76	254	2.51	140	122.81%
T. Dakota	238	3.16	379	2.62	411	2.66	493	2.55	255	107.14%
T. Deerfield	123	2.98	162	2.75	178	2.55	263	2.39	140	113.82%
T. Hancock	125	2.77	157	2.71	178	2.62	211	2.52	86	68.80%
T. Leon	215	3.03	315	2.68	397	2.50	539	2.38	324	150.70%
T. Marion	310	2.83	542	2.46	641	2.31	908	2.27	598	192.90%
T. Mount Morris	173	2.99	275	2.49	327	2.35	481	2.27	308	178.03%
T. Oasis	107	3.23	131	3.08	136	2.86	152	2.66	45	42.06%
T. Plainfield	144	3.10	191	2.99	191	2.77	198	2.69	54	37.50%
T. Poy Sippi	267	3.05	325	2.81	354	2.62	392	2.48	125	46.82%
T. Richford	90	3.58	139	2.91	150	3.03	190	3.09	100	111.11%
T. Rose	108	2.95	179	2.88	192	2.53	244	2.44	136	125.93%
T. Saxeville	194	3.15	273	2.84	316	2.68	393	2.48	199	102.58%
T. Springwater	205	2.85	365	2.53	434	2.15	617	2.25	412	200.98%
T. Warren	176	3.72	198	2.89	210	2.62	261	2.59	85	48.30%
T. Wautoma	232	3.12	385	2.82	420	2.59	523	2.46	291	125.43%
Waushara County	4,910	3.00	6,904	2.65	7,616	2.52	9,336	2.43	4,426	90.14%

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

Table B-26. 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.

11/22/2004

APPENDIX C

ECONOMIC DEVELOPMENT APPENDICES

Table C-1 Educational Attainment, 2000

Table C-2 Total Civilian Labor Force, 1990 and 2000

Table C-3 Employment Status, 16 Years and Older, 1990

Table C-4 Employment Status, 16 Years and Older, 2000

Table C:5 Economic Development Organizations

Table C-1. Educational Attainment, 2000

Jurisdiction	Less than 9th Grade		9 - 12 Grade, No Diploma		High School Graduate		College: 1 - 3 Years		College: 4 Years or More		Total Persons Age 25 and Older		High School Graduation Rate	
	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%	3908	23.96%	1911	11.72%	16,310	100.00%	12,853	78.80%
Wisconsin	186,125	5.35%	332,292	9.56%	1,201,813	34.58%	976375	28.09%	779273	22.42%	3,475,878	100.00%	2,957,461	85.09%

Source: U.S. Census, 2000

C-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 C-3. Employment Status, 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. Springwater	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 C-4. Employment Status, 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 C-5. Economic Development Organizations

Organization Name	Structure	Funding	Focus Audience	Focus Area	Current Activities	Anticipated Activities
Berlin Business Improvement District (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
Berlin Chamber of Commerce (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
Berlin Community Development Corporation (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
CAP Services (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
Coloma Industrial Development Corporation (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
Farm Service Agency - Waushara County (920) 787-2116	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 C-5. Economic Development Organizations

Organization Name	Structure	Funding	Focus Audience	Focus Area	Current Activities	Anticipated Activities
Fox Valley Technical College (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
Experience Works (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
Village of Hancock (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
Redgranite Economic Development Committee (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
UW Extension - Waushara County (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
Waushara Area Chamber of Commerce (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
Waushara Convention and Visitors Bureau (920) 787-3488	Staff and Volunteers	Waushara Area Chamber of Commerce	County businesses and organizations	Waushara County	tourism promotion	tourism promotion

Table C-5. Economic Development Organizations

Organization Name	Structure	Funding	Focus Audience	Focus Area	Current Activities	Anticipated Activities
Waushara County Economic Development Corporation (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
Waushara County Farm Bureau (920) 787-4664	Staff	Membership Dues	agricultural businesses	Waushara County	advocate for farms / agricultural education	advocate for farms / agricultural education
Waushara County Office of the Wisconsin Job Center (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
Wautoma Industrial Development Corporation (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
Wautoma Main Street (920) 787-3334	Volunteers	Private Donations / Events	commercial businesses located in Downtown Wautoma/ tourists to Wautoma	Downtown Wautoma	special events including Christmas Tour of Homes	special events
Village of Wild Rose (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**

Table C-6 Location of Workplace, 1990

Location of Workplace	City of Wautoma 1990		Village of Redgranite 1990		Town of Dakota 1990		Town of Marion 1990		Town of Wautoma 1990		Waushara County 1990	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Worked in Waushara County	541	78.75%	165	50.77%	307	72.24%	354	54.97%	383	80.80%	4,683	58.71%
City of Wautoma	388	56.48%	30	9.23%	122	28.71%	138	21.43%	207	43.67%	1,320	16.55%
Remainder of Waushara County	153	22.27%	135	41.54%	185	43.53%	216	33.54%	176	37.13%	3,363	42.16%
Worked in Adams County	8	1.16%	0	0.00%	0	0.00%	0	0.00%	6	1.27%	43	0.54%
Worked in Portage County	16	2.33%	0	0.00%	9	2.12%	0	0.00%	12	2.53%	317	3.97%
City of Stevens Point	1	0.15%	0	0.00%	3	0.71%	0	0.00%	10	2.11%	119	1.49%
Remainder of Portage County	15	2.18%	0	0.00%	6	1.41%	0	0.00%	2	0.42%	198	2.48%
Worked in Waupaca County	9	1.31%	3	0.92%	16	3.76%	3	0.47%	14	2.95%	561	7.03%
Worked in Appleton-Oshkosh MSA	28	4.08%	51	15.69%	18	4.24%	74	11.49%	10	2.11%	797	9.99%
City of Appleton	0	0.00%	0	0.00%	0	0.00%	4	0.62%	0	0.00%	60	0.75%
City of Oshkosh	20	2.91%	36	11.08%	9	2.12%	48	7.45%	10	2.11%	421	5.28%
City of Neenah	5	0.73%	0	0.00%	0	0.00%	4	0.62%	0	0.00%	66	0.83%
Remainder of Calumet County	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	2	0.03%
Remainder of Outagamie County	0	0.00%	2	0.62%	0	0.00%	6	0.93%	0	0.00%	71	0.89%
Remainder of Winnebago County	3	0.44%	13	4.00%	9	2.12%	12	1.86%	0	0.00%	177	2.22%
Worked in Green Lake County	47	6.84%	80	24.62%	32	7.53%	100	15.53%	17	3.59%	781	9.79%
City of Berlin	29	4.22%	71	21.85%	17	4.00%	83	12.89%	6	1.27%	634	7.95%
Remainder of Green Lake County	18	2.62%	9	2.77%	15	3.53%	17	2.64%	11	2.32%	147	1.84%
Worked in Green Bay, WI, SMSA	0	0.00%	0	0.00%	0	0.00%	3	0.47%	0	0.00%	13	0.16%
City of Green Bay	0	0.00%	0	0.00%	0	0.00%	0	0.00%		0.00%	7	0.09%
Remainder of Green Bay, WI, SMSA	0	0.00%	0	0.00%	0	0.00%	3	0.47%		0.00%	6	0.08%
Worked in Marquette County	10	1.46%	5	1.54%	22	5.18%	49	7.61%	6	1.27%	205	2.57%
Worked in Wood County	5	0.73%	0	0.00%	0	0.00%	2	0.31%	0	0.00%	102	1.28%
Worked in Fond du Lac County	10	1.46%	19	5.85%	12	2.82%	19	2.95%	2	0.42%	197	2.47%
Worked in Wausau, WI, SMSA	0	0.00%	0	0.00%	2	0.47%	0	0.00%	2	0.42%	15	0.19%
Worked Elsewhere	13	1.89%	2	0.62%	7	1.65%	40	6.21%	22	4.64%	263	3.30%
Total Employed Persons	687	100.00%	325	100.00%	425	100.00%	644	100.00%	474	100.00%	7,977	100.00%

Source: U.S. Census, 1990.

Table C-7. Location of Workplace, 2000

Location of Workplace	City of Wautoma 2000		Village of Redgranite 2000		Town of Dakota 2000		Town of Marion 2000		Town of Wautoma 2000		Waushara County 2000	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Worked in Waushara County	608	76.96%	181	42.09%	365	66.24%	439	51.47%	436	73.90%	5,398	52.92%
City of Wautoma	442	55.95%	43	10.00%	189	34.30%	194	22.74%	181	30.68%	1,661	16.28%
Remainder of Waushara County	166	21.01%	138	32.09%	176	31.94%	245	28.72%	255	43.22%	3,737	36.64%
Worked in Adams County	0	0.00%	0	0.00%	7	1.27%	0	0.00%	5	0.85%	105	1.03%
Worked in Portage County	4	0.51%	2	0.47%	13	2.36%	6	0.70%	13	2.20%	502	4.92%
City of Stevens Point	0	0.00%	2	0.47%	7	1.27%	6	0.70%	4	0.68%	250	2.45%
Remainder of Portage County	4	0.51%		0.00%	6	1.09%	0	0.00%	9	1.53%	252	2.47%
Worked in Waupaca County	32	4.05%	2	0.47%	22	3.99%	0	0.00%	26	4.41%	654	6.41%
Worked in Appleton-Oshkosh MSA	32	4.05%	100	23.26%	31	5.63%	85	9.96%	34	5.76%	1,490	14.61%
City of Appleton	6	0.76%	2	0.47%	0	0.00%	17	1.99%	8	1.36%	145	1.42%
City of Oshkosh	14	1.77%	79	18.37%	15	2.72%	39	4.57%	13	2.20%	686	6.73%
City of Neenah	0	0.00%	1	0.23%	2	0.36%	7	0.82%	2	0.34%	115	1.13%
Remainder of Calumet County	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	3	0.03%
Remainder of Outagamie County	0	0.00%	11	2.56%	0	0.00%	0	0.00%	0	0.00%	188	1.84%
Remainder of Winnebago County	12	1.52%	7	1.63%	14	2.54%	22	2.58%	11	1.86%	353	3.46%
Worked in Green Lake County	57	7.22%	82	19.07%	51	9.26%	134	15.71%	25	4.24%	928	9.10%
City of Berlin	43	5.44%	70	16.28%	35	6.35%	98	11.49%	14	2.37%	696	6.82%
Remainder of Green Lake County	14	1.77%	12	2.79%	16	2.90%	36	4.22%	11	1.86%	232	2.27%
Worked in Green Bay, WI, SMSA	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	35	0.34%
City of Green Bay	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	14	0.14%
Remainder of Green Bay, WI, SMSA	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	21	0.21%
Worked in Marquette County	19	2.41%	8	1.86%	18	3.27%	58	6.80%	15	2.54%	317	3.11%
Worked in Wood County	5	0.63%	0	0.00%	0	0.00%	4	0.47%	0	0.00%	91	0.89%
Worked in Fond du Lac County	11	1.39%	43	10.00%	10	1.81%	58	6.80%	6	1.02%	277	2.72%
Worked in Wausau, WI, SMSA	0	0.00%	0	0.00%	0	0.00%	7	0.82%	2	0.34%	19	0.19%
Worked Elsewhere	22	2.78%	12	2.79%	34	6.17%	62	7.27%	28	4.75%	384	3.76%
Total Employed Persons	790	100.00%	430	100.00%	551	100.00%	853	100.00%	590	100.00%	10,200	100.00%

Source: U.S. Census, 2000.

Table C-8. 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 C-9.. 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

APPENDIX D

HOUSING
APPENDICES

Table D-1 Occupied Dwelling Units by Age, 1990

Table D-2 Occupied Dwelling Units by Age, 2000

Table D-3 Total Dwelling Units by Structural Type, 1990

Table D-4 Total Dwelling Units by Structural Type, 2000

Table D-5 Occupancy Status, 1990

Table D-6 Occupancy Status, 2000

Table D-7 Total Vacancy Status, 1990

Table D-8 Total Vacancy Status, 2000

Table D-9 Owner-Occupied Housing Stock Value, 2000

Table D-10 Households Paying a Disproportionate Share of Their Income for Housing, 1989 and 1999

Table D-11 Plumbing Facilities by Occupants Per Room, 2000

Table D-12 Housing Stress Index

Table D-13 Waushara County Composite Index, 2000

Table D-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	0.00%	0	0.00%	9	39.13%	0	0.00%	4	17.39%	10	43.48%	23	100.00%
C. Wautoma	45	6.02%	79	10.56%	129	17.25%	108	14.44%	86	11.50%	301	40.24%	748	100.00%
V. Coloma	2	1.32%	8	5.30%	38	25.17%	14	9.27%	16	10.60%	73	48.34%	151	100.00%
V. Hancock	5	3.21%	7	4.49%	28	17.95%	19	12.18%	11	7.05%	86	55.13%	156	100.00%
V. Lohrville	9	6.12%	22	14.97%	56	38.10%	13	8.84%	17	11.56%	30	20.41%	147	100.00%
V. Plainfield	12	3.58%	33	9.85%	65	19.40%	21	6.27%	38	11.34%	166	49.55%	335	100.00%
V. Redgranite	46	11.08%	29	6.99%	107	25.78%	54	13.01%	17	4.10%	162	39.04%	415	100.00%
V. Wild Rose	41	13.76%	22	7.38%	43	14.43%	28	9.40%	30	10.07%	134	44.97%	298	100.00%
T. Aurora	15	5.23%	12	4.18%	57	19.86%	48	16.72%	38	13.24%	117	40.77%	287	100.00%
T. Bloomfield	16	4.89%	27	8.26%	89	27.22%	27	8.26%	11	3.36%	157	48.01%	327	100.00%
T. Coloma	13	6.95%	30	16.04%	52	27.81%	13	6.95%	4	2.14%	75	40.11%	187	100.00%
T. Dakota	30	7.30%	48	11.68%	163	39.66%	70	17.03%	22	5.35%	78	18.98%	411	100.00%
T. Deerfield	27	15.52%	13	7.47%	44	25.29%	19	10.92%	3	1.72%	68	39.08%	174	100.00%
T. Hancock	23	12.64%	18	9.89%	50	27.47%	15	8.24%	14	7.69%	62	34.07%	182	100.00%
T. Leon	32	8.10%	33	8.35%	135	34.18%	37	9.37%	33	8.35%	125	31.65%	395	100.00%
T. Marion	47	7.33%	100	15.60%	235	36.66%	75	11.70%	34	5.30%	150	23.40%	641	100.00%
T. Mount Morris	26	7.90%	44	13.37%	88	26.75%	32	9.73%	41	12.46%	98	29.79%	329	100.00%
T. Oasis	11	7.69%	22	15.38%	34	23.78%	0	0.00%	11	7.69%	65	45.45%	143	100.00%
T. Plainfield	15	7.85%	18	9.42%	41	21.47%	32	16.75%	32	16.75%	53	27.75%	191	100.00%
T. Poy Sippi	8	2.26%	26	7.34%	83	23.45%	28	7.91%	29	8.19%	180	50.85%	354	100.00%
T. Richford	17	10.63%	15	9.38%	51	31.88%	4	2.50%	6	3.75%	67	41.88%	160	100.00%
T. Rose	7	3.78%	32	17.30%	52	28.11%	17	9.19%	7	3.78%	70	37.84%	185	100.00%
T. Saxeville	24	7.89%	37	12.17%	74	24.34%	33	10.86%	24	7.89%	112	36.84%	304	100.00%
T. Springwater	48	11.06%	61	14.06%	136	31.34%	61	14.06%	47	10.83%	81	18.66%	434	100.00%
T. Warren	23	10.50%	20	9.13%	49	22.37%	14	6.39%	15	6.85%	98	44.75%	219	100.00%
T. Wautoma	29	6.90%	48	11.43%	139	33.10%	38	9.05%	41	9.76%	125	29.76%	420	100.00%
Waushara County	571	7.50%	804	10.56%	2,047	26.88%	820	10.77%	631	8.29%	2,743	36.02%	7,616	100.00%
Wisconsin	198,198	12.00%	177,085	10.72%	263,431	15.94%	243,835	14.76%	166,000	10.05%	603,712	36.54%	1,652,261	100.00%

Source: U.S. Census, 1990

Table D-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	45.45%	0	0.00%	0	0.00%	4	12.12%	3	9.09%	11	33.33%	33	100.00%
C. Wautoma	48	6.02%	31	3.88%	114	14.29%	163	20.43%	76	9.52%	366	45.86%	798	100.00%
V. Coloma	10	5.38%	19	10.22%	19	10.22%	33	17.74%	7	3.76%	98	52.69%	186	100.00%
V. Hancock	30	15.63%	34	17.71%	19	9.90%	15	7.81%	5	2.60%	89	46.35%	192	100.00%
V. Lohrville	4	2.42%	13	7.88%	32	19.39%	54	32.73%	13	7.88%	49	29.70%	165	100.00%
V. Plainfield	15	4.53%	13	3.93%	23	6.95%	44	13.29%	30	9.06%	206	62.24%	331	100.00%
V. Redgranite	37	8.24%	32	7.13%	41	9.13%	100	22.27%	26	5.79%	213	47.44%	449	100.00%
V. Wild Rose	48	15.34%	8	2.56%	34	10.86%	32	10.22%	15	4.79%	176	56.23%	313	100.00%
T. Aurora	42	11.80%	20	5.62%	23	6.46%	41	11.52%	43	12.08%	187	52.53%	356	100.00%
T. Bloomfield	59	15.53%	42	11.05%	26	6.84%	52	13.68%	31	8.16%	170	44.74%	380	100.00%
T. Coloma	42	17.21%	24	9.84%	35	14.34%	60	24.59%	22	9.02%	61	25.00%	244	100.00%
T. Dakota	45	9.16%	42	8.55%	76	15.48%	139	28.31%	52	10.59%	137	27.90%	491	100.00%
T. Deerfield	47	18.08%	30	11.54%	29	11.15%	46	17.69%	15	5.77%	93	35.77%	260	100.00%
T. Hancock	35	16.06%	17	7.80%	42	19.27%	31	14.22%	10	4.59%	83	38.07%	218	100.00%
T. Leon	86	16.14%	46	8.63%	82	15.38%	103	19.32%	55	10.32%	161	30.21%	533	100.00%
T. Marion	125	13.71%	95	10.42%	166	18.20%	238	26.10%	55	6.03%	233	25.55%	912	100.00%
T. Mount Morris	64	13.20%	73	15.05%	85	17.53%	85	17.53%	28	5.77%	150	30.93%	485	100.00%
T. Oasis	17	10.76%	7	4.43%	22	13.92%	28	17.72%	18	11.39%	66	41.77%	158	100.00%
T. Plainfield	17	8.21%	18	8.70%	23	11.11%	39	18.84%	39	18.84%	71	34.30%	207	100.00%
T. Poy Sippi	21	5.38%	19	4.87%	27	6.92%	63	16.15%	24	6.15%	236	60.51%	390	100.00%
T. Richford	26	13.27%	25	12.76%	28	14.29%	46	23.47%	3	1.53%	68	34.69%	196	100.00%
T. Rose	49	20.50%	13	5.44%	28	11.72%	49	20.50%	16	6.69%	84	35.15%	239	100.00%
T. Saxeville	46	11.47%	30	7.48%	58	14.46%	82	20.45%	29	7.23%	156	38.90%	401	100.00%
T. Springwater	85	13.89%	39	6.37%	113	18.46%	152	24.84%	54	8.82%	169	27.61%	612	100.00%
T. Warren	33	12.64%	24	9.20%	33	12.64%	43	16.48%	35	13.41%	93	35.63%	261	100.00%
T. Wautoma	49	9.32%	67	12.74%	86	16.35%	99	18.82%	41	7.79%	184	34.98%	526	100.00%
Waushara County	1,095	11.73%	781	8.37%	1,264	13.54%	1,841	19.72%	745	7.98%	3,610	38.67%	9,336	100.00%
Wisconsin	188,002	9.02%	153,270	7.35%	222,167	10.66%	355,484	17.05%	247,765	11.89%	917,856	44.03%	2,084,544	100.00%

Source: U.S. Census, 2000

Table D-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	96.30%	0	0.00%	0	0.00%	1	3.70%	27	100.00%
C. Wautoma	584	71.66%	121	14.85%	78	9.57%	32	3.93%	815	100.00%
V. Coloma	151	77.04%	8	4.08%	25	12.76%	12	6.12%	196	100.00%
V. Hancock	187	80.60%	3	1.29%	0	0.00%	42	18.10%	232	100.00%
V. Lohrville	99	56.90%	1	0.57%	0	0.00%	74	42.53%	174	100.00%
V. Plainfield	301	81.35%	31	8.38%	16	4.32%	22	5.95%	370	100.00%
V. Redgranite	327	68.99%	28	5.91%	12	2.53%	107	22.57%	474	100.00%
V. Wild Rose	229	66.76%	26	7.58%	59	17.20%	29	8.45%	343	100.00%
T. Aurora	295	87.02%	12	3.54%	0	0.00%	32	9.44%	339	100.00%
T. Bloomfield	356	85.58%	11	2.64%	0	0.00%	49	11.78%	416	100.00%
T. Coloma	338	75.62%	5	1.12%	0	0.00%	104	23.27%	447	100.00%
T. Dakota	425	65.08%	18	2.76%	1	0.15%	209	32.01%	653	100.00%
T. Deerfield	306	85.00%	4	1.11%	0	0.00%	50	13.89%	360	100.00%
T. Hancock	319	93.55%	0	0.00%	1	0.29%	21	6.16%	341	100.00%
T. Leon	665	82.00%	5	0.62%	0	0.00%	141	17.39%	811	100.00%
T. Marion	1,219	86.03%	14	0.99%	0	0.00%	184	12.99%	1,417	100.00%
T. Mount Morris	753	86.85%	9	1.04%	2	0.23%	103	11.88%	867	100.00%
T. Oasis	245	94.59%	0	0.00%	0	0.00%	14	5.41%	259	100.00%
T. Plainfield	174	76.32%	4	1.75%	0	0.00%	50	21.93%	228	100.00%
T. Poy Sippi	349	83.29%	9	2.15%	19	4.53%	42	10.02%	419	100.00%
T. Richford	212	86.89%	2	0.82%	0	0.00%	30	12.30%	244	100.00%
T. Rose	246	78.34%	2	0.64%	1	0.32%	65	20.70%	314	100.00%
T. Saxeville	524	89.57%	7	1.20%	0	0.00%	54	9.23%	585	100.00%
T. Springwater	880	79.42%	6	0.54%	0	0.00%	222	20.04%	1,108	100.00%
T. Warren	196	67.12%	2	0.68%	0	0.00%	94	32.19%	292	100.00%
T. Wautoma	460	89.32%	11	2.14%	0	0.00%	44	8.54%	515	100.00%
Waushara County	9,866	80.57%	339	2.77%	214	1.75%	1,827	14.92%	12,246	100.00%
Wisconsin	1,392,610	67.74%	277,221	13.48%	256,616	12.48%	129,327	6.29%	2,055,774	100.00%

Source: U.S. Census, 1990

Table D-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	48.57%	3	8.57%	15	42.86%	0	0.00%	35	100.00%
C. Wautoma	583	67.40%	104	12.02%	142	16.42%	36	4.16%	865	100.00%
V. Coloma	173	84.39%	1	0.49%	12	5.85%	19	9.27%	205	100.00%
V. Hancock	197	76.36%	1	0.39%	13	5.04%	47	18.22%	258	100.00%
V. Lohrville	99	54.10%	7	3.83%	0	0.00%	77	42.08%	183	100.00%
V. Plainfield	298	82.78%	26	7.22%	21	5.83%	15	4.17%	360	100.00%
V. Redgranite	360	71.57%	22	4.37%	23	4.57%	98	19.48%	503	100.00%
V. Wild Rose	253	73.55%	21	6.10%	35	10.17%	35	10.17%	344	100.00%
T. Aurora	349	89.72%	9	2.31%	0	0.00%	31	7.97%	389	100.00%
T. Bloomfield	414	90.99%	13	2.86%	0	0.00%	28	6.15%	455	100.00%
T. Coloma	423	86.86%	2	0.41%	0	0.00%	62	12.73%	487	100.00%
T. Dakota	495	71.95%	13	1.89%	3	0.44%	177	25.73%	688	100.00%
T. Deerfield	447	90.85%	4	0.81%	0	0.00%	41	8.33%	492	100.00%
T. Hancock	348	92.31%	3	0.80%	0	0.00%	26	6.90%	377	100.00%
T. Leon	750	88.13%	0	0.00%	0	0.00%	101	11.87%	851	100.00%
T. Marion	1,456	88.78%	12	0.73%	0	0.00%	172	10.49%	1,640	100.00%
T. Mount Morris	911	91.28%	4	0.40%	2	0.20%	81	8.12%	998	100.00%
T. Oasis	260	98.11%	0	0.00%	0	0.00%	5	1.89%	265	100.00%
T. Plainfield	206	85.12%	6	2.48%	0	0.00%	30	12.40%	242	100.00%
T. Poy Sippi	374	86.37%	20	4.62%	26	6.00%	13	3.00%	433	100.00%
T. Richford	254	90.39%	2	0.71%	2	0.71%	23	8.19%	281	100.00%
T. Rose	267	78.30%	0	0.00%	0	0.00%	74	21.70%	341	100.00%
T. Saxeville	554	90.67%	8	1.31%	0	0.00%	49	8.02%	611	100.00%
T. Springwater	991	69.84%	8	0.56%	2	0.14%	418	29.46%	1,419	100.00%
T. Warren	235	70.36%	5	1.50%	0	0.00%	94	28.14%	334	100.00%
T. Wautoma	574	93.94%	9	1.47%	0	0.00%	28	4.58%	611	100.00%
Waushara County	11,288	82.59%	303	2.22%	296	2.17%	1,780	13.02%	13,667	100.00%
Wisconsin	1,609,407	69.34%	281,936	12.15%	325,633	14.03%	104,168	4.49%	2,321,144	100.00%

Source: U.S. Census, 2000

Table D-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	81.48%	19	70.37%	3	11.11%	5	18.52%	27
C. Wautoma	748	91.78%	474	58.16%	274	33.62%	67	8.22%	815
V. Coloma	159	81.12%	107	54.59%	52	26.53%	37	18.88%	196
V. Hancock	164	70.69%	127	54.74%	37	15.95%	68	29.31%	232
V. Lohrville	142	81.61%	118	67.82%	24	13.79%	32	18.39%	174
V. Plainfield	324	87.57%	227	61.35%	97	26.22%	46	12.43%	370
V. Redgranite	421	88.82%	324	68.35%	97	20.46%	53	11.18%	474
V. Wild Rose	309	90.09%	183	53.35%	126	36.73%	34	9.91%	343
T. Aurora	296	87.32%	249	73.45%	47	13.86%	43	12.68%	339
T. Bloomfield	315	75.72%	263	63.22%	52	12.50%	101	24.28%	416
T. Coloma	181	40.49%	152	34.00%	29	6.49%	266	59.51%	447
T. Dakota	411	62.94%	322	49.31%	89	13.63%	242	37.06%	653
T. Deerfield	178	49.44%	158	43.89%	20	5.56%	182	50.56%	360
T. Hancock	178	52.20%	151	44.28%	27	7.92%	163	47.80%	341
T. Leon	397	48.95%	349	43.03%	48	5.92%	414	51.05%	811
T. Marion	641	45.24%	575	40.58%	66	4.66%	776	54.76%	1417
T. Mount Morris	327	37.72%	288	33.22%	39	4.50%	540	62.28%	867
T. Oasis	136	52.51%	117	45.17%	19	7.34%	123	47.49%	259
T. Plainfield	191	83.77%	148	64.91%	43	18.86%	37	16.23%	228
T. Poy Sippi	354	84.49%	274	65.39%	80	19.09%	65	15.51%	419
T. Richford	150	61.48%	135	55.33%	15	6.15%	94	38.52%	244
T. Rose	192	61.15%	162	51.59%	30	9.55%	122	38.85%	314
T. Saxeville	316	54.02%	265	45.30%	51	8.72%	269	45.98%	585
T. Springwater	434	39.17%	381	34.39%	53	4.78%	674	60.83%	1108
T. Warren	210	71.92%	179	61.30%	31	10.62%	82	28.08%	292
T. Wautoma	420	81.55%	369	71.65%	51	9.90%	95	18.45%	515
Waushara County	7,616	62.19%	6,116	49.94%	1,500	12.25%	4,630	37.81%	12,246
Wisconsin	1,822,118	88.63%	1,215,350	59.12%	606,768	29.52%	233,656	11.37%	2,055,774

Source: U.S. Census, 1990

Table D-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	90.00%	17	42.50%	19	47.50%	4	10.00%	40
C. Wautoma	806	91.90%	452	51.54%	354	40.36%	71	8.10%	877
V. Coloma	185	93.91%	133	67.51%	52	26.40%	12	6.09%	197
V. Hancock	193	75.98%	141	55.51%	52	20.47%	61	24.02%	254
V. Lohrville	168	87.50%	156	81.25%	12	6.25%	24	12.50%	192
V. Plainfield	342	91.69%	239	64.08%	103	27.61%	31	8.31%	373
V. Redgranite	440	89.25%	315	63.89%	125	25.35%	53	10.75%	493
V. Wild Rose	312	92.04%	209	61.65%	103	30.38%	27	7.96%	339
T. Aurora	352	91.67%	318	82.81%	34	8.85%	32	8.33%	384
T. Bloomfield	383	84.36%	342	75.33%	41	9.03%	71	15.64%	454
T. Coloma	254	50.80%	218	43.60%	36	7.20%	246	49.20%	500
T. Dakota	493	71.14%	430	62.05%	63	9.09%	200	28.86%	693
T. Deerfield	263	54.00%	245	50.31%	18	3.70%	224	46.00%	487
T. Hancock	211	54.95%	184	47.92%	27	7.03%	173	45.05%	384
T. Leon	539	63.34%	503	59.11%	36	4.23%	312	36.66%	851
T. Marion	908	55.71%	834	51.17%	74	4.54%	722	44.29%	1,630
T. Mount Morris	481	48.39%	431	43.36%	50	5.03%	513	51.61%	994
T. Oasis	152	58.91%	134	51.94%	18	6.98%	106	41.09%	258
T. Plainfield	198	86.09%	169	73.48%	29	12.61%	32	13.91%	230
T. Poy Sippi	392	89.91%	323	74.08%	69	15.83%	44	10.09%	436
T. Richford	190	67.62%	168	59.79%	22	7.83%	91	32.38%	281
T. Rose	244	69.12%	220	62.32%	24	6.80%	109	30.88%	353
T. Saxeville	393	64.43%	355	58.20%	38	6.23%	217	35.57%	610
T. Springwater	617	43.45%	553	38.94%	64	4.51%	803	56.55%	1420
T. Warren	261	78.14%	233	69.76%	28	8.38%	73	21.86%	334
T. Wautoma	523	86.73%	476	78.94%	47	7.79%	80	13.27%	603
Waushara County	9,336	68.31%	7,798	57.06%	1,538	11.25%	4,331	31.69%	13,667
Wisconsin	2,084,544	89.81%	1,426,361	61.45%	658,183	28.36%	236,600	10.19%	2,321,144

Source: U.S. Census, 2000

D-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	20.00%	3	60.00%	0	0.00%	1	20.00%	5	15.79%	33.33%
C. Wautoma	16	23.88%	9	13.43%	15	22.39%	27	40.30%	67	1.90%	5.84%
V. Coloma	11	29.73%	4	10.81%	8	21.62%	14	37.84%	37	3.74%	21.15%
V. Hancock	6	8.82%	4	5.88%	49	72.06%	9	13.24%	68	3.15%	16.22%
V. Lohrville	0	0.00%	0	0.00%	27	84.38%	5	15.63%	32	0.00%	0.00%
V. Plainfield	19	41.30%	10	21.74%	3	6.52%	14	30.43%	46	4.41%	19.59%
V. Redgranite	4	7.55%	10	18.87%	19	35.85%	20	37.74%	53	3.09%	4.12%
V. Wild Rose	17	50.00%	6	17.65%	5	14.71%	6	17.65%	34	3.28%	13.49%
T. Aurora	6	13.95%	3	6.98%	27	62.79%	7	16.28%	43	1.20%	12.77%
T. Bloomfield	4	3.96%	4	3.96%	84	83.17%	9	8.91%	101	1.52%	7.69%
T. Coloma	3	1.13%	5	1.88%	244	91.73%	14	5.26%	266	3.29%	10.34%
T. Dakota	10	4.13%	17	7.02%	193	79.75%	22	9.09%	242	5.28%	11.24%
T. Deerfield	1	0.55%	5	2.75%	161	88.46%	15	8.24%	182	3.16%	5.00%
T. Hancock	1	0.61%	3	1.84%	156	95.71%	3	1.84%	163	1.99%	3.70%
T. Leon	2	0.48%	6	1.45%	368	88.89%	38	9.18%	414	1.72%	4.17%
T. Marion	1	0.13%	25	3.22%	725	93.43%	25	3.22%	776	4.35%	1.52%
T. Mount Morris	10	1.85%	7	1.30%	502	92.96%	21	3.89%	540	2.43%	25.64%
T. Oasis	0	0.00%	2	1.63%	102	82.93%	19	15.45%	123	1.71%	0.00%
T. Plainfield	1	2.70%	1	2.70%	28	75.68%	7	18.92%	37	0.68%	2.33%
T. Poy Sippi	3	4.62%	4	6.15%	41	63.08%	17	26.15%	65	1.46%	3.75%
T. Richford	2	2.13%	3	3.19%	71	75.53%	18	19.15%	94	2.22%	13.33%
T. Rose	1	0.82%	2	1.64%	28	22.95%	91	74.59%	122	1.23%	3.33%
T. Saxeville	1	0.37%	4	1.49%	244	90.71%	20	7.43%	269	1.51%	1.96%
T. Springwater	6	0.89%	10	1.48%	643	95.40%	15	2.23%	674	2.62%	11.32%
T. Warren	0	0.00%	0	0.00%	74	90.24%	8	9.76%	82	0.00%	0.00%
T. Wautoma	2	2.11%	6	6.32%	69	72.63%	18	18.95%	95	1.63%	3.92%
Waushara County	128	2.76%	153	3.30%	3,886	83.93%	463	10.00%	4,630	2.50%	8.53%
Wisconsin	29,795	12.75%	14,692	6.29%	150,761	64.52%	38,408	16.44%	233,656	1.20%	4.70%

Source: U.S. Census, 1990

D-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	50.00%	0	0.00%	0	0.00%	2	50.00%	4	0.00%	10.53%
C. Wautoma	31	43.66%	9	12.68%	8	11.27%	23	32.39%	71	1.99%	8.76%
V. Coloma	2	16.67%	0	0.00%	6	50.00%	4	33.33%	12	0.00%	3.85%
V. Hancock	3	4.92%	4	6.56%	53	86.89%	1	1.64%	61	2.84%	5.77%
V. Lohrville	0	0.00%	7	29.17%	11	45.83%	6	25.00%	24	4.49%	0.00%
V. Plainfield	7	22.58%	7	22.58%	8	25.81%	9	29.03%	31	2.93%	6.80%
V. Redgranite	7	13.21%	12	22.64%	14	26.42%	20	37.74%	53	3.81%	5.60%
V. Wild Rose	12	44.44%	5	18.52%	5	18.52%	5	18.52%	27	2.39%	11.65%
T. Aurora	2	6.25%	3	9.38%	21	65.63%	6	18.75%	32	0.94%	5.88%
T. Bloomfield	2	2.82%	3	4.23%	53	74.65%	13	18.31%	71	0.88%	4.88%
T. Coloma	0	0.00%	2	0.81%	206	83.74%	38	15.45%	246	0.92%	0.00%
T. Dakota	4	2.00%	12	6.00%	144	72.00%	40	20.00%	200	2.79%	6.35%
T. Deerfield	0	0.00%	7	3.13%	206	91.96%	11	4.91%	224	2.86%	0.00%
T. Hancock	2	1.16%	3	1.73%	156	90.17%	12	6.94%	173	1.63%	7.41%
T. Leon	0	0.00%	10	3.21%	289	92.63%	13	4.17%	312	1.99%	0.00%
T. Marion	6	0.83%	21	2.91%	653	90.44%	42	5.82%	722	2.52%	8.11%
T. Mount Morris	3	0.58%	6	1.17%	468	91.23%	36	7.02%	513	1.39%	6.00%
T. Oasis	0	0.00%	2	1.89%	97	91.51%	7	6.60%	106	1.49%	0.00%
T. Plainfield	2	6.25%	5	15.63%	18	56.25%	7	21.88%	32	2.96%	6.90%
T. Poy Sippi	6	13.64%	3	6.82%	19	43.18%	16	36.36%	44	0.93%	8.70%
T. Richford	3	3.30%	0	0.00%	72	79.12%	16	17.58%	91	0.00%	13.64%
T. Rose	1	0.92%	2	1.83%	94	86.24%	12	11.01%	109	0.91%	4.17%
T. Saxeville	1	0.46%	4	1.84%	209	96.31%	3	1.38%	217	1.13%	2.63%
T. Springwater	1	0.12%	11	1.37%	772	96.14%	19	2.37%	803	1.99%	1.56%
T. Warren	0	0.00%	2	2.74%	48	65.75%	23	31.51%	73	0.86%	0.00%
T. Wautoma	7	8.75%	7	8.75%	63	78.75%	3	3.75%	80	1.47%	14.89%
Waushara County	104	2.40%	147	3.39%	3,693	85.27%	387	8.94%	4,331	1.89%	6.76%
Wisconsin	38,714	16.57%	17,172	7.35%	142,313	60.91%	35,457	15.17%	233,656	1.20%	5.60%

Source: U.S. Census, 2000

D-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

D-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	40.00%	16	10	0	n.a.	6	37.50%	0	16
C. Wautoma	87	20.71%	59	14.15%	420	417	102	37.50%	90	26.32%	272	342
V. Coloma	13	13.83%	31	26.50%	94	117	18	37.50%	10	20.83%	48	48
V. Hancock	36	34.29%	18	15.93%	105	113	13	32.50%	12	22.22%	40	54
V. Lohrville	9	14.06%	12	15.00%	64	80	5	20.83%	6	54.55%	24	11
V. Plainfield	28	12.79%	31	14.76%	219	210	33	36.67%	23	22.12%	90	104
V. Redgranite	30	14.15%	51	22.67%	212	225	30	31.91%	40	31.75%	94	126
V. Wild Rose	19	13.01%	25	13.37%	146	187	79	59.40%	17	17.71%	133	96
T. Aurora	21	17.80%	18	10.29%	118	175	7	25.00%	6	20.00%	28	30
T. Bloomfield	19	18.45%	41	25.95%	103	158	12	27.27%	5	20.00%	44	25
T. Coloma	21	30.88%	22	24.72%	68	89	13	56.52%	2	7.69%	23	26
T. Dakota	29	18.95%	36	16.36%	153	220	28	35.00%	6	10.53%	80	57
T. Deerfield	4	5.80%	30	20.98%	69	143	2	13.33%	0	0.00%	15	13
T. Hancock	15	17.65%	24	23.76%	85	101	10	52.63%	1	4.76%	19	21
T. Leon	45	26.95%	65	23.47%	167	277	7	21.88%	6	20.00%	32	30
T. Marion	73	18.25%	122	19.71%	400	619	12	21.05%	19	30.65%	57	62
T. Mount Morris	19	10.38%	85	31.25%	183	272	9	30.00%	12	26.09%	30	46
T. Oasis	10	19.61%	21	26.58%	51	79	1	10.00%	4	21.05%	10	19
T. Plainfield	12	17.39%	28	25.45%	69	110	5	17.86%	6	26.09%	28	23
T. Poy Sippi	32	19.88%	48	23.88%	161	201	24	34.78%	16	28.57%	69	56
T. Richford	16	34.04%	7	9.72%	47	72	0	0.00%	2	25.00%	12	8
T. Rose	4	9.09%	16	16.00%	44	100	4	23.53%	5	23.81%	17	21
T. Saxeville	22	16.67%	42	20.49%	132	205	2	9.09%	4	15.38%	22	26
T. Springwater	30	15.87%	48	15.64%	189	307	8	19.05%	9	15.79%	42	57
T. Warren	6	9.84%	15	16.85%	61	89	8	61.54%	6	20.00%	13	30
T. Wautoma	37	15.81%	64	20.71%	234	309	12	29.27%	11	28.21%	41	39
Waushara County	637	17.65%	963	19.71%	3,610	4,885	444	34.61%	324	23.38%	1,283	1,386
Wisconsin	140,026	15.08%	199,967	17.81%	928,494	1,122,467	209,438	35.96%	207,242	32.30%	582,371	641,672

Source: U.S. Census, 1990 and 2000

Table D-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	100.00%	0	0.00%	33	100.00%	0	0.00%	0	0.00%	0	0.00%	33
C. Wautoma	773	96.87%	0	0.00%	773	96.87%	25	3.13%	0	0.00%	25	3.13%	798
V. Coloma	175	94.09%	2	1.08%	177	95.16%	9	4.84%	0	0.00%	9	4.84%	186
V. Hancock	180	93.75%	0	0.00%	180	93.75%	12	6.25%	0	0.00%	12	6.25%	192
V. Lohrville	165	100.00%	0	0.00%	165	100.00%	0	0.00%	0	0.00%	0	0.00%	165
V. Plainfield	321	96.98%	0	0.00%	321	96.98%	10	3.02%	0	0.00%	10	3.02%	331
V. Redgranite	442	98.44%	0	0.00%	442	98.44%	7	1.56%	0	0.00%	7	1.56%	449
V. Wild Rose	310	99.04%	0	0.00%	310	99.04%	3	0.96%	0	0.00%	3	0.96%	313
T. Aurora	352	98.88%	0	0.00%	352	98.88%	4	1.12%	0	0.00%	4	1.12%	356
T. Bloomfield	370	97.37%	5	1.32%	375	98.68%	5	1.32%	0	0.00%	5	1.32%	380
T. Coloma	234	95.90%	5	2.05%	239	97.95%	5	2.05%	0	0.00%	5	2.05%	244
T. Dakota	470	95.72%	0	0.00%	470	95.72%	21	4.28%	0	0.00%	21	4.28%	491
T. Deerfield	254	97.69%	0	0.00%	254	97.69%	6	2.31%	0	0.00%	6	2.31%	260
T. Hancock	215	98.62%	0	0.00%	215	98.62%	3	1.38%	0	0.00%	3	1.38%	218
T. Leon	521	97.75%	3	0.56%	524	98.31%	9	1.69%	0	0.00%	9	1.69%	533
T. Marion	891	97.70%	9	0.99%	900	98.68%	12	1.32%	0	0.00%	12	1.32%	912
T. Mount Morris	482	99.38%	3	0.62%	485	100.00%	0	0.00%	0	0.00%	0	0.00%	485
T. Oasis	158	100.00%	0	0.00%	158	100.00%	0	0.00%	0	0.00%	0	0.00%	158
T. Plainfield	195	94.20%	4	1.93%	199	96.14%	5	2.42%	3	1.45%	8	3.86%	207
T. Poy Sippi	390	100.00%	0	0.00%	390	100.00%	0	0.00%	0	0.00%	0	0.00%	390
T. Richford	180	91.84%	3	1.53%	183	93.37%	9	4.59%	4	2.04%	13	6.63%	196
T. Rose	226	94.56%	7	2.93%	233	97.49%	6	2.51%	0	0.00%	6	2.51%	239
T. Saxeville	397	99.00%	0	0.00%	397	99.00%	4	1.00%	0	0.00%	4	1.00%	401
T. Springwater	605	98.86%	1	0.16%	606	99.02%	4	0.65%	2	0.33%	6	0.98%	612
T. Warren	248	95.02%	5	1.92%	253	96.93%	8	3.07%	0	0.00%	8	3.07%	261
T. Wautoma	504	95.82%	6	1.14%	510	96.96%	16	3.04%	0	0.00%	16	3.04%	526
Waushara County	9,091	97.38%	53	0.57%	9,144	97.94%	183	1.96%	9	0.10%	192	2.06%	9,336
Wisconsin	2,025,159	97.15%	9,312	0.45%	2,034,471	97.60%	48,737	2.34%	1,336	0.06%	50,073	2.40%	2,084,544

Source: U.S. Census, 2000

Table D-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

D-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

APPENDIX E

APPENDIX E
Rare, Threatened, and Endangered Species and Natural Communities

Table E-1 ..... E-1
Table E-2 ..... E-2
Table E-3 ..... E-2
Table E-4 ..... E-2
Table E-5 ..... E-2

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. All areas of the state have not yet been inventoried. Thus, 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, and common name; the last observed record is indicated.

Table E-1. Town of Dakota NHI Inventory.

Community or Species Type	Scientific Name	Common Name	Observation Date
Bird	*Perisoreus canadensis*	Gray jay	1996
Invertebrate	*Ophiogomphus carolus*	Riffle snaketail	1996
Invertebrate	*Pieris virginiensis*	West Virginia white	1996
Invertebrate	*Catinella exile*	Pleistocene catinella	1997
Invertebrate	*Grammia phyllira*	Phyllira tiger moth	1999
Invertebrate	*Lycaeides melissa samuelis*	Karner blue butterfly	1991
Invertebrate	*Meropleon ambifuscum*	Newman's Brocade	1998
Invertebrate	*Strobilops affinis*	Eightfold pinecone	1997
Invertebrate	*Vertigo elatior*	Tapered vertigo	1997
Invertebrate	*Vertigo morsei*	Six-whorl vertigo	1997
Plant	*Leucophysalis grandiflora*	Large-flowered ground cherry	1934
Plant	*Polystichum braunii*	Braun's holly-fern	2002
Plant	*Aster dumosus var. strictior*	Bushy aster	1963
Plant	*Calylophus serrulatus*	Yellow evening primrose	1915
Plant	*Platanthera flava var. herbiola*	Pale green orchid	2000
Plant	*Deschampsia cespitosa*	Tufted hairgrass	1940
Plant	*Eleocharis compressa*	Flat-stemmed spike-rush	1995
Plant	*Eleocharis olivacea*	Capitate spikerush	1963
Plant	*Equisetum variegatum*	Variegated horsetail	2000
Plant	*Polygala cruciata*	Crossleaf milkwort	1969
Plant	*Rhexia virginica*	Virginia meadow-beauty	1963
Plant	*Tofieldia glutinosa*	Sticky false-asphodel	1979
Plant	*Triglochin palustris*	Slender bog arrow-grass	2000
Plant	*Utricularia purpurea*	Purple bladderwort	2002
Community	Southern Dry Forest	Southern Dry Forest	1983
Community	Calcareous Fen	Calcareous Fen	2000
Community	Emergent Marsh	Emergent Marsh	1979
Community	Floodplain Forest	Floodplain Forest	1983
Community	Lake--Deep; Hard; Seepage	Lake--Deep; Hard; Seepage	1983
Community	Shrub-Carr	Shrub-Carr	1983
Community	Souuthern Sedge Meadow	Souuthern Sedge Meadow	1991
Herptile	*Emydoidea blandingii*	Blanding's turtle	2001

Table E-2. Town of Marion NHI Inventory.

Community or Species Type	Scientific Name	Common Name	Observation Date
Fish	*Fundulus diaphanus*	Banded killfish	1995
Plant	*Ophioglossum pusillum*	Adder's-tongue	1956

Table E-3. Town of Wautoma NHI Inventory.

Community or Species Type	Scientific Name	Common Name	Observation Date
Community	Dry Prairie	Dry Prairie	1979
Community	Oak Barrens	Oak Barrens	2000
Herptile	*Ophisaurus attenuatus*	Western slender glass lizard	1991
Invertebrate	*Lycaeides melissa samuelis*	Karner blue butterfly	1993
Plant	Talinum rugospermum	Prairie fame-flower	1991
Plant	Carex sychnocephala	Many-headed sedge	2000
Plant	Malaxis brachypoda	White adder's mouth	1918

Table E-4. Town of Leon NHI Inventory.*

Community or Species Type	Scientific Name	Common Name	Observation Date
Community	Southern Dry Forest	Southern Dry Forest	1979
Community	Southern Dry-Mesic Forest	Southern Dry-Mesic Forest	1978
Community	Northern Wet Forest	Northern Wet Forest	1979
Community	Springs and Spring Runs; Hard	Springs and Spring Runs; Hard	1979
Invertebrate	*Lycaeides melissa samuelis*	Karner blue butterfly	1990
Plant	Opuntia fragilis	Brittle prickly-pear	1972
Plant	Penstemon pallidus	Pale Beardtongue	1965

Table E-5. Town of Warren NHI Inventory.*

Community or Species Type	Scientific Name	Common Name	Observation Date
Community	Alder Thicket	Alder Thicket	1978
Community	Lake--Shallow; Hard; Seepage	Lake--Shallow; Hard; Seepage	1978
Community	Northern Sedge Meadow	Northern Sedge Meadow	1978
Community	Norther Wet Forest	Norther Wet Forest	1978
Fish	Fundulus diaphanus	Banded killfish	1979
Fish	Lythrurus umbratilis	Redfin shiner	1979
Fish	Notropis texanus	Weed shiner	1979
Plant	Arabis missouriensis var. deamii	Deam's rockcress	1958

***** 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. To best represent the rare, threatened, or endangered species which may be present in the Village of Redgranite, tables for the towns of Leon and Warren are included in this appendix.

APPENDIX F

Center *for* Land Use Education

The Land Use Tracker

Volume 2, Issue 1
Summer 2002

IN THIS ISSUE:

- AN INNOVATIVE TOOL FOR MANAGING RURAL RESIDENTIAL DEVELOPMENT: A LOOK AT CONSERVATION SUBDIVISIONS
- WISCONSIN SUPREME COURT RULING: AGRICULTURAL USE VALUE ASSESSMENT
- COURT OF APPEALS UPHOLDS RULES FOR PRIVATE ONSITE WASTEWATER TREATMENT SYSTEMS
- IMPERVIOUS SURFACE - AN ENVIRONMENTAL INDICATOR
- CALENDAR OF EVENTS
- ARTICLE SUBMISSIONS
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An Innovative Tool for Managing Rural Residential Development: A Look at Conservation Subdivisions

by Anna Haines, Ph.D.

This is the second of two articles addressing rural residential development. The previous article on rural residential development provided a definition of four related management tools (large minimum lot size, purchase of and transfer of development rights, and conservation subdivisions), and explained briefly how each tool worked, its potential benefits and limitations, and provided a list of references. In this article, I will provide a more in-depth look at conservation subdivisions.

The comprehensive planning law (or "Smart Growth" law) specifies nine elements that must be in the comprehensive plan. Among them is the implementation element that needs to outline the types of plan implementation tools a community will use to implement its plan. One primary goal of many communities is to balance residential development with agricultural needs, open space, and natural resources while trying to retain a sense of place. This kind of goal can make an important link between the housing, and agriculture, cultural and natural resources element of the comprehensive plan. Consideration of the goals and objectives within the comprehensive plan is necessary as the community considers the types of tools it will use to achieve its plan. One potentially useful tool to achieve the above goal is to describe conservation subdivisions as a *floating* zoning district or a conditional use in residential districts in the local zoning or land division code.

A model conservation subdivision ordinance was prepared by UW Extension. Local governments are not required to adopt this ordinance (see Ohm 2000), but may find it useful in crafting their own conservation subdivision ordinance.

Conservation Subdivisions: A Definition
Conservation subdivisions are characterized by common open space and clustered compact lots. The purpose of a conservation subdivision is to protect farmland and/or natural resources while allowing for the maximum number of residences under current community zoning and subdivision regulations. In

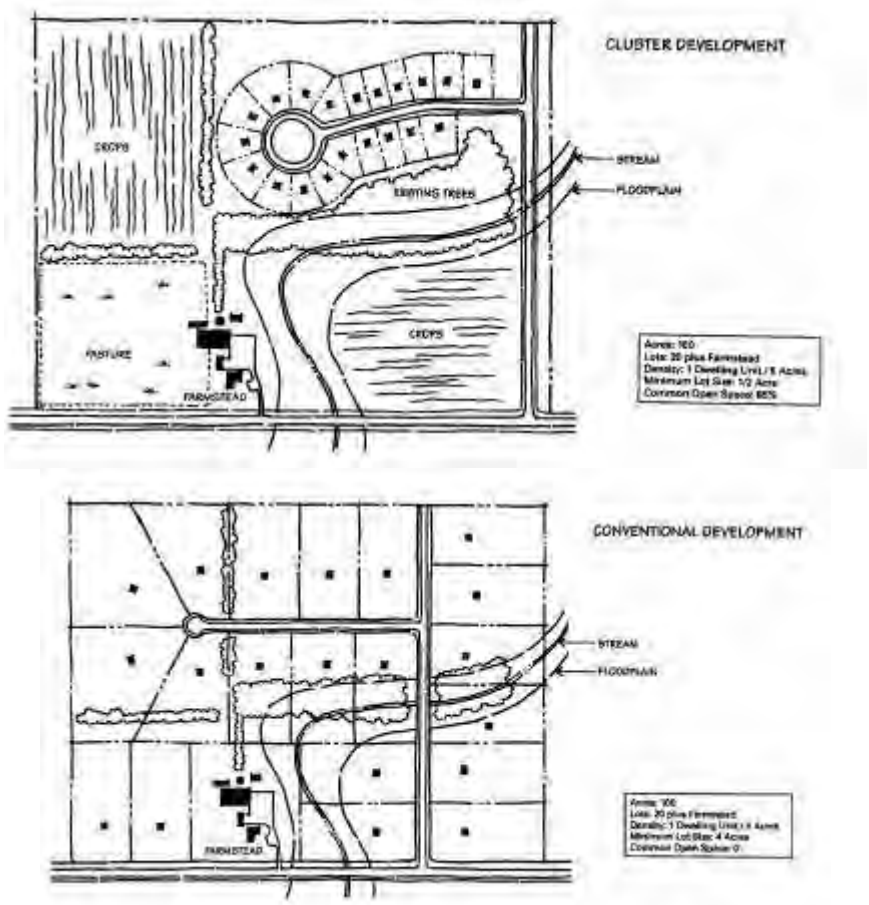
some cases a greater density (density bonus) may be offered in the local ordinance to encourage this approach to residential development planning. Generally, this tool is used for parcels 40 acres or larger.

Development Density

One interesting feature of conservation subdivisions is that they are density neutral (except where a density bonus is offered). What does density neutral mean? Many people assume that a conservation subdivision automatically implies a reduction in the number of lots allowed on a parcel of land. Actually, the same numbers of lots are built in a conservation subdivision as would be built in a conventional subdivision. Thus, a conservation subdivision maintains the same level of density as a conventional subdivision. Conventional lot-by-lot subdivisions spread development evenly throughout a parcel without consideration to environmental or cultural features (Ohm 2000).

The primary difference between conservation subdivisions and conventional ones involves the location of the homes on one part of the parcel, i.e., the homes are clustered. Other changes involve management and ownership of the land that has been left for preservation.

Figure 1: Conservation vs. Conventional Subdivision Layout



Source: SEWRPC. 2002. "Model Zoning Ordinance For Rural Cluster Development" www.sewrpc.org/modelordinances/default.htm

Open Space Design, Use and Ownership Options
Conservation subdivision ordinances generally require permanent dedication of 40% or more of the total development parcel as open space. Open space design requirements often include contiguity and connection to other open space or conservation areas. Open space uses may include agriculture, forestry or outdoor recreation and in some cases has included use for waste water disposal or sports facilities in urbanizing areas. There are a variety of ownership choices for the open space (individual residential lots are owned as in conventional subdivisions): The original landowner can retain ownership of the land and continue to use it as a farm, for example (usually agricultural use is limited; a confined animal feed lot is an inappropriate use, while a vegetable farm is appropriate); a homeowner's association could manage it, it can be held as individual outlots for each of the building lots, or a local government or a land trust can manage the property for conservation purposes or outdoor recreation.

Consolidated infrastructure and reduced development costs
Clustering homes reduces the amount of infrastructure. For example, the linear miles of road are reduced; thus, the associated costs of construction, operations and maintenance are also reduced. As well it is possible to share wells and septic systems in these clustered developments. However, placement of wells and septic systems must be carefully designed to prevent unwanted uptake of wastewater into private wells.

Marketing amenities
Conservation subdivisions are desirable from a developer/realtor perspective. They appeal to potential homeowners who want easy access to open space for the views and/or for a range of outdoor activities, i.e., a "golf course" development without the golf course.

How it works
One of the more popular methods is advocated by Randall Arendt who has outlined a four step process. The process begins with the community identifying the cultural and natural resources that are valued on a specific parcel earmarked for development. This communication results in (i) identifying primary and secondary conservation areas, (ii) designing open space to protect them, (iii) arranging houses outside of those protected areas, and (iv) finally laying out streets, lots and infrastructure. Often between 40% to 80% of the site is permanently set aside for open space (Arndt 1992, Minnesota Land Trust 2000, Natural Lands Trust).

Potential Benefits
Conservation development or subdivisions **potentially** can benefit a community in a variety of ways:

- Achieves a community goal of preserving open space at the same density standard as is outlined in current ordinances.
- Establishes an open space network, if done within the context of a comprehensive plan and these types of developments/subdivisions are purposefully linked together. Continuous open space (farmland, forest or other natural resources) allows for greater benefits for the environment, i.e., habitat preservation for wildlife, and for a local economy if

dependent on agriculture and/or tourism. This open space network also can extend and join recreational trails.

- None of the land is taken for public use unless the developer/owners want it to be.
- Does not require public expenditure of funds.
- Does not depend on landowner charity.
- Does not involve complicated regulations for shifting rights to other parcels.
- Does not depend upon the cooperation of two or more adjoining landowners to make it work.
- Provides a quality residential and recreational environment.

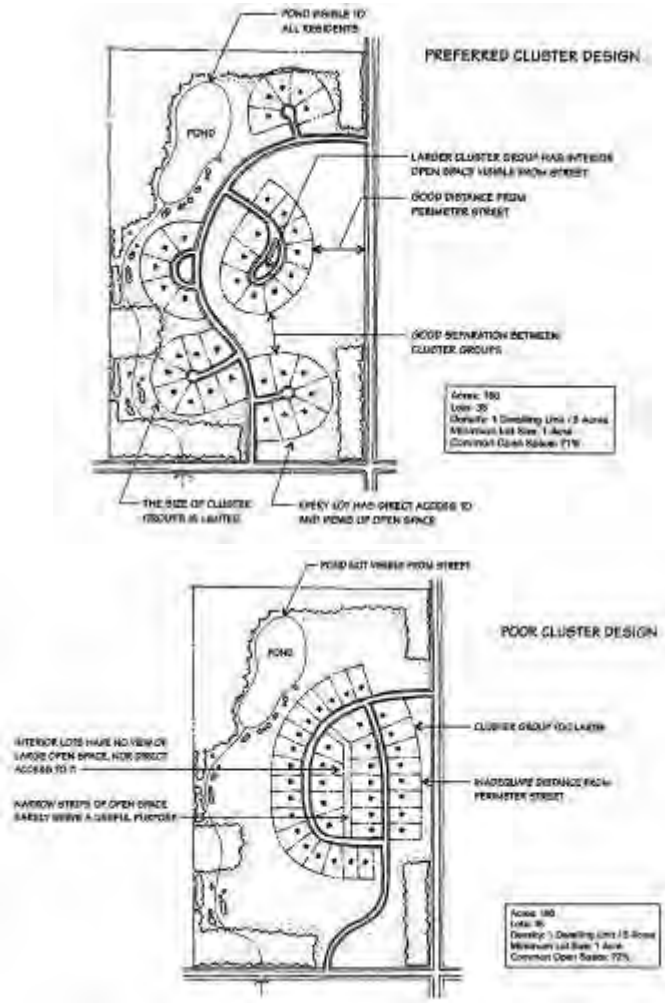
Source: Better Designs for Development in Michigan and Minnesota Land Trust and University of Minnesota 2001.

Limitations

While conservation subdivisions can achieve a variety of benefits, there are a number of limitations to consider:

- Conservation subdivisions are not a panacea. Used alone they cannot fully accomplish goals related to establishing and preserving open space or managing residential development.
- These subdivisions should connect to a broader network of conservation areas, if not a community will have a chopped up landscape.
- Conservations subdivisions not attached to already developed areas and not connected to services can result in poor land use practices.
- If one goal of your community is to create affordable housing, conservation subdivisions may not provide this housing option. Many conservation subdivisions are expensive, and are marketed to “high end consumers.” On the other hand, there is no reason why these types of subdivisions cannot include more affordable housing.
- If a goal of the community is to promote development that is less dependent on the automobile, conservation subdivisions may not help.
- Technical assistance is important. Poorly designed conservation subdivisions may not achieve open space goals of the community.

Figure 2: Good vs. Poor Cluster Design



Source: SEWRPC. 2002. "Model Zoning Ordinance For Rural Cluster Development" www.sewrpc.org/modelordinances/default.htm

Guidelines for conservation subdivision development and design:

- Conservation design is not a panacea
- Setting goals in the community's planning framework is critical.
- It is important to have good resource information
- Think big and plan for a large open space network
- Ordinances should create incentives and reduce barriers
- Open space should be diligently designed, not just set aside
- Water quality and quantity is paramount
- The management of the protected areas is critical
- Conservation development must be profitable
- Many of the barriers to change are not technical, but institutional

Source: Minnesota Land Trust, 2000.

Is This Tool "Right" for Our Community?
Each community should decide on the types of land management tools they

want to use. Recognize that your community should choose a number of tools rather than rely on one exclusively. The reason to choose a group of tools is to bring strength where one tool is weak and to send consistent signals to the development community and property owners regarding appropriate and planned uses for particular parcels. It is reasonable, for example, to have a purchase of development rights program in place along with overlay zones and a conservation subdivision ordinance. Below is a list of criteria to consider when choosing plan implementation tools, including conservation subdivisions:

- Does your community have an accepted plan that identifies rural residential development, open space, or sprawl as an issue?
- Does the plan specify goals and objectives that address how your community will contend with rural residential development?
- Will the tool accomplish any of your community's goals and objectives?
  Is the tool politically acceptable?
  Can the local government or some other organization administer the new tool given current personnel or is another position or committee necessary?
  Are there any enforcement issues local government personnel would need to contend with?
  To be effective, would the same tool need to be used by adjoining communities and/or is a cooperative effort possible?

Answering the above questions will give you a better idea which tools are appropriate to use in your community. Avoid choosing any plan implementation tool before you have done your homework. Understand how that tool works and the implications for administering and enforcing it.

Resources

Arndt, Randall. "Open Space" Zoning: What it is & Why it Works: www.plannersweb.com/articles/are015.html (from Planning Commissioners Journal, Issue 5, July/August 1992, page 4)

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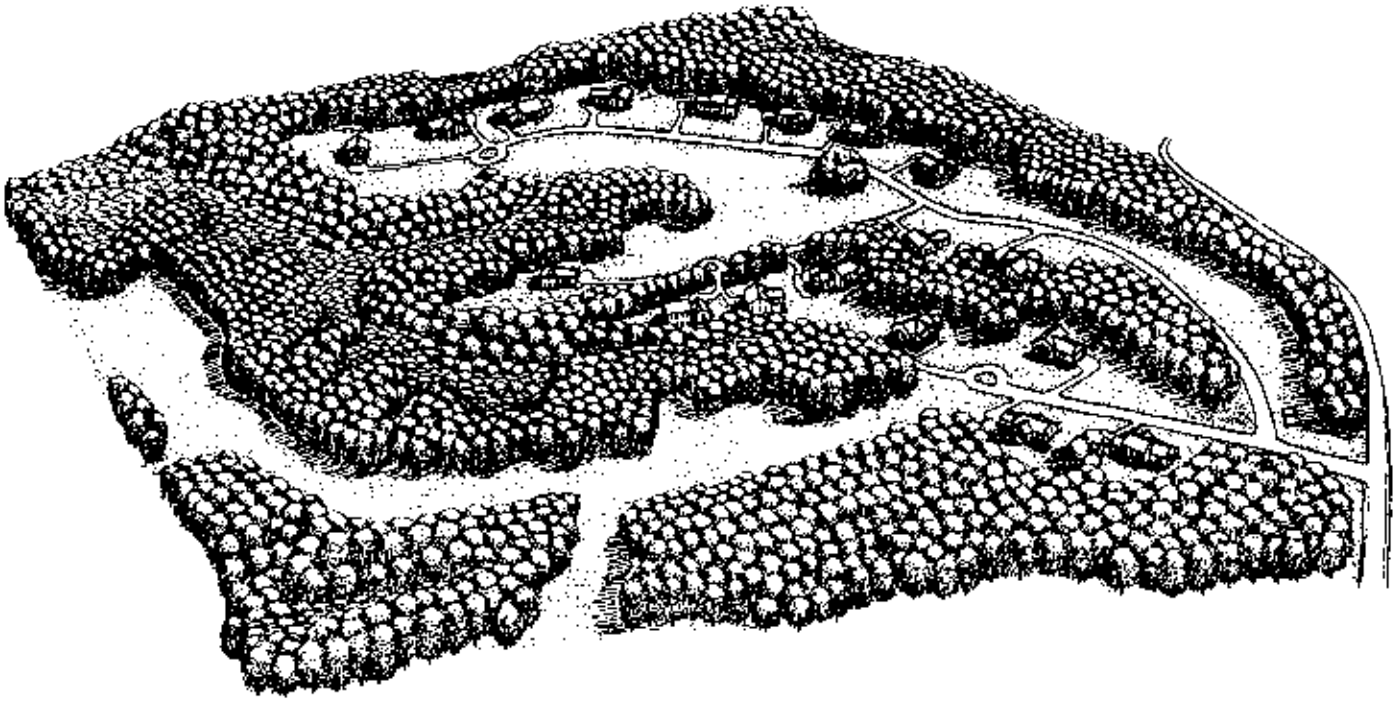
Alicia Acken contributed to an earlier draft of this article. DNR’s Land Use Team, Michael Dresen, Gary Korb, Lynn Markham and Brian Ohm reviewed this article for form and content. Any errors, mistakes and omissions remain the responsibility of the author.

Better Designs for Development in Michigan

PUTTING CONSERVATION INTO LOCAL LAND USE REGULATIONS



Local communities can take control of their destinies so that conservation goals will be achieved simultaneously with development objectives, in a manner that is fair to all parties concerned. This "bird's-eye" perspective shows a new way of designing residential developments which differ dramatically from the current land consumptive approach typical of most Michigan communities. In the subdivision shown above, the developer can build the maximum number of homes permitted under the community's zoning, while at the same time permanently protecting over half of the property, adding it to an interconnected network of conservation lands. The property illustrated above has been used elsewhere in this booklet to demonstrate the principles of "conservation planning/design." If you would prefer to see new development create more livable communities and in the process conserve irreplaceable natural resources such as prime farmlands, forest land and wildlife habitat, this approach may be right for your community.

The Conservation Planning/Design Concept

Each time a property is developed (especially for residential purposes), an opportunity exists for adding land to a community-wide network of conservation lands. Although such opportunities are seldom taken in most communities, this situation could be reversed fairly easily by making several small but significant changes to a community's land use plan and regulations

Simply stated, Conservation Planning/Design rearranges the development on each parcel as it is being planned so that only half (or less) of the buildable land is consumed by lots and streets. Without controversial "down zoning," the same number of lots can be developed, but in a less land consumptive manner, allowing the balance of the property to be permanently protected and added to an interconnected network of conservation lands. This "density neutral" approach provides a fair and equitable way to balance conservation and development objectives.

Four Key Conservation Tools

Experience around the country has shown communities which are likely to be successful at conserving significant amounts of land on an on-going basis incorporate the following techniques into their community planning:

1 Envisioning the Future: Performing "Community Audits"

Successful communities have a realistic understanding of their future. The audit projects past and current development trends into the future so that officials and residents may easily see the long-term results of continuing with current land use regulations. Communities use this knowledge to periodically review and adjust their goals and strategies for conservation and development.

2 Identifying Networks of Conservation Lands

Successful communities have a good understanding of their important natural, scenic and historic resources. They establish reasonable goals for conservation and development that reflect their special resources, existing land use patterns and anticipated growth. Their Land Use Plans document these resources, goals and policies. The plan contains language about the kinds of ordinance updating and conservation programs necessary for those goals to be realized. A key part of the Land Use plan is a Map of Potential Conservation Lands that is intended to identify the location of potential conservation lands in each development as it is being laid out.

3 Conservation Zoning: A "Menu of Choices"

Successful communities have legally defensible, well-written zoning regulations that meet their "fair share" of future growth and provide for a logical balance between community goals and private landowner interests. They incorporate resource suitabilities, flexibility, and incentives to require the inclusion of permanent conservation lands into new development. The four zoning options summarized in this publication, and described in detail in the Better Designs for Development manual, respect the property rights of landowners and developers without unduly impacting the remaining natural areas that make our communities such special places in which to live, work and recreate.

4 Conservation Design: A Four Step Process

Successful communities recognize that both design standards and the design process play an important part in conserving a community's natural and scenic resources. Such communities adopt land use regulations which require site planning while identifying the special features of each property, and introduce a simple methodology showing how to lay out new development, so that the majority of those special features will be permanently protected in designated conservation areas or preserves. To a considerable extent, these areas can be pre-identified in the Land Use Plans' Map of Potential Conser-vation Lands so that as each area is developed it will form an integral part of a community-wide network of protected conservation lands, as noted above.

ENVISIONING THE FUTURE

PERFORMING "COMMUNITY AUDITS"

The future that faces most communities in Michigan under current zoning practices is the systematic conversion of every unprotected acre of buildable land into developed uses. Most local ordinances allow, encourage and in many cases mandate standardized layouts of "wall-to-wall lots." Over a period of time this process produces a broader pattern of "wall-to-wall sprawl" (see Figure 1). The "community audit" visioning process helps local officials and residents see the ultimate result of continuing to implement current land-use policies. The process helps start discussions about how current trends can be modified so that a more desirable future is ensured.

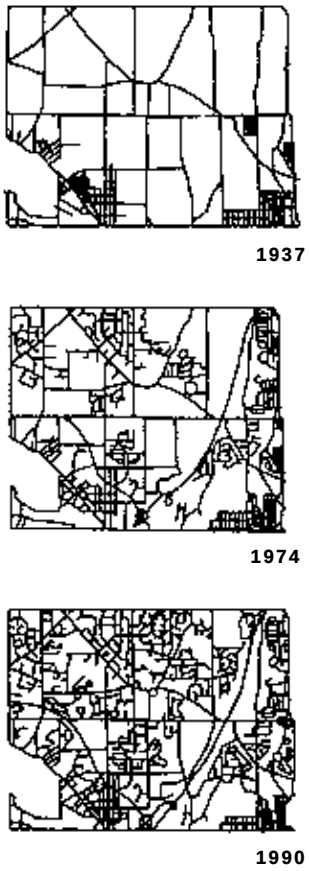


Figure 1 The pattern of "wall-to-wall subdivisions" that evolves over time with zoning and subdivision ordinances which require developers to provide nothing more than houselots and streets.

No community actively plans to become a bland expanse of suburban-type "sprawl." However, most zoning codes program exactly this outcome. Communities can perform audits to see the future before it happens, so that they will be able to judge whether a mid-course correction is needed. A community audit entails:

Numerical Analysis

The first step involves a numerical analysis of growth projections, both in terms of the number of dwelling units and the number of acres that will probably be converted into houselots and streets under present codes.

Written Evaluation

The second step consists of a written evaluation of the land-use regulations that are currently on the books, identifying their strengths and weaknesses and offering constructive recommendations about how they can incorporate the conservation techniques described in this booklet. It should also include a realistic appraisal of the extent to which private conservation efforts are likely to succeed in protecting lands from development through various non-regulatory approaches such as purchases or donations of conservation easements or fee title interests.

"Build-Out" Maps

The third step entails mapping future development patterns on a map of the entire community (see Figure 2). Alternatively, the "build-out map" could focus only on selected areas in the community where development is of the greatest immediate interest, perhaps due to the presence of special features identified in the Land Use Plan or vulnerability due to development pressures.

Figure 2 A matching pair of graphics, taken from an actual "build-out map," showing existing conditions (mostly undeveloped land) contrasted with the potential development pattern of "checkerboard suburbia" created through conventional zoning and subdivision regulations.

The following parts of this booklet describe practical ways in which communities can take control of their destinies so that conservation goals will be achieved simultaneously with development objectives, in a manner that is fair to all parties concerned.

IDENTIFYING NETWORKS OF CONSERVATION LANDS

Although many communities in Michigan have adopted Land Use Plans which outline the need to protect their natural, aesthetic and historic resources, very few have taken the next logical step of identifying these areas and creating a Map of Potential Conservation Lands.

Such a map is the first step for any community interested in conserving natural and aesthetic resources in an interconnected network. The Map of Potential Conservation Lands serves as the tool which guides decisions regarding which land to protect in order for the network to eventually take form and have substance.

A Map of Potential Conservation Lands usually starts with information contained in the community's existing planning documents. The next task is to identify two kinds of resource areas. Primary Conservation Areas comprise only the most severely constrained lands, where development is typically restricted under current codes and laws (such as wetlands, flood plains, and areas where slopes exceeding 20-25% predominate). Secondary Conservation Areas include all other locally noteworthy or significant features of the natural or cultural landscape. This may include features such as mature woodlands, wildlife habitats and scenic roadways, prime and unique farmlands, prime timberlands, groundwater recharge areas, greenways and trails, river and stream corridors, historic sites and buildings, and scenic viewsheds. These Secondary Conservation Areas are often best understood by the local residents who may be directly involved in their identification. Usually under most community land use regulations these resource areas are totally unprotected and are simply zoned for one kind of development or another.

Figure 3 Part of a Map of Potential Conservation Lands showing roads, parcel lines, historic structures (large dots), and the following resource areas: wetlands/floodplains (dark gray), woodlands (medium gray), open fields and pastures (white), and prime farming soils (diagonal hatched lines).

A base map is then prepared on which the Primary Conservation Areas have been added to an inventory of lands which are already protected (such as parks, land trust preserves, and properties under conservation easement). Clear acetate sheets (or GIS Data Layer) showing each kind of Secondary Conservation Area are then laid on top of the base map in an order reflecting the community's preservation priorities (as determined through public discussion).

This "sieve mapping" process will reveal certain situations where two or more conservation features appear together (such as woodlands and wildlife habitats, or farmland and scenic viewsheds). It will also reveal gaps where no features appear.

Although this exercise is not an exact science, it frequently helps local officials and residents visualize how various kinds of resource areas are spatially related to one another, and enables them to tentatively identify both broad swaths and narrow corridors of resource land that could be protected in a variety of ways. Figure 3 illustrates a portion of a township map which has followed this approach.

The planning techniques which can best implement the community-wide Map of Potential Conservation Lands are **Conservation Zoning** and **Conservation Design**. These techniques, which work hand in hand, are described in detail below. Briefly stated, **Conservation Zoning** expands the range of development choices available to landowners and developers. And just as importantly, it also eliminates the option of creating full-density suburban sprawl layouts that convert all land within new developments into new lots and streets.

The second technique, **Conservation Design**, devotes half or more of the buildable land area within a development as undivided permanent conservation lands. Not surprisingly, the most important step in designing a new development using this approach is to identify the land that is to be preserved. By using the community-wide Map of Potential Conservation Lands as a template for the layout

and design of conservation areas within new developments, an interconnected network of conservation lands spanning the entire community is eventually created.

Figure 4 shows how the conservation lands in three adjoining developments has been designed to connect, and illustrates the way in which the Map of Potential Conservation Lands can become a reality.

Figure 5 provides a bird's-eye view of a landscape where an interconnected network of conservation lands has been gradually protected through the steady application of conservation zoning techniques and conservation design standards.

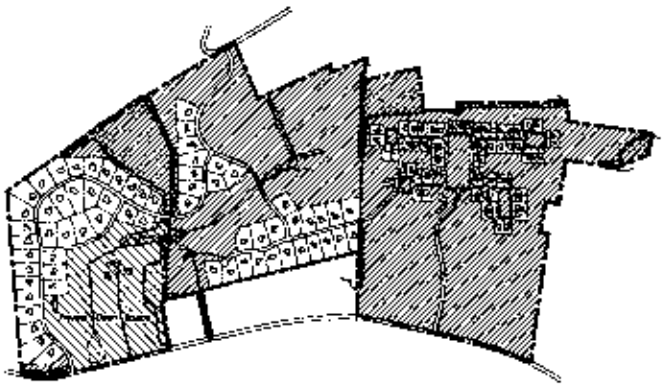


Figure 4 The conservation lands (shown in gray) were deliberately laid out to form part of an interconnected network of open space in these three adjoining subdivisions.

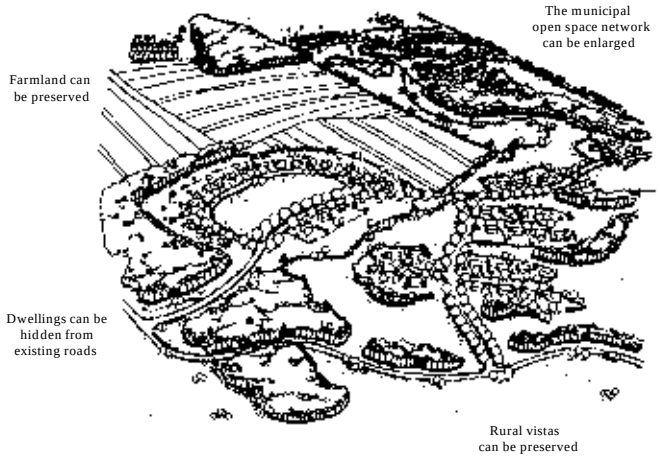


Figure 5 The end-result of applying the techniques described in this booklet is illustrated in this perspective sketch prepared by the Montgomery County Planning Commission.

CONSERVATION ZONING

A "MENU" OF CHOICES

As mentioned previously the main reason that most new development in Michigan consists of nothing more than new lots and streets is that most communities have adopted a very limited planning model whose sole purpose is to convert natural lands into developed properties. Little if anything is asked in respect to conserving natural resources or providing neighborhood amenities (see Figure 9).

Communities wishing to discourage this type of development pattern need to consider modifying their zoning to require new development to set aside at least 50 percent of the buildable land as permanently protected conservation lands. The development potential that could normally be realized in this area is "transferred" to the remaining 50 percent of the buildable lands on the property.

Following this approach, a municipality would first calculate a site's yield using traditional zoning. A developer would then be permitted full density only if at least 50 percent (or more) of the buildable land is maintained as undivided conservation lands (illustrated in Figure 6: "Option 1"). Under certain conditions communities might also consider offering as much as a 100 percent density bonus for protecting 70 percent of the land (Figure 7: "Option 2").

It is noteworthy that the 36 village-like lots in Option 2 occupy less land than the 18 lots in Option 1, and that Option 2 therefore contributes more significantly to the goal of creating community-wide networks of conservation lands. The village-scale lots in Option 2 are based on traditional neighborhood design principles and are modeled after historic hamlet and village layouts. This type of development has proven to be particularly popular with empty nesters, single-parent households, and couples with young children.

Developers wishing to serve the large lot market have a "country properties" option (Figure 8: "Option 3"). Under this option up to 20 percent of the properties gross area (10 acres in this case) may be split into small lots. The average size of these small lots may be no less than two acres. The remainder of the property may remain as a single contiguous parcel or if area allows this parcel may be split into large lots a minimum of 25 acres in area..

Under conservation zoning, absent from this menu of choices is the conventional full-density development providing no conservation lands (Figure 9). Because that kind of development causes the largest loss of resource lands and poses the greatest obstacle to conservation efforts, it is not included as an option under this approach.

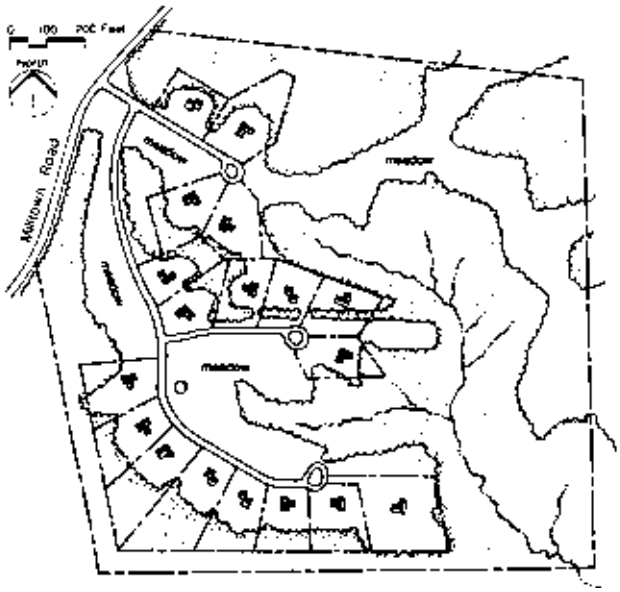


Figure 6
Option 1 Density-neutral with Pre-existing Zoning
18 Lots Lot Size Range: 20,000 to 40,000 sq. ft.
50% undivided open space

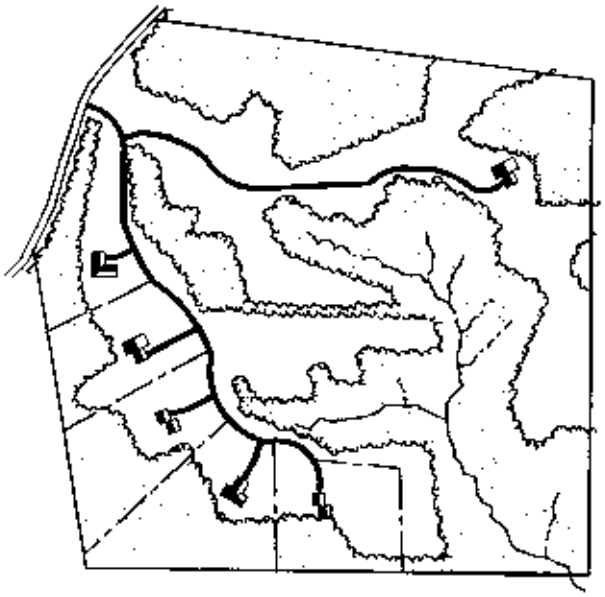


Figure 8
Option 3 County Properties
A maximum of 5 lots may be created on 10 acres
The remainder of the land remains as a single parcel or may be divided into lots 25 acres or greater in area

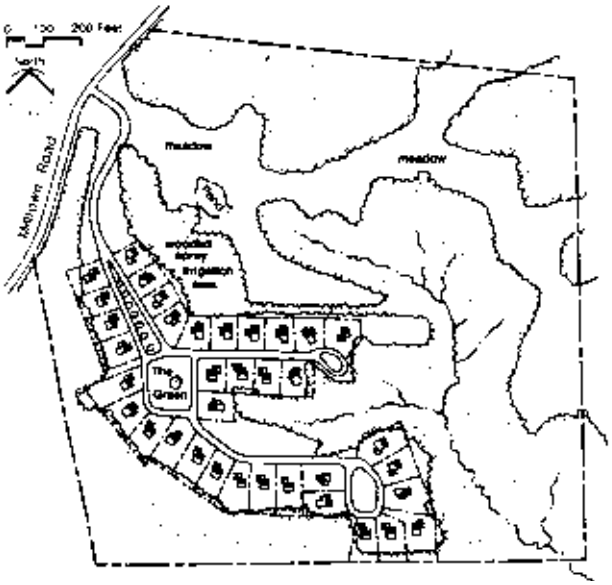


Figure 7
Option 2 Hamlet or Village
36 Lots Lot Size Range: 6,000 to 12,000 sq. ft.
70% undivided open space

Figure 9 The kind of subdivision most frequently created in Michigan is the type which blankets the development parcel with houselots, and which pays little if any attention to designing around the special features of the property. However, such a sketch can provide a useful estimate of a site's capacity to accommodate new houses at the base density allowed under zoning—and is therefore known as a "Yield Plan."

Conservation Design, A Four-Step Process

Designing developments around the central organizing principle of land conservation is not difficult. However, it is essential that ordinances contain clear standards to guide the conservation design process. The four-step approach described below has been proven to be effective in laying out new full-density developments where all the significant natural and cultural features have been preserved.

Step One consists of identifying the land that should be permanently protected. The developer incorporates areas pre-identified on the community-wide Map of Potential Conservation Lands and then performs a site analysis in order to precisely locate features to be conserved. The developer first identifies all the Primary Conservation Areas (Figure 10). He then identifies Secondary Conservation Areas (Figure 11) which comprise noteworthy features of the property that are typically unprotected under current codes. These include: mature woodlands, greenways and trails, river and stream corridors, prime farmland, hedgerows and individual free-standing trees or tree groups, wildlife habitats and travel corridors, historic sites and structures, scenic viewsheds, etc. After "greenlining" these conservation elements, the remaining

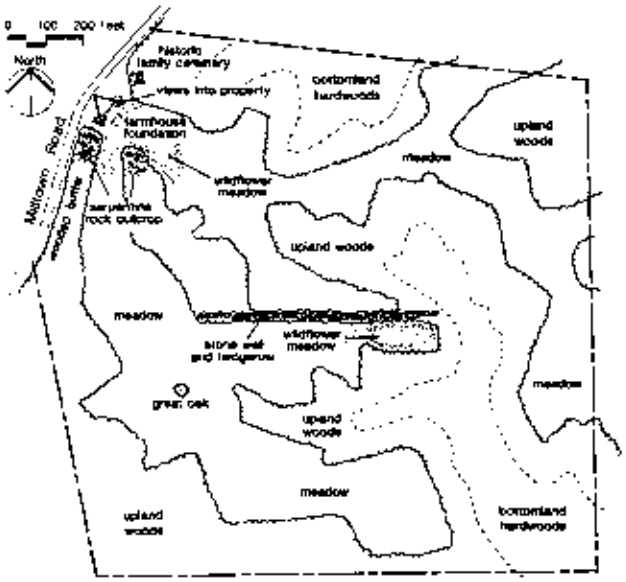


Figure 11
Step One, Part Two
Identifying Secondary Conservation Areas

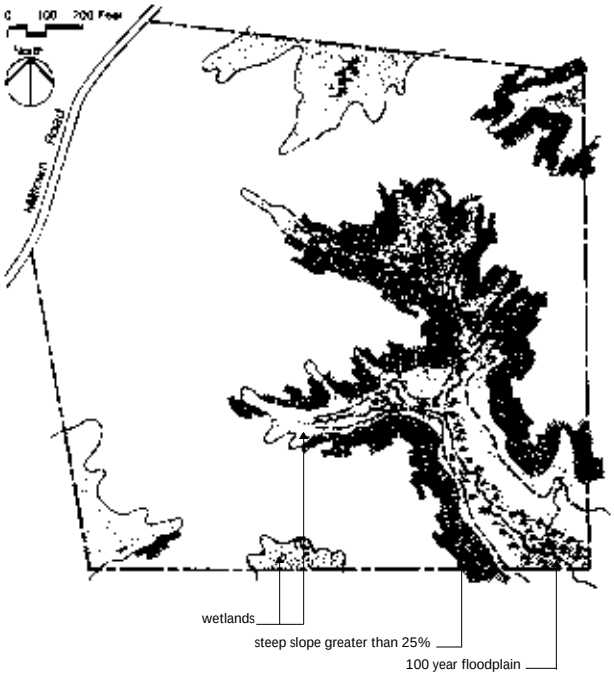


Figure 10
Step One, Part One
Identifying Primary Conservation Areas

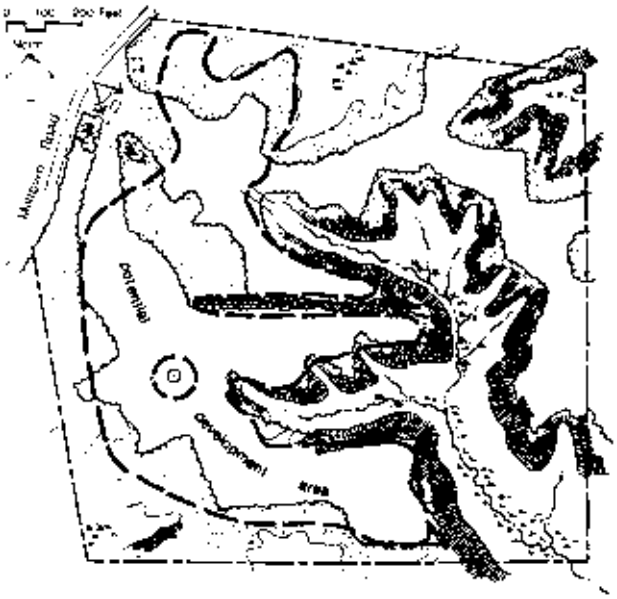


Figure 12
Outline Potential Development Areas
for Options 1 & 2

part of the property becomes the Potential Development Area(Figure 13).

Step Two involves locating sites of individual building envelopes within the Potential Development Area so that their views of the conservation lands are maximized (Figure 13). The number of building envelopes is a function of the density permitted within the zoning district, as shown on a Yield Plan (Figure 9).

Step Three simply involves "connecting the dots" with streets and informal trails (Figure 14), while ***Step Four*** consists of drawing in the lot lines (Figure 15).

This approach reverses the sequence of steps in laying out conventional developments, where the street system is the first thing to be identified, followed by lot lines fanning out to encompass every square foot of ground into new lots. When communities require nothing more than "new lots and streets," that is all they receive. By setting community standards higher and requiring 50 to 70 percent conservation lands as a precondition for achieving full density, officials can effectively encourage the conservation of natural and scenic resources in their community. The protected conservation lands in each new development become building blocks that add new acreage to a community-wide network of interconnected conservation lands each time a property is developed.

Figure 14
Step Three
Aligning Streets and Trails

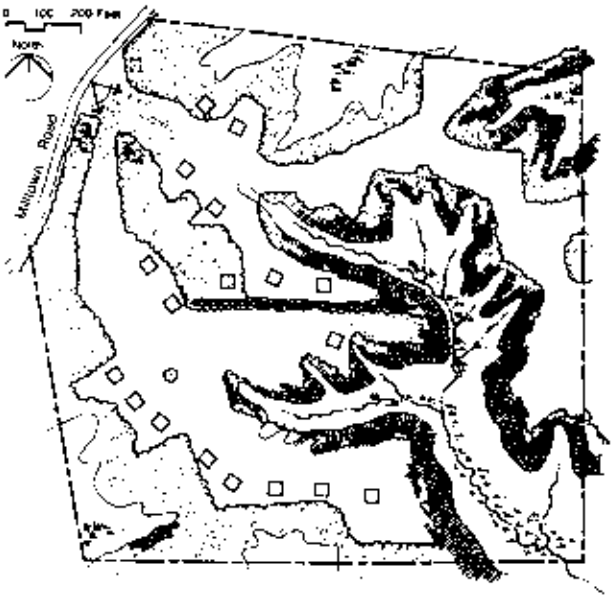


Figure 13
Step Two
Locating House Sites

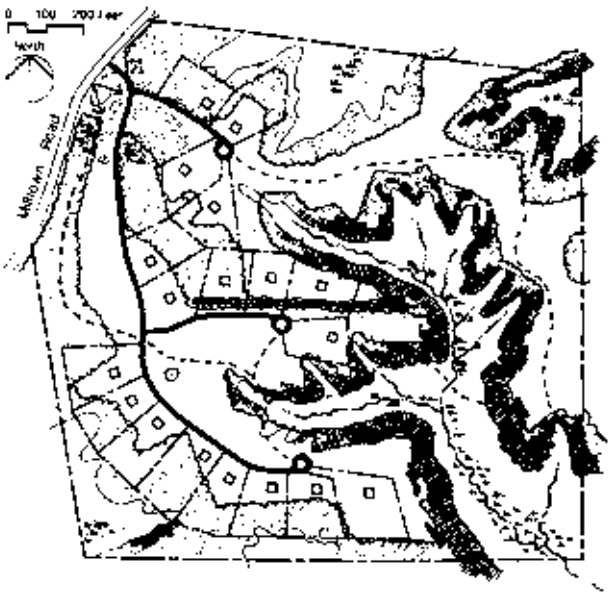


Figure 15
Step Four
Drawing in the Lot Lines

Frequently Asked Questions

ABOUT CONSERVATION DEVELOPMENT DESIGN

Q. Does conservation planning / design involve a "takings"?

A. No. People who do not fully understand this conservation-based approach to development may mistakenly believe that it constitutes "a taking of land without compensation." This misunderstanding may stem from the fact that conservation developments, as described in this booklet, involve either large percentages of undivided conservation lands or lower overall building densities.

There are two reasons why this approach does not constitute a "takings."

First, no density is taken away. Conservation zoning is fundamentally fair because it allows landowners and developers to achieve full density under the municipality's current zoning and, in some cases even to increase that density significantly through several different "as-of-right" options. Of the three options previously described, two provide for either full or enhanced densities. The other option offers the developer the choice to lower densities and increased lot sizes. Although conservation zoning precludes full density layouts that do not include conservation lands, this is legal because there is no constitutional "right to sprawl."

Second, no land is taken for public use. None of the land which is required to be designated for conservation purposes becomes public (or even publicly accessible) unless the landowner or developer wants it to be. In the vast majority of situations, communities themselves have no desire to own and manage such conservation land, which they generally feel should be a neighborhood responsibility. In cases where local officials wish to provide community recreational facilities (such as ballfields or trails) within conservation developments, the community must negotiate with the developer for the purchase of that land on a "willing seller / willing buyer" basis. To facilitate such negotiations, conservation zoning ordinances can be written to include density incentives to persuade developers to designate specific parts of their conservation land for public ownership or for public access and use.

Q. How can a community ensure permanent protection for conservation lands?

A. The most effective way to ensure that the conservation of land in a new development will remain undeveloped forever is to place a permanent conservation easement on it. Such easements run with the chain of title, in perpetuity, and specify the various uses that may occur on the property. These restrictions supersede zoning ordinances and continue in force even if legal densities rise in future years. Easements are typically held by land trusts and units of government. Sometimes adjacent property owners are also easement co-holder in conjunction with the local unit of government or land trust. Deed restrictions and covenants are, by comparison, not as effective as easements, and are not recommended for this purpose. Easements can be modified only within the spirit of the original agreement, and only if all the co-holders agree.

Q. What are the ownership, maintenance, tax and liability issues?

A. Among the most commonly expressed concerns about developments with permanently protected conservation lands are questions about who will own and maintain the conservation land, and who will be responsible for the potential liability and payment of property taxes. The short answer is that whoever owns the conservation land is responsible for the above.

Q. But who owns this land?

A. ***Ownership Choices***

There are basically four options, which may be combined within the same development where that makes the most sense.

1. Individual Landowner

At its simplest level, the original landowner (a farmer, for example) can retain ownership of 70 to 100 percent of the conservation land to keep it in the family. (In these cases up to 30 percent of the conservation lands could be reserved for common neighborhood use by development residents.) That landowner can also pass this property on to sons or daughters, or sell it to other individual landowners, with permanent conservation easements running with the land and protecting it from development under future owners.

2. Homeowners' Associations

Most conservation land within developments is owned and managed by homeowners' associations

(HOAs). A few basic ground rules encourage a good performance record. First, membership must be automatic, a precondition of property purchase in the development. Second, zoning should require that bylaws give such associations the legal right to place liens on properties of members who fail to pay their dues. Third, facilities should be minimal (ballfields and trails rather than clubhouses and swimming pools) to keep annual dues low. And fourth, detailed maintenance plans for conservation areas should be required by the community as a condition of approval. The community should have enforcement rights and may place a lien on the property should the HOA fail to perform their obligations to maintain the conservation land.

3. Land Trusts

Although homeowners' associations are generally the most logical recipients of conservation land within developments, occasionally situations arise where such ownership most appropriately resides with a land trust (such as when a particularly rare or significant natural area is involved). Land trusts are private, charitable groups whose principal purpose is to protect land under its stewardship from inappropriate change. Their most common role is to hold easements or fee simple title on conservation lands within new developments and elsewhere in the community.

To cover their costs in maintaining land they own or in monitoring land they hold easements on, land trusts typically require some endowment funding. When conservation zoning offers a density bonus, developers can donate the proceeds from the additional "endowment lots" to such trusts for maintenance or monitoring.

4. Municipality or Other Public Agency

In special situations a local government might desire to own part of the conservation land within a new development, such as when that land has been identified in a Land Use Plan as a good location for a neighborhood park or for a link in a community trail network. Developers can be encouraged to sell or donate certain acreage to communities through additional density incentives, although the final decision would remain the developer's.

5. Combinations of the Above

As illustrated in Figure 18, the conservation land within new developments could involve multiple ownerships, including (1) "non-common" conservation lands such as cropland retained by the original farmer, (2) common conservation lands such as ballfields owned by an HOA, and (3) a trail corridor owned by either a land trust or by the community.

Tax Concerns

Property tax assessments on conservation developments should not differ, in total, from those on conventional developments. This is because the same number of houses and acres of land are involved in both cases (except when part of the conservation lands is owned by a public entity, which is uncommon). Although the conservation lands in conservation developments is usually taxed at a lower rate because easements prevent it from being developed, the adjacent lots usually are taxed at a higher rate since their location next to permanently protected conservation lands usually result in them being more desirable.

Q. How does this conservation approach differ from "clustering"?

A. The conservation approach described in the previous pages differs dramatically from the kind of "clustering" that has occurred in many communities throughout Michigan over the past several decades. The principal points of difference are as follows:

Higher Percentage and Quality of Conservation lands

In contrast with typical cluster codes, conservation zoning establishes higher standards for both the quantity and quality of conservation lands that is to be preserved. Under conservation zoning, 50 to 70 percent of the unconstrained land is permanently set aside. This compares with cluster provisions that frequently require only 25 to 30 of the gross land area be conserved. That minimal land area usually ends up including all of the most unusable land as conservation lands, and sometimes also includes undesirable, left-over areas such as stormwater management facilities and land under high-tension power lines.

Conservation lands Pre-Determined to Form Community-wide Conservation Network

Although clustering has at best typically produced a few small "green islands" here and there in any community, conservation zoning can protect

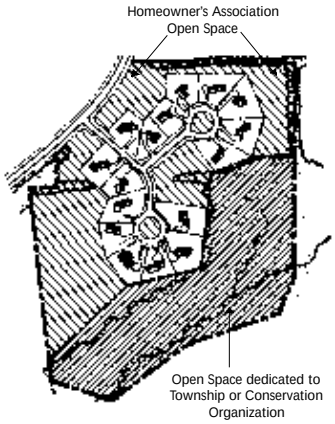


Figure 16 Various private and public entities can own different parts of the open space within conservation subdivisions, as illustrated above.

blocks and corridors of permanent conservation lands. These areas can be pre-identified on in the community's Map of Potential Conservation Lands so that each new development will add to rather than subtract from the community's conservation lands acreage.

Eliminates the Standard Practice of Full-Density with No Conservation lands

Under this new system, full density is only achievable for layouts in which 50 percent or more of the unconstrained land is conserved as permanent, undivided conservation lands. By contrast, cluster zoning provisions are typically only optional alternatives within ordinances that permit full density, by right, for standard "cookie-cutter" designs with no conservation lands.

Q. How do residential values in conservation developments compare to conventional developments?

A. Another concern of many people is that homes in conservation developments will differ in value from those in the rest of the community. Some believe that because so much land is set aside as conservation lands, the homes in a conservation developments will be prohibitively priced and the community will become a series of elitist enclaves. Other people take the opposite view, fearing that these homes will be smaller and less expensive than their own because of the more compact lot sizes offered in conservation developments.

Both concerns are understandable but they miss the mark. Developers will build what the market is seeking at any given time, and they often base their decision about selling price on the character of surrounding neighborhoods and the amount they must pay for the land.

In conservation developments with substantial open space, there is little or no correlation between lot size and price. These developments have sometimes been described as "golf course communities without the golf course," underscoring the idea that a house on a small lot with a great view is frequently worth as much or more than the same house on a larger lot which is boxed in on all sides by other houses.

It is a well-established fact of real estate that people pay more for park-like settings, which offset their tendency to pay less for smaller lots. Successful developers know how to market homes in conservation developments by emphasizing the conservation lands. Rather than describing a house on a half-acre lot as such, the product is described as a house with 20 and one-half acres, the larger figure reflecting the area of conservation land that has been protected in the development. When that conservation area abuts other similar land, as in the township-wide conservation lands network, a further marketing advantage exists.

RELATIONSHIP OF THE BETTER DESIGNS

APPROACH TO OTHER PLANNING TECHNIQUES

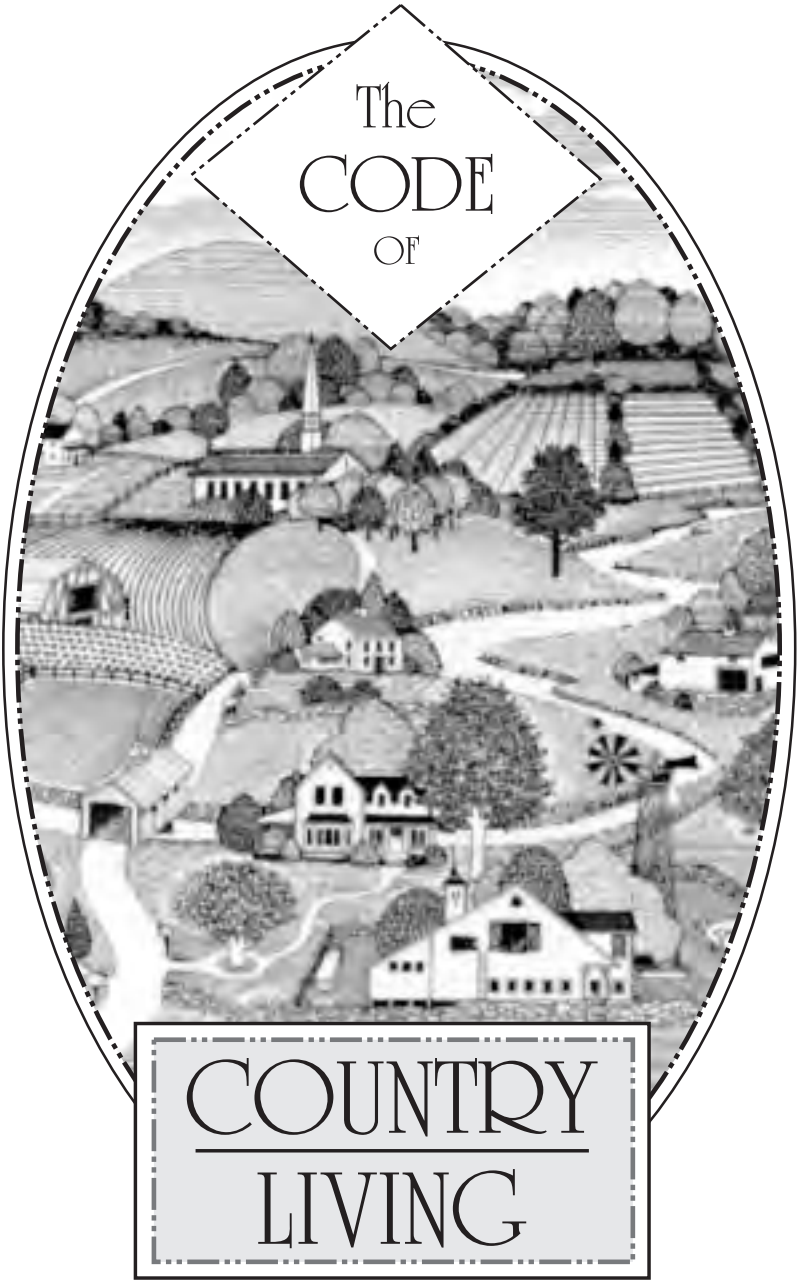
Successful communities employ a wide array of conservation planning techniques simultaneously, over an extended period of time. Communities should continue their efforts to preserve special properties in their entirety whenever possible, such as by working with landowners interested in donating easements or fee title to a local conservation group, purchasing development rights or fee title with county, state or federal grant money, and transferring development rights to certain "receiving areas" with increased density. While these techniques can be effective, their potential for influencing the "big picture" is limited.

The conservation approach outlined above offers great potential because it:

1. does not require public expenditure of funds
2. does not depend upon landowner charity
3. does not involve complicated regulations for shifting rights to other parcels
4. does not depend upon the cooperation of two or more adjoining landowners to make it work

The conservation planning/design approach offers communities a practical way of protecting large acreages of land in a methodical and coordinated manner.

APPENDIX G



The CODE OF COUNTRY LIVING

A look at the realities of living in the countryside of rural Illinois.

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February 1999

The Code of Country Living

Settlers on the Illinois prairie lived by a code suited to their own livelihood and lifestyle in the rural countryside. Though that way of life has evolved over two centuries, there remains a code, a way of living, that rural Illinois residents still honor.

Living in the country can be a wonderful way of life—if your expectations are in-line with reality. Reality seldom measures up to the romanticized version of almost any idea or ideal—as is frequently discovered by those who move from an urban setting to the country. People often intend to get away from it all and enjoy the serenity of an agrarian countryside. What they'll likely find, however, is that they are only trading the benefits and drawbacks of city living for those of the country.

In rural Illinois, you'll find working farms. You'll also find a level of infrastructure and services generally below that provided through the collective wealth of an urban community. Many other factors, too, make the country living experience very different from what may be found in the city.

This booklet is provided to help you make an informed lifestyle decision about purchasing a home or a homesite in rural Illinois. Though it cannot convey the entirety of the understanding borne from a lifetime of rural living, it can give you a glimpse of what it takes to live by what might be called the Code of Country Living.

Access 1

You'll enjoy the lower traffic volumes on rural roads. That makes walking more enjoyable and allows you to observe the growing crops and the beautiful sunrises. The major purpose of the road—to provide a way to get to and from your rural property—will vary with road types. Changing conditions and generally lower design level roads mean that you, your guests and emergency service vehicles will not necessarily have easy access at all times.

Rural Roads

Don't expect rural roads to be maintained at the same level as city streets. Counties, townships and road districts have primary responsibility for road maintenance in rural areas. Some roads may be privately owned—requiring private maintenance funding. Seldom do rural roads include the amenities found in urban settings such as: wide lanes, curb and gutter, striping and lighting. And, the funds to maintain those roads will come primarily from the property taxes you and your neighbors pay.

Narrow roads and bridge weight limits often restrict travel. Large construction vehicles cannot navigate in some areas. If you plan to build, it's best to check out construction access well in advance.

Gravel roads generate dust and dings. Some road jurisdictions treat gravel roads to suppress the dust when traffic levels reach specific volumes, but dust is still a fact of life for many rural residents. Loose gravel on these roads regularly chips vehicle paint, at times may crack windshields and can pose dangerous travel conditions. If your homesite is located along a gravel road, know that dust will invade your home and your vehicles.

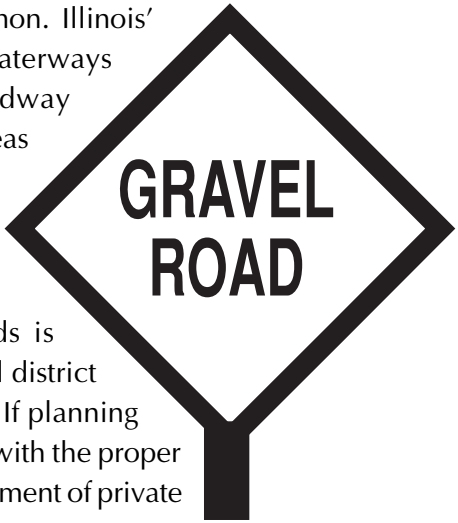
Whatever the design of your road, don't expect that it will be improved in the foreseeable future. Check carefully with officials of the road jurisdiction to verify any claim that a road will be paved, bridges replaced, or other improvements made in the near term.

Weather Impacts

Illinois' fluctuating weather conditions can destroy roads. Midwestern spring freeze/thaw cycles leave low-grade roads subject to heavy damage and can even temporarily close some roads. Vehicle weights are often severely limited during the spring thaw period. In the summer, the hot sun can soften oil and chip road surfaces leaving them subject to damage by traffic and causing oil splatters on vehicles.

In extreme winter weather, rural roads can become impassable. The Illinois prairie is subject to drifting snow that closes roads, causes delays and creates serious travel hazards. Depending on the degree of drifting, it could be days before roads are cleared. Freezing rain, too, can create extremely dangerous travel conditions. Few rural road jurisdictions can afford the widespread use of salt to fight icy conditions.

Roadway flooding is not uncommon. Illinois' abundance of rivers, creeks and waterways makes its rural areas prone to roadway flooding. Heavy rains in flatland areas can easily cover roads with water, blocking or even destroying them.



Private Drives

Access to or from public roads is regulated by the state, county or road district jurisdiction responsible for the road. If planning to build, be sure to check in advance with the proper officials about authorization and placement of private drives and culverts.

Emergency Service Access

Response times of emergency service providers (sheriff, fire fighters,

medical care, etc.) will likely be longer than in the city. Distances traveled and the volunteer nature of most rural services can add to that response time. Under some extreme conditions, you may find that emergency response is slow and expensive. A 9-1-1 emergency call-in service may not be available in all areas.

A few rural areas are not covered by fire protection or ambulance services. Besides the obvious problems that could create, your property insurance premiums might also be higher because of it.

Easements

The legal aspects of access can cause problems, especially if you gain access across property belonging to others. Get legal advice prior to purchasing and understand the easements that may be necessary when these questions arise.

Pickups & Deliveries

Building a residence in a rural area may be more expensive and time consuming due to delivery fees and the time required for contractors and construction workers to reach your building site.

School buses generally can reach most rural homes, though long private lanes or rural subdivision settings may force school children to walk to the pickup site. And those trips to school can be long. Consolidation of school districts in rural areas means your children's school could be half a county from your home. Learn which school district serves your area.

Mail delivery is generally available in all rural areas though timing may suffer in some locations.

Direct, daily newspaper delivery is not always available in rural areas. US Postal delivery of newspapers is an option but generally causes a one-day delay. Check with the newspaper of your choice before assuming you can get same-day delivery.

Standard parcel and overnight package delivery in the country may vary from city standards. Check with the carrier to find what service level can be expected.

Utilities 2

The fresh air and sunshine in the country is plentiful and free. And, when utilities are functioning properly, they help to make life in the country as comfortable and modern as anywhere else. But, water, sewer, electric, telephone and other utilities may be unavailable or operate at lower than urban standards – and they can often cost you more

Locating Utilities

In order to get electric power or other utilities to your home site, it may be necessary to cross property owned by others. It is important to make sure that the proper easements are in place or can be secured to allow lines to be built to your own property.

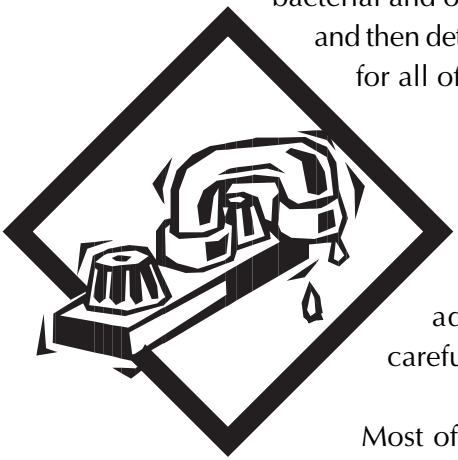
Electrical power lines, telephone lines and pipelines may cross over, under, or nearby your property. Be aware of easements to the property and those nearby and what they allow the utility providers to do in the way of access, maintenance and expansion.

At least 48 hours prior to doing any digging, call *JULIE* (Joint Utilities Locating Information for Excavators) in order to locate underground utility lines. You can reach JULIE 24 hours a day, seven days a week at 800-892-0123.

Water Supply

You will have to locate a supply of potable water adequate to serve your needs. The most common method is through the use of a water well. Permits for wells may be required by the county health department or a local water authority serving your area. The cost for drilling and pumping can be considerable. Be sure to use a licensed well driller.

The quality and quantity of well water can vary significantly from location to location and from season to season. Mineral, bacterial and other quality issues should be measured and then determine whether practical solutions exist for all of the problems you might discover.



In some areas of the state water wells are wholly impractical or unreliable. Because of your absolute reliance on a good supply of water, it is strongly advised that you research this issue carefully before purchasing!

Most often well water will require some form of treatment. Having a water softening system is almost always advisable. In extreme cases, some form of chemical treatment may be required to deal with high levels of bacteria.

Some areas of the state are served by water districts. These districts supply potable water through a rural network of supply lines. In these areas, certain additional taxes and/or fees may be required. Expect to pay a tapping fee. You may also find that your monthly cost of service can be more expensive when compared to urban systems.

As a last resort, your potable water may need to be trucked to your property and stored in a tank or cistern. Depending on the supplier and their distance from your property, buying and trucking water could prove to be the most expensive and least reliable method in the long run.

Sewer & Septic

Sewer service is rarely available. If it is, it may be relatively expensive to connect to the system and routine fees could be relatively high compared to city rates.

If sewer service is not available, you will need to use an approved septic system or other waste treatment process. These can add substantial cost to establishing your homesite. The type of soil you have available for a

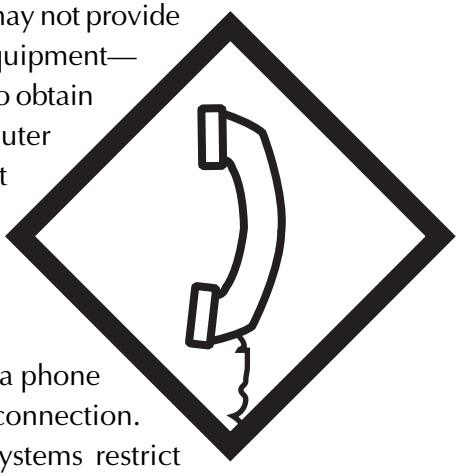
leach field will be very important in determining the cost and function of your system. Ask for planning assistance from the County Health Department if one exists and have existing systems checked—or a new system installed—by a reliable installer.

Septic system requirements vary. Some counties may have significant regulations stipulating the type and size of the septic or treatment system you must have. Conditions could dictate that a sand filter system be installed – an expensive addition to the cost of the home. In some cluster housing settings or on certain soil types, septic systems may not be allowed at all.

Locating the septic system requires careful planning. Sufficient area will be needed for locating the septic tank and drain field a suitable distance from the residence. Floodplains, wetlands, trees and manmade structures may limit where the septic system can be placed. Also, access will be needed to the septic tank for future clean out operations. Location of the septic system in relation to wells is also an important consideration.

Telephone

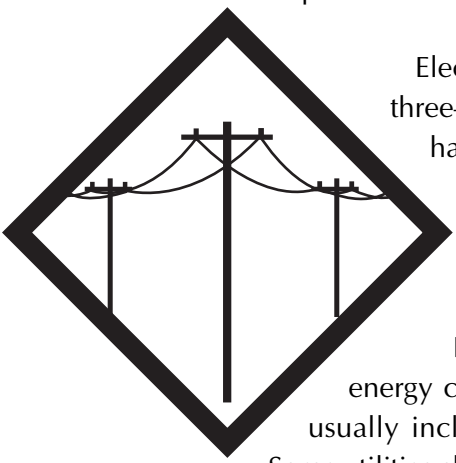
Telephone communications can pose certain problems. Small, local area phone service suppliers may not provide the most modern telecommunications equipment—limiting your options. It could be difficult to obtain a second line for phone, FAX or computer modem uses. Even cellular phones will not work well in all rural areas because of the often greater distances to cell phone towers.



Links to Internet provider services via phone line may require a long-distance phone connection. Often older rural telecommunications systems restrict computer modems to operating at less than top speeds. Not all rural communities have a local Internet access provider, though many school systems and libraries do offer some connection options.

Electricity

Electric service is generally available to all rural areas. However, a power company asked to serve some remote areas may demand a share of the infrastructure cost be borne by the user. It is important to determine the proximity of an electrical power supply. It can be very expensive to extend power lines to remote areas.



Electric power may not be available in a three–phase service configuration. If you have special power requirements, it is important to know what level of service can be provided and at what cost.

In addition to a monthly charge for energy consumed, the cost of electric service usually includes a fee to hook into the system. Some utilities charge further for the cost of establishing service lines and poles on your property. Check to see what supplier provides power to the area then consider all costs before making a decision to purchase property in the country.

Power outages can occur with more frequency in rural areas than in urban settings. A loss of electric power can interrupt your well, furnace, and other appliances dependant on electrical power. If you live in the country, it is important to be prepared to survive for several days or longer in severe cold without electrical power. Depending on the duration of the outage, you might also lose food in freezers or refrigerators. Such outages or current spikes can cause problems with computers and other home electronics.

Gas

Natural gas may not be available. You could, instead, rely on electric power which is often more expensive (for heat-producing appliances.) The common alternative is having Liquid Propane Gas or heating oil delivered by truck and stored in a tank on your property. The cost of such fuel is often higher on a BTU basis than is natural gas. If relying on gas deliveries,

you must be certain that your supply is adequate to get you through winter's periodic snow storms when access for replenishing supplies may be limited.

Gas appliances may need to be converted. If you choose to use Liquid Propane Gas as your energy source, all appliances set up to operate on natural gas will need to be converted to operate on the Liquid Propane Gas.

Trash & Recycling

Routine trash removal may not be available in all rural areas. Where it is, it most often requires a separate fee. Trash pickup is seldom provided as a government service in rural areas and is not covered by the taxes you pay. It is illegal to create your own trash dump, even on your own land. Burning of trash may be prohibited and risks fire damage to mature crops and nearby buildings. In some cases, your only option may be to haul your trash to the landfill yourself.

Recycling may be difficult in rural areas. Recycling pick-up is not likely available and rural areas generally have few recycling centers.

Property 3

Property ownership is a treasured right in rural areas. The wide open expanses there generally allow you to own a larger tract than you might otherwise be able to in urban areas. And the open space can give you a sense of freedom not available in a crowded city setting. However your rural property can be impacted by a myriad of issues—some commonly shared in urban areas, and some quite different.

Zoning

Building a home may not be possible on all sites. The area may not be suitable for building or may not be zoned residential. Where there is zoning you must check with the county or township zoning, planning and/or building department(s) to know whether a parcel of land may be developed. A building permit may be required. In those counties that are zoned, that requirement is likely for all structures and improvements. Check with the county or township zoning, planning and/or building department(s) for additional information.

Zoning can be a mixed bag. Only about half the counties in Illinois are zoned. In some unzoned counties, townships have established zoning. While zoning imposes limitations, it also provides some safeguards against undesirable use of neighboring property. In those counties or townships which are not zoned, there may be virtually no local restriction on what your adjoining neighbors may do on their property—regardless of its impact on you and the value of your property.

The view from your property may change. Nearby properties will probably not remain as they are indefinitely. Check with the county or township zoning, planning and/or building department(s) to find out how

the properties are zoned and to see what future developments may be planned.

City zoning may apply in rural areas. In un-zoned counties, a municipality that is zoned may generally impose its zoning regulations for up to one and one half miles outside its corporate limits.

Easements

Easements should be considered. These could limit how you can use your property and may require you to allow construction rights-of-way across your land. Roads, railroads, habitat protection, view sheds, power lines, gas lines, water lines, and sewer lines are a few of the things for which easements can be established.

Be aware of easements on nearby parcels, too. Learn what the easement allows the easement owner to do in the way of access, maintenance and expansion and check for limits the easement may imposed on the use of your own property. Not all contracts are in writing. There may be verbal commitments to easements that are not of record.

Mineral Rights

The mineral rights under your property may be owned by someone else. Owners of mineral rights generally have the ability to change the surface characteristics in order to extract their minerals. It is very important to know what minerals may be located under the land and who owns them. Much of the rural land in Illinois can be used for coal or aggregate mining or for oil drilling—however, a special review by the county board is usually required.

Property Lines & Fences

Respect private property rights. Many people are unaware of property boundaries when first arriving in the area. It is your responsibility to know who's land you are on – whether or not it is fenced.

You may be provided with a plat of your property, but unless the land

has been surveyed and pins placed by a licensed surveyor, you should not assume that the plat is accurately reflected by your current boundary markings.

What appear to be boundary fences are not necessarily accurately placed. Some merely approximate those boundaries. A survey of the land is the only way to confirm the location of your property lines. The Illinois law of "Adverse Possession" could actually cause you to loose some land to an adjacent owner over a period of years if property boundaries are not properly determined and defended.

What you think of as your neighbor's fence may cost you money. Illinois' fence law requires that adjoining landowners share in a "just proportion" of the cost of constructing and maintaining a property line fence. That applies despite the fact that you may have no use for nor desire for the fence.

Local Covenants

Many rural subdivisions have covenants that limit the use of the property. It is important to obtain a copy of the covenants (or confirm there are none) and make sure you can live with those rules. Not having a covenant doesn't eliminate all problems, it simply means you'll lack a powerful tool that could be used to settle disputes between neighbors.

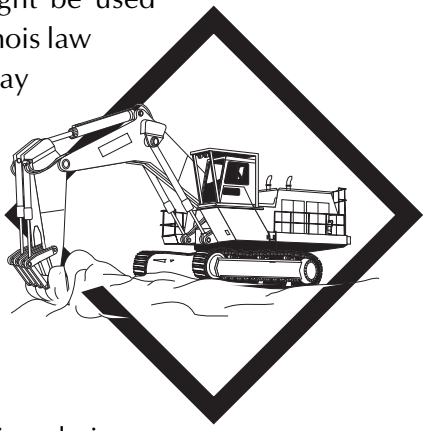
Homeowners' Associations (HOAs) in some rural subdivisions are required to take care of common elements, private roads, open space, etc. A dysfunctional homeowners' association or poor covenants can cause problems for you and even involve you in expensive litigation. Dues are almost always a requirement for those residing in areas served by an HOA. The by-laws of the HOA should tell you how the organization operates and how the dues are set.

Floodplains & Drainage

Watch for areas designated as "floodplains." Local, state and federal regulations may prohibit or limit the types of structures built in floodplains. If allowed at all, certain—often expensive—modifications to the design may be required. Also, your mortgage lender could require you to purchase government flood insurance.

Your drainage practices must conform with the Illinois Drainage Code. Generally, landowners must accept the natural flow of water onto their property and discharge it from their property at its natural point and rate of flow. Contact your county Soil and Water Conservation District for information.

Maintenance of others' drainage structures could impact you. If there is a drainage ditch or underground drainage tile crossing your property there is a good possibility that the owners have the right to come onto your property to maintain it. Heavy equipment might be used leaving considerable damage. While Illinois law generally requires compensation, you may have to negotiate settlement for damages. On the other hand, if you disturb the drainage ditch or tile—during construction or otherwise—you could be held responsible for damages that result to crops and property.



Your property may be situated within a drainage district. If so, your property would be subject to the taxes levied by the district for maintenance of local drainage systems.

Fire Protection

Fire protection is a serious property issue. Though most rural areas of the state are served by a volunteer fire protection unit, some pockets remain without any coverage. Buildings and other structures on property that is not within a fire protection district may be subject to higher insurance rates and be at greater risk in the event of fire than those within a district. As a general rule, property protected by a volunteer fire protection unit is subject to higher insurance rates than that served by a full-time professional force.

Nature 4

The country is prized for giving its residents the ability to witness the flora and fauna of nature firsthand. But, when the elements and earth turn unfriendly, rural residents can experience more problems than their city cousins.

Soils

Illinois soils vary from deep, rich silt loam to shallow, rocky clay. Each requires special building considerations. Some may hinder the construction of basements due to drainage restrictions. Building in many areas requires an engineered foundation. You can learn the soil conditions on your property if you have a soil test performed. Check with a qualified contractor for foundation needs which will influence building design.

Storms & Wind

Tornadoes and other severe storms are not unique to rural areas, but you will find that few rural areas are provided with the advanced warning systems found in many urban communities.

The predominant wind direction in Illinois is from southwest to northeast. Situate and plan your homesite accordingly.

Flooding

The lay of the land can tell you where the water will flow. However, runoff from the flat prairie lands of Illinois is often difficult to predict. "Sheet" drainage over flat land may cause stormwater to spread over wide areas. The lack of significant slope also makes the area slow to drain. Property owners who want to fill in low areas may first be required to obtain proper local, state, and federal permits and provide for wetland mitigation.

Flash flooding can occur during the heavy rains of the spring or summer months, turning a dry low-lying area into a lake. Spring run-off can cause a small creek to become a fast-flowing river. Consider this before planning your building site.

Residents sometimes use sand bags to protect their homes. Local governments are not generally obligated to provide sand bags, equipment or people to protect private property from flooding.

Animals

Wild animals can make wonderful neighbors. However, even the most attractive of such animals can cause serious problems. Rural development encroaches on the traditional habitat of coyotes, deer, ticks, raccoon, opossum and other animals that can be dangerous and you need to learn how to deal with them. In general, it is best to enjoy wildlife from a distance.

Wild animals can pose serious threats to pets, livestock, vegetation, and vehicles. Waterfowl can be particularly damaging to vegetation along flyways. Deer are ubiquitous in Illinois. They damage vegetation and often bolt across a road unexpectedly causing traffic accidents. Fox and coyote can be serious threats to livestock and pets. Raccoon have little fear of human surroundings and are insistent visitors to anything that resembles food — no matter how close to your home or well protected. Snakes, opossum, field mice, groundhogs and skunks are some of nature's other inhabitants in rural Illinois.

Dog packs pose a threat to pets, livestock, and potentially to humans. These are often formed by free roaming pets, stray dogs or even coydogs (the offspring of coyotes and domesticated dogs). The packs roam freely through the countryside looking for food. Where dog pack problems can be identified, counties may offer some form of assistance in eradication or monetary compensation for damages.

Agriculture 5

Through hard work and perseverance of the early settlers, the Illinois prairie has become one of the richest food-producing areas on earth. Its rich soils and abundant rainfall are unique to the Midwest making this a vital agricultural region on a global scale. Illinois farmers make their living from the land—making their good stewardship of the land an integral part of their livelihood. Owning rural land means learning how to care for it. It also means your neighbors may be farmers. There are a few things you need to know about Illinois agriculture.

This is Farm Country

Agriculture is an integral part of Illinois. If you choose to live in the country, you choose to live among the farms of our rural countryside. Do not expect government to intervene in the normal day-to-day operations of your agri-business neighbors. In fact, Illinois has *"Right to Farm"* legislation that helps to protect established farm operations using good management practices from nuisance and liable suits. It helps enable them to responsibly continue producing food and fiber for the nation and the world.

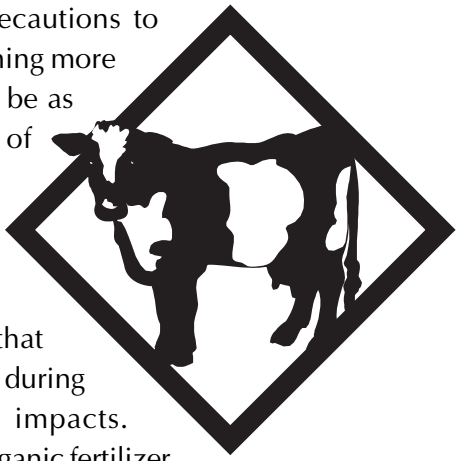
Having a rural residence means you're part of farm country. Here, farmers sometimes work around the clock. Often that work involves the use of large farm implements. Your daytime and night-time peace and quiet can be disturbed by common agricultural practices, especially during the spring and fall field work seasons.

Sights, Smells and Sounds

Tillage, harvesting, haying and other operations can result in dust, especially during windy and dry weather. That dust can easily invade your home and vehicles.

Some farmers occasionally burn their ditches and grassy areas to keep them free of weeds or to promote growth of plants native to the Illinois prairie. This burning may create smoke that you could find objectionable.

Crop production and protection products are used in growing Illinois' abundant and healthy crops. These products are applied by licensed applicators who take precautions to properly handle and apply them. Learning more about the safety of these products can be as simple as contacting the University of Illinois Extension Service.



Animals and their manure can cause objectionable odors. Farmers use best management practices to limit that odor and follow government guidelines during field application to minimize odor impacts. Manure serves as a valuable source of organic fertilizer and its use lowers dependency on synthetic nutrients. Still, the uninitiated nose may find it disagreeable. Check carefully before buying a rural homesite to be sure it is located a reasonable distance from livestock operations. Keep in mind prevailing winds.

Weed Control

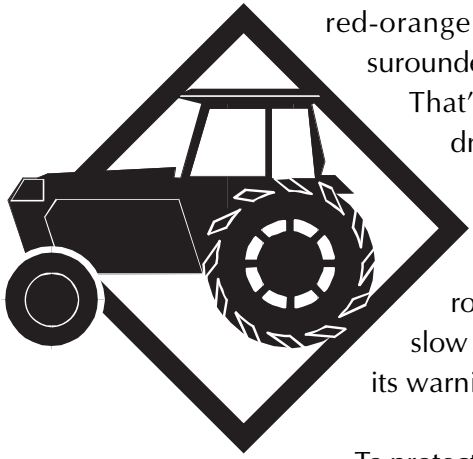
Before buying land you should know whether it has noxious weeds that you may be required to control. Some plants are even poisonous to livestock, pets or humans. Illinois' "Noxious Weed Law" requires the land owner to control or eradicate certain weeds on their own property.

Slow Moving Vehicles

Farm equipment may slow your travel on rural roads. These large, slow-moving pieces of machinery help to make Illinois one of the leading food producing areas of the world. Farm tractors generally move at top speeds of from 15 to 20 miles per hour so you can over take them quickly

from the rear. Watch for them and be patient—farmers will let you pass as soon as it's safe for them to pull over.

Look for the Slow Moving Vehicle (SMV) emblem displayed on the rear of farm equipment. The SMV emblem has a red-orange fluorescent triangle at its center surounded by a highly reflective red border. That's a sign you need to know when driving rural roads. Farm equipment and certain other slow moving vehicles are required to display the SMV emblem when they share the road with other traffic. It warns you to slow down. Learn to recognize it and heed its warning.



To protect the meaning and significance of the SMV emblem for traffic safety, Illinois law prohibits the use of that emblem for other purposes. For instance, it is illegal to use the SMV emblem as a lane marker or gate sign.

Government 6

Illinois has more than 6,600 units of local government—far more than any other state in the nation. In rural areas, your home may be found to be in a dozen or more taxing districts—each one providing some service and taxing your property to fund it. That fact generates a number of things you should consider.

Property Taxes

Illinois is a high property tax state—in part, due to its reliance on local government. Local government relies heavily on the property tax for its revenue—especially where sales taxes and other revenue sources are not available to special purpose governmental units. That means rural property owners often incur a large share of the cost of providing local government services, especially in the less-densely populated areas.

Keeping Track

Illinois counties most often encompass dozens of local governmental units. It is sometimes difficult to know which unit to turn to for a particular service or to address a particular problem. Unlike urban areas in which the city is the primary provider of most services, in rural areas, different services may each be provided by a separate unit of government. Exercising your civic duty to keep an eye on all those units can be a daunting task.

Service Levels

Few rural governmental units have the financial resources of their urban counterparts. Generally, fewer services can be offered and the level of service may be less than that found in cities.

Neighbors 7

Illinois' rural residents are generally very friendly and open. Neighborliness is practiced and expected in return. They do ask, however, that privacy and private property rights be respected.

Interact

Get to know your new neighbors. Don't wait—meet those folks living near your new home as soon as you decide to buy in the country, or even before. Knowing your neighbors and letting them get to know you will speed your acceptance as a new arrival in the neighborhood and boost your own comfort level.

Learn to wave to your neighbors—it's the country thing to do. Whether you meet them on the road or driving by their home, be sure to give a friendly wave. You'll come to recognize and appreciate each neighbor's individual style.

Be a Good Neighbor

Keep your property neat. The vast majority of farmers and rural residents take pride in keeping their homesites presentable. Be a good neighbor and do your share.

Become a part of the neighborhood. Don't merely keep a house in the country while spending your time and money in some distant urban or commercial center. Get involved in local community events and organizations and patronize the local businesses.

Information 8

Where do you turn for more information about the considerations noted in this booklet? Here are some very general suggestions. Of course, resources will differ by locale so you may need to do a little research on your own.

Not all services listed are available in all counties. When in doubt, start with the county Farm Bureau or the University of Illinois Extension Service for general information about rural areas.

Local Government

- County (or Township) Office of Zoning, Planning and/or Building
- County Recorder of Deeds
- County Highway Department
- Township (or Road District) Highway Commissioner
- Local Drainage District
- County Health Department
- County Animal Control Unit
- County Sheriff's Office
- County Emergency Services and Disaster Agency/Officer
- County & Township Assessors
- Soil and Water Conservation District

Associations

- County Farm Bureau®
- Local Chamber of Commerce

Businesses

- Utilities
- Fuel contractors
- Refuse/waste haulers
- Building contractors
- Realtors

Other

- University of Illinois Extension Service
- Local Postmaster

APPENDIX H

VILLAGE OF REDGRANITE NOTICE OF PUBLIC INFORMATIONAL MEETING & PUBLIC HEARING COMPREHENSIVE PLAN

PLEASE TAKE NOTICE THAT the Village of Redgranite Plan Commission *will* hold a public hearing on the proposed adoption of the *Village of Redgranite Comprehensive Plan 2025.* The public informational meeting will be held on Monday, June 19, 2006 at 6:30 P M. at the Redgranite Municipal Building located at 161 Dearborn Street, Redgranite. WI: public hearing to follow at 6:45 PM. The Redgranite Village Board will take action following the public hearing on the proposed adoption of the *Village of Redgranite Comprehensive Plan 2025* at the next monthly Village Board meeting on June 20,2006.

The Comprehensive Plan is a statement of public policy concerning the conservation and development of the village. The plan pro*vides a guide* to where future growth and development should occur within the Village over the next 20 years. When the village makes future decisions concerning land use development, the plan will *be* consulted. The plan inventoried and analyzed the village's physical setting, natural features,. land use, population figures, economics, housing stock, transportation, and community facilities. Using these inventories and plan's goal *and* objectives, a preferred land use plan was developed for the Village of Redgranite.

The Village of Redgranite Comprehensive Planning Committee, together with the East Central Wisconsin Regional Planning Commission, worked to develop the *Village of Redgranite Comprehensive Plan 2025* within a 4 year timeframe. If anyone would like additional information, please contact Madonna Berube, Village Clerk/Treasurer at (920) 566-2381 or Kathy Thunes at East Central Wisconsin Regional Planning Commission, phone: (920) 751- 4770 email: kthunes@eastcentralrpc.org.

Copies of the proposed *Village of Redgranite Comprehensive Plan 2025 are* available for review at the following locations:

- Redgranite Municipal Building, 161 Dearborn Street in Redgranite, WI.
- Redgranite Public Library, 135 W. Bannerman Avenue in Redgranite, WI.
- University of Wisconsin Extension Offices (Room 34 in
- Waushara County Courthouse), 209 S. St. Marie Street, Wautoma, Wl; and
- The East Central Wisconsin Regional Planning Commission. 132 Main Street in Menasha, WI.

If special arrangements are necessary to accommodate individuals *with disabilities , please contact Madonna Berabe, VIllage* Clerk/Treasurer at (920) 566-2381 at least 2 days prior to the hearing.

STATE OF WISCONSIN

WAUSHARA COUNTY

I, Virginia M. McGregor, ...being duly sworn, doth depose and say that *I* am an authorized representative of Waushara Argus, a newspaper published at Wautoma, the seat of government of said County, and that an advertisement of which the annexed is a true copy, taken from said paper, was published therein on

May 17, 2006 .....

.....

.....

.....

(Signed) ..

Principal clerk .....(Title)

Subscribed and ***sworn to before me this 17th day of*** .....

May .....,2006

Notary Public, Waushara County, Wisconsin

My Commission expires ..... NOV. 5, 2006

No. Lines	No. Times		
2x8 display		Affidavit	$ 1 .00
		Printers *Fees*	110.40
		Extra Copies	
		Total S	111.40

(Seal)

FILED .....

PROOF OF PUBLICATION

Village of Redgranite

Notice of Public Informational Meeting and Public Hearing, June 19, 2006

IN THE MATTER

WAUSHARA COUNTY CIRCUIT COURT

STATE OF WISCONSIN

Waushara County
Land Conservation & Zoning
P.O. Box 1109
Wautoma, WI 54982-1109
(920) 787-0453
Fax (920) 787-6516
E mail lcdzoning courthouse@co.waushara.wi.us

DATE: 5/8/2006

TO: Debbie Paavola, Department of Aging
Glenn Johnson, Department of Human Services
Tom Dahlke, Highway Department
Scott Schuman, Parks Department
David Peterson, Sheriff's Department
Fred Kaiser, Veterans Service Office
Ruth Zouski, Corporation Counsel
Deb Behringer, Administration

RE: Drafts - Municipal Land Use Plans

As many of you may be aware, the State of Wisconsin is requiring all municipalities who administer land use regulations to develop comprehensive land use plans for their respective communities by the year 2010. Some of you may know this requirement as "Smart Growth" legislation. Waushara County has contracted with East Central Wisconsin Regional Planning Commission to help with the preparation of these plans in most of the municipalities.

The first three communities have completed drafts of their plans, which are now available for reviewal and comment. They are the City of Wautoma, the Village of Redgranite, and the Town of Dakota. These draft plans (about 300 pages each) are on file in the Waushara County Land Conservation and Zoning Office. Copies are also on file at the local libraries and at the UWEX Office. Public hearings will be held on June 12th for the City of Wautoma Plan, June 19th for the Village of Redgranite Plan, and June 10th for the Town of Dakota Plan.

Since each of your Departments (except for Corporation Counsel and Administration) are mentioned in these plans, I am attaching a copy of the summaries of these plans, for your reviewal and comment. You may stop up in our office to look at the entire plans, if you so choose. ***After you look the summaries over, please initial this cover page and route to the next Department on this letter.***

If you wish to make comment in writing, prior to the public hearings, please address your comments to:

East Central Wisconsin Regional Planning Commission
132 Main Street
Menasha, WI 54952-3100

You can also e mail them at staff@eastcentralrpc.org

Please indicate which plan you are commenting on.

There are many more municipal plans in the works, and the County will also have to prepare a comprehensive land use plan, so we will try and follow this same reviewal procedure for all of them, as well. If you have any questions about this process, feel free to contact me.

Mark Schumacher, Director
Waushara County Land Conservation & Zoning

cc: Ed Hernandez / Terri Dopp Paukstat, Land Conservation & Zoning
Patrick Nehring, UWEX

Waushara County
Land Conservation & Zoning
P.O. Box 1109
Wautoma, WI 54982-1109
(920) 787-0463
Fax (920) 787-6516
E mail lodzoning.courthouse@co waushara wi us

DATE: 5/12/2006

TO: East Central Wisconsin Regional Planning Commission
132 Main Street
Menasha, WI 54952-3100

RE: Draft Comprehensive Plan 2025 – Village of Redgranite

This office is in receipt of the afore-mentioned comprehensive plan, and would offer comments about this draft prior to the public hearing which has been scheduled. The comments listed below are referenced to the summary found within the implementation section of this plan, beginning on page 10-15, and are as follows:

1. Page 10-25 – Monitor on-site waste disposal systems – As your strategies indicate on page 7-59, Waushara County is requiring mandatory maintenance every 3 years on all systems installed since 1999. However, we are also requiring all existing systems to enter into this program when any existing home is replaced or substantial additions are done to the existing home. Eventually, all the systems will be under this maintenance program, and is about all we can do, given existing staffing and funding limitations. Regarding the suggestion that the County require on-site testing as part of ownership transfers, this is more of a challenge. Existing laws would have to be changed, and even then, what do you do in the winter during frozen ground conditions? As part of any evaluation, soil conditions are essential. Do you hold up the sale during winter months? Do you put money in escrow? If so, how much? Endless questions with no easy answers. A simple proposal, but a very complex answer.

2. Page 10-25 – Minimize nutrient contributions from private on-site septic systems - We prohibit residential development on sites which can only support holding tanks. Do you want more than this?

3. Page 10-31 – Partner with the WDNR, county & other municipalities to control specific problem (invasive) species on a county wide basis – Our Land Conservation Department is trying to get funding and local support for an area specialist who could help lake organizations with the problem. Support for this position from local municipalities like the Village of Redgranite are appreciated. This section also recommends protecting the Willow Creek. It would be nice to know exactly what the Village would like the County to do to achieve this strategy.

4. There also might be some request to adopt extraterritorial authority that would grant the Village the authority to review land division proposals and make planning decisions within the 1.5 miles of the city. Waushara County would not oppose adopting this authority. However, if the Village is proposing adopting extraterritorial zoning authority (which is completely different from extraterritorial platting authority), that is a completely different matter. I would strongly oppose any such action. Ask any of the very few municipalities who have this – it does not work, is a pain to administer and is extremely inconvenient for all the affected landowners. I know – we have this with the City of Berlin, and the only reason it works reasonably well there is we work very hard with the City to make it so. In most situations that does not happen.

We commend the local citizens who volunteered their time in drafting this document, and we appreciate receiving the draft plan and the opportunity to comment, and look forward to a continued working relationship with East Central Wisconsin Regional Planning Commission and the Village of Redgranite.

Please feel free to contact me, if you or the Village have any questions about these comments.

Mark Schumacher, Director
Waushara County Land Conservation & Zoning

cc: Village of Redgranite
Waushara County Planning and Zoning Committee
Patrick Nehring, UWEX
Deb Behringer, Waushara County Personnel / Administrative Coordinator
Ruth Zouski, Waushara County Corporation Counsel
Land Conservation & Zoning Staff

EAST CENTRAL WISCONSIN REGIONAL PLANNING COMMISSION

132 Main Street Menasha Wisconsin 54952-3100 (920) 751-4770 Fax (920) 751-4771
Website: www.eastcentralrpc.org Email: staff@eastcentralrpc.org

An Economic Development District and Metropolitan Planning Organization
Serving the East Central Wisconsin Region for over 30 years

June 6, 2006

Mark Schumacher, Director
Waushara County Land Conservation & Zoning
P.O. Box 1109
Wautoma, WI 54982-1109

Re: Village of Redgranite Comprehensive Plan 20205

Dear Mark:

On behalf of the Village of Redgranite we are responding to your comments dated May 15, 2006 regarding the Village of Redgranite Comprehensive Plan 2025.

1. Page 10-25 – Monitor on-site waste disposal systems. Preserving groundwater supplies in regard to quality and quantity are important issues to the Village. Therefore the Village encourages the County to pursue this strategy. The Village also recognizes that it will be a challenge, but feels that the County can overcome barriers due to frozen ground conditions.
2. Page 10-25 – Minimize nutrient contributions from private on-site systems. The Village recognizes the value of the water resources in the area, specifically the water quality of Willow Creek and the Redgranite quarry. While the County already prohibits residential development on sites which can only support holding tanks, the Village would like to go on record in support of county zoning in regard to this issue.
3. Page 10-31 – Partner with the WDNR, county and other municipalities to control specific problem (invasive) species on a county-wide basis. The Village supports County and WDNR efforts to control the spread of invasive species. The Village is willing to work with the WDNR and the County on this issue.
4. Extraterritorial authority. The Village would like the opportunity to review land proposals and have input into land use decisions within 1.5 miles of its borders. The Village is not interested in adopting extraterritorial zoning authority. The Village would like to promote communication and planning between itself and its neighbors.

Thank you for your review and comments regarding the Village's proposed comprehensive plan. The Village and East Central also look forward to a continued working relationship with the County.

Sincerely,

Kathleen Thunes, P.E.
Associate Planner

Copy: Village of Redgranite
Patrick Nehring

1100 E.
Hammerman Ave
Suite 4 WI 54970
920-566-0421

920-566-4245 Fax

Moe Land Surveying, Inc.

June 20, 2006

Village of Redgranite
Via Fax

Board Members:
I have had the opportunity to review the Draft Comprehensive Plan 2025 for the Village of Redgranite, and would like to extend my congratulations to those involved in the long process. It is an impressive document, and is obvious that many hours of work has went into preparing it.

As *we* are actively promoting our industrial Park in the Village I think it is important to supply as much information to prospective businesses as we possibly can. There is room for improvement in this document on Page 3-10**.** Table 3-7. Industrial Parks Group D).

I have attached to this fax a copy of the page and I have made some suggested changes, which should been relatively easy thing to do at this meeting. I would suggest that the document in its entirety be approved tonight with the changes I have suggested included in the motion.

On a related matter, I ask that the Village of Redgranite start to gather information on the process of making the Redgranite Quarry a state park. I have had some preliminary conversations with Senator Luther Olsen about the process and he is very interested in assisting us with the possibility.

Having the Quarry Park as part of the *State Park* System will be a wonderful "shot in the arm" for the tourism industry In our Village. The "Redgranite Quarry State Park" will become a destination point for many recreation enthusiasts, which will benefit the business climate in our Village. I would like to see this in our comprehensive plan as a goal. When the time comes for this to take place, we can look *back* on our plan and be in compliance with the plan at a future date.

This conversion will also limit Redgranite's exposure to liability concerning the quarry, and insure public use forever.

If this can be added to the plan. I think it will be a positive step forward for the economic development of the Village of Redgranite. I realize I am bringing this to you on the 11th hour, but am confident that the revisions can be made without attach hardship to those involved.

Thank you,

Mike Moe

Moe Land Surveying, Inc.
Big enough to serve you, small enough to want to.

APPENDIX I

Ordinance No. 2006-05

AN ORDINANCE TO ADOPT THE COMPREHENSIVE PLAN OF THE VILLAGE OF REDGRANITE, WISCONSIN

The Village Board of the Village of Redgranite, Wisconsin, do ordain as follows:

SECTION 1. Pursuit to sections 62.23(2) and (3) of the Wisconsin Statutes, the Village of Redgranite is authorized to prepare and adopt a comprehensive plan as defined in sections 66.1001(1)(a) and 66.10001(2) of the Wisconsin Statutes.

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

SECTION 3. The Plan Commission of the Village of Redgranite by a majority vote of the entire commission recorded in its official minutes, has adopted a resolution recommending to the Village Board the adoption of the document entitled "Village of Redgranite Draft Comprehensive Plan 2025", containing all of the elements of section 66.1001(2) of the Wisconsin Statutes.

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

SECTION 5. The Village Board of the Village of Redgranite, Wisconsin, does, by the enactment of this ordinance, formally adopt the document entitled, "Village of Redgranite Draft Comprehensive Plan 2025", pursuant to section 66.1001(4)(c) of the Wisconsin Statutes.

SECTION 6. This ordinance shall take effect upon passage by majority vote of the membership of the Village Board and the publication/posting as required by law.

ADOPTED this 20th day of June, 2006.

Jerry Sieg, President

Ayes: 6 Absent: 1

Nays: 0

Attest: Madonna G. Berube
Madonna Berube, Village Clerk

CERTIFICATION OF PUBLICATION

The undersigned Village Clerk of the Village of Redgranite, Waushara County, Wisconsin, does hereby certify that the above and foregoing Ordinance was duly published by posting same at three (3) locations within the Village limits on June 27, 2006.

Madonna G. Berube
Madonna G. Berube, Clerk

RESOLUTION NO. 2006-05PLAN AMENDED
VILLAGE OF REDGRANITE, WISCONSIN

RECOMMENDING THE ADOPITON OF THE VILLAGE OF REDGRANITE DRAFT COMPREHENSIVE PLAN 2025, BY THE VILLAGE BOARD OF THE VILLAGE OF REDGRANITE.

WHEREAS, pursuant to section 62.23 (2) and (3) of the Wisconsin Statutes, the Village of Redgranite is authorized to prepare and adopt a comprehensive plan as defined in sections 66.1001(1)(a) and 66.1001(2) of the Wisconsin Statutes.

WHEREAS, the Plan Commission held a public meeting on the Draft Comprehensive Plan at its meeting on June 19, 2006.

NOW, THEREFORE, BE IT RESOLVED that the Plan Commission recommends to the Village Board of the Village of Redgranite that the "Village of Redgranite Draft Comprehensive Plan 2025", including all maps and supporting materials and all elements of the document be adopted.

BE IT FURTHER RESOLVED, one copy of the adopted draft comprehensive plan shall be sent to all of the following: every governmental body that is located in whole or in part within the boundaries of the village; the clerk of every local governmental unit that is adjacent to the village; the Wisconsin Land Council; the Wisconsin Department of Administration; and the Redgranite Public Library.

Passed and adopted on this 19 day of June, 2006.

Ayes 6 Nays 0 Absent 0

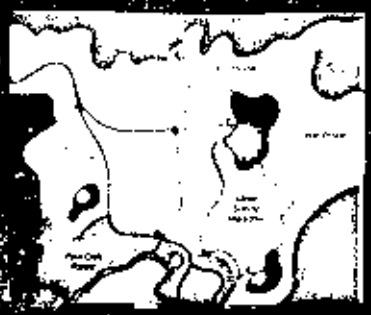
Jerald H. Sieg
Jerald H. Sieg, Chairman
Village of Redgranite Plan Commission

ATTEST:

Sally Leavitt
Sally Leavitt, Secretary
Village of Redgranite Plan Commission

APPENDIX J

REDGRANITE, WI



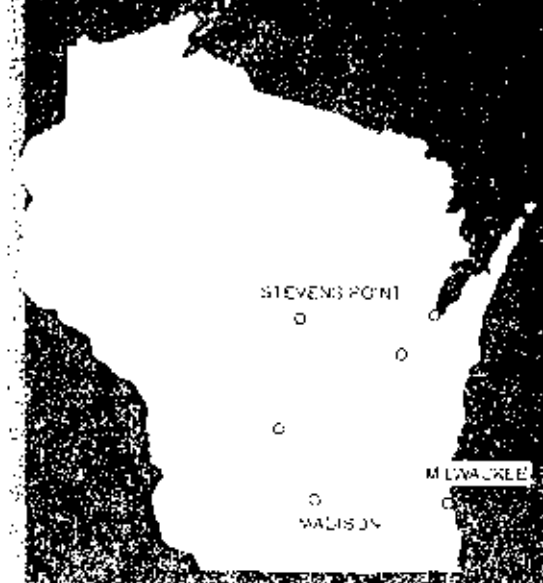
XPERIENCING THE HERITAGE

ACE BASED TOURISM IN A RURAL WISCONSIN VILLAGE

ENIOR CAPSTONE PROJECT
AY 2005

AMES FRUECHTL
EPARTMENT OF LANDSCAPE ARCHITECTURE
NIVERSITY OF WISCONSIN - MADISON

A 551
UE THERING
HAWN KELLY



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Detail – Seat Wall	D-C

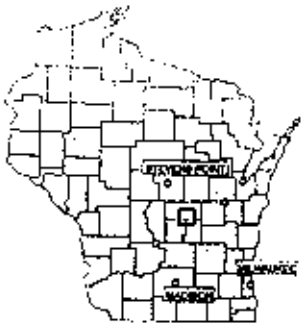
Introduction

"I envision Redgranite to be a 'must see' tourist attraction. It is the home of the 'State Rock' with a rich history and a visible link to the past, the Quarry. If developed, the area surrounding the quarry could provide a doorway back through time."

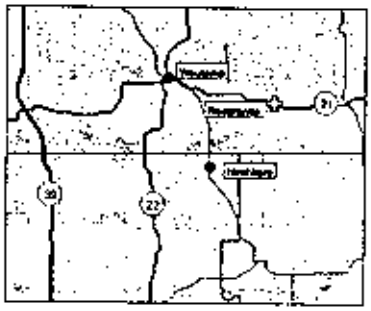
-George Burns (Village Priest)

These are the words of one individual but reflect the vision the people of Redgranite have for the future of their village. This Central Wisconsin village was established at the turn of the 19th century around the Granite Mining Industry. It has a very strong historic and natural identity although much of it is hidden to the eye of a regular visitor. The original objective of this project was to analyze the potential for developing a road around the quarry and provide design ideas for the park around the quarry. Although, after hosting a visioning session with community members and local village officials I discovered their other desires to develop the quarry area to cater to visitors and to promote the history of the village. Throughout the past year I worked with village officials, community members, and the East West Central Planning commission to research the valuable historic and natural resources and analyze their potential to develop them for tourism purposes. The areas of interest included the downtown area, the quarry areas, and along a regional trail. Areas for development were also looked at to provide sustainable development for the future. By applying heritage tourism principals along with preservation techniques for the natural areas I created several design solutions that attempt to capture the true essence of the village and preserve it mystifying character.

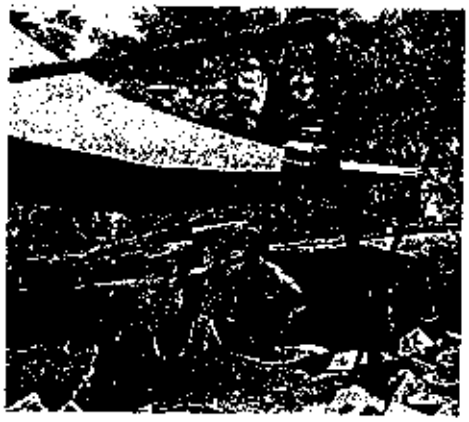
Landscape/History

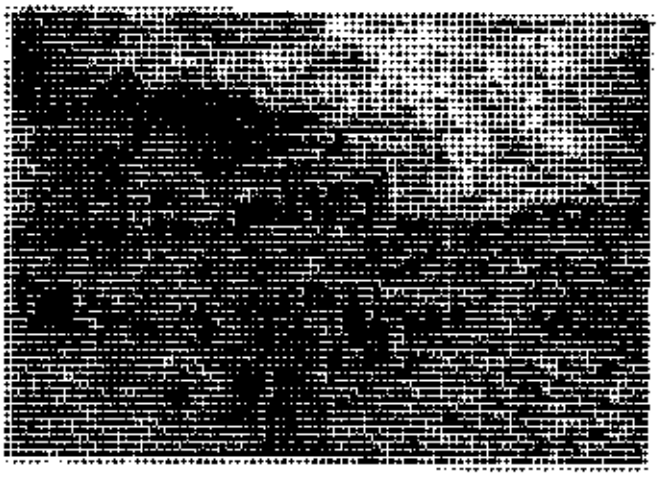


Redgranite is located along highway 21 in the southern portion of Waushara County. The village began in 1895 when investors from the Berlin Granite Company purchased the land from the Cronk farm because of a large granite deposit located on there. This type of granite they found was very unique as it was softer than the granite at surrounding quarries. The mining at the quarry could be worked year round and much of the reddish-grayish stone was shipped from here to Midwest cities to build cobblestone roads. The Bannerman Railroad line was constructed to provide a direct railroad route to ship the granite directly from the new quarry to cities where the blocks were being used to construct roads.



The Village of Sand Prairie was renamed in 1904 and the Village of Redgranite was born. The village is still host to the renounced Labor Day festival that began back in 1905. Redgranite's heyday was around 1913. With a first rate school system, a high school band that rivaled the best in the state, along with stately soccer and baseball teams. The downtown housed multiple drug, hardware, and pharmacy stores with ballrooms at each end of the town. The Village of Redgranite was considered the "heart" of Waushara County by the local newspapers.





There were several factors that faded the village's Quarry Industry out of production. With unionized strikes beginning in the mid 1910's there was a perpetual struggle between the Quarry workers and the owners. The depression also created hard times for the village. Finally, the introduction of asphalt and concrete to the road building industry eventually won over the demand for Granite Quarry Stone. The quarry industry attempted to shift markets to house building and monuments but this effort eventually failed and quarrying ended in the 1930's.

Since the quarrying days the village has introduced several industrial facilities to build back the economic base of the community. There was a pickle plant that lasted until the late 1970's and currently there are several manufacturing plants on the edge of the village that employ village residents. The population which was at nearly 2,000 in the 1910's had settled down to around 450 in the 1960's. Today, the population is around 2,000, although the village has lost some of the vitality and stature that it had at one time during its quarrying days.

Along with the strong historic presence in the village, the natural areas surrounding the village bring just as much to the essence of Redgranite as the histority. . The village is locate in the Central Sand Hills Ecological Landscape at the eastern edge of what was once Glacial Lake Wisconsin. In surrounding areas there are series of glacial moraines that were later partially covered by glacial outwash. There are farmlands,

woodlots, wetland, small kettle lakes, and cold water streams in this landscape. Willow creek, a very good class 2 cold water trout stream, located across some open fields to the north of the quarry area. Historic upland vegetation consisted of oak-forest, oak savanna, and tallgrass prairie. Fens were common in this Ecological Landscape and occurred along with wet-mesic prairie, wet prairie, and rare coastal plain marshes. There are no state parks, recreation areas, state forests, or federal lands in the Ecological Landscape, though there are 24 fishery and wildlife areas. Although the lakes and rivers of the Ecological Landscape are fairly clean, it has the poorest groundwater rating of all the ecological landscapes according to Wisconsin DNR. Currently, surrounding lakes house summer cabins for visitors around the Midwest. The natural landscape is as much a part of the village as the industrial landscape that the quarry days have brought to this area.

Place Based Tourism

As a person travels through this village today there are still hints of the quarry era while the natural landscape provides a tranquil backdrop. Along the main street there are historic buildings lining the road and within the quarry park there are remnants of the granite crushers as well as other elements that were used to quarry the rock. The wilderness has enveloped the once barren quarry surroundings Canadian Geese and other wildlife use these natural areas for shelter. These natural and historic aspects are key assets to the village and provide the means to tell the story of the village, its surroundings, and the evolution over time.

Place based tourism is tourism based on a place, and its true character. When exploring Redgranite's true character both the historical and the natural aspects of the village should be considered. Heritage tourism and nature based tourism are realms of

the tourism industry that should be looked at in order to preserve the resources and accommodate visitors' needs in Redgranite. In order to fully comprehend what Historical Tourism is, and how it can benefit a rural community in Central Wisconsin, I read several books and journal articles examining the topic. I found the areas of covered that were most relevant to my study related to the elements of successful historical tourism, and the preservation of historical sites.

The article "Standing Out in the Crowd", by William T. Alderson, was the first article I chose to review because of its essential emphasis on creating successful heritage tourist attractions that are compelling and enjoyable to visit. The article begins by identifying Heritage Tourism as, "an organized process by which we persuade people who are not a part of our immediate community to visit and enjoy the culture, values, objects, structures, and programs which make up the heritage we preserve." This statement is a very good representation of what Heritage Tourism is. Although, it lacks the other essential elements of creating a heritage that focus on education, restoration, and preservation of the historic atmosphere and features of the site.

Another key element that is mentioned is the sharing of the cultural heritage and the ability of the heritage to produce revenue for the institution. This is very important in many Industrial Heritage locations that have old remnants of the Industrial Era that are a large part of their landscape and atmosphere. This "new use" for the monumental structures, building, and other artifacts of past era can help bring a new life to the unutilized structures through tourism. Many people allow these landmarks to become degraded and demolished; while they are the very engines that helped build the

community that they live in today. By reusing these landmarks they can help bring in revenue and restore pride in the heritage of the community.

As the article continues it begins to focus on more design related issues, such as access to the site and activities within the site. It says that sites should be, "accessible, with adequate directional signs." This can be extremely influential in the design of heritage tourism sites because it controls the visitors' ability to interpret the site. Which ultimately determines how enjoyable of an experience visitors have. Telling a story through spaces is a very difficult, but by directing the user in a logical sequential order with artifacts, location, and structures the user will embrace the history more and have a more captivating experience. Alderson says, "Beginning with the drive in to the parking lot, that tourist is comparing your institution with the many others he or she has seen." This statement touches on the importance of creating a good first impression. It is fundamental to grab the visitor's attention right away because first taste of the place is what they will begin to base their whole experience off. Alderson also states that, "Not all tourists, come to a site or museum to be taught. Most come to enjoy themselves and…to take advantage of opportunities to learn and understand something about the past… (People) are more interested in the human interactions with the artifacts.." I feel that these statements stress the importance of getting the visitor involved. It is important to get them up next to the parts of history that are still in existence today, to give them that contact with elements of the past, and to get them to feel the experience.

Along with depicting the importance of historic atmosphere the article also stresses the preservation of the historic elements that create the atmosphere. As it's stated, "If such and environment…is not adequately protected and properly managed, it

may suffer considerable damage as a result of being invaded by large number of tourists." This importance to protect the historic elements against the very industry (tourism) that makes these sites commodities is very essential. Through increased use of a site there becomes increased wear and tear on it. If not deal with through management strategies tourism becomes a negative impact on the site. Through littering, social congestion, noise pollution, and other impacts the historical qualities are degraded. The article goes on to point out that, "limits regarding historical landscapes depend upon the general layout of each physical area, its particular cultural features, special character and scale." This statement proposes that through design strategies of creating limited spaces for visitors, the impact and volume of visitors can be managed before it becomes an issue. The article does not mention though, that the activities the users participate in can also be managed with careful design. Through creating distances and spaces for the visitor with historic elements the interaction, experience, and impact can be coordinated and orchestrated to produce a fulfilling experience.

The article ends with a statement that provides direction for future heritage tourism sites. This statement stress the importance of preserving what heritage is left and not exploiting it to the point of degradation.

> "They (historic sites) are irreplaceable and therefore, should not be wasted for the sake of any short-term contemporary tourism development. They have to be preserved as carefully as possible for the sake of future generations."

Sloss Furnaces is a National Historic Landmark that tells the story of "City Furnaces" that gave rise to the city of Birmingham, Alabama, through industrial labor. Through community and local government support the Furnaces were saved from demise and now host tours, a museum, an education center, metal arts production, and community events. The site does much for promoting the heritage of the community and reusing an Industrial Landmark, although, the site has lost some of its sense of place as far as historic atmosphere and preservation to contemporary uses.

There is a great deal of history behind the furnaces and their contribution to the city of Birmingham. The furnaces began when railroad men and land developers decided to take advantage of the areas large mineral deposits by building "blast-furnaces" that fueled the economic, employment, and social reform of the city. Through a very colorful the history the furnaces were tied to railroad manufacturing, production of war materials, and several social situations such as segregation and unionization. When the Alabama State Fair Authority was about to demolish the structures after determining the preservation of the plants was not feasible the Sloss Furnace Association lobbied and gained local and even national support for saving the structures. This support show the ability heritage has to bring communities together around a common, honorable cause.

Along with the contemporary uses of the furnaces today, there is also well documented and several historic locations within the furnaces that still promote the real history of the furnaces. These areas accommodate the more genuine experiences when visiting the site. The historic structure is well restored and through tours to the Apron of the Furnace, the Stock Trestle and the Underground Railroad Line visitors can still experience the authentic atmosphere and stories in a few locations. The Landmark's

ability to relate to visitors humanistic side through stories of workers, segregation, social clashes, and unions encapsulates those visitors truly interested in the history. True preservation of all the areas of the furnaces is rather limited and does not provide the visitor with the complete experience of the past.

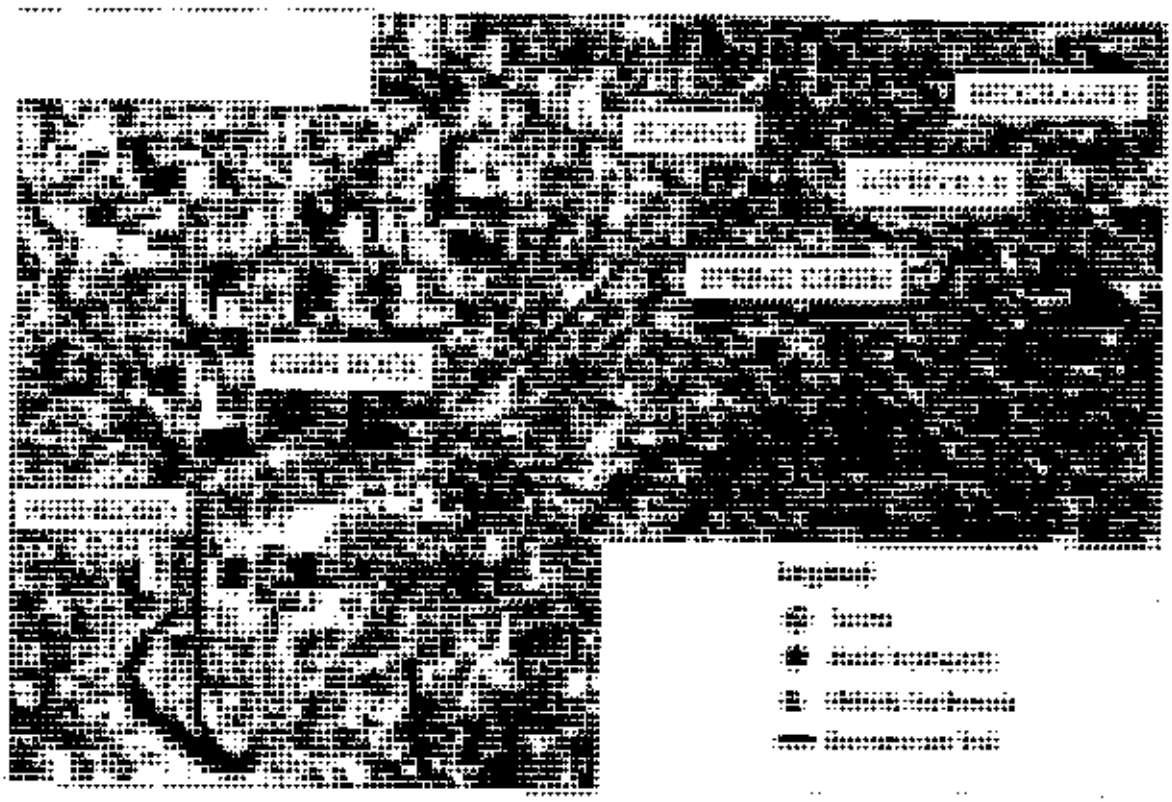
"Not every museum should pursue tourism, even though they have the ability to do so." This is true because the point of some heritage areas is to promote community pride in their past. The idea of knowing where a community comes and its true character is an essential part of both heritage tourism and sense of place. Some areas do not contain a history that is very interesting to visitors but it is still important for the community to recognize the heritage on which it was built. In Redgranite the history is such a large part of the past although the natural aspect of the area should also be considered with tourism development.

Nature based tourism focuses on the natural aspect of the region and in the case of Redgranite, that is large portion of the identity of the village. The concept of nature based tourism provides for the many users of the site while bringing attention to the fragility of the natural systems in the surrounding area. Similar to historical tourism its main goal is the preservation of a commodity, nature in this case, for future generations and the benefit of surrounding ecosystems. The concept of nature based tourism is also a very good way to educated individuals about the natural systems and their importance to our everyday lives. The case of Redgranite is particularly good for this because natural systems are located right next to the downtown are in the large open fields behind the quarry. The impact of the visitors must also be managed and even though tourism isn't one of the most sustainable uses for a site it helps also bring revenue to the surrounding

community and does much better than no focus on the environment at all. Making nature based tourism a part of the tourism industry in Redgranite adds to the atmosphere and rural character the area and should be one of the main areas of focus.

Site Inventory/Analysis

The village and surrounding areas have many historical and natural features that contribute to the identity of Redgranite. There were several opportunities and constraints in these areas that will contribute to place based tourism development.



The Bannerman Trail is a trail that that currently runs from Redgranite to Neshkoro on what used to be a railroad bed used for transporting the quarried stone. The trail is currently used for recreational purposes from hiking, to snowmobiling, to running.

The line was actually constructed specifically to transport stone coming out of Redgranite although several other quarries formed along its path. Along the trail there is no hint to the historical significance of it or any of the quarries it passes. There is great potential with the Bannerman trail to link it to its heritage and tell the story behind what is now a recreational trail. The quarries along the trail are located at Redgranite, Lohrville, Spring Green, Flynn's, Glen Rock, and Neshkoro.

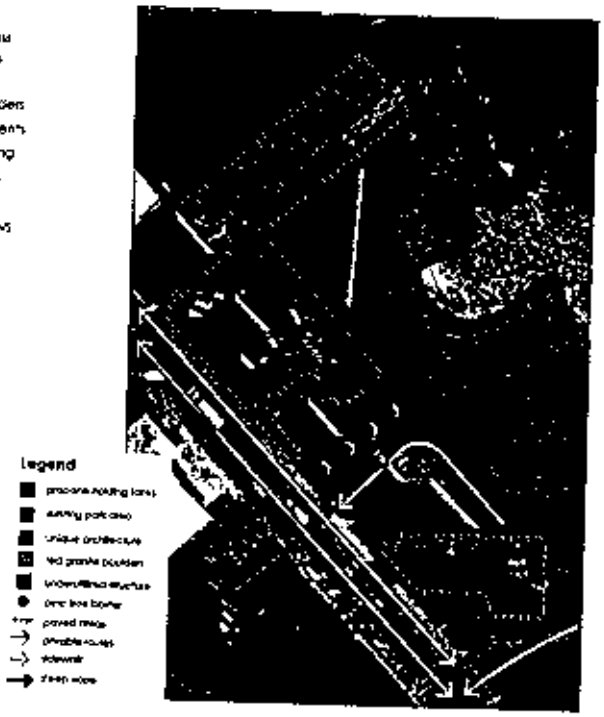
From historic streetscapes to quarry equipment, the region surrounding the downtown and quarry area is very significant because it was the location where the village of Redgranite was born. The buildings stretching down highway 21 just east of the County Road EE intersection have facades reminiscent of the quarry era. Some of these buildings are even registered as historical structures with Wisconsin Historical Society. There is also a large vacant lot along the highway with potential to continue the

historic streetscape. There are also other very evident links to the past within the area immediately surrounding the quarryt. There are two historic sites with the remains of the granite crushers. These ruins are a key part of the history of the quarry and should be kept intact and are an important part of the true identity of the village. These sites are very good tools to help tell the story of the history of Redgranite.

As for the quarry area itself, the underutilized buildings, large amounts of pavement, and small park area make the quarry seem somewhat secluded and hidden to passersby. There area also several vistas throughout the park that are ideal locations for both educational and recreational amenities for visitors to experience the natural beauty and historic setting. The current amenities throughout the park could also use improvement, including a trail system throughout the park that is narrow and not easily navigable, a makeshift bridge along the trail, and a lack of visitor seating areas throughout the area. The park also contains several areas of historical significance that could be used to tell the story of the quarrying days. These areas contain remnants of the footings from the crushers that were used to break the large granite boulders into smaller more manageable pieces.

Other adjacent areas to the quarry both detract from the true identity of the village and could be improved to bring back its true character. The industrial areas to the south and northwest of the quarry area do not accent the natural and historical value of the area very well. The views of these areas should be considered when looking at future developments for the park. The area to the north of the quarry which is currently abandoned farm fields should also be looked at closely. This is the area that the village was looking at for future development and possibly an area to locate a bypass road

through.



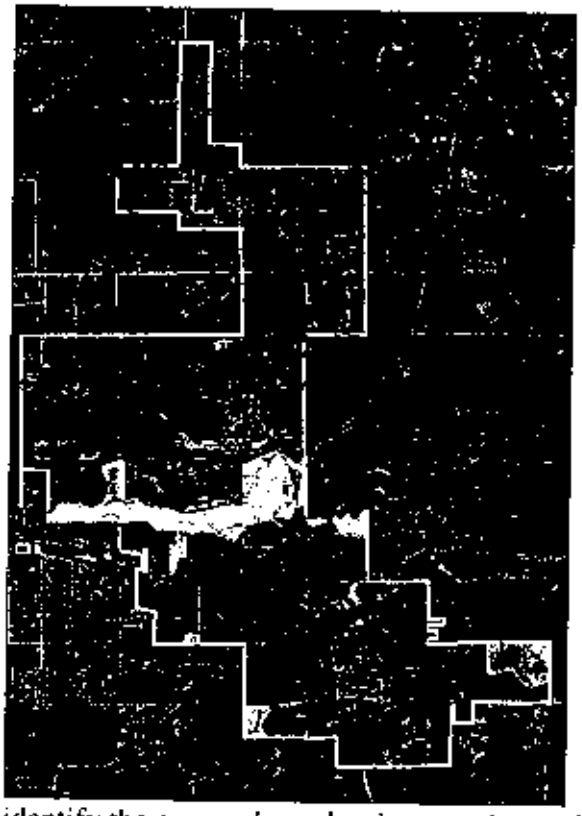
The individual areas throughout the quarry such as the entrance and historical sites have unique elements that can add to the historical significance of the area. The entrance area includes four structures, three of which display architecturally significant styles, and one that holds neither historical nor architectural significance. The three most southern buildings are either underutilized or vacant and other more suitable uses could be found for them. There are also several routes of traffic passing adjacent to the quarry main entrance which give the area very good advertisement, although many of the views into the quarry are obstructed by either buildings or trees. .The park area at the entrance to the quarry area is also very small and can only be comfortably used by a few groups at a time. Both the historic site and the entrance area have parking areas that have no orderly pattern laid out and could be used more efficiently. The also both have steep and

rocky access to the water which makes for dangerous swimming conditions for the users of the site. The also both have very scenic vistas that display the natural beauty of the area. These sites contain much potential to be developed as areas where visitors can experience the natural and historic significance of the village.

The area just north of the quarry was where the Redgranite Economic Development Committee had indicated that they would like a bypass road placed. They felt this would provide a quicker and less congested route from County Road EE east to Highway 21. This area of land contains sandy and wet soils that are not suitable for development. The construction of a road through this area would be and expensive process and the condition of the soil would limit further development in the area. The possibility to restore the area from the abandoned farm field to the original plant communities was a more suitable option and would provide an area displaying the native land as it once was. The analysis of the soil types and current vegetation in the area indicated several suitable plant communities. They included; moist meadow, wet prairie, costal plain marsh, pine oak forest, sandy prairie, moist sandy meadow, and wet-mesic prairie.

Soil Type	Possible Plant Communities
Ad	Moist Meadow, Wet Prairie, Coastal Plain Marsh
PmA	Pine Oak Forest, Sandy Prairie
Be	Moist Sandy Meadow, Wet Prairie
Ks	Wet Mesic Prairie
MrA	Wet Mesic Prairie

Even though the area surrounding the quarry was not very suitable for development there were several other areas throughout the town that were suitable for development. Along with the concept of developing the area for tourism based off the villages resources it is also important to preserve their current resources for the future. When proposing ideas for sustainable development it was important to look at the green infrastructure of the area, such as slopes >12%, wetlands, floodplains, DNR lands, and most importantly suitable soils. This helps identify the areas where development is possible while preserving areas of large biodiversity and natural resources. The areas that were identified as the most suitable for development were in the western portion and the northeastern areas of the village.



Design Development Process

The process of designing throughout this project began all the way back with the first visit to Redgranite. With the first site visit, where members of the Village Economic Development Committee pointed out features of the quarry area and began brainstorming

ideas for what could be done with the park, the design process in this project was rolling. They mentioned the possible route to the north of the quarry for the road to ideas for the historical elements of the park and ideas for possible development of the field to the north of the quarry.

Later in the fall the visioning session with community members provided the concepts of where they felt improvement in the town was needed the most. After assembling all the information on the heritage of the village and discovering how important the natural areas were to the sense of place in the village the concept for place based tourism was formed.

The design process through the spring semester helped to form the most effective and creative design solutions in the areas that were chosen to express the true character of Redgranite. The constant review process from week to week with class members and faculty helped mold concepts into design solutions and modify existing designs into more effective ones. This process was very successful and pushed students to think in creative ways on other projects as well as their own. Without the design process the designs in this project would not have been as meaningful, unique as they were.

Ethics

When approaching this project it was important to consider the communities views so the final products of the project would be the most useful to them. It was also important to integrate the ethical and moral values that I have gained in the Landscape Architecture program at University of Wisconsin especially those relating to the environmental and historical significance of a place.

Last fall I gathered input from the community to find out what they felt was important in Redgranite and what aspects of the village could be improved upon. I met with the members of the Economic Development Committee several times and held a

visioning session with community members. I received several mixed responses but the general consensus was that the people of Redgranite felt the area surrounding the quarry, and the rich history of the village, were two of the most valuable assets to the community. This desire to promote the image of the past along with which lead me to the concept of Heritage tourism. By utilizing the village's resources for Industrial Heritage Tourism, Redgranite can boost their economy while restoring, preserving, and promoting the historical character of the village and surrounding communities. By focusing on the restoring the historical elements and restoring the atmosphere of the quarrying days through interactive spaces the visitors can receive the "full" experience. The communities involvement was particularity important because it gave the project meaning to the community gave some ownership of the project.

This project also encountered several social and environmental issues related to design. The concept of place based tourism for the village was an approach that focused in on the true identity of the village and promotes the valuable features of it. There is so much history to the village and natural areas surrounding it that bring displaying it to the community was very important. This helps bring back the sense of history and the sense of place to the community because it helps give the community some pride in their

heritage and their village. It also helps preserve this heritage for future generations and provides a way to educate visitors about that heritage and gives them true image of Redgranite and its history.

The natural areas to the north of the quarry were natural habitat for various species and prime green infrastructure for the village. The concept of the bypass road through this area would have disturbed many natural processes occurring here and further development on the land would have been costly and a great loss to the natural environment in the village. By proposing alternate areas for development this created new opportunities that village officials could look at and caused minimal impact to the environment. The idea of restoring the area to the north of the quarry its original plant communities also gives more back to the natural areas and provides the users of the park with a true sense of the natural habitats in the area.

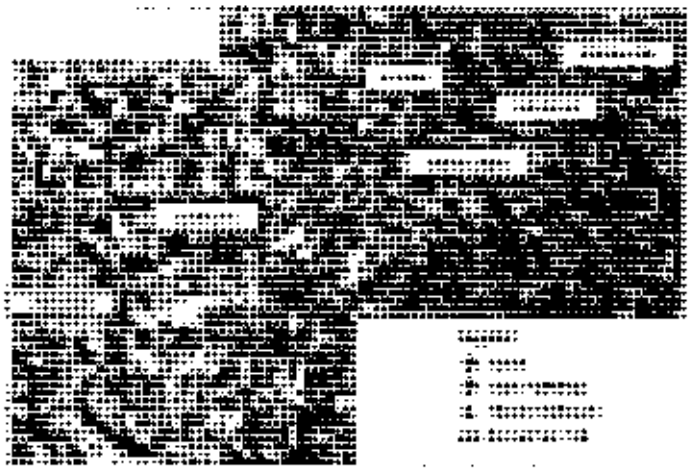
The designs for Regranite also had to be looked at from an esthetic viewpoint. Many of the historic photos and the streetscape images gave a true concept of what the village was like in the early 1900's. This provided a conceptual image of historic times to base streetscape recommendations and park design from. By creating places with similar accents and atmospheres of the past a truer sense of the history and its identity can be achieved. From open park areas reminiscent of the barren quarry in the early 1900s to restored buildings along the streetscape the true sense of the past is achieved. As for the

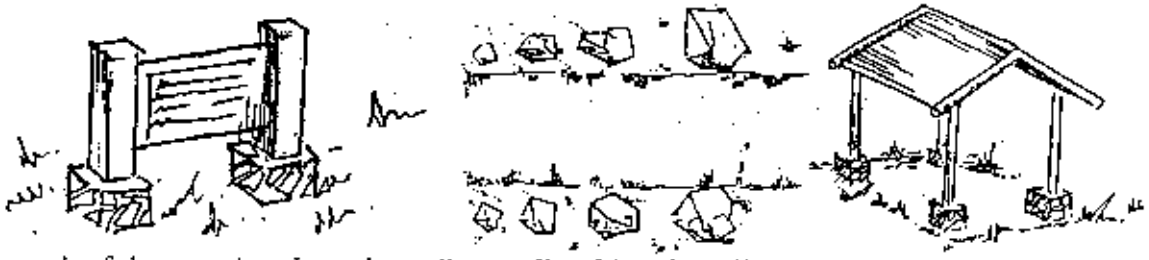
aesthetic component of the natural areas, by bring the true natural feeling of the area a visitor can experience the serenity of the true natural systems of the area and enjoy the village for its true natural history along with its man-made one.

Design Solutions & Rationales

Regional: Bannerman Trail

After analyzing the Bannerman trail and its link to the past through the quarries alongside the trail the concept of bring that history back to life fit nicely into the the theme of place based tourism. The most suitable solution that wouldn't interfere with the current uses of the trail and would provide information on the history of the trail and its significance was a series of amenities strategically placed at



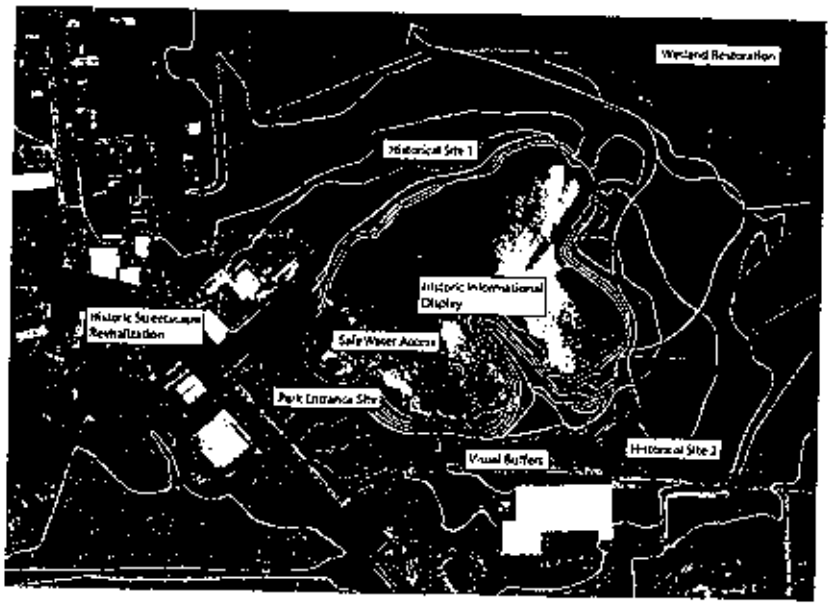


each of the quarries along the trail as well as historic trailhead markers tying the history into the trail. The amenities would use local materials such as the stone from the quarries and would have square wooden posts representative of railroad ties, thus tying the site into its surroundings. The signs would provide information on the history of the trail and each one of the quarries that it was located next to. There would also be shelters located

trail to provide trail goers protection from the elements. The use of boulders gradually getting larger as they approached a quarry and then descending in size as they lead away from the quarry would bring attention to each of the quarries as users approach them. This would subtly bring attention to the quarry and the type of stone excavated. The markers along the path would also provide a way to bring attention to the quarry while not impeding the recreational users of the trail. Theses amenities would help bring back some of the lost history of the Bannerman rail line, and would also tie into the quarry history of Redgranite as a main trailhead.

Master Plan: Downtown Redgranite

Through the both the visioning session and separate analysis the downtown area of Redgranite was found to contain the most significant historic and natural features that bring out the true sense of Redgranite. This is where the core focus of the project is. Separate areas within the downtown were selected for more detailed focus because of the unique elements each one of them held. These areas such as, the downtown streetscape, historical sites, entrance site, and wetland restoration are explored later in the document.



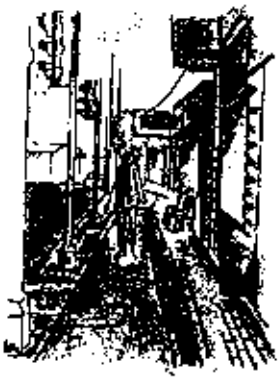
Within the quarry area itself the trail system could not be accessed by elderly or handicapped persons. The design recommends improvements to the trail system to make an ADA accessible loop around the quarry so it can be experienced by all. There was also a suggestion made to create an informational display at very impressive panoramic viewpoint from a peninsula jetting out into the center of the quarry area. With such an open ranged view of the quarry area many historically significant points throughout the quarry could be pointed out on a sign that aimed the viewers in the direction of the unique elements. The industrial areas adjacent to the quarry impeded on the natural and historical atmosphere of the quarry so thick plantings of pine, oak, sumac, and dogwoods were recommended to buffers the views of these elements and contain the users presence to the park itself. There are also the recommendations to add safe water access to the quarry so recreational users of the site can enjoy swimming in water with minimal risk of injury as compared to climbing on the jagged rocks surrounding the quarry today.

The downtown streetscape is one of the main areas in the village that contains historical elements which bring out the character of Redgranite in the quarry days. The historic structures and facades can be used to recreate the ambience of that historic time and bring the area back to its heritage. Through streetscape recommendations and guidelines the accents of the buildings can help visitors and community members alike realized the significance of the villages past. From awnings on the structures to incorporating the cobblestone pavers from the redgranite quarry stone the streetscape experience can

Design Recommendations

- Install awnings on buildings
- Install antique style signage
- Restore molding on buildings
- Uncover bricked up windows
- Remove paint & restore brick
- Redgranite pavers in sidewalks
- Provide historic style amenities
- Provide pedestrian seating

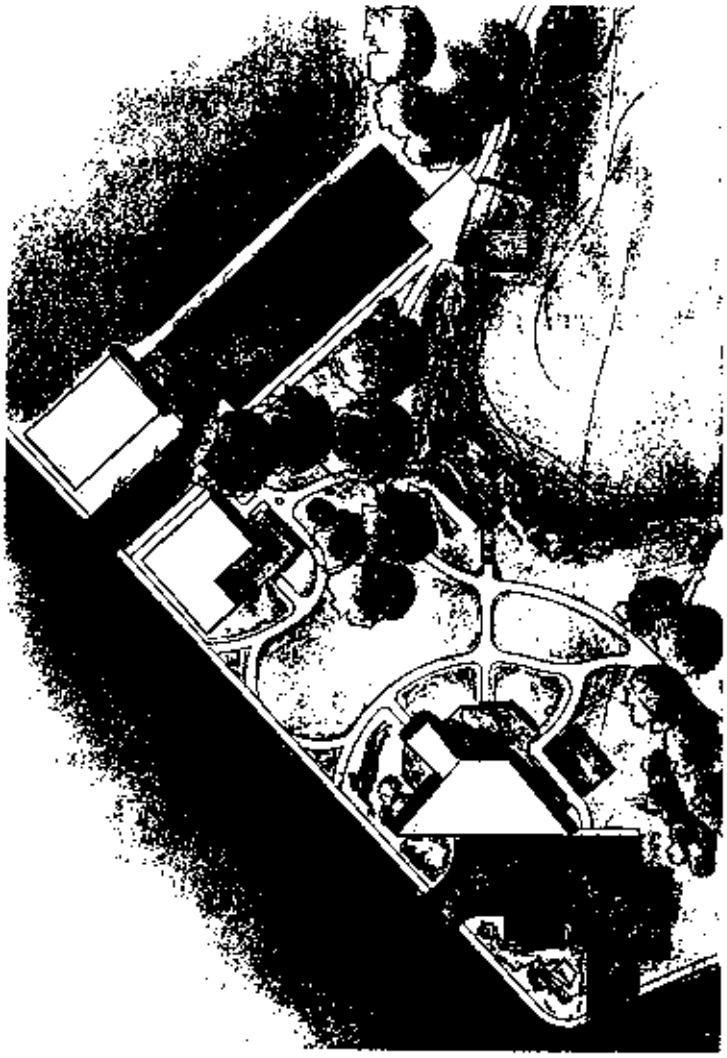
be enriched and the depth of the history can be explored. By creating more interesting facades and streetscapes along the main corridor running through the town daily travelers will begin to see the true character behind Redgranite. The restored and enhanced streetscape will also bring more visual interest and will help to slow traffic through the area as it become a more pedestrian friendly environment with amenities such as benches and track receptacles for pedestrians to linger.



Site Plan: Entrance Site

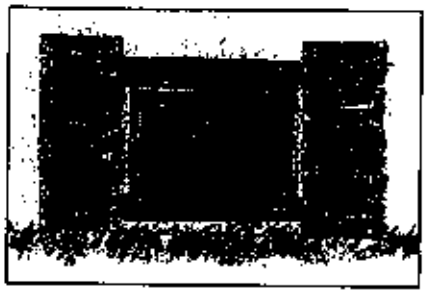
As one travels along highway 21 past the quarry the barrage of pavement, trees, and buildings block the views into the quarry and a traveler can be completely unaware that they just past the quarry area. The design proposal for this area creates a grand entrance for pedestrians into the "Quarry Park". This is done by removing the buildings blocking the view into the quarry along with most of the pavement and the central portion of the trees bordering the quarry. This opens up a view into the quarry and advertises its natural beauty and historical wonder to passersby. The sun also rises just over the east side of the quarry, so the early morning commuters traveling through the village will see the sun crest over the opposite end of the quarry.

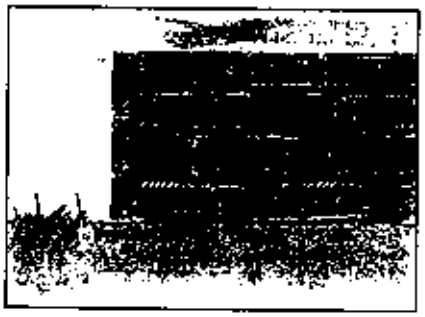
By creating more green and natural space the area becomes more pedestrian friendly and welcoming to all sorts of visitors. In the center of this entrance area there is a large central lawn that provides an open area for visitors to picnic in the sun and play.

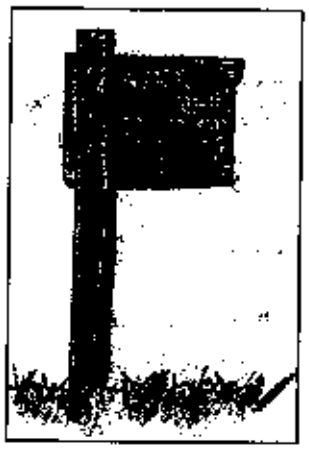


There are also several large decks that could be attached to the buildings to make the park an area where people feel welcome to linger and reminisce about the history and natural beauty of the place. The suggest path system is to be constructed to crushed granite stone to use local materials while the organic lines of the path create a softer organic feeling tying in with the natural feeling of the surrounding areas. The current green space and picnic area could be left as is to provide a shady setting for those who prefer to relax and enjoy the area in a cooler setting. The trees also provide a nice buffer to move from the open lawn into the natural setting surrounding the quarry and from the cars in the parking area to the north of the quarry.

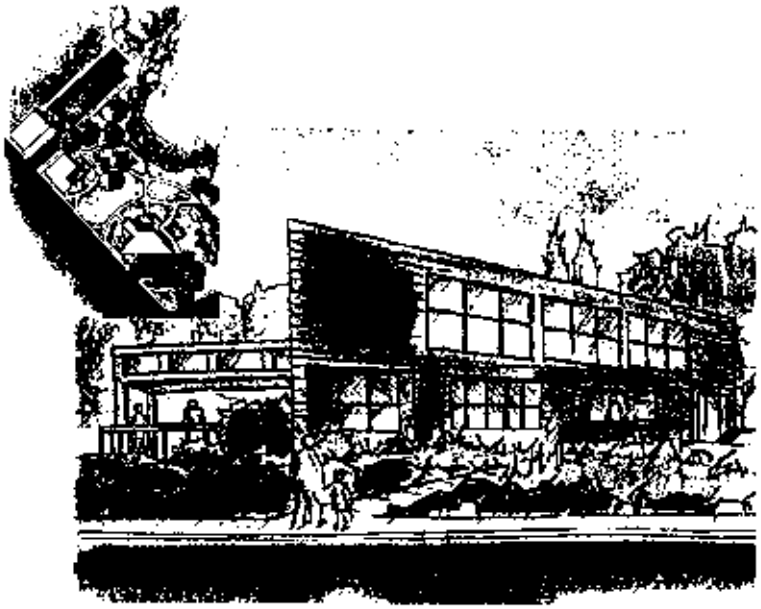
The addition of several site amenities using local materials could also help emulate the historic and natural setting of the park. By creating two main entrance signs framing the central lawn the quarry area would now receive the attention it deserves. The historic character of the area could also be reflected in the main signs by using the redgranite pavers on the posts of the signs and sturdy rails resembling railroad ties to hold the sign (Sheet D-A). The informational signs throughout the park could also use large sturdy wooden posts and wooden signs to create a rustic and natural feel to the visitor aids (Sheet D-B). There are seating walls bordering the paths creating boundaries for the users of the main lawn and making a barrier for the parking area and the quarry slopes. They also use the red granite pavers as facing to use local materials and advertise the importance of the quarry to the area (Sheet D-C). Through these amenities also

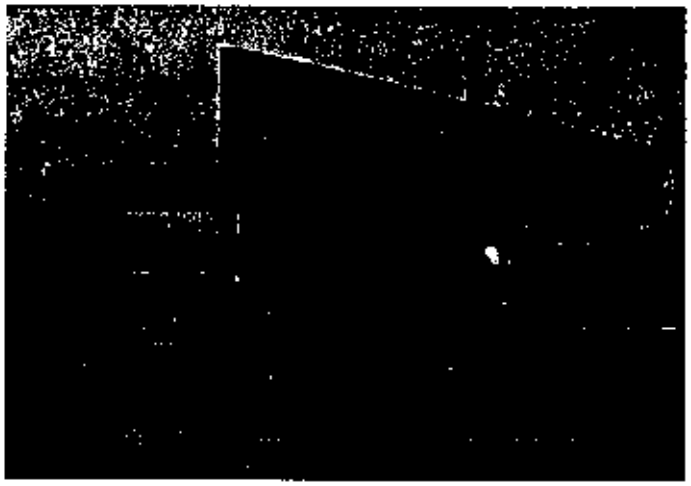






By providing for all different users, the site becomes a well-rounded and highly attractive visitor location for all. The two buildings with unique architecture could be renovated and their uses could be made to compliment the quarry park. The bank building could serve as a historical visitor center, displaying artifacts for the quarry days and telling stories of what the village used to be like. The old bank drive through could serve as a canopy for a main entrance from the central lawn. Just behind the bank a play

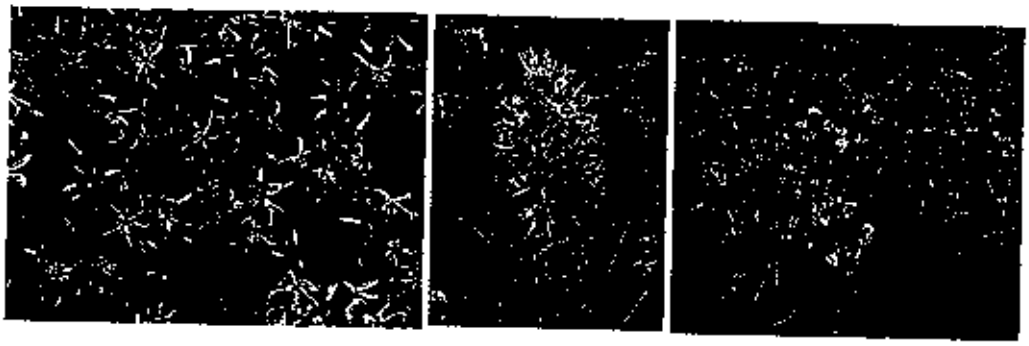


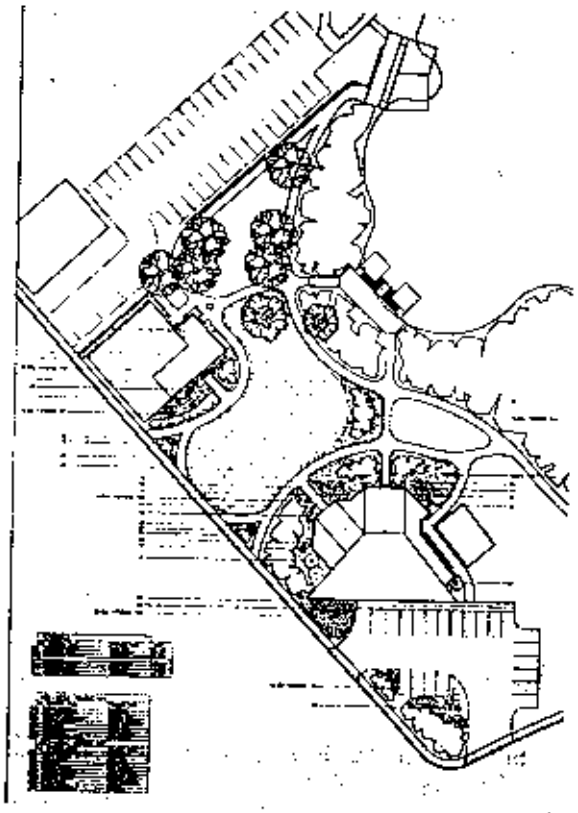


area for children could be located, with manual backhoes and other "industrial" or hands-on playground equipment giving children activities to enjoy while their parents may be there to experience more of the natural or historical setting. On the other side of the park, the old dinner could be used as a visitor center to accommodate more of the recreational users. Providing equipment rentals for swimmers and bikers on the Bannerman trail and having recharge tanks for the scuba divers that use the site. The building would also be a prime location for a changing room for quarry swimmers. The path leading out the back the building also provides direct access to what would be the "active" of the two docks. By revitalizing these two structure into accompanying facilities the attraction for various visitors increases and the architectural uniqueness and identity of the village is protected through there restoration.

The proposed detailed planting plan for this area uses the native flora of the area and continues to advertise the natural setting of the village. There are two separate plant communities of the Central Sand Hills ecological landscape represented in the planting

plan, the Wet-Mesic Prairie and the Pine Barrens, and they are located according to their microclimate in the entrance site (Sheet L-01). The Wet-Mesic Praire plants are located to the northern portion of the entrance site and they are mainly located in bioswales and retention basins as to take advantage of their periodically wet soils. Some plants typical of this plant community that were used include, Prairie Phlox, Prairie Blazing Star, and Shooting Star. The plants of the Pine Barrens plant community were located near the old bank building on the more southern portion of the site. The elevated area creates dryer soils allowing the plants of the barrens to thrive. The plants typical of the Pine Barrens included, Silky Aster, Lupine,

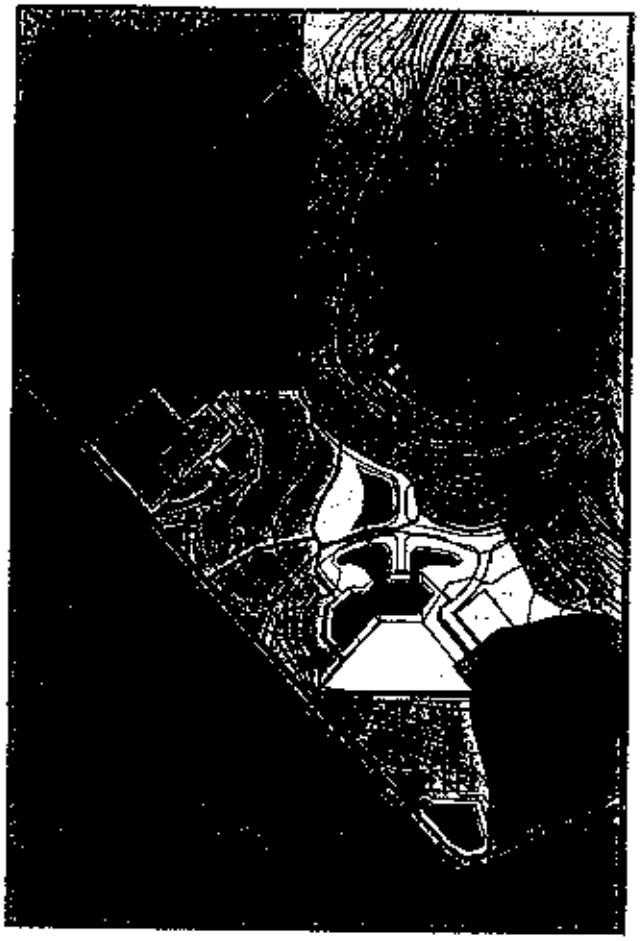




and Western Sunflower. The plantings near the deck to the north west of the old back include Cornus Racemosa (Gray Dogwood) and Salix Humilis (Prairie Willow) to give those relaxing on the deck somewhat of a barrier form passersby. The planting throughout the site are planted to appear in natural settings with granite boulders accenting the retention basins. There is also a Wet-Mesic Prairie seed mix used in most of the retention basin areas that includes mostly grasses with a few shorter flowering species mixed in. The heights of the plants in the mixes are shorter as not to block the background plantings but still tall enough to keep a natural setting apparent. In the two bioswales framing the entrance and entrance signs are Liatris Pychnostachya (Blazing-Star), Helianthus Grosseseratus (Sawtooth Sunflower), and Dodecathon Meadia (Shooting Star). These flowers along with the light seed mixes in them present a vibrant but natural entrance to those entering or even passing the park. The rest of the plantings either bordering the decks, buildings, or bioswales are varying in heights and colors (mostly yellows and violets) as to appear natural but still very eye catching. The only two new trees are the Quercus Macrocarpa (Bur Oak) and the Pinus Banksiana (Jack Pine), these give the users of the shady picnic area some privacy while framing the quarry view from the street and balancing the north side with the elevated southern half of the site.

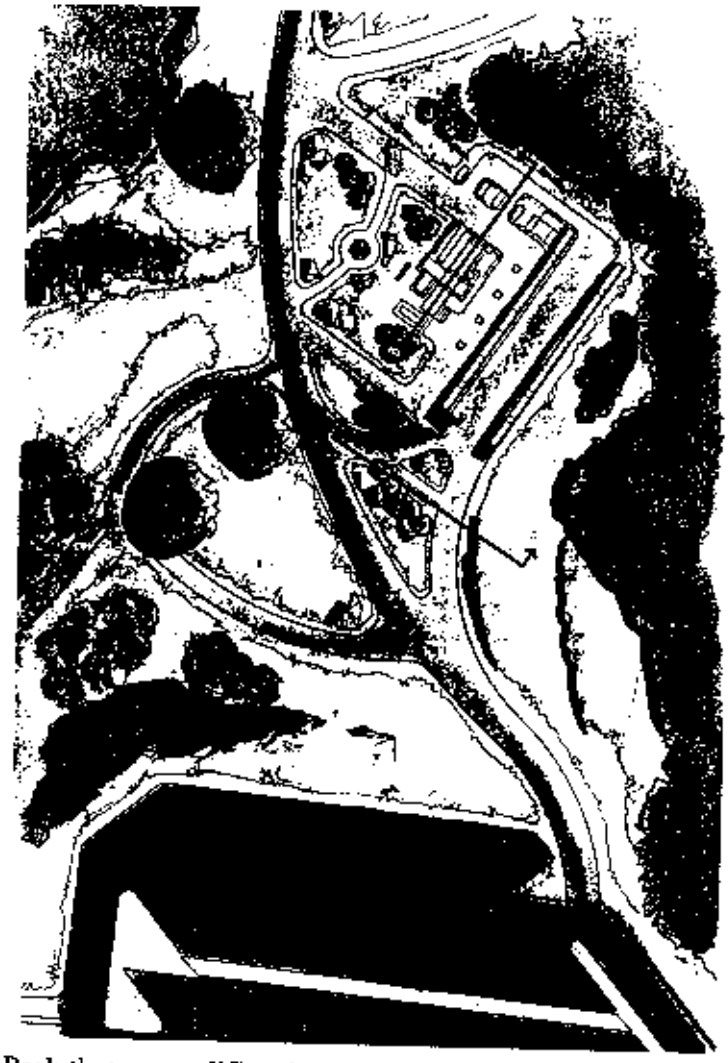
The overall change in ground cover could affect the storm water runoff immensely. Some contour changes in the plan are purely aesthetic, such as to create a mounding lawn in the center and balance the site with the elevated southern portion. Other changes were intended to control runoff and direct the flow into retention basins (Sheet C-03). The basic change in ground cover by removing a large portion of the

paved areas and replacing it with lawn and retention basins, the overall runoff is still 12% less even when the retention basins are filled to capacity. This is attributed to the increasing amount of pervious surfaces. Even before the retention basins are filled the total amount of runoff that can be held on site is now 2610.77 cu.ft. of water. Through manipulation of contours to direct runoff, and a series of overflow piping and French drains controlling pavement runoff a much larger portion of runoff is detained on site alleviating much of the impact that the site currently has on the environment. This is very important especially to maintain the natural character of the area for future generations and promote attention to these natural systems to local and regional visitors alike.



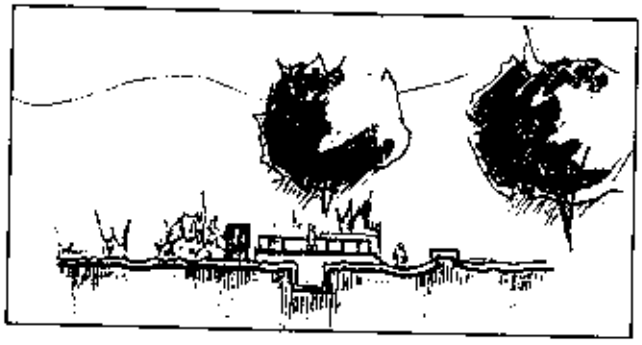
Site Plan: Historical Site

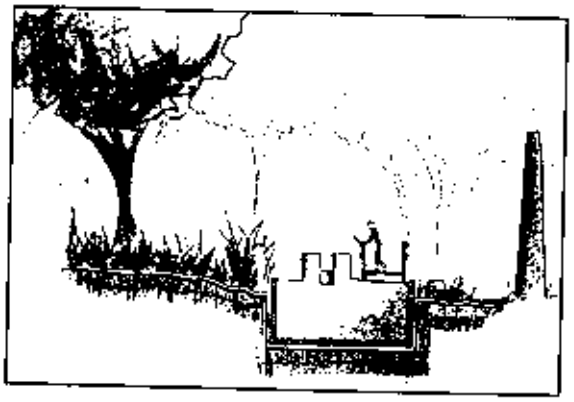
The separate historical sites within the quarry contain elements that explore both the historical and natural elements of the area combined. Since the quarry day's nature has taken over the once bare landscape surrounding the quarry to the point where the nature has become part of the character of the quarry area. It creates an encapsulating jungle in which the ruins left from the quarry area can be explored.



One area within the Quarry Park that exemplifies the natural and historical qualities of Redgranite is the historical sites of the crusher's ruins. This section of the project focused on the southeastern crusher remnants, because it is located right next to one of the current secondary parking lots for the quarry park and it is the most accessible of historical features of the site. The design proposed takes advantage of the openness of the site and allows visitors to experience the ruins at will. By not controlling the curious visitors they are allowed to read informational signs that are carefully placed and let them step back in time. The stories, pictures, and information on the sign give visitors a feel

for what the times where like. And, while wondering about they can fill in the blanks and conjure up ideas to fill in the blanks. There are plantings about one foot out from all of the ruins to prevent visitors and children from constantly touching the ruins which helps to preserve them. This also gives and effect of discovery as the ruins would feel enveloped by the surrounding nature. That feeling would also add to the sense of place in Redgranite and the juxtaposition of the natural and historical elements that combine to form a sense of what the village is about today.





Other elements of the site give the visitor ways to experience the site while getting the true sense of the village. The path out of the historical ruins to the northwest directs the visitors gaze upon the other set of crusher remains across the quarry. The boardwalk over the crusher pit gives visitors of all ages a way to safely learn about the different parts of the crusher building. The circular seating area along with the bench facing the crusher foundations allows visitors to relax and ponder the significance of the quarry industry to the history of the village. As for the planting and storm water elements for this area, a large retention basin filled with quarried boulders is located to the north of the organized parking area for runoff

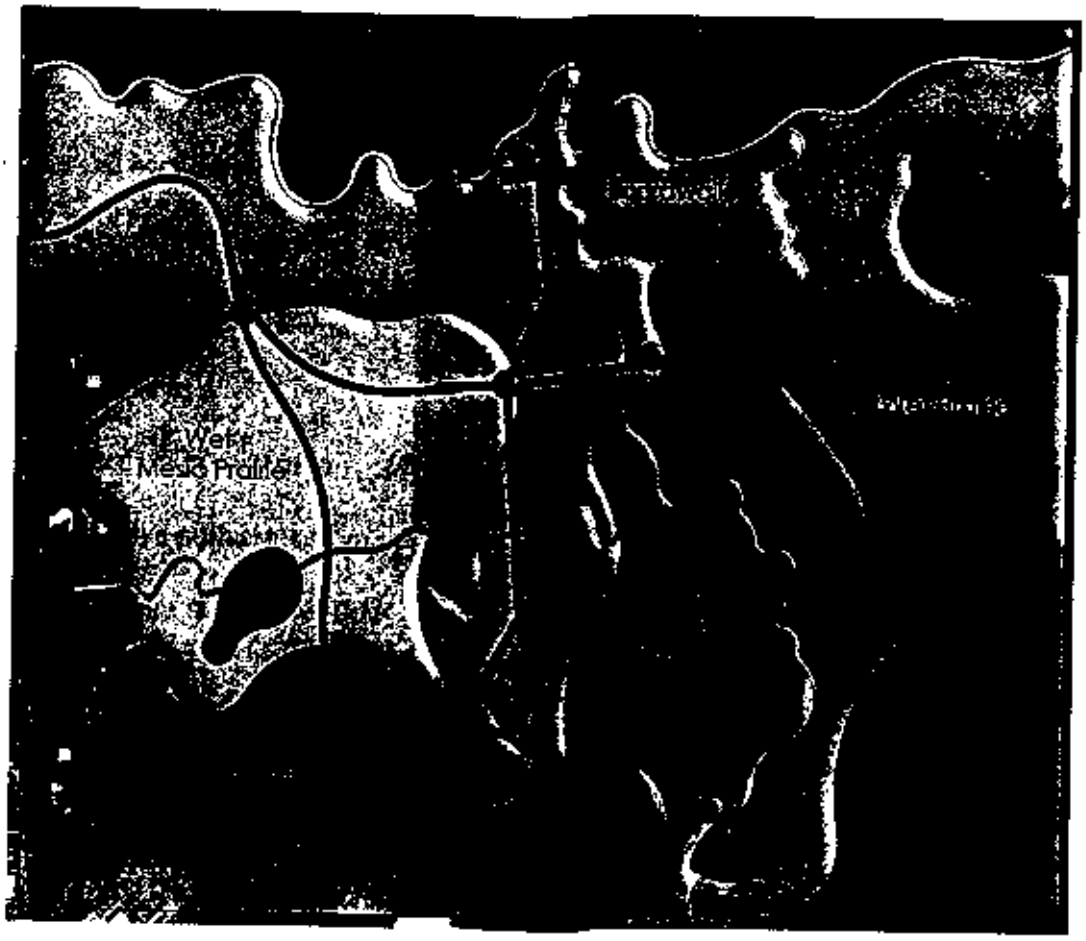
from cars to be retained and filtered through natural plantings. The plantings throughout the area are shrubs and seed mixes of the Pine-Oak Forest that the site setting is in. These plantings and site modifications would really help bring out the historical and natural character of the site and allow visitors to truly experience this significant area for what it means to the village.

Master Plan: Wetland Restoration

As one travels along the path system in the quarry park they discover how much of a natural setting is a part of the park, and how much has taken over the once barren quarry landscape. To the north of the

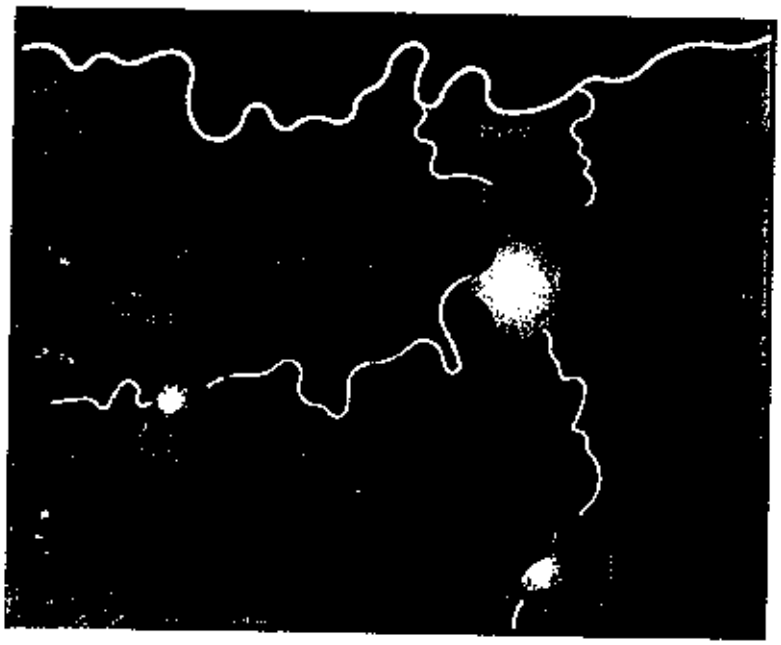
Legend

- Environmental Education Node
- Scenic & Informational Platforms
- Boardwalks
- Natural Area Paths
- Quarry Area Paths



quarry there is the open fields that were originally considered for development with this project. Since the soils were too moist for profitable development the possibility of a addition to the quarry park appeared. This area is great natural resource for the community and has the possibility to display the benefits of the natural systems to community members and visitors. After analyzing the soil types and determining what plant communities would best suit certain areas.. A trail and boardwalk system was laid out attempting to take advantage of the natural features of the site and educate users. The trail system and information nodes are located to give users the best possible idea of the benefit of natural systems to the environment. Nature is such a large part of the beauty of the village and quarry area the idea of exemplifying that beauty and what makes it possibly is very practical.

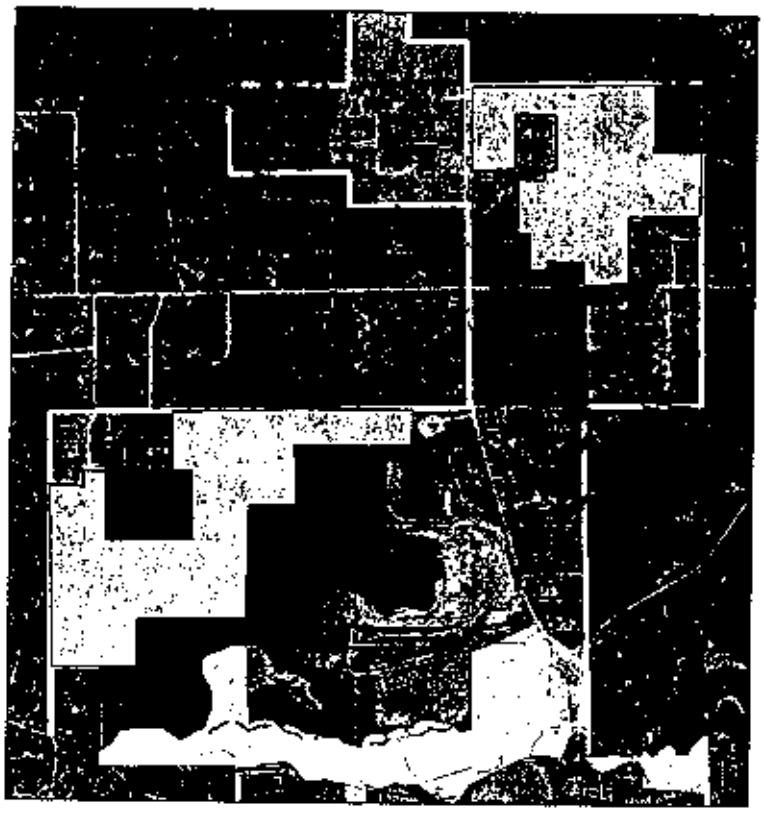
Along with providing a serene backdrop for the quarry park and homeowners lots, the natural wetland area could serve as a bioremediation system to help remove pollutants from runoff before it enters Willow Creek. Through a series of meandering streams and retention ponds the water is given a chance to pass various plants that absorb the chemicals in the water. The ponds give the particles in the water time to settle before moving on to the next set of streams. The larger pond is bigger than



the other two because it has to retain more water, and it allows the water time to pool and cool down. This step is necessary because after moving passed many living plants in the streams the water heats up. Willow Creek is a trout stream and the conditions that trout can survive in are highly dependent on the temperature of the stream. These open fields could become a great addition to a newly developed quarry park and provide so many benefits to the natural beauty of the village and natural systems around the village.

Master Plan: Development Sites

Since the area around the quarry was better fit for natural restoration and unsuitable for development purposes, there are several other areas throughout the town suitable for development that take advantage of the natural setting of their location. These areas if developed properly can help maintain the natural beauty of the area and the rural character of Redgranite. In the development options proposed they attempt to take advantage of both the contours and natural amenities. The lots provide scenic views and are



Legend

Slopes

- 0 - 12
- 12.00000001 - 4,910.62793
- Wetlands
- DNR Lands
- Willow Creek Floodplain

Soils Bldg Potential

- Very High
- High
- Medium
- Water
- Development Areas
- Natural Buffers

unique to their location. There is open natural space flowing through both developments to give a feel of being secluded in a non secluded area. The western development attempts to use the quarry as a natural feature that can be turned into a public park. Both developments blend with the existing development and buffer themselves from natural systems to maintain their stability. The size of the lots recommended should be typically larger giving residents a rural feeling but still at a size where the amount of space taken up is efficient.

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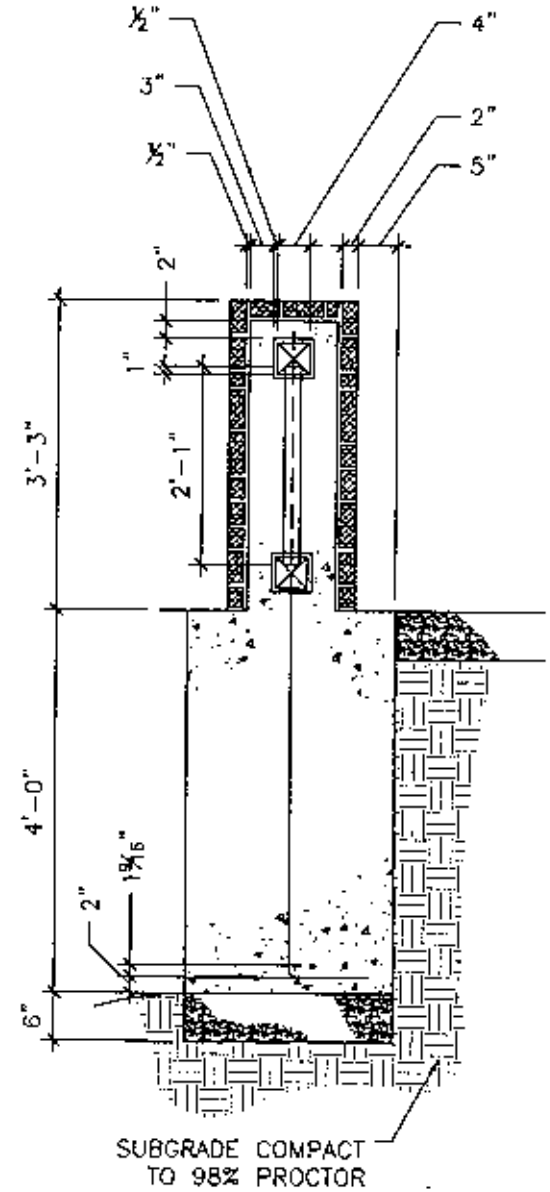
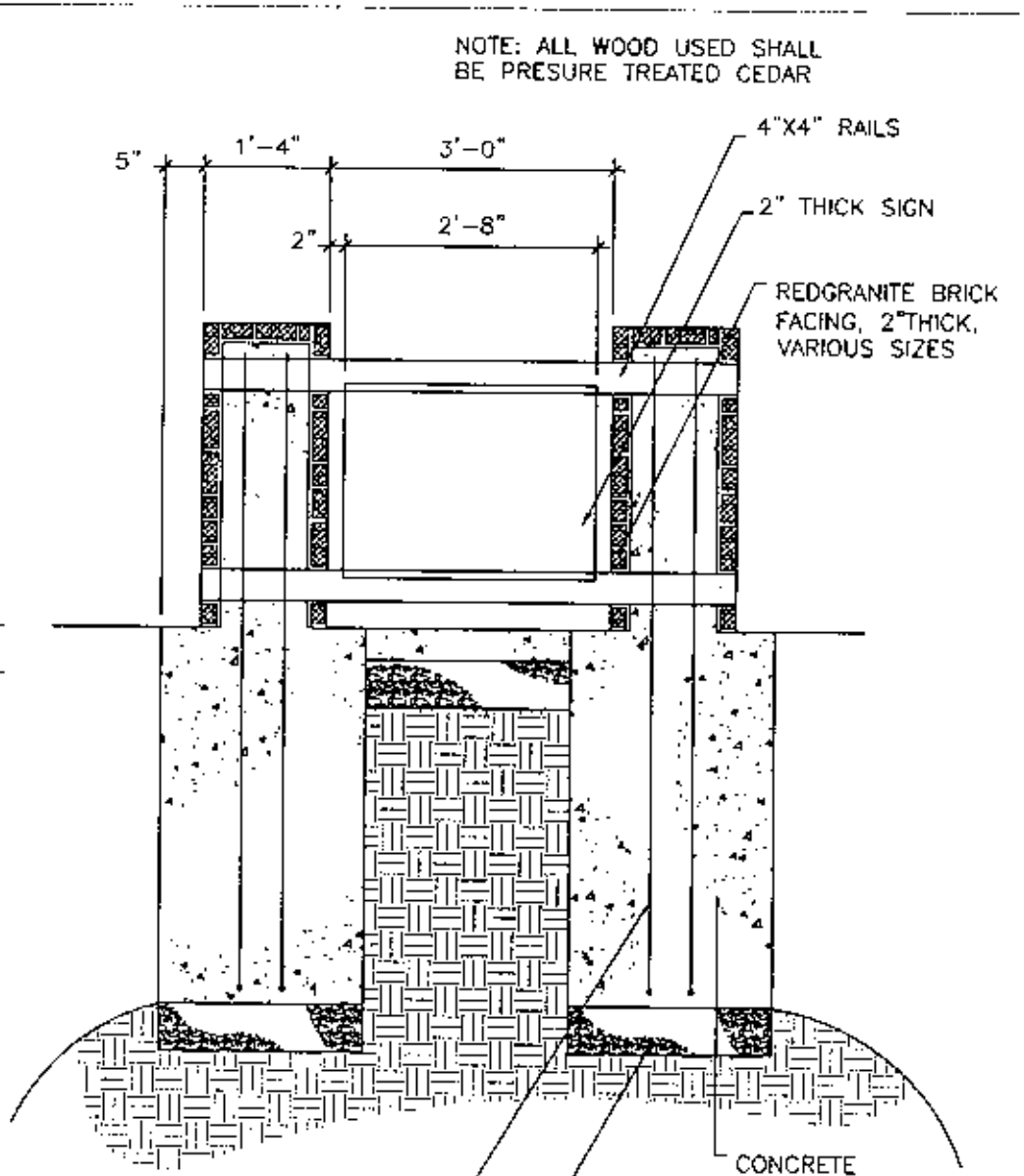
Press Release

There will be a presentation covering a Place Based Tourism Project done for the Village of Redgranite at 7:00pm on the night of Tuesday, May 17th at the Redgranite Village Hall. A student in the Landscape Architecture Department, James Fruechtl, at the Univeristy of Wisconsin at Madison has spent the last year developing designs and recommendation for the village centering on the historical and natural features of the village. The Village has such a strong sense of history and natural beauty that it is necessary to preserve these resources for future generations and promote them to draw in a larger tourism base. Mr. Fruechtl will present his project and recommendations at the beginning of the board meeting. Any and all interested guests are invited to attend.

Time Log

Activity	HRS
Traveling	4
Designing / Final Drawings	210
Organizing Researching	44
Presentation Preparation	55
Writing Document	48
Meeting with Client	5
Total	366





CONNECTION	JOINT
SIGN TO RAIL	MORTISE & TENON 8d 4", HOT DIPPED GALVINIZED STEEL

A MAIN ENTRANCE SIGN

JAMES FRUECHTL
4/24/2005

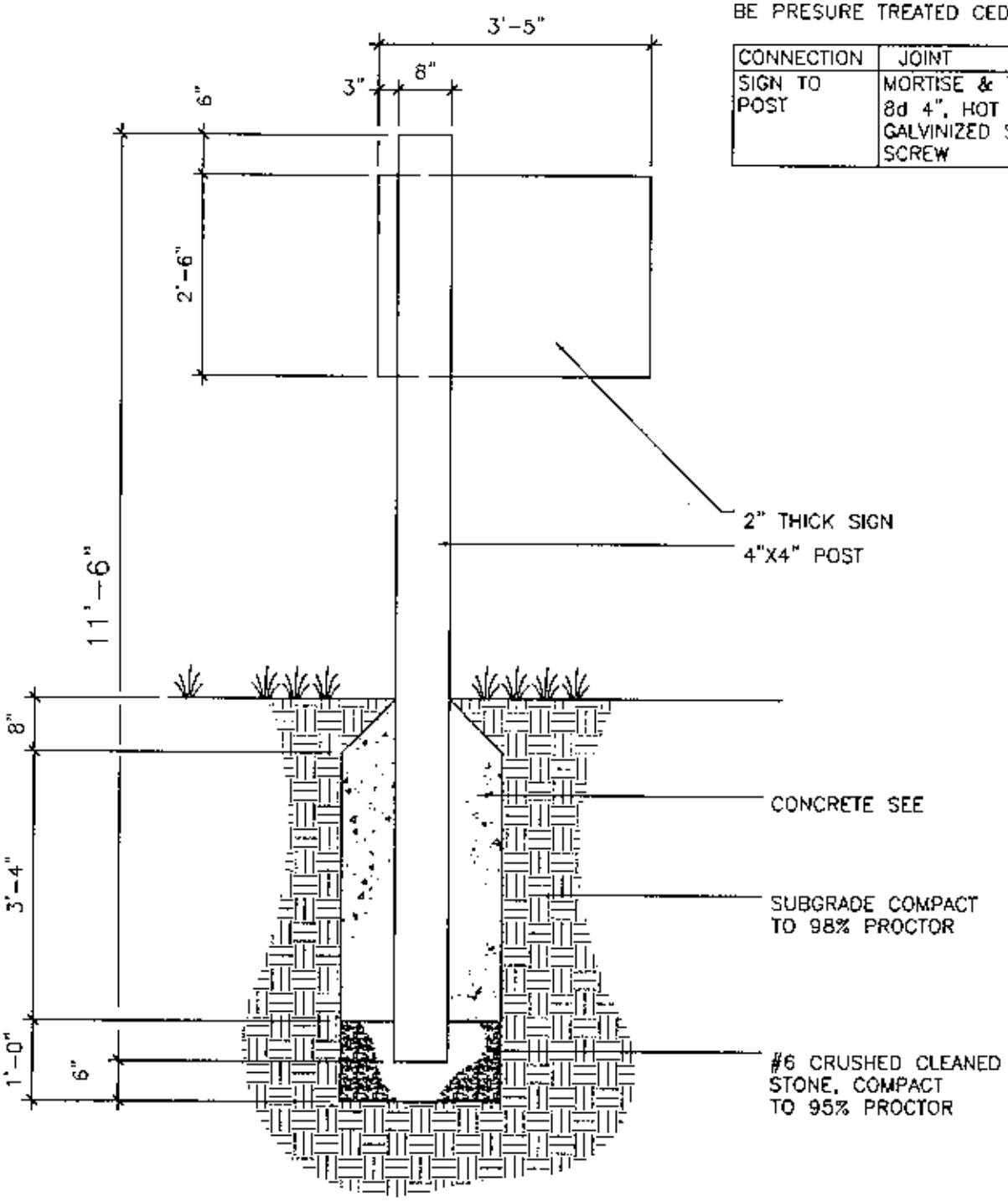
ENTRANCE SITE

QUARRY PARK
DETAILS

SHEET

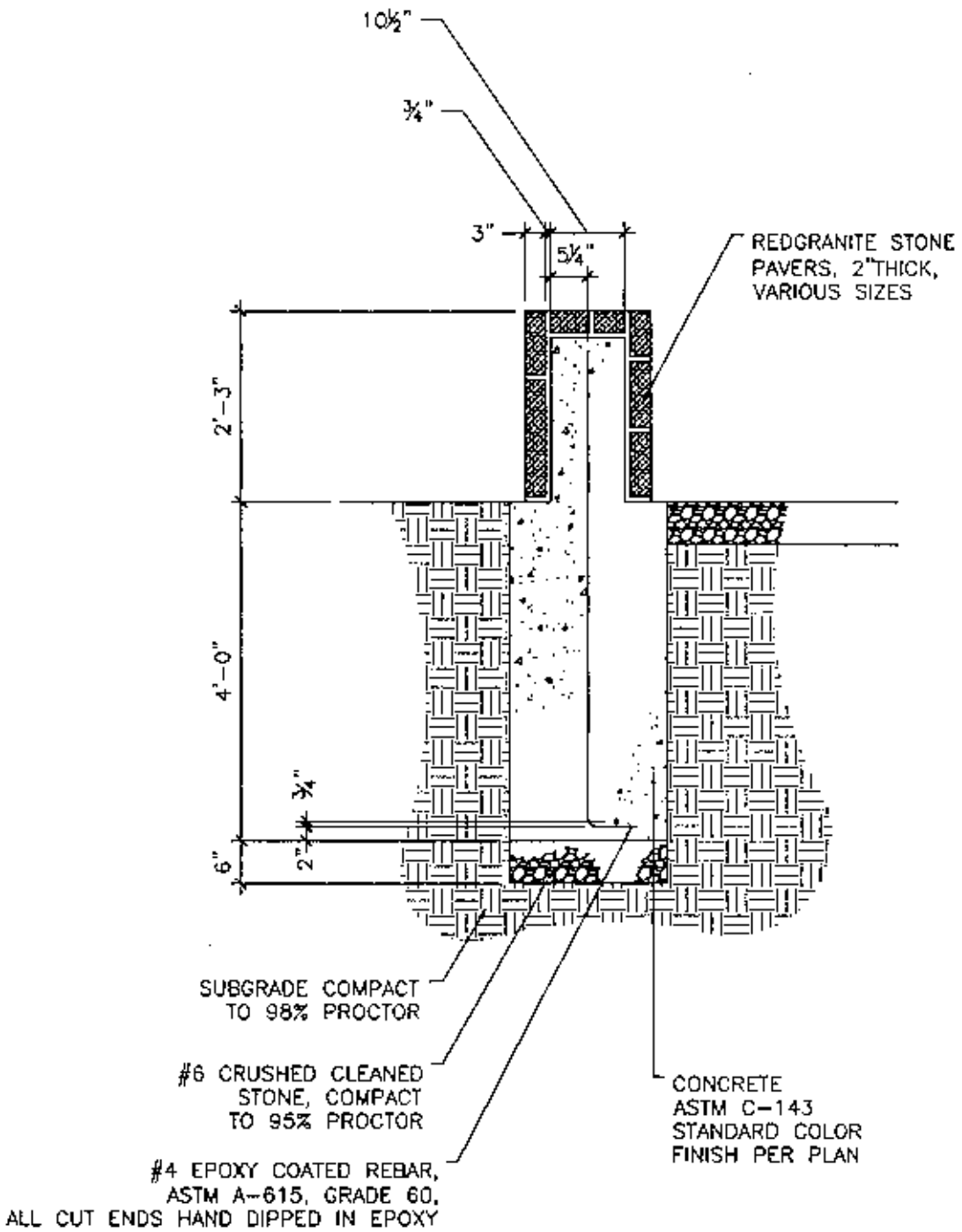
NOTE: ALL WOOD USED SHALL BE PRESURE TREATED CEDAR

CONNECTION	JOINT
SIGN TO POST	MORTISE & TENON 8d 4", HOT DIPPED GALVINIZED STEEL SCREW



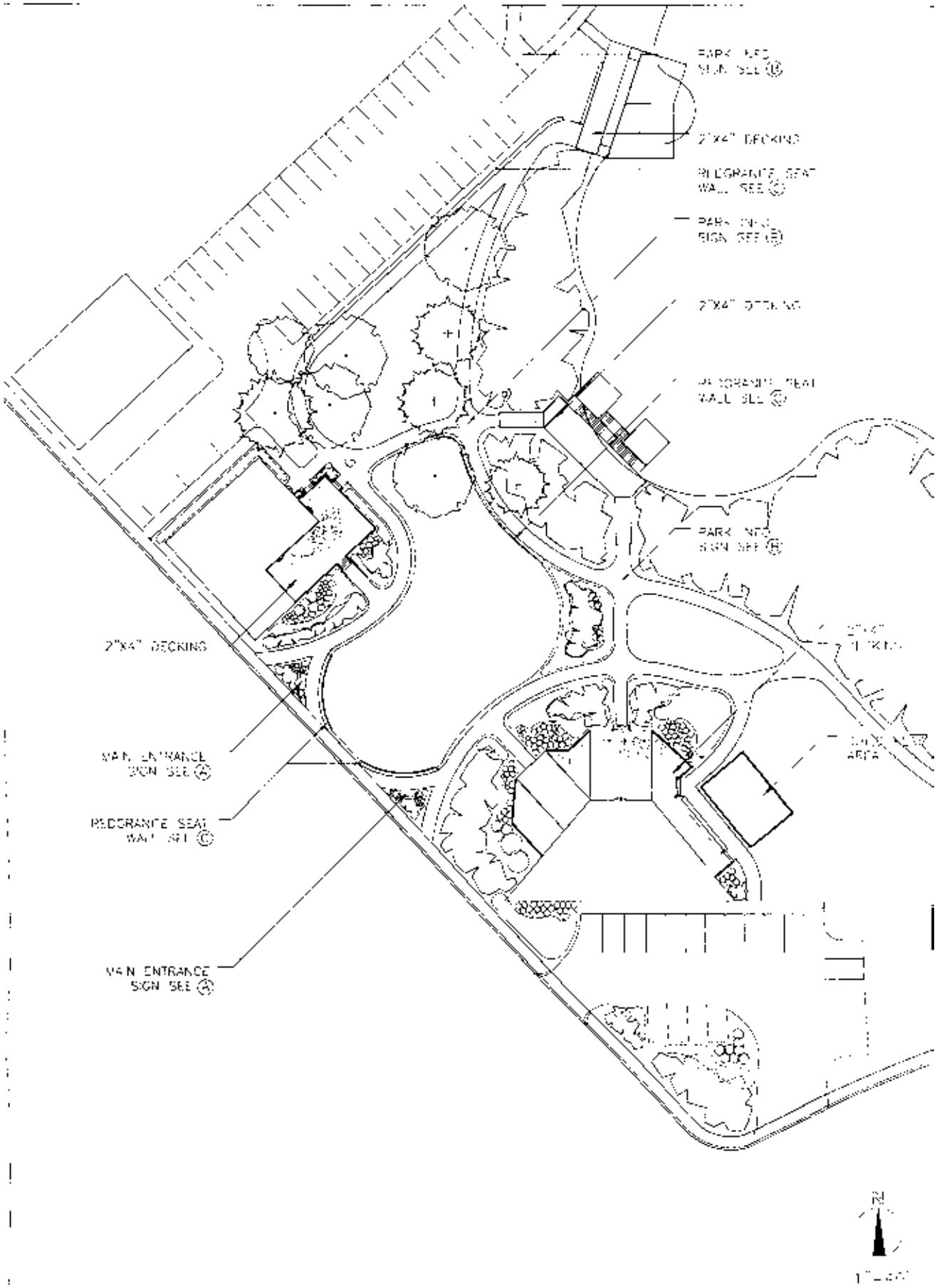
B QUARRY PARK INFORMATIONAL SIGN
SCALE: 1"=2'

SHEET	QUARRY PARK DETAILS	ENTRANCE SITE	JAMES FRUECHTL
			4/24/2005



C REDGRANITE SEAT WALL
SCALE: 1"=2'

SHEET	QUARRY PARK DETAILS	ENTRANCE SITE	JAMES FRUECHTL 4/22/2005



ENTRANCE SITE
LAYOUT PLAN

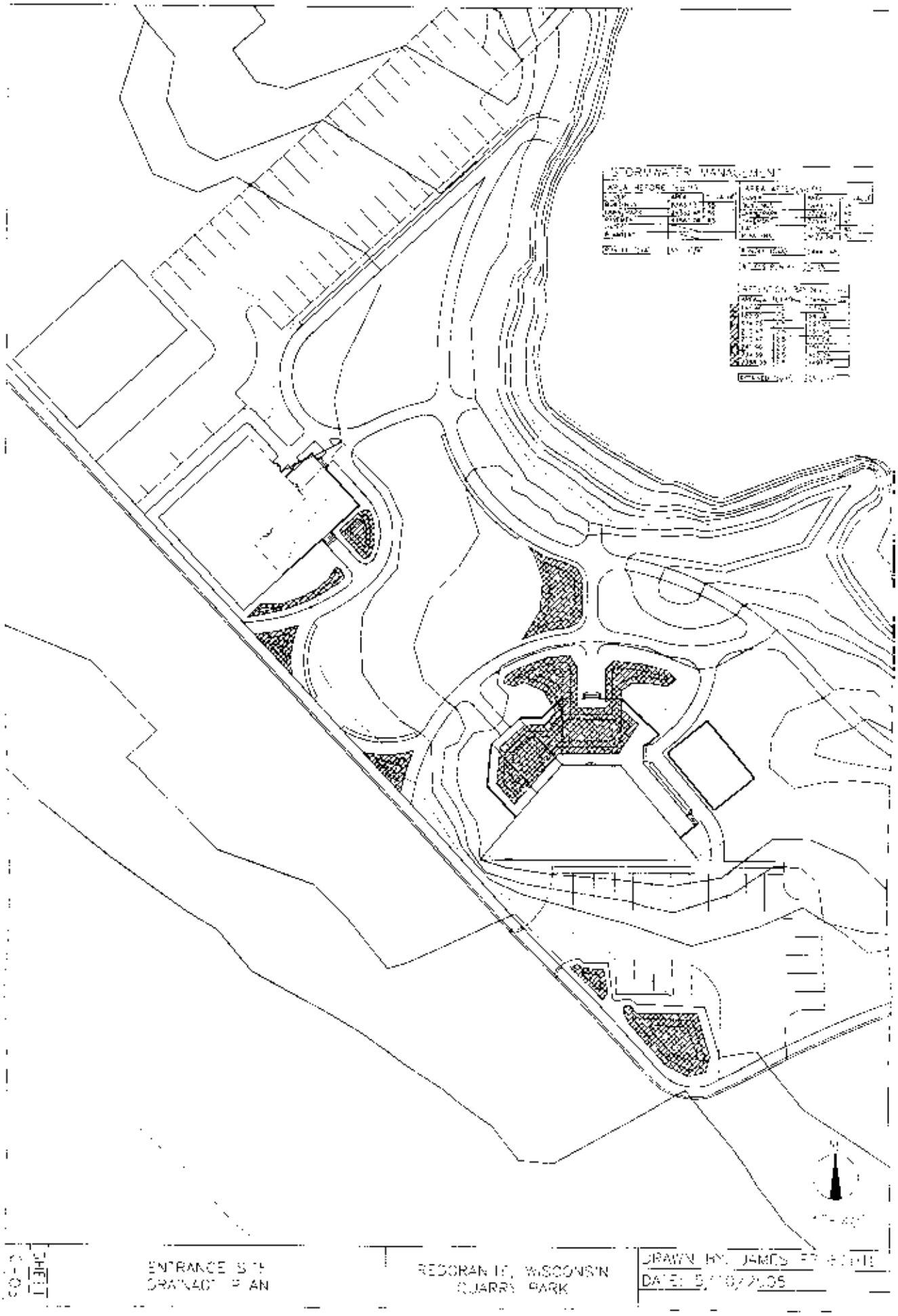
REDGRANITE, WISCONSIN
QUARRY PARK

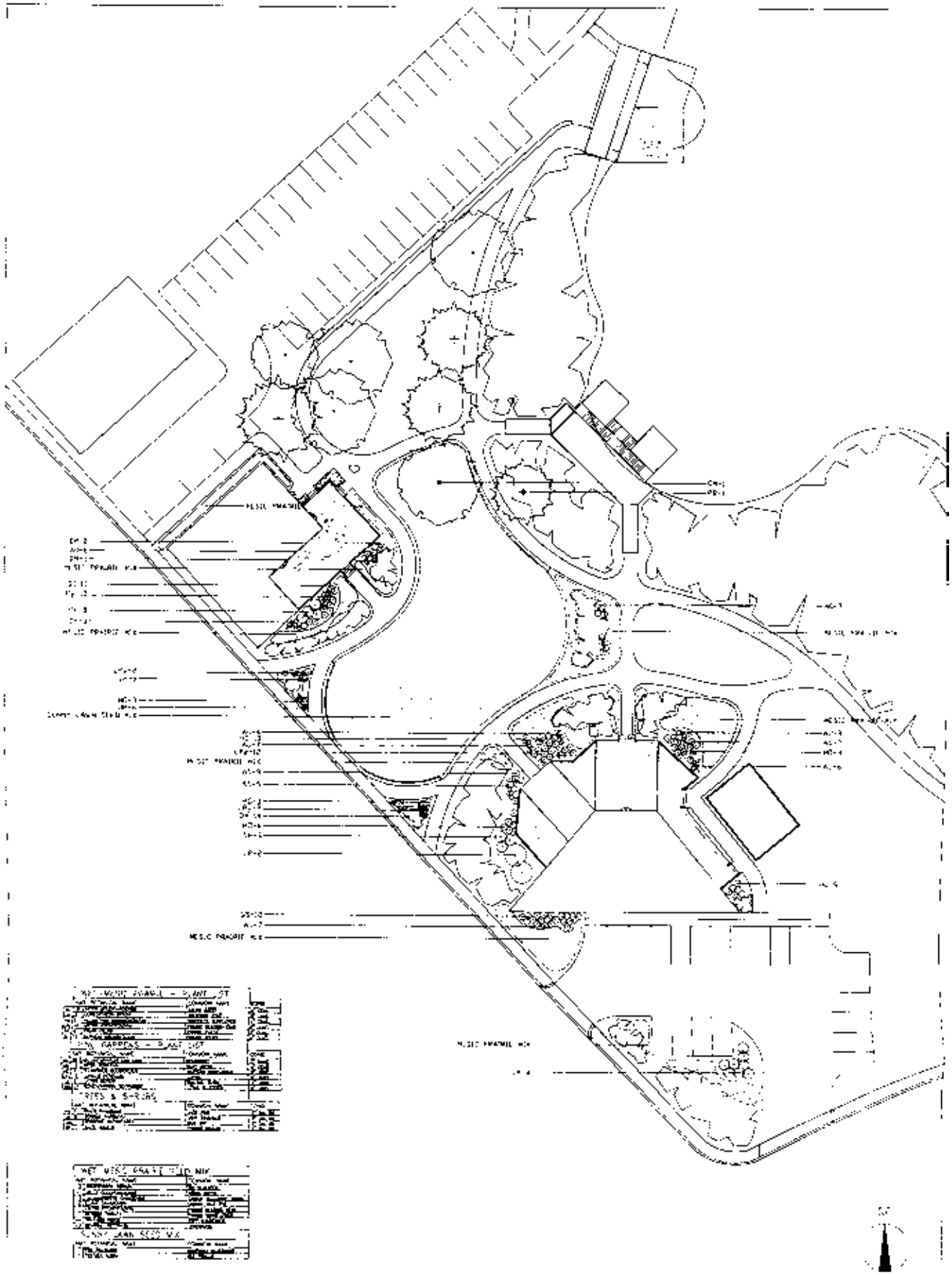
DRAWN BY: JAMES FRIEDRICH
DATE: 05/05/2000

ENTRANCE SITE
GRADING PLAN

REDGRANITE, WISCONSIN
QUARRY PARK

SHEET
C-02


STORMWATER MANAGEMENT
ENTRANCE SITE
DRAINAGE PLAN
RESORANTE, WISCONSIN
QUARRY PARK
DRAWN BY: JAMES
DATE: 5/10/2005



ENTRANCE SITE – PLANTING PLAN

HEDGRANTS, WISCONSIN
QUARRY PARK

DRAWN BY: JAMES FRIEL
DATE: 4/26/2005

Table K-1. Equalized Value, 1980

REAL ESTATE	T Aurora	C Berlin pt.	T Bloomfield	V Coloma	T Coloma	T Dakota	T Deerfield	V Hancock	T Hancock	T Leon	V Lohrville	T Marion	T Mt Morris	T Oasis	V Plainfield	T Plainfield	T Poy Sippi	V Redgranite	T Richford	T Rose	T Saxeville	T Springwater	T Warren	C Wautoma	T Wautoma	V Wild Rose	Waushara Co.
RESIDENTIAL																											
LAND	1,080,100	138,600	1,766,300	553,400	3,579,100	4,669,800	3,478,800	561,500	3,081,600	6,726,800	527,200	15,439,000	9,204,400	1,584,700	1,127,900	415,100	1,515,600	1,169,800	971,600	1,371,300	4,204,100	12,255,300	792,400	3,549,200	2,765,300	2,030,500	84,559,400
IMP	5,288,100	494,500	4,668,300	3,854,000	5,927,800	8,530,500	6,725,900	3,449,000	3,683,100	12,466,400	2,017,400	27,958,900	13,792,100	3,427,500	7,086,200	2,446,100	5,471,600	6,878,700	2,973,700	3,659,700	9,984,400	17,566,900	2,697,700	15,849,000	9,113,000	4,969,300	190,979,800
TOTAL	6,368,200	633,100	6,434,600	4,407,400	9,506,900	13,200,300	10,204,700	4,010,500	6,764,700	19,193,200	2,544,600	43,397,900	22,996,500	5,012,200	8,214,100	2,861,200	6,987,200	8,048,500	3,945,300	5,031,000	14,188,500	29,822,200	3,490,100	19,398,200	11,878,300	6,999,800	275,539,200
COMMERCIAL																											
LAND	238,800	6,600	81,600	241,100	114,000	977,200	232,000	110,500	71,100	344,800	19,300	248,600	25,800		181,900	156,100	154,800	211,000	202,200	193,100	59,600	1,050,000	12,600	667,300	242,000	391,000	6,233,000
IMP	595,500	13,500	292,700	1,382,500	289,200	1,149,400	124,800	605,300	176,600	165,400	85,300	741,100	158,300		1,556,400	917,100	664,800	1,002,200	157,100	117,700	216,500	1,271,500	66,200	6,269,900	1,689,200	3,194,000	22,902,200
TOTAL	834,300	20,100	374,300	1,623,600	403,200	2,126,600	356,800	715,800	247,700	510,200	104,600	989,700	184,100	0	1,738,300	1,073,200	819,600	1,213,200	359,300	310,800	276,100	2,321,500	78,800	6,937,200	1,931,200	3,585,000	29,135,200
MANUFACTURING																											
LAND	0	0	8,200	0	12,300	7,700	0	5,000	22,800	0	0	0	0	26,000	0	0	7,000	51,400	0	4,000	0	0	5,200	49,800	70,000	79,300	348,700
IMP			44,100		107,300	35,600		13,800	86,200					165,900			84,000	830,300		18,800			19,700	1,163,300	229,600	851,200	3,649,800
TOTAL	0	0	52,300	0	119,600	43,300	0	18,800	109,000	0	0	0	0	191,900	0	0	91,000	881,700	0	22,800	0	0	24,900	1,213,100	299,600	930,500	3,998,500
AGRICULTURAL																											
LAND	10,235,400	142,400	9,101,900	146,700	5,607,000	4,637,000	7,494,100	138,700	9,300,000	4,141,700	170,300	5,646,500	4,530,000	14,354,000	201,600	11,667,400	8,421,800	337,400	5,115,100	5,368,400	5,599,500	4,694,100	6,592,000		5,181,600	204,000	129,028,600
IMP	4,212,900	59,000	3,864,000	22,200	2,524,700	1,758,000	2,391,000	63,500	2,306,000	1,300,500	22,000	2,295,100	2,197,900	3,858,700	299,000	2,547,700	3,341,500	25,000	2,303,600	2,322,500	2,253,800	2,759,800	2,757,200		3,070,000	59,700	48,615,300
TOTAL	14,448,300	201,400	12,965,900	168,900	8,131,700	6,395,000	9,885,100	202,200	11,606,000	5,442,200	192,300	7,941,600	6,727,900	18,212,700	500,600	14,215,100	11,763,300	362,400	7,418,700	7,690,900	7,853,300	7,453,900	9,349,200	0	8,251,600	263,700	177,643,900
SWAMP & WASTE																											
LAND	885,700	0	418,300	0	40,600	381,900	19,000	0	45,000	56,300	0	187,300	276,400	10,900	0	107,800	551,600	0	100,400	54,800	407,700	145,500	607,400	0	43,500	0	4,340,100
IMP																											0
TOTAL	885,700	0	418,300	0	40,600	381,900	19,000	0	45,000	56,300	0	187,300	276,400	10,900	0	107,800	551,600	0	100,400	54,800	407,700	145,500	607,400	0	43,500	0	4,340,100
FOREST																											
LAND	1,064,800	0	1,866,400	0	4,034,000	3,686,800	4,286,200	0	1,935,200	4,852,100	0	3,501,100	4,810,700	2,602,300	0	2,476,500	773,500	0	4,390,100	3,652,800	3,713,200	4,739,200	2,122,900	0	3,771,300	0	58,279,100
IMP																											0
TOTAL	1,064,800	0	1,866,400	0	4,034,000	3,686,800	4,286,200	0	1,935,200	4,852,100	0	3,501,100	4,810,700	2,602,300	0	2,476,500	773,500	0	4,390,100	3,652,800	3,713,200	4,739,200	2,122,900	0	3,771,300	0	58,279,100
OTHER																											
LAND	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IMP																											0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL REAL ESTATE																											
LAND	13,504,800	287,600	13,242,700	941,200	13,387,000	14,360,400	15,510,100	815,700	14,455,700	16,121,700	716,800	25,022,500	18,847,300	18,577,900	1,511,400	14,822,900	11,424,300	1,769,600	10,779,400	10,644,400	13,984,100	22,884,100	10,132,500	4,266,300	12,073,700	2,704,800	282,788,900
IMP	10,096,500	567,000	8,869,100	5,258,700	8,849,000	11,473,500	9,241,700	4,131,600	6,251,900	13,932,300	2,124,700	30,995,100	16,148,300	7,452,100	8,941,600	5,910,900	9,561,900	8,736,200	5,434,400	6,118,700	12,454,700	21,598,200	5,540,800	23,282,200	14,101,800	9,074,200	266,147,100
TOTAL	23,601,300	854,600	22,111,800	6,199,900	22,236,000	25,833,900	24,751,800	4,947,300	20,707,600	30,054,000	2,841,500	56,017,600	34,995,600	26,030,000	10,453,000	20,733,800	20,986,200	10,505,800	16,213,800	16,763,100	26,438,800	44,482,300	15,673,300	27,548,500	26,175,500	11,779,000	548,936,000

Source: Table II, 18=980 Statement of Equalized Value as Set by the WDOR, 1980 Statistical Report of Property Values, Waushara County Wisconsin, WDOR

Table K-2. Equalized Value, 1990

REAL ESTATE	T Aurora	C Berlin pt	T Bloomfield	V Coloma	T Coloma	T Dakota	T Deerfield	V Hancock	T Hancock	T Leon	V Lohrville	T Marion	T Mt Morris	T Oasis	V Plainfield	T Plainfield	T Poy Sippi	V Redgranite	T Richford	T Rose	T Saxeville	T Springwater	T Warren	C Wautoma	T Wautoma	V Wild Rose	Waushara Co.
RESIDENTIA																											
LAND	1,110,655	224,800	1,709,700	646,100	6,101,325	4,814,755	4,118,970	811,560	2,949,700	8,446,250	658,150	23,309,740	13,511,800	2,081,750	741,425	680,900	1,113,900	2,109,300	1,857,925	2,053,100	5,599,200	17,043,400	985,700	3,017,700	3,169,280	1,498,300	110,365,385
IMP	7,173,200	657,600	5,793,500	4,833,325	9,510,700	14,364,000	8,351,870	4,307,700	7,154,240	17,387,800	2,822,475	38,971,150	21,120,300	4,370,700	7,310,850	3,738,800	7,423,658	8,455,450	4,536,730	4,785,400	12,736,450	26,283,300	3,850,150	18,408,600	12,465,830	7,048,100	263,861,878
TOTAL	8,283,855	882,400	7,503,200	5,479,425	15,612,025	19,178,755	12,470,840	5,119,260	10,103,940	25,834,050	3,480,625	62,280,890	34,632,100	6,452,450	8,052,275	4,419,700	8,537,558	10,564,750	6,394,655	6,838,500	18,335,650	43,326,700	4,835,850	21,426,300	15,635,110	8,546,400	374,227,263
COMMERCIAI																											
LAND	192,300	16,700	68,700	228,850	139,200	1,051,310	114,000	106,800	76,100	235,400	19,800	134,580	42,100		185,825	196,700	149,500	373,000	238,200	219,200	74,600	1,028,200	30,900	1,038,300	250,750	504,900	6,715,915
IMP	1,522,860	4,600	345,700	1,789,250	355,875	1,960,790	125,630	694,800	312,300	390,700	158,800	661,675	170,700		2,404,450	2,772,000	1,064,890	2,188,100	213,300	75,600	342,700	819,800	146,000	9,413,300	1,648,520	4,553,900	34,136,240
TOTAL	1,715,160	21,300	414,400	2,018,100	495,075	3,012,100	239,630	801,600	388,400	626,100	178,600	796,255	212,800	0	2,590,275	2,968,700	1,214,390	2,561,100	451,500	294,800	417,300	1,848,000	176,900	10,451,600	1,899,270	5,058,800	40,852,155
MANUFACTURIN																											
LAND	0	0	8,500	22,800	13,500	0	0	0	32,100	0	0	29,900	5,800	36,300	0	14,100	3,700	60,300	0	4,600	0	0	5,600	105,500	44,900	30,000	417,600
IMP			60,600	304,200	161,900				2,049,800			105,100	71,800	126,400		96,300	12,200	887,200		34,200			24,500	1,916,400	228,800	262,200	6,341,600
TOTAL	0	0	69,100	327,000	175,400	0	0	0	2,081,900	0	0	135,000	77,600	162,700	0	110,400	15,900	947,500	0	38,800	0	0	30,100	2,021,900	273,700	292,200	6,759,200
AGRICULTURA																											
LAND	7,224,905	31,700	7,402,900	79,225	6,596,175	4,270,285	7,311,020	107,800	9,571,515	4,395,200	162,340	4,831,360	3,842,600	14,805,400	82,700	12,518,200	6,336,684	367,200	4,708,875	6,219,100	5,334,680	4,499,700	5,287,550	0	5,209,530	143,400	121,340,044
IMP	6,068,590	62,500	5,345,800	11,400	1,288,500	1,302,800	3,536,850	86,100	2,079,190	1,659,500	18,000	2,431,420	2,044,900	3,859,100	275,400	2,134,400	4,720,549	96,600	2,665,300	2,724,200	3,297,600	1,545,900	3,096,300		3,031,190	25,200	53,407,289
TOTAL	13,293,495	94,200	12,748,700	90,625	7,884,675	5,573,085	10,847,870	193,900	11,650,705	6,054,700	180,340	7,262,780	5,887,500	18,664,500	358,100	14,652,600	11,057,233	463,800	7,374,175	8,943,300	8,632,280	6,045,600	8,383,850	0	8,240,720	168,600	174,747,333
SWAMP & WASTE																											
LAND	1,483,805	0	322,700	0	31,900	525,925	32,480	0	52,100	192,800	0	116,985	154,900	6,700	0	48,000	517,172	0	229,500	28,100	331,900	19,900	411,350	0	358,000	22,500	4,886,717
IMP																	3,000										3,000
TOTAL	1,483,805	0	322,700	0	31,900	525,925	32,480	0	52,100	192,800	0	116,985	154,900	6,700	0	48,000	520,172	0	229,500	28,100	331,900	19,900	411,350	0	358,000	22,500	4,889,717
FORES																											
LAND	403,175	0	2,303,700	0	3,201,475	2,553,200	2,524,640	0	2,060,900	5,126,450	0	3,202,015	3,620,900	1,606,300	0	1,955,400	1,028,135		2,811,728	3,586,600	3,388,200	3,893,100	1,699,250	0	2,754,120	0	47,719,288
IMP	700						7,000		1,900	200			25,400				4,205					52,900					92,305
TOTAL	403,875	0	2,303,700	0	3,201,475	2,553,200	2,531,640	0	2,062,800	5,126,650	0	3,202,015	3,646,300	1,606,300	0	1,955,400	1,032,340	0	2,811,728	3,586,600	3,388,200	3,946,000	1,699,250	0	2,754,120	0	47,811,593
OTHEF																											
LAND	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IMP																											0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL REAL ESTATI																											
LAND	10,414,840	273,200	11,816,200	976,975	16,083,575	13,215,475	14,101,110	1,026,160	14,742,415	18,396,100	840,290	31,624,580	21,178,100	18,536,450	1,009,950	15,413,300	9,149,091	2,909,800	9,846,228	12,110,700	14,728,580	26,484,300	8,420,350	4,161,500	11,786,580	2,199,100	291,444,949
IMP	14,765,350	724,700	11,545,600	6,938,175	11,316,975	17,627,590	12,021,350	5,088,600	11,597,430	19,438,200	2,999,275	42,169,345	23,433,100	8,356,200	9,990,700	8,741,500	13,228,502	11,627,350	7,415,330	7,619,400	16,376,750	28,701,900	7,116,950	29,738,300	17,374,340	11,889,400	357,842,312
TOTAL	25,180,190	997,900	23,361,800	7,915,150	27,400,550	30,843,065	26,122,460	6,114,760	26,339,845	37,834,300	3,839,565	73,793,925	44,611,200	26,892,650	11,000,650	24,154,800	22,377,593	14,537,150	17,261,558	19,730,100	31,105,330	55,186,200	15,537,300	33,899,800	29,160,920	14,088,500	649,287,263

Table K-3. Equalized Value, 2000

REAL ESTATE	T Aurora	C Berlin pt.	T Bloomfield	V Coloma	T Coloma	T Dakota	T Deerfield	V Hancock	T Hancock	T Leon	V Lohrville	T Marion	T Mt Morris	T Oasis	V Plainfield	T Plainfield	T Poy Sippi	V Redgranite	T Richford	T Rose	T Saxeville	T Springwater	T Warren	C Wautoma	T Wautoma	V Wild Rose	Waushara Co.
RESIDENTIAL																											
LAND	2,346,600	1,019,600	5,498,000	1,233,300	13,386,500	9,329,900	15,181,200	1,782,200	9,462,400	17,397,400	1,020,800	62,805,700	34,796,600	6,678,600	1,420,400	2,216,900	4,449,300	3,592,700	4,599,500	3,960,400	19,724,000	58,361,800	1,849,800	4,063,000	9,262,700	2,341,900	297,781,200
IMP	22,013,300	2,367,800	22,970,200	9,251,800	27,084,000	34,969,000	28,002,000	7,615,300	19,478,200	51,765,700	8,084,800	121,904,900	78,350,000	12,794,800	15,176,600	11,561,400	19,947,300	17,918,100	15,073,800	20,140,300	41,016,200	77,463,100	13,627,400	27,514,400	33,590,200	11,316,700	750,997,300
TOTAL	24,359,900	3,387,400	28,468,200	10,485,100	40,470,500	44,298,900	43,183,200	9,397,500	28,940,600	69,163,100	9,105,600	184,710,600	113,146,600	19,473,400	16,597,000	13,778,300	24,396,600	21,510,800	19,673,300	24,100,700	60,740,200	135,824,900	15,477,200	31,577,400	42,852,900	13,658,600	1,048,778,500
COMMERCIAL																											
LAND	488,500	45,200	163,600	307,700	211,400	1,601,600	207,400	209,700	202,400	276,700	329,800	742,900	71,700	67,900	297,400	386,100	213,300	1,368,000	146,100	370,000	83,200	1,051,300	70,900	2,473,900	2,055,300	601,200	14,043,200
IMP	2,481,600	502,800	620,000	2,547,000	351,400	4,465,400	221,300	1,590,900	437,200	729,000	666,500	1,576,000	381,600	204,200	3,064,500	4,070,500	2,938,700	8,427,600	624,700	19,700	408,200	2,883,900	561,700	17,589,600	10,231,800	6,264,800	73,860,600
TOTAL	2,970,100	548,000	783,600	2,854,700	562,800	6,067,000	428,700	1,800,600	639,600	1,005,700	996,300	2,318,900	453,300	272,100	3,361,900	4,456,600	3,152,000	9,795,600	770,800	389,700	491,400	3,935,200	632,600	20,063,500	12,287,100	6,866,000	87,903,800
MANUFACTURING																											
LAND	0	176,100	15,000	46,900	20,300	14,200	10,000	4,500	22,700	0	10,300	8,000	9,500	0	0	11,900	4,800	35,400	34,400	55,600	0	0	15,000	100,000	40,000	41,900	676,500
IMP		3,797,300	51,200	938,800	145,200	124,600	86,200	49,500	2,631,300		73,500	16,700	51,300			36,400	5,200	1,280,400	250,600	528,600			133,000	3,297,100	156,000	501,600	14,154,500
TOTAL	0	3,973,400	66,200	985,700	165,500	138,800	96,200	54,000	2,654,000	0	83,800	24,700	60,800	0	0	48,300	10,000	1,315,800	285,000	584,200	0	0	148,000	3,397,100	196,000	543,500	14,831,000
AGRICULTURAL																											
LAND	3,455,600	2,000	4,701,400	4,100	2,252,400	2,343,100	3,469,800	0	3,905,200	1,830,900	19,200	3,057,500	1,782,800	6,135,100	54,800	4,680,500	3,962,900	95,100	2,375,100	2,177,100	3,127,000	2,075,800	3,442,100	0	3,114,600	25,100	58,089,200
IMP																											0
TOTAL	3,455,600	2,000	4,701,400	4,100	2,252,400	2,343,100	3,469,800	0	3,905,200	1,830,900	19,200	3,057,500	1,782,800	6,135,100	54,800	4,680,500	3,962,900	95,100	2,375,100	2,177,100	3,127,000	2,075,800	3,442,100	0	3,114,600	25,100	58,089,200
UNDEVELOPED																											
LAND	6,142,000	17,900	1,945,200	11,300	2,109,800	2,343,200	557,500	30,500	499,400	3,111,000	34,100	377,600	2,406,800	577,100	44,800	1,269,000	3,435,300	700	2,186,100	3,327,800	2,736,600	452,900	3,660,800	0	379,900	10,000	37,667,300
IMP																											0
TOTAL	6,142,000	17,900	1,945,200	11,300	2,109,800	2,343,200	557,500	30,500	499,400	3,111,000	34,100	377,600	2,406,800	577,100	44,800	1,269,000	3,435,300	700	2,186,100	3,327,800	2,736,600	452,900	3,660,800	0	379,900	10,000	37,667,300
AG FOREST																											
LAND	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IMP																											0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FOREST																											
LAND	4,221,600	7,500	5,122,900	68,900	5,437,700	5,902,400	5,495,400	6,500	3,807,600	12,641,200	98,500	6,477,500	9,999,800	3,734,900	52,000	4,391,600	2,618,000	320,000	6,751,700	9,397,600	8,321,900	8,754,000	5,135,000	0	6,449,800	31,400	115,245,400
IMP																											0
TOTAL	4,221,600	7,500	5,122,900	68,900	5,437,700	5,902,400	5,495,400	6,500	3,807,600	12,641,200	98,500	6,477,500	9,999,800	3,734,900	52,000	4,391,600	2,618,000	320,000	6,751,700	9,397,600	8,321,900	8,754,000	5,135,000	0	6,449,800	31,400	115,245,400
OTHER																											
LAND	843,600	0	1,403,000	0	189,000	326,900	399,000	0	269,500	361,200	0	416,500	402,800	395,900	27,000	283,500	812,700	2,400	350,000	147,000	720,000	119,000	825,000	0	633,500	0	8,927,500
IMP	6,165,600	0	10,006,900	0	1,379,500	2,218,300	3,615,300	0	2,380,200	2,400,200	0	1,831,000	2,832,800	5,469,800	297,400	2,365,600	6,021,500	7,900	3,141,000	1,299,100	4,740,000	1,889,900	4,988,200		4,686,300		67,736,500
TOTAL	7,009,200	0	11,409,900	0	1,568,500	2,545,200	4,014,300	0	2,649,700	2,761,400	0	2,247,500	3,235,600	5,865,700	324,400	2,649,100	6,834,200	10,300	3,491,000	1,446,100	5,460,000	2,008,900	5,813,200	0	5,319,800	0	76,664,000
TOTAL REAL ESTATE																											
LAND	17,497,900	1,268,300	18,849,100	1,672,200	23,607,100	21,861,300	25,320,300	2,033,400	18,169,200	35,618,400	1,512,700	73,885,700	49,470,000	17,589,500	1,896,400	13,239,500	15,496,300	5,414,300	16,442,900	19,435,500	34,712,700	70,814,800	14,998,600	6,636,900	21,935,800	3,051,500	532,430,300
IMP	30,660,500	6,667,900	33,648,300	12,737,600	28,960,100	41,777,300	31,924,800	9,255,700	24,926,900	54,894,900	8,824,800	125,328,600	81,615,700	18,468,800	18,538,500	18,033,900	28,912,700	27,634,000	19,090,100	21,987,700	46,164,400	82,236,900	19,310,300	48,401,100	48,664,300	18,083,100	906,748,900
TOTAL	48,158,400	7,936,200	52,497,400	14,409,800	52,567,200	63,638,600	57,245,100	11,289,100	43,096,100	90,513,300	10,337,500	199,214,300	131,085,700	36,058,300	20,434,900	31,273,400	44,409,000	33,048,300	35,533,000	41,423,200	80,877,100	153,051,700	34,308,900	55,038,000	70,600,100	21,134,600	1,439,179,200

Source: WI DOR Statement of Changes in Equalized Values by Class and Item. Hppts://ww2.dor.state.wi.us/Eq Value2/application

Table K-4. Equalized Value, 2005

REAL ESTATE	T Aurora	C Berlin pt.	T Bloomfield	V Coloma	T Coloma	T Dakota	T Deerfield	V Hancock	T Hancock	T Leon	V Lohrville	T Marion	T Mt Morris	T Oasis	V Plainfield	T Plainfield	T Poy Sippi	V Redgranite	T Richford	T Rose	T Saxeville	T Springwater	T Warren	C Wautoma	T Wautoma	V Wild Rose	Waushara Co.
RESIDENTIAL																											
LAND	7,179,700	1,426,200	9,186,900	1,813,500	24,028,700	16,342,000	24,972,900	3,689,700	13,885,500	26,730,700	1,683,800	99,858,800	62,097,500	8,820,400	2,119,000	3,378,300	6,595,400	3,977,600	9,057,500	5,976,800	39,258,900	105,421,900	4,355,200	8,865,500	14,877,100	3,141,500	508,741,000
IMP	39,018,500	3,137,400	39,986,100	12,957,400	41,174,400	47,111,200	38,595,200	10,484,600	33,026,000	97,599,800	11,103,300	189,756,100	103,875,300	21,296,500	22,116,600	16,763,200	28,380,500	21,269,300	22,946,700	31,772,900	65,409,500	116,394,100	19,112,900	35,677,800	56,242,200	13,735,400	1,138,942,900
TOTAL	46,198,200	4,563,600	49,173,000	14,770,900	65,203,100	63,453,200	63,568,100	14,174,300	46,911,500	124,330,500	12,787,100	289,614,900	165,972,800	30,116,900	24,235,600	20,141,500	34,975,900	25,246,900	32,004,200	37,749,700	104,668,400	221,816,000	23,468,100	44,543,300	71,119,300	16,876,900	1,647,683,900
COMMERCIAL																											
LAND	543,100	85,700	389,300	533,600	182,200	3,325,100	250,900	219,900	494,200	734,400	271,400	1,171,000	134,600	90,200	344,600	854,100	331,600	1,917,600	448,800	563,300	152,100	2,008,900	142,900	8,577,100	4,155,300	1,039,300	28,961,200
IMP	2,669,500	648,600	1,459,500	3,346,400	538,000	7,834,100	252,200	1,736,500	649,200	1,172,200	678,800	3,679,800	718,300	189,600	3,817,800	5,352,100	3,648,000	12,455,600	1,313,100	14,700	634,100	3,861,900	1,235,000	27,559,300	17,738,800	6,959,300	110,162,400
TOTAL	3,212,600	734,300	1,848,800	3,880,000	720,200	11,159,200	503,100	1,956,400	1,143,400	1,906,600	950,200	4,850,800	852,900	279,800	4,162,400	6,206,200	3,979,600	14,373,200	1,761,900	578,000	786,200	5,870,800	1,377,900	36,136,400	21,894,100	7,998,600	139,123,600
MANUFACTURING																											
LAND	70,800	182,400	15,000	57,800	27,000		10,000	0	37,800	0	12,800	29,800	10,000	0	0	11,900	4,800	45,400	34,400	59,400	0	0	16,500	107,200	53,500	56,900	843,400
IMP	610,200	3,898,700	59,200	921,100	183,200		110,000		2,576,800		195,000	165,500	68,000			37,500	6,000	1,702,800	311,200	548,400			140,500	3,781,300	225,300	540,700	16,081,400
TOTAL	681,000	4,081,100	74,200	978,900	210,200	0	120,000	0	2,614,600	0	207,800	195,300	78,000	0	0	49,400	10,800	1,748,200	345,600	607,800	0	0	157,000	3,888,500	278,800	597,600	16,924,800
AGRICULTURAL																											
LAND	1,526,900	2,200	1,575,400	1,400	747,200	786,300	1,281,000	0	1,396,100	894,600	1,900	653,200	573,800	2,179,900	20,000	1,648,600	1,334,800	59,600	727,900	676,500	1,054,900	592,300	1,107,300	2,800	766,600	3,500	19,614,700
IMP	0																										0
TOTAL	1,526,900	2,200	1,575,400	1,400	747,200	786,300	1,281,000	0	1,396,100	894,600	1,900	653,200	573,800	2,179,900	20,000	1,648,600	1,334,800	59,600	727,900	676,500	1,054,900	592,300	1,107,300	2,800	766,600	3,500	19,614,700
UNDEVELOPED																											
LAND	3,737,300	15,600	2,972,500	10,600	2,252,400	1,714,600	535,000	0	969,600	2,696,800	95,200	2,235,900	2,849,300	566,400	47,600	1,162,400	2,630,100	0	2,087,100	3,907,800	2,894,900	1,410,600	3,042,300	65,100	2,552,900	0	40,452,000
IMP																											0
TOTAL	3,737,300	15,600	2,972,500	10,600	2,252,400	1,714,600	535,000	0	969,600	2,696,800	95,200	2,235,900	2,849,300	566,400	47,600	1,162,400	2,630,100	0	2,087,100	3,907,800	2,894,900	1,410,600	3,042,300	65,100	2,552,900	0	40,452,000
AG FOREST																											
LAND	765,000	0	1,174,800	0	1,042,800	2,140,800	1,027,000	0	1,013,300	1,617,500	4,200	1,497,300	1,704,300	1,418,000	0	1,351,400	771,000	0	1,942,800	13,800	1,910,300	1,302,800	1,305,000	0	1,382,400	0	23,384,500
IMP																											0
TOTAL	765,000	0	1,174,800	0	1,042,800	2,140,800	1,027,000	0	1,013,300	1,617,500	4,200	1,497,300	1,704,300	1,418,000	0	1,351,400	771,000	0	1,942,800	13,800	1,910,300	1,302,800	1,305,000	0	1,382,400	0	23,384,500
FOREST																											
LAND	4,168,400	0	5,981,900	0	6,652,800	5,812,800	4,857,600	201,600	5,495,700	13,665,000	113,400	10,340,000	12,238,200	3,900,800	75,900	4,477,200	2,432,700	0	7,428,000	14,962,500	8,459,100	14,507,300	4,820,400	0	9,580,800	0	140,172,100
IMP																											0
TOTAL	4,168,400	0	5,981,900	0	6,652,800	5,812,800	4,857,600	201,600	5,495,700	13,665,000	113,400	10,340,000	12,238,200	3,900,800	75,900	4,477,200	2,432,700	0	7,428,000	14,962,500	8,459,100	14,507,300	4,820,400	0	9,580,800	0	140,172,100
OTHER																											
LAND	1,219,800	0	1,863,200	0	193,500	435,000	658,000	0	270,000	647,800	0	192,500	402,000	508,500	31,500	378,000	1,360,400	3,000	441,000	160,000	1,416,800	325,000	1,232,000	0	620,000	0	12,358,000
IMP	10,128,800		12,897,400		1,778,000	2,849,600	4,643,300		2,998,100	2,951,100		2,106,800	1,898,400	6,672,000	286,400	2,950,600	7,462,200	8,800	4,787,600	1,452,600	7,007,600	1,880,000	6,455,200		4,668,000		85,882,500
TOTAL	11,348,600	0	14,760,600	0	1,971,500	3,284,600	5,301,300	0	3,268,100	3,598,900	0	2,299,300	2,300,400	7,180,500	317,900	3,328,600	8,822,600	11,800	5,228,600	1,612,600	8,424,400	2,205,000	7,687,200	0	5,288,000	0	98,240,500
TOTAL REAL ESTATE																											
LAND	19,211,000	1,712,100	23,159,000	2,416,900	35,126,600	30,556,600	33,592,400	4,111,200	23,562,200	46,986,800	2,182,700	115,978,500	80,009,700	17,484,200	2,638,600	13,261,900	15,460,800	6,003,200	22,167,500	26,320,100	55,147,000	125,568,800	16,021,600	17,617,700	33,988,600	4,241,200	774,526,900
IMP	52,427,000	7,684,700	54,402,200	17,224,900	43,673,600	57,794,900	43,600,700	12,221,100	39,250,100	101,723,100	11,977,100	195,708,200	106,560,000	28,158,100	26,220,800	25,103,400	39,496,700	35,436,500	29,358,600	33,788,600	73,051,200	122,136,000	26,943,600	67,018,400	78,874,300	21,235,400	1,351,069,200
TOTAL	71,638,000	9,396,800	77,561,200	19,641,800	78,800,200	88,351,500	77,193,100	16,332,300	62,812,300	148,709,900	14,159,800	311,686,700	186,569,700	45,642,300	28,859,400	38,365,300	54,957,500	41,439,700	51,526,100	60,108,700	128,198,200	247,704,800	42,965,200	84,636,100	112,862,900	25,476,600	2,125,596,100

Source: 2005 Statement of Equalized Values as Set by the WDOR.

Table K-5. Land Use Acres by Real Estate Class, 1980

Minor Civil Division	Residential	Commercial	Manufacturing	Agricultural	Swamp & Waste	Forest Land	Other	Total
Aurora town	186	46		14,898	5,681	944		21,755
Berlin city, pt.	22	3		117				142
Bloomfield town	264	10	3	17,321		4,990		22,588
Coloma village	144	11		251				406
Coloma town	2,101	105	13	8,936	159	8,177		19,491
Dakota town	838	196	4	9,338	3,298	6,045		19,719
Deerfield town	882	12		13,087	6,884			20,865
Hancock village			2	314				316
Hancock town	558		36	13,519	292	3,654		18,059
Leon town	3,150	57		11,399		7,641		22,247
Lohrville village	240	4		319				563
Marion town	114	2		10,506	519	6,694		17,835
Mount Morris town	243			11,244	602	6,607		18,696
Oasis town	348		40	16,862	61	4,212		21,523
Plainfield village	29	16		216				261
Plainfield town	220	35		14,047	665	5,768		20,735
Poy Sippi town	241	10	1	16,851	903			18,006
Redgranite village				37	594			631
Richford town	765	287		11,023	270	7,859		20,204
Rose town	2,314	349	11	11,962	214	5,914		20,764
Saxeville town	1,484	76		14,781	15	6,389		22,745
Springwater town								-
Warren town	471	26	10	11,454	3,624	5,076		20,661
Wautoma city			16					16
Wautoma town	1,141	23	108	11,150	1,347	6,097		19,866
Wild Rose village	2	1	69	195	26	48		341
Waushara County	15,757	1,269	313	219,827	25,154	86,115	0	348,435

Source: Table II, 1980 Clerk's Statement of Assessment as Reported on or Before September 19, 1980; WI DOR 1980 Statiscal Report of Property Values

Table K-6. Land Use Acres by Real Estate Class, 1990

Minor Civil Division	Residential	Commercial	Manufacturing	Agricultural	Swamp & Waste	Forest Land	Other	Total
Aurora town	406	41		13,110	6,981	1,335		21,873
Berlin city, pt.	116	10		31				157
Bloomfield town	607	5	4	12,853	3,197	5,727		22,393
Coloma village	138	52	2	157				349
Coloma town	2,300	32	14	9,458	107	5,907		17,818
Dakota town	1,579	190		9,246	2,552	5,110		18,677
Deerfield town	1,689	10		13,079	66	5,307		20,151
Hancock village	30	10		306				346
Hancock town	691	27	18	12,627	214	3,827		17,404
Leon town	2,612	30		7,704	556	9,573		20,475
Lohrville village				339				339
Marion town	2,670	25	39	10,346	465	5,486		19,031
Mount Morris town	1,766	32	2	8,782	840	7,017		18,439
Oasis town	685		40	16,667	50	3,401		20,843
Plainfield village	47	17		231				295
Plainfield town	605	117	8	14,797	218	4,594		20,339
Poy Sippi town	251	19	1	12,789	1,971	2,618		17,649
Redgranite village	155	10	25	685				875
Richford town	1,386	277		9,912	1,114	5,909		18,598
Rose town	1,870	335	5	11,410	136	5,723		19,479
Saxeville town	1,438	67		11,436	1,177	7,277		21,395
Springwater town	1,656	263		7,757	197	6,875		16,748
Warren town	565	27	10	12,114	2,283	4,676		19,675
Wautoma city			36					36
Wautoma town	1,777	40	79	10,850	1,099	5,796		19,641
Wild Rose village	46	58	20	226	48			398
Waushara County	25,085	1,694	303	206,912	23,271	96,158	-	353,423

Source: WI DOR Final Statement of Assessment Report

Table K-7. Land Use Acres by Real Estate Class, 2000

Minor Civil Division	Residential	Commercial	Manufacturing	Agricultural	Undevelop	Ag Forest	Forest	Other	Total
Aurora town	711	72	-	9,604	7,554	-	3,487	121	21,549
Berlin city, pt.	120	9	31	17	17	-	-	-	194
Bloomfield town	995	7	3	11,582	3,297	-	4,796	338	21,018
Coloma village	188	40	15	16	65	-	-	-	324
Coloma town	2,739	28	14	6,447	2,894	-	4,212	45	16,379
Dakota town	2,115	195	4	7,131	3,416	-	4,403	88	17,352
Deerfield town	3,912	10	4	9,544	777	-	3,899	160	18,306
Hancock village	239	26	-	-	47	-	-	-	312
Hancock town	934	85	15	11,438	789	-	3,058	142	16,461
Leon town	2,326	38	-	5,422	3,634	-	7,826	92	19,338
Lohrville village	108	68	2	278	-	-	-	-	456
Marion town	3,526	119	2	7,323	1,421	-	5,762	50	18,203
Mount Morris town	2,249	44	2	4,993	3,249	-	6,582	107	17,226
Oasis town	451	49	-	16,033	917	-	3,040	110	20,600
Plainfield village	149	49	-	139	53	-	43	7	440
Plainfield town	1,094	142	5	13,195	1,909	-	3,629	63	20,037
Poysippi town	475	21	1	8,666	4,718	-	2,642	206	16,729
Redgranite village	260	16	18	504	-	-	-	1	799
Richford town	6,906	149	17	7,169	2,909	-	5,232	80	22,462
Rose town	2,042	333	36	5,896	4,162	-	5,522	31	18,022
Saxeville town	2,925	22	-	7,950	3,630	-	5,347	185	20,059
Springwater town	1,911	342	-	6,873	372	-	5,917	66	15,481
Warren town	644	38	10	8,393	5,584	-	4,512	175	19,356
Wautoma city	-	-	30	9	-	-	-	-	39
Wautoma town	2,389	246	5	6,614	3,248	-	5,436	140	18,078
Wild Rose village	259	88	9	20	-		-	-	376
Waushara County	39,667	2,236	223	155,256	54,662		85,345	2,207	339,596

Source: Statement of Assessment -- Updated Clerk's Values, WDOR.

Table K-8. Land Use Acres by Real Estate Class, 2005

Minor Civil Division	Residential	Commercial	Manufacturing	Agricultural	Undeveloped	Ag Forest	Forest	Other	Total
Aurora town	1,043	66	23	9,355	7,553	869	2,392	178	21,479
Berlin city, pt.	114	23	31	17	17	-	-	-	202
Bloomfield town	1,082	14	3	10,514	4,541	1,270	3,116	274	20,814
Coloma village	187	52	15	14	15	-	-	-	283
Coloma town	3,015	36	14	6,425	2,737	897	2,706	43	15,873
Dakota town	2,136	206	-	6,762	3,295	1,799	2,415	87	16,700
Deerfield town	3,578	10	4	9,986	740	893	2,124	139	17,474
Hancock village	207	27	0	0	0	0	96	0	330
Hancock town	1,027	155	15	10,087	1,565	965	2,617	60	16,491
Leon town	2,605	39	-	6,747	3,683	1,306	5,460	81	19,921
Lohrville village	301	24	2	22	158	4	54	-	565
Marion town	3,632	169	4	6,049	2,295	1,219	4,105	44	17,517
Mount Morris town	2,346	41	2	4,550	3,528	1,311	4,707	67	16,552
Oasis town	486	41	-	16,008	1,046	1,234	1,696	113	20,624
Plainfield village	114	31	-	139	59	14	19	7	383
Plainfield town	1,081	158	5	13,073	1,926	1,287	2,132	84	19,746
Poysippi town	569	24	1	8,321	4,826	906	1,411	180	16,238
Redgranite village	356	40	18	473	-	-	-	1	888
Richford town	2,467	212	17	6,047	2,836	1,619	3,112	98	16,408
Rose town	2,042	312	36	5,196	3,965	1,051	4,952	35	17,589
Saxeville town	2,982	28	-	7,425	3,929	1,415	2,998	182	18,959
Springwater town	2,132	347	-	4,768	1,889	964	5,350	50	15,500
Warren town	788	41	10	7,696	6,387	1,447	2,695	179	19,243
Wautoma city	-	-	26	26	59	-	-	-	111
Wautoma town	2,600	248	9	6,225	3,016	1,152	3,966	124	17,340
Wild Rose village	252	126	9	21	-	-	-	-	408
Waushara County	37,142	2,470	244	145,946	60,065	21,622	58,123	2,026	327,638

Source: WI DOR Final Statement of Assessment Report

Table K-9. City of Wautoma - Historic Land Prices, 1980 to 2005

Real Estate Class	No. of Parcels (Land)	Equalized Value ($)	$/Parcel
1980			
Residential	754	3,549,200	4,707
Commercial	118	667,300	5,655
Manufacturing	4	49,800	12,450
Agricultural	-	-	-
Swamp & Waste	-	-	-
Forest	-	-	-
Total	876	4,266,300	4,870
1990			
Residential	731	3,017,700	4,128
Commercial	133	1,038,300	7,807
Manufacturing	8	105,500	13,188
Agricultural	-	-	-
Swamp & Waste	-	-	-
Forest	-	-	-
Total	872	4,161,500	4,772
2000			
Residential	703	4,063,000	5,780
Commercial	174	2,473,900	14,218
Manufacturing	5	100,000	20,000
Agricultural	1	0	0
Undeveloped	0	0	0
Forest	0	0	0
Other	0	0	0
Total	883	6,636,900	7,516
2005			
Residential	711	8,865,500	12,469
Commercial	199	8,577,100	43,101
Manufacturing	6	107,200	17,867
Agricultural	15	2,800	187
Undeveloped	38	65,100	1,713
Forest	0	0	0
Other	0	0	0
Total	969	17,617,700	18,181

Source: 1980 Statisical Report of Property Valules, WI DOR
WI DOR Final Statement of Assessment and/or Statement
of Equalized Assessment for 1990, 2000 and 2005.

Table K-10. Village of Redgranite - Historic Land Prices, 1980 to 2005

Real Estate Class	No. of Parcels (Land)	Equalized Value ($)	$/Parcel
1980			
Residential	470	1,169,800	2,489
Commercial	58	211,000	3,638
Manufacturing	7	51,400	7,343
Agricultural	26	337,400	12,977
Swamp & Waste	-	-	-
Forest	-	-	-
Total	561	1,769,600	3,154
1990			
Residential	522	2,109,300	4,041
Commercial	47	373,000	7,936
Manufacturing	4	60,300	15,075
Agricultural	31	367,200	11,845
Swamp & Waste	-	-	-
Forest	-	-	-
Total	604	2,909,800	4,818
2000			
Residential	520	3,592,700	6,909
Commercial	74	1,368,000	18,486
Manufacturing	1	35,400	35,400
Agricultural	23	95,100	4,135
Undeveloped	0	700	na
Forest	0	320,000	na
Other	2	2,400	1,200
Total	620	5,414,300	8,733
2005			
Residential	600	3,977,600	6,629
Commercial	78	1,917,600	24,585
Manufacturing	1	45,400	45,400
Agricultural	21	59,600	2,838
Undeveloped	0	0	0
Forest	0	0	0
Other	1	3,000	0
Total	701	6,003,200	8,564

Source: 1980 Statisical Report of Property Valules, WI DOR
WI DOR Final Statement of Assessment and/or Statement
of Equalized Assessment for 1990, 2000 and 2005.

Table K-11. Town of Dakota - Historic Land Prices, 1980 to 2005

Real Estate Class	Acres	Equalized Value ($)	$/Acre
1980			
Residential	838	4,669,800	5,573
Commercial	196	977,200	4,986
Manufacturing	4	7,700	1,925
Agricultural	9,338	4,637,000	497
Swamp & Waste	3,298	381,900	116
Forest	6,045	3,686,800	610
Total	19,719	14,360,400	728
1990			
Residential	1,579	4,814,755	3,049
Commercial	190	1,051,310	5,533
Manufacturing	-	-	-
Agricultural	9,246	4,270,285	462
Swamp & Waste	2,552	525,925	206
Forest	5,110	2,553,200	500
Total	18,677	13,215,475	708
2000			
Residential	2,115	9,329,900	4,411
Commercial	195	1,601,600	8,213
Manufacturing	4	14,200	3,550
Agricultural	7,131	2,343,100	329
Undeveloped	3,416	2,343,200	686
Forest	4,403	5,902,400	1,341
Other	88	326,900	3,715
Total	17,352	21,861,300	1,260
2005			
Residential	2,136	16,342,000	7,651
Commercial	206	3,325,100	16,141
Manufacturing	0	0	0
Agricultural	6,762	786,300	116
Undeveloped	3,295	1,714,600	520
Forest	4,214	7,953,600	1,887
Other	87	435,000	5,000
Total	16,700	30,556,600	1,830

Source: 1980 Statisical Report of Property Valules, WI DOR

WI DOR Final Statement of Assessment and/or Statement

of Equalized Assessment for 1990, 2000 and 2005.

Table K-12. Town of Marion - Historic Land Prices, 1980 to 2005

Real Estate Class	Acres	Equalized Value ($)	$/Acre
1980			
Residential	114	15,439,000	135,430
Commercial	2	248,600	124,300
Manufacturing	-	-	-
Agricultural	10,506	5,646,500	537
Swamp & Waste	519	187,300	361
Forest	6,694	3,501,100	523
Total	17,835	25,022,500	1,403
1990			
Residential	2,670	23,309,740	8,730
Commercial	25	134,580	5,383
Manufacturing	39	29,900	767
Agricultural	10,346	4,831,360	467
Swamp & Waste	465	116,985	252
Forest	5,486	3,202,015	584
Total	19,031	31,624,580	1,662
2000			
Residential	3,526	62,805,700	17,812
Commercial	119	742,900	6,243
Manufacturing	2	8,000	4,000
Agricultural	7,323	3,057,500	418
Undeveloped	1,421	377,600	266
Forest	5,762	6,477,500	1,124
Other	50	416,500	8,330
Total	18,203	73,885,700	4,059
2005			
Residential	3,632	99,858,800	27,494
Commercial	169	1,171,000	6,929
Manufacturing	4	29,800	7,450
Agricultural	6,049	653,200	108
Undeveloped	2,295	2,235,900	974
Forest	5,324	11,837,300	2,223
Other	44	192,500	4,375
Total	17,517	115,978,500	6,621

Source: 1980 Statisical Report of Property Valules, WI DOR
WI DOR Final Statement of Assessment and/or Statement
of Equalized Assessment for 1990, 2000 and 2005.

Table K-13. Town of Wautoma - Historic Land Prices, 1980 to 2005

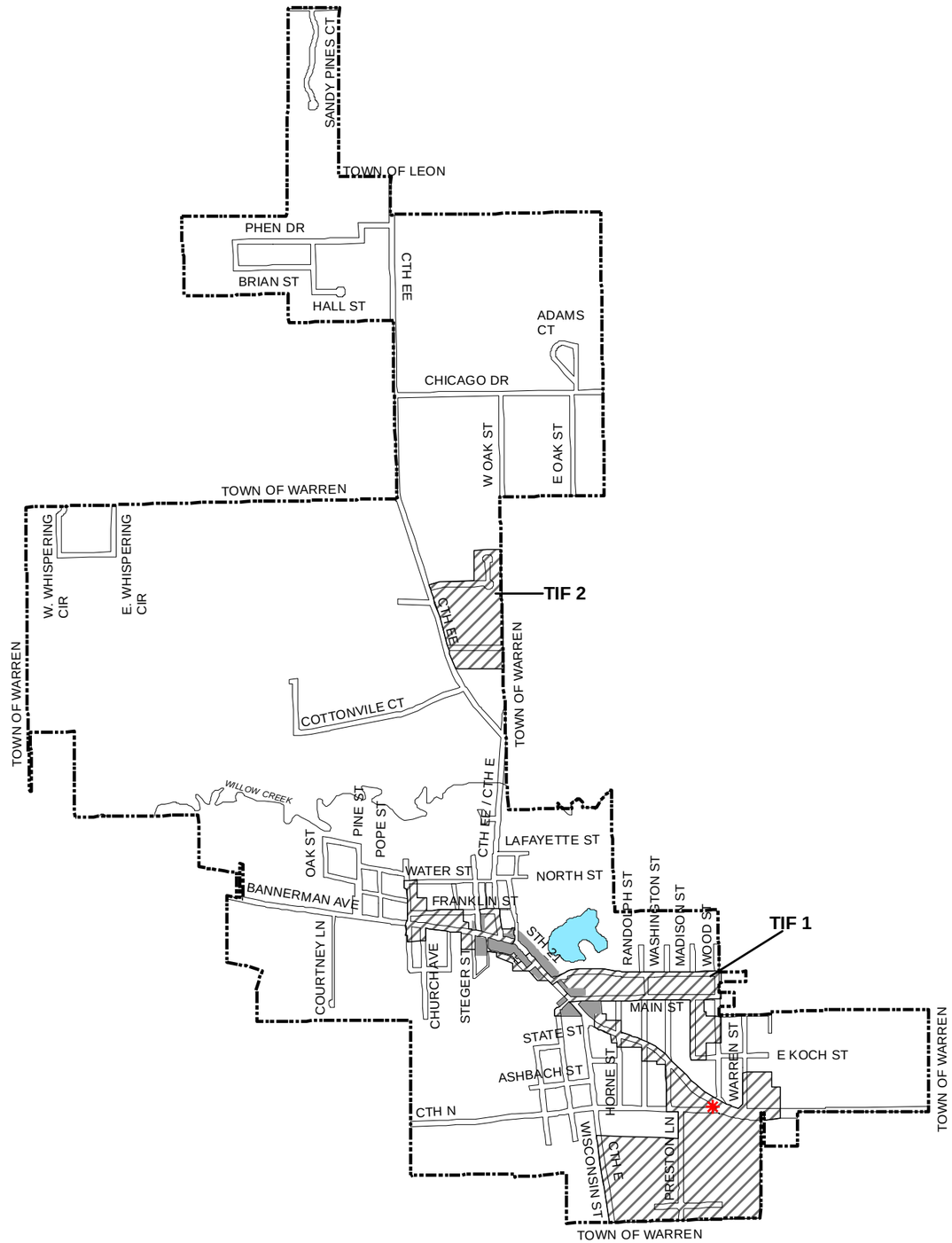
Real Estate Class	Acres	Equalized Value ($)	$/Acre
1980			
Residential	1,141	2,765,300	2,424
Commercial	23	242,000	10,522
Manufacturing	108	70,000	648
Agricultural	11,150	5,181,600	465
Swamp & Waste	1,347	43,500	32
Forest	6,097	3,771,300	619
Total	19,866	12,073,700	608
1990			
Residential	1,777	3,169,280	1,784
Commercial	40	250,750	6,269
Manufacturing	79	44,900	568
Agricultural	10,850	5,209,530	480
Swamp & Waste	1,099	358,000	326
Forest	5,796	2,754,120	475
Total	19,641	11,786,580	600
2000			
Residential	2,389	9,262,700	3,877
Commercial	246	2,055,300	8,355
Manufacturing	5	40,000	0
Agricultural	6,614	3,114,600	471
Undeveloped	3,248	379,900	117
Forest	5,436	6,449,800	1,186
Other	140	633,500	4,525
Total	18,078	21,935,800	1,213
2005			
Residential	2,600	14,877,100	5,722
Commercial	248	4,155,300	16,755
Manufacturing	9	53,500	5,944
Agricultural	6,225	766,600	123
Undeveloped	3,016	2,552,900	846
Forest	5,118	10,963,200	2,142
Other	124	620,000	5,000
Total	17,340	33,988,600	1,960

Source: 1980 Statisical Report of Property Valules, WI DOR

WI DOR Final Statement of Assessment and/or Statement

of Equalized Assessment for 1990, 2000 and 2005.

EXHIBIT 3-1
VILLAGE OF REDGRANITE
ECONOMIC DEVELOPMENT



VILLAGE WELCOME SIGN

TIF DISTRICT

DOWNTOWN BUSINESS DISTRICT

Source: Digital Base Data provided by Waushara County,
TIF District Data provided by Village of Redgranite,
Downtown Business District Data created by ECWRPC.

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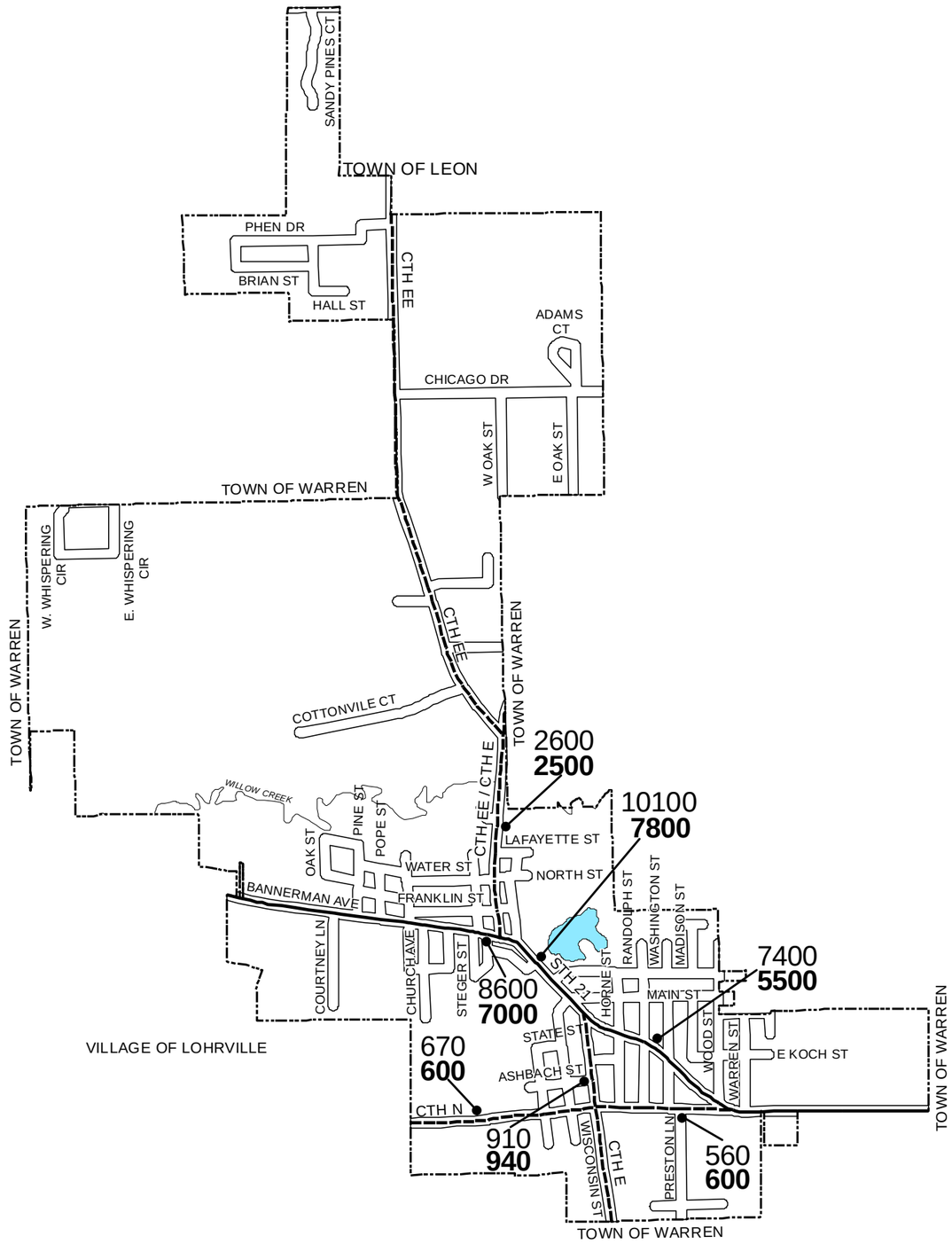
The TIF District delineations are approximate and are shown for general informational purposes only.

Prepared By
EAST CENTRAL WISCONSIN
REGIONAL PLANNING COMMISSION-MARCH 2006

AP d:/groupd/ec2002/vredgranite/econ_develop.mxd

EXHIBIT 5-1
VILLAGE OF REDGRANITE FUNCTIONAL CLASS AND AVERAGE DAILY TRAFFIC VOLUMES
2000 & 2003 DATA



Local

Minor Collector

Major Collector

Minor Arterial

Principal Arterial - Other

195 2000 Traffic Count

195 2003 Traffic Count

Source: WisDOT, Rural Functional Class System, 1997;
WisDOT Wisconsin Highway Traffic Volume Data, 2000 & 2003.

Digital Base Data provided by Waushara County.

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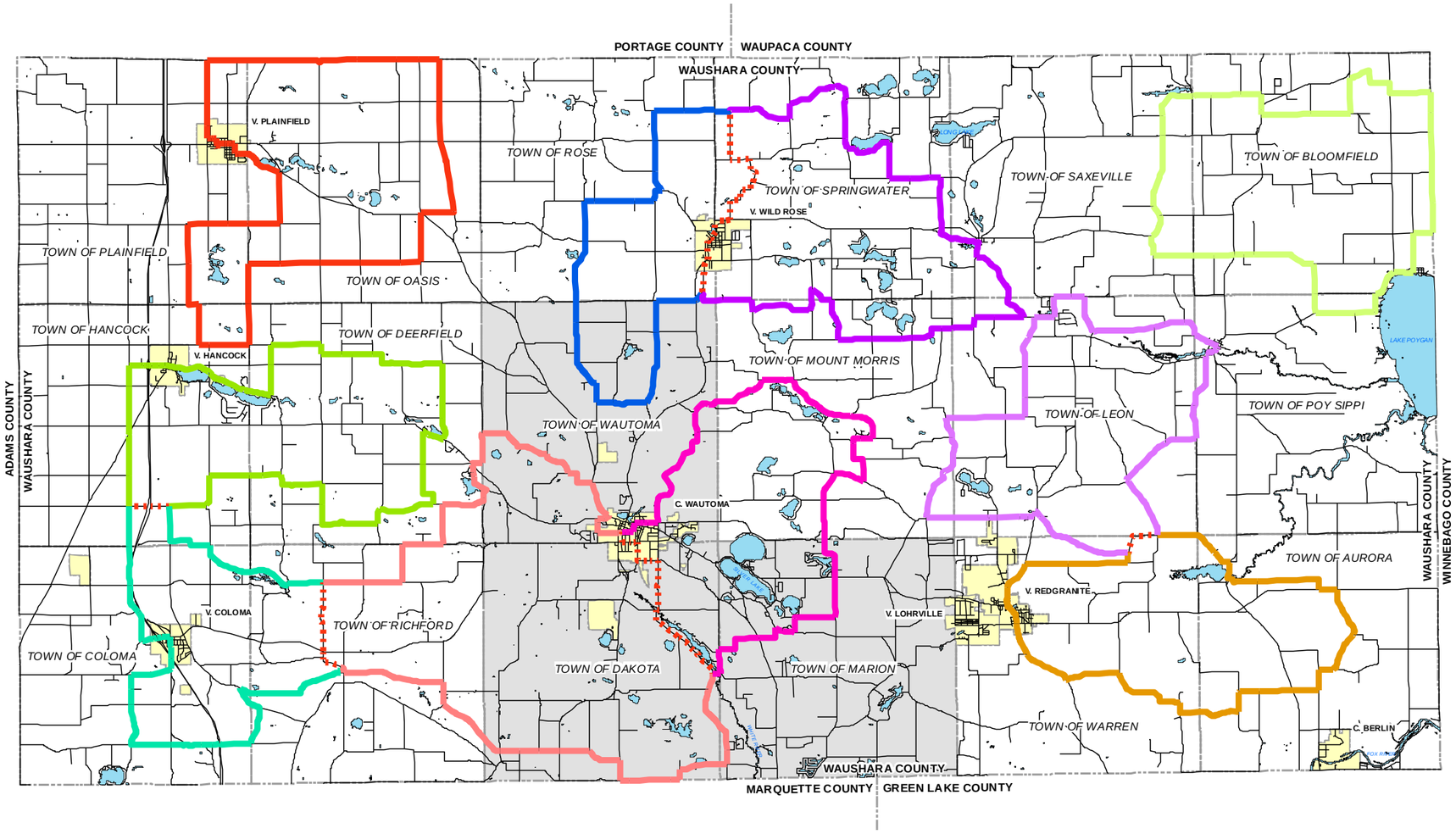
EAST CENTRAL WISCONSIN
REGIONAL PLANNING COMMISSION-JANUARY 2006

EXHIBIT 5-2
WAUSHARA COUNTY
BIKE ROUTES



Route 1
Route 2
Route 3
Route 4
Route 5
Route 6
Route 7
Route 8
Route 9
Route 10
Shared Route

Source: Digital Base Data and Bike Route Data provided by Waushara County.

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Miles

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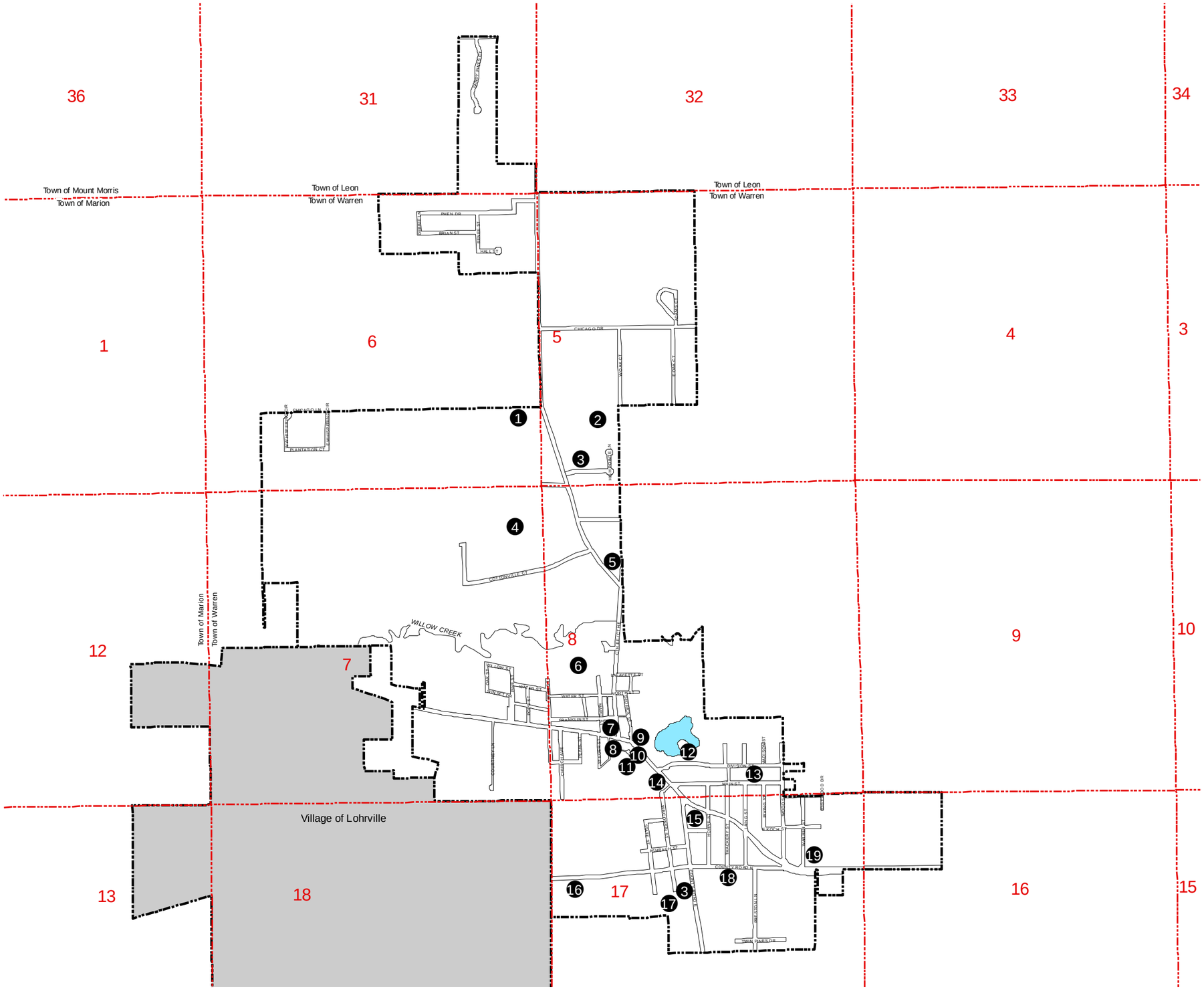
AP d:/groupd/ec2002/cobike_routes.mxd

EXHIBIT 6-1
VILLAGE OF REDGRANITE
COMMUNITY FACILITIES



1. Solid Waste & Recycling Transfer Site
2. St. Mark's Cemetery
3. Water Tower
4. Redgranite Correctional Institution
5. Redgranite WWTF
6. Willow Creek Park
7. Downtown Park
8. Public Library
9. Post Office
10. Village Hall/Police/Redgranite Area Fire Dist.
11. Future Village Hall/Police
12. Redgranite Quarry Park
13. East Side Park
14. Bannerman Trail Head
15. King Memorial Park
16. Gas Substation
17. Foster Road Cemetery
18. Redgranite Elementary School
19. Village Maintenance Garage

Source: Digital Base Data provided by Waushara County.
Point Data Created by ECWRPC.

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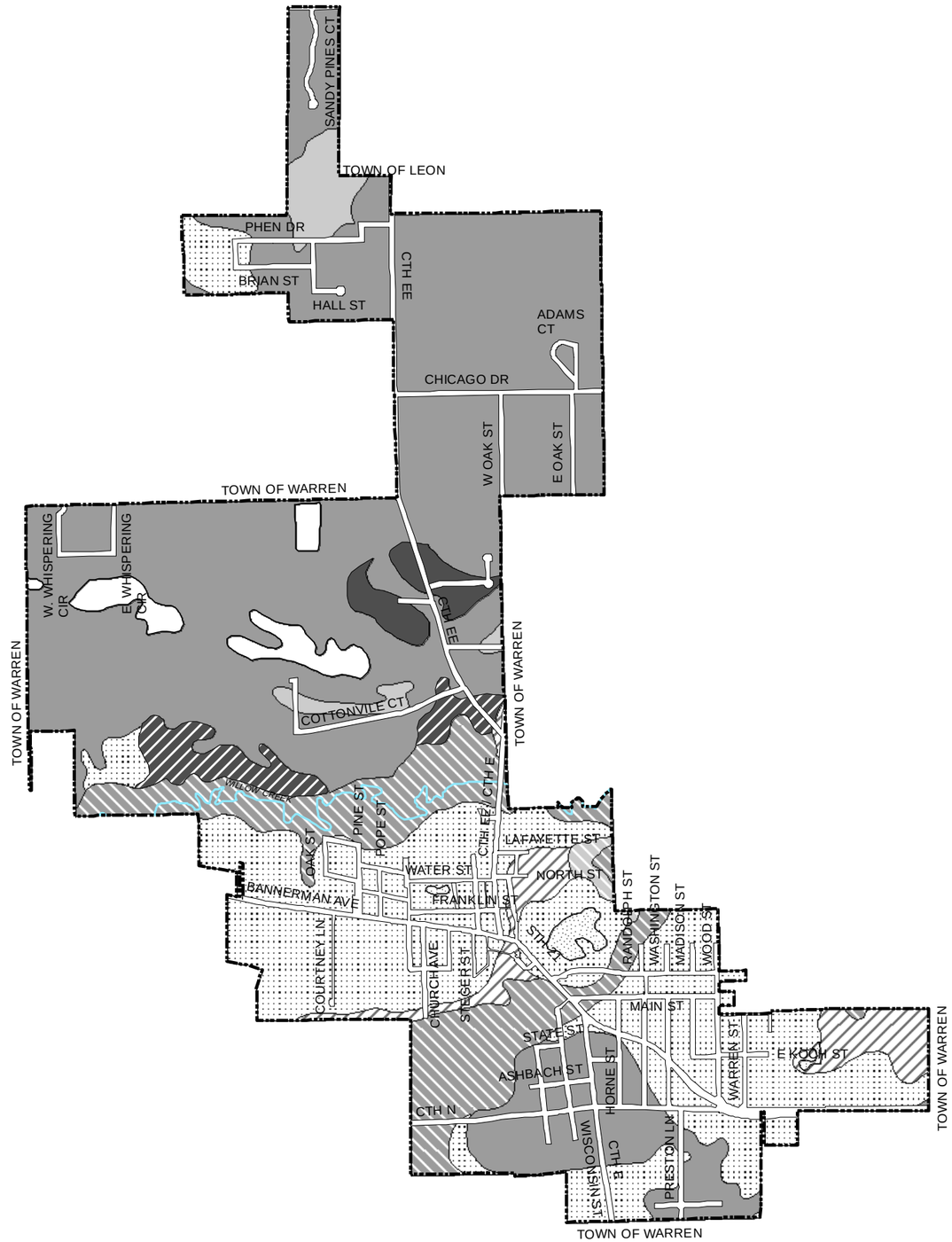
REGIONAL PLANNING COMMISSION-MARCH 2006

EXHIBIT 7-1
VILLAGE OF REDGRANITE IMPORTANT FARMLAND CLASSES



PRIME FARMLAND - Those soils that produce the highest yields of food, fiber, feed, forage and oilseed crops when managed according to acceptable farming methods.

PRIME FARMLAND WHERE DRAINED

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.

UNIQUE FARMLAND WHERE DRAINED AND PROTECTED FROM FREQUENT FLOODING

STATEWIDE IMPORTANT FARMLAND - Land in addition to prime and unique that is important to the State of Wisconsin for crop production.

STATEWIDE IMPORTANT FARMLAND WHERE DRAINED

STATEWIDE IMPORTANT FARMLAND WHERE DRAINED AND PROTECTED FROM FREQUENT FLOODING

LOCAL IMPORTANT FARMLAND - Land in addition to prime, unique and statewide that is important to Waushara County for crop production.

LOCAL IMPORTANT FARMLAND WHEN DRAINED

OTHER LANDS - Land that has little value for producing crops.

WATER

Source: USDA-SCS, Soil Survey of Waushara County, Wisconsin, 1982.
Digital Soils Data provided by NRCS.
Digital Base Data provided by Waushara County.

Farmland Classes Developed by Waushara County LCD.

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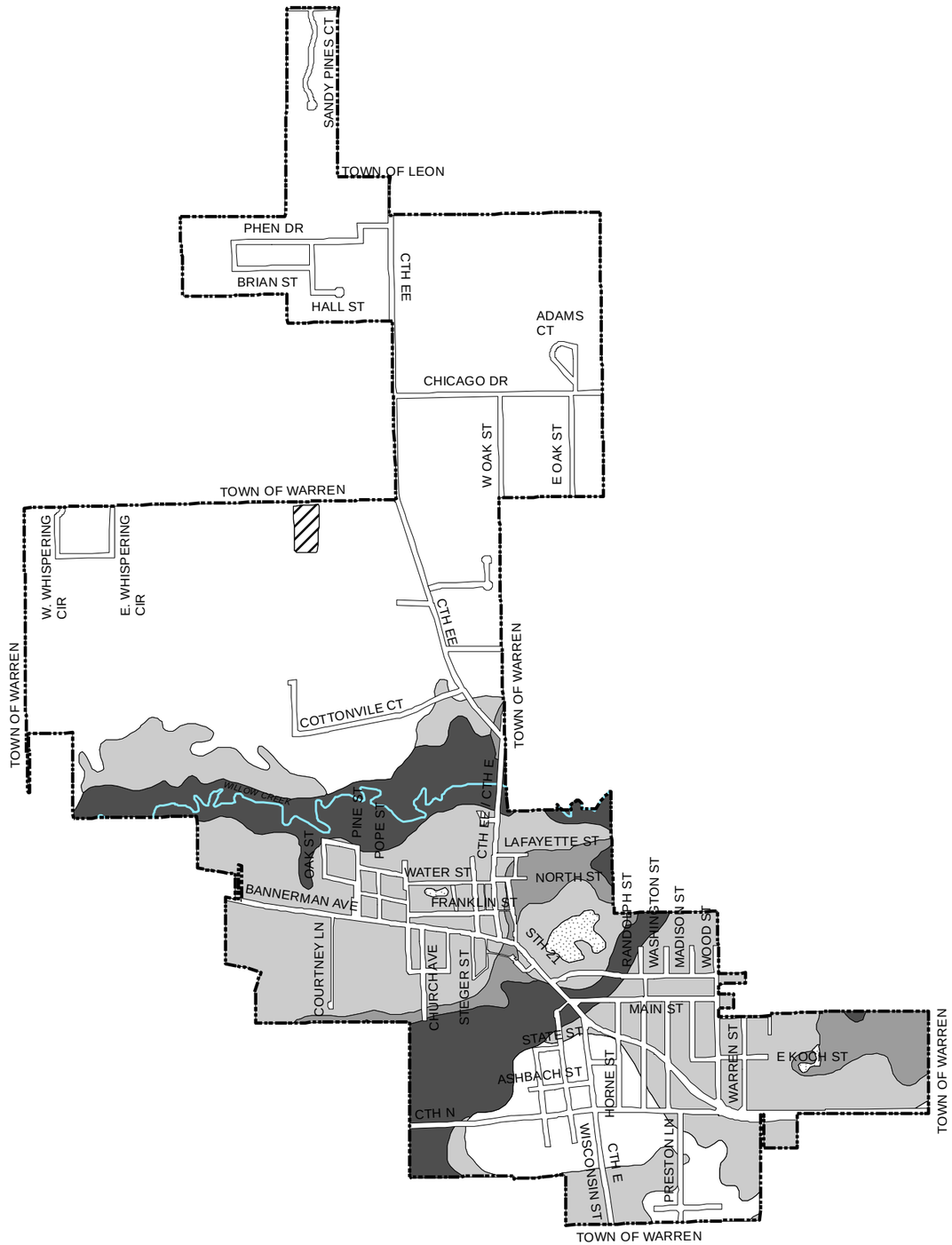
EXHIBIT 7-2
VILLAGE OF REDGRANITE
SOIL LIMITATIONS FOR ON-SITE WASTE DISPOSAL



SOILS SUITABLE FOR CONVENTIAL SEPTIC SYSTEMS

SOILS SUITABLE FOR AT-GRADE, IN-GROUND PRESSURE OR MOUND SYSTEMS

SOILS SUITABLE FOR HOLDING TANKS

SOILS UNSUITABLE FOR PRIVATE SEWAGE SYSTEMS

NO RATING

WATER

Source: USDA-SCS, Soil Survey of Waushara County, Wisconsin, 1982.
Digital Soils Data provided by NRCS.
Digital Base Data provided by Waushara County.

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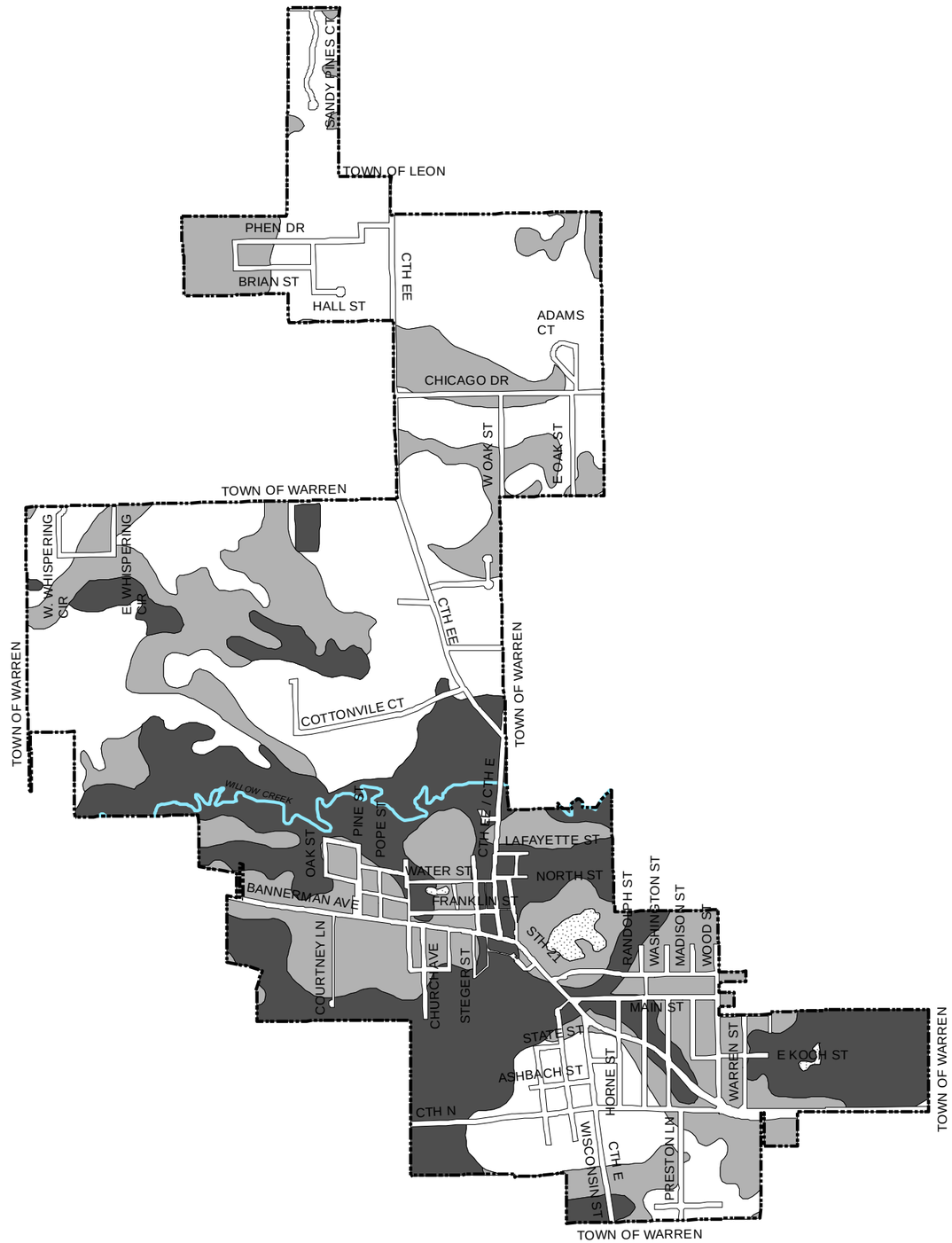
REGIONAL PLANNING COMMISSION-MARCH 2006

AP d:/groupd/ec2002/vredgranite/waste_disposal.mxd

EXHIBIT 7-3
VILLAGE OF REDGRANITE
SOIL POTENTIAL FOR BUILDING SITE DEVELOPMENT



VERY HIGH
MEDIUM
VERY LOW / NO RATING
WATER

Source: USDA-SCS, Soil Survey of Waushara County, Wisconsin, 1982.
Digital Soils Data provided by NRCS.
Digital Base Data provided by Waushara County.

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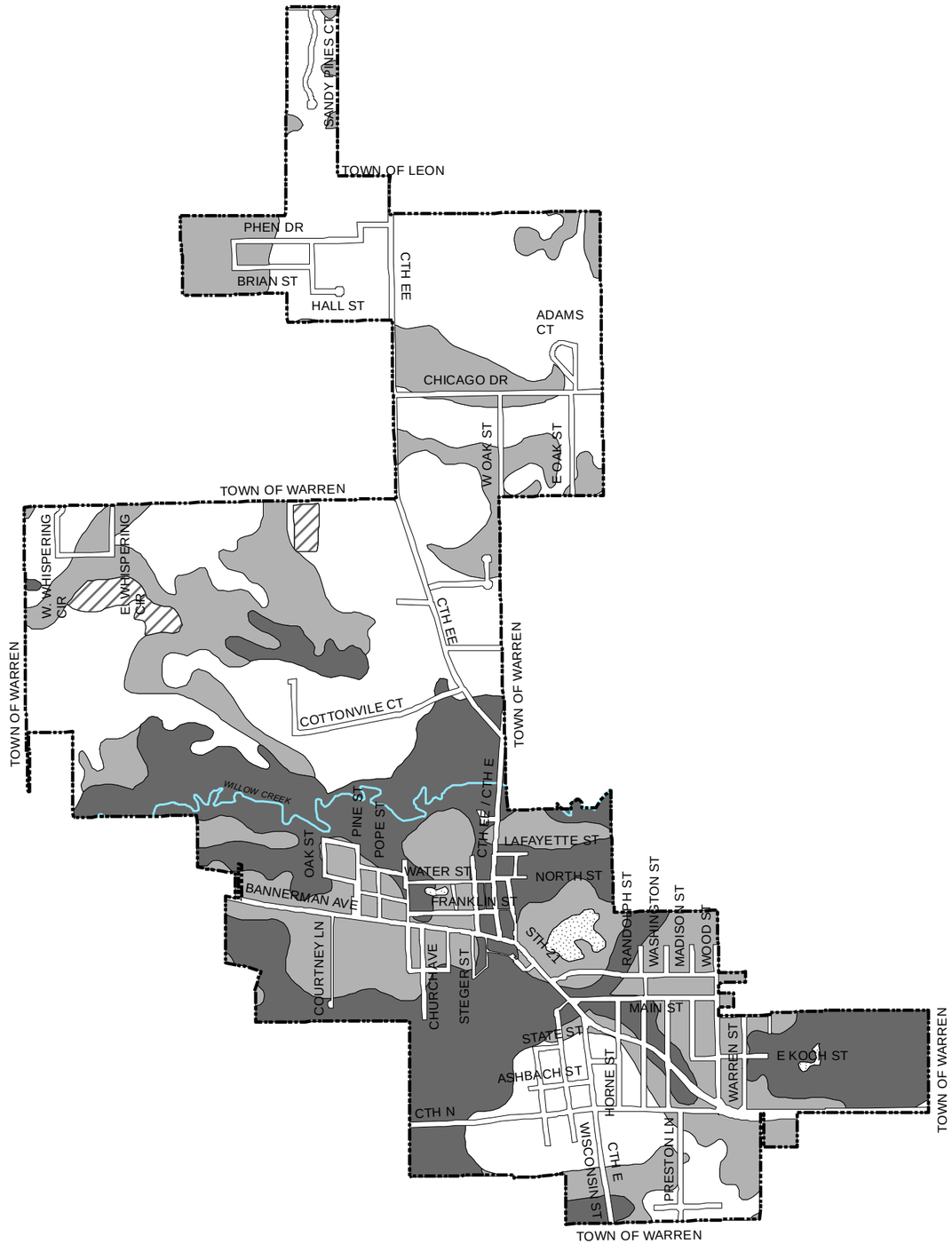
REGIONAL PLANNING COMMISSION-MARCH 2006

AP d:/groupd/ec2002/vredgranite/building_site.mxd

EXHIBIT 7-4
VILLAGE OF REDGRANITE
SOIL LIMITATIONS FOR SEPTAGE SPREADING



NONE TO SLIGHT - Soils relatively free of limitations that affect the intended use or the limitations are easy to overcome.

MODERATE - Soils with moderate limitations resulting from the effects of slope, wetness, soil texture, soil depth, groudwater, etc. Normally the limitations can be overcome with correct planning, careful design, and good management.

SEVERE - Soils with severe limitations resulting from the effects of slope, wetness, soil texture, highwater table, etc. Soils rated as having a 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.

NO RATING

WATER

Source: USDA-SCS, Soil Survey of Waushara County, Wisconsin, 1982.
Digital Soils Data provided by NRCS.
Digital Base Data provided by Waushara County.

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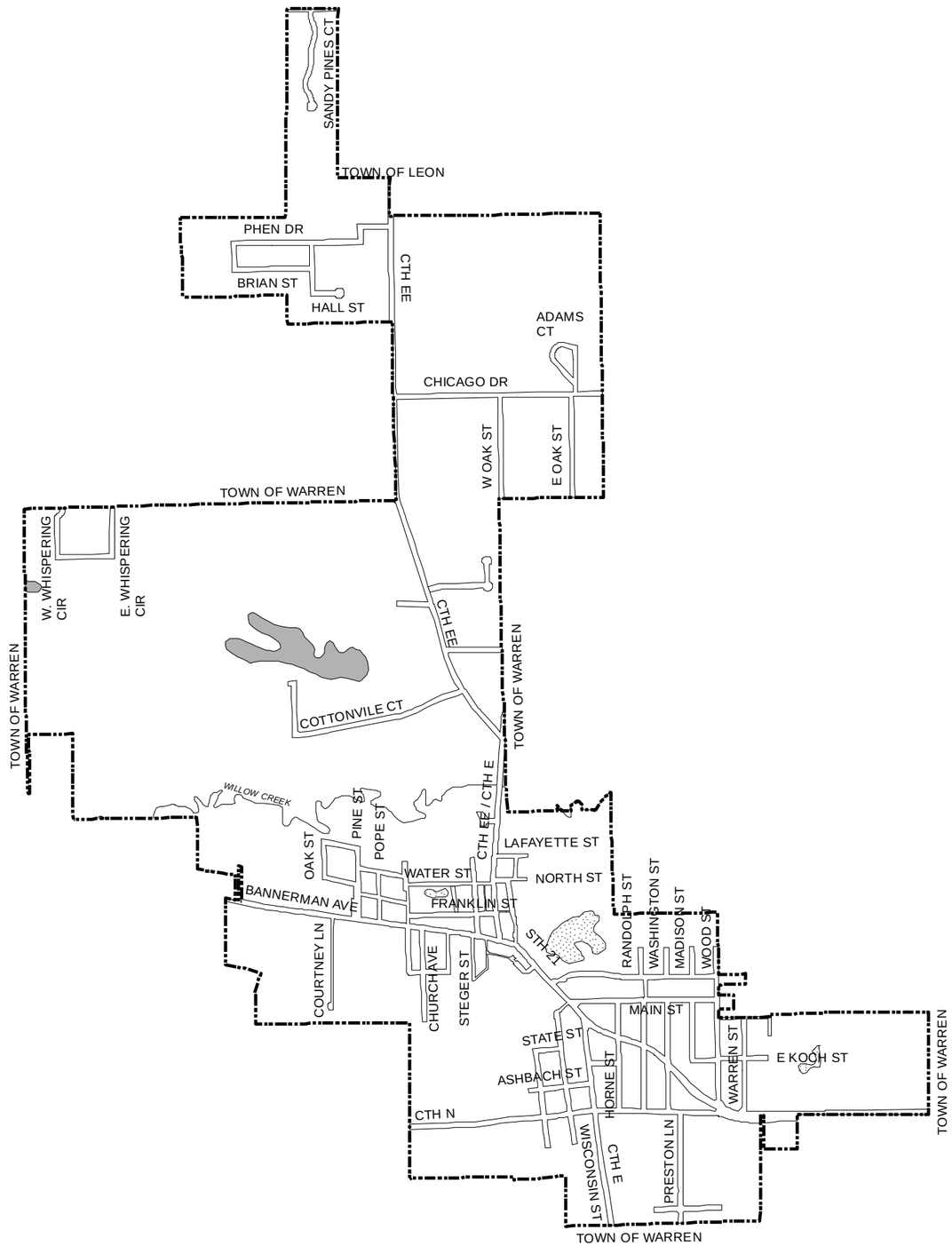
EXHIBIT 7-5
VILLAGE OF REDGRANITE
STEEP SLOPE



SLOPE > 12%

WATER

Source: USDA-SCS, Soil Survey of Waushara County, Wisconsin, 1982.
Digital Soils Data provided by NRCS.
Digital Base Data provided by Waushara County.

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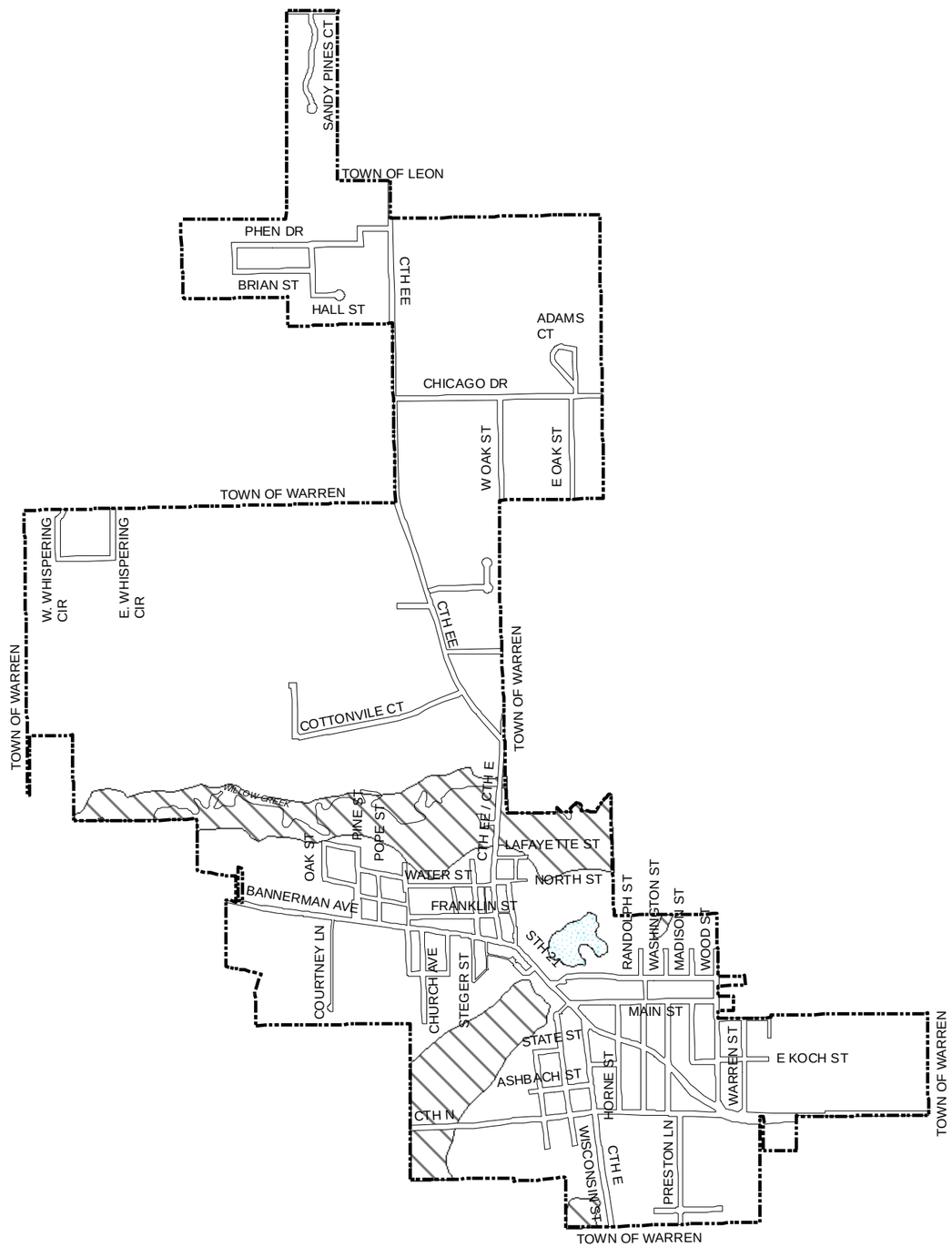
EXHIBIT 7-6
VILLAGE OF REDGRANITE
FLOODPLAINS



ZONE A

ZONE AE

FLOODWAY AREAS IN ZONE AE

ZONE X

ZONE X (500-YEAR)

AREA NOT INCLUDED UNDER F.E.M.A. FLOODPLAIN DESIGNATION

Source: Floodplain Data provided by F.E.M.A.
Digital Basa Data provided by Waushara County

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Feet

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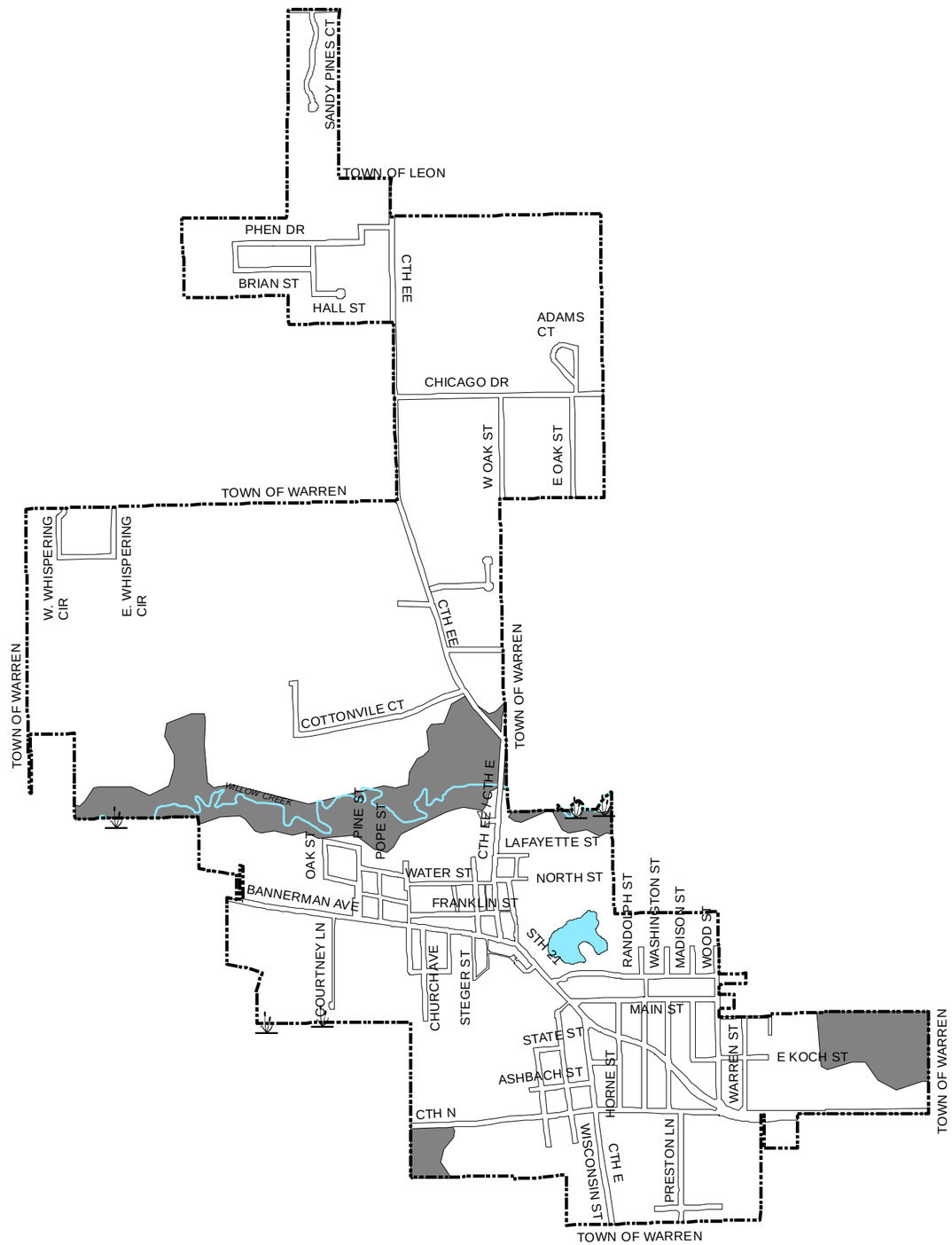
EAST CENTRAL WISCONSIN
REGIONAL PLANNING COMMISSION-MARCH 2006

AP d:/groupd/ec2002/vgredgranite/floodplains.mxd

EXHIBIT 7-7
VILLAGE OF REDGRANITE
WDNR WETLANDS



WETLANDS LESS THAN FIVE ACRES

WETLANDS GREATER THAN FIVE ACRES

This map indicates wetlands that have been designated on the Wisconsin Department of Natural Resources' Wisconsin Wetland Inventory Maps. Wetland areas five acres or greater are regulated under the Waushara County Shoreland/Wetland Zoning Ordinance. This map does not reflect all areas that may be considered wetlands by the U.S. Department of Agriculture, or all wetlands that may be under the jurisdiction of the U.S. Army Corp of Engineers.

Source: WDNR, Digital Wisconsin Wetland Inventory, Waushara County. Digital Base Data provided by Waushara County.

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Feet

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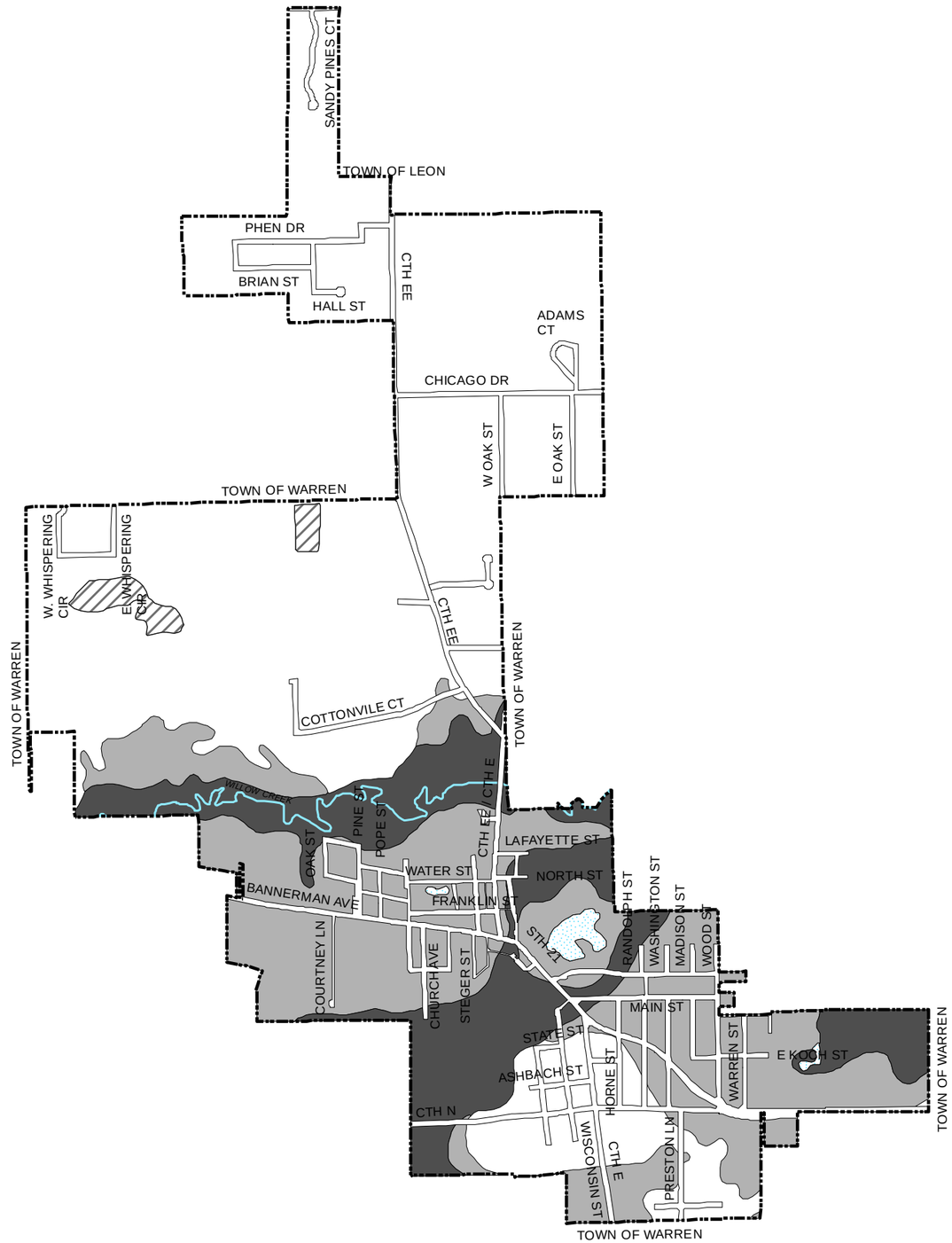
EAST CENTRAL WISCONSIN
REGIONAL PLANNING COMMISSION-MARCH 2006

EXHIBIT 7-8
VILLAGE OF REDGRANITE
DEPTH TO GROUNDWATER



DEPTH TO GROUNDWATER < 2 FEET

DEPTH TO GROUNDWATER 2 - 6 FEET

DEPTH TO GROUNDWATER > 6 FEET

NO RATING

WATER

Source: USDA-SCS, Soil Survey of Waushara County, Wisconsin, 1982.
Digital Soils Data provided by NRCS.
Digital Base Data provided by Waushara County.

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Prepared By
EAST CENTRAL WISCONSIN
REGIONAL PLANNING COMMISSION-MARCH 2006

AP d:/groupd/ec2002/vredgranite/ground_water.mxd

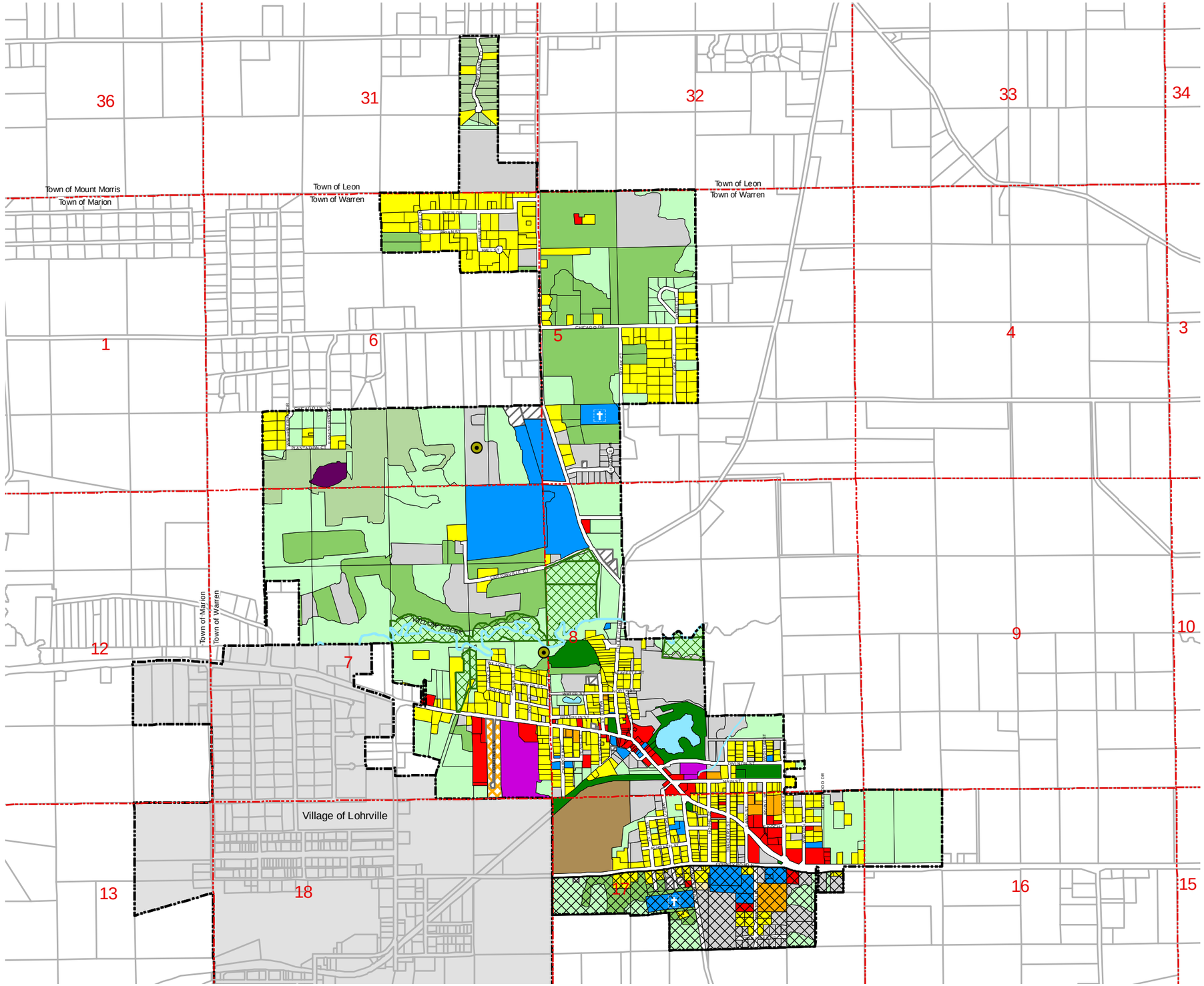

EXHIBIT 8-1
VILLAGE OF REDGRANITE
2005 - EXISTING LAND USE

- Single & Two-Family Residential
- Farmsteads
- Multifamily
- Mobile Home Parks
- Commercial
- Industrial
- Non-Metallic Mining
- Institutional Facilities
- Transportation
- Utilities/Communications
- Non-Irrigated Cropland
- Irrigated Cropland
- Water Features
- Recreational Facilities
- Planted Woodlands
- Silviculture
- General Woodlands
- Other Open Land
- DNR Owned Land
- Atrazine Prohibition Areas
- Cemeteries
- Abondoned Landfill

Source: Digital Base Data provided by Waushara County.
Land Use Created by ECWRPC.
DNR Data provided by WDNR.

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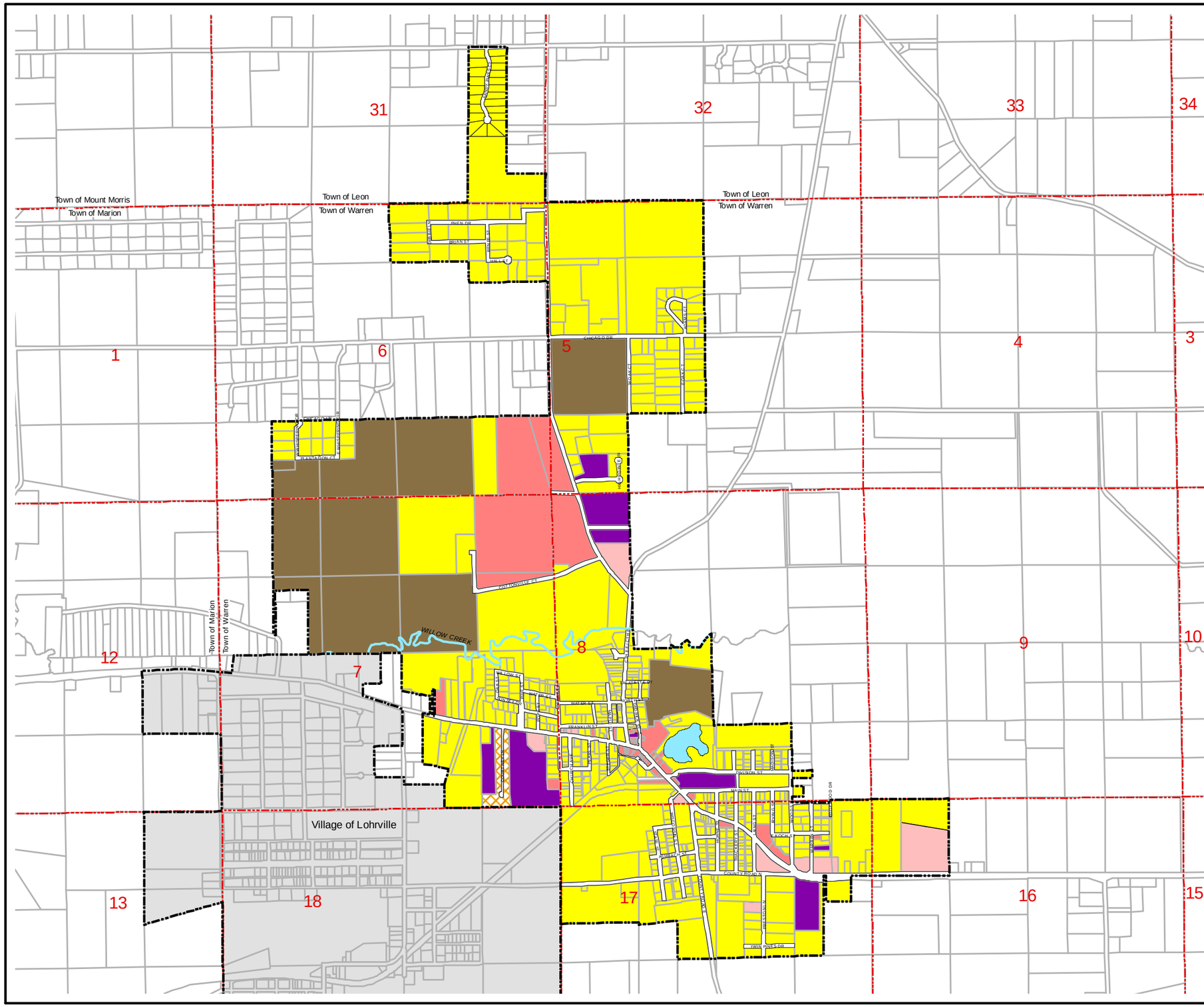
Prepared By
EAST CENTRAL WISCONSIN
REGIONAL PLANNING COMMISSION-JULY 2006

EXHIBIT 8-2
VILLAGE OF REDGRANITE
ZONING



AG HOLDING
RESIDENTIAL
MOBILE HOME PARK
COMMUNITY COMMERCIAL
HIGHWAY COMMERCIAL
INDUSTRIAL
TOWN OF WARREN
ROADS
WATER

Source: Village of Redgranite Zoning, 2003
Digital Base Data provided by Waushara County.

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EAST CENTRAL WISCONSIN
REGIONAL PLANNING COMMISSION-MARCH 2006

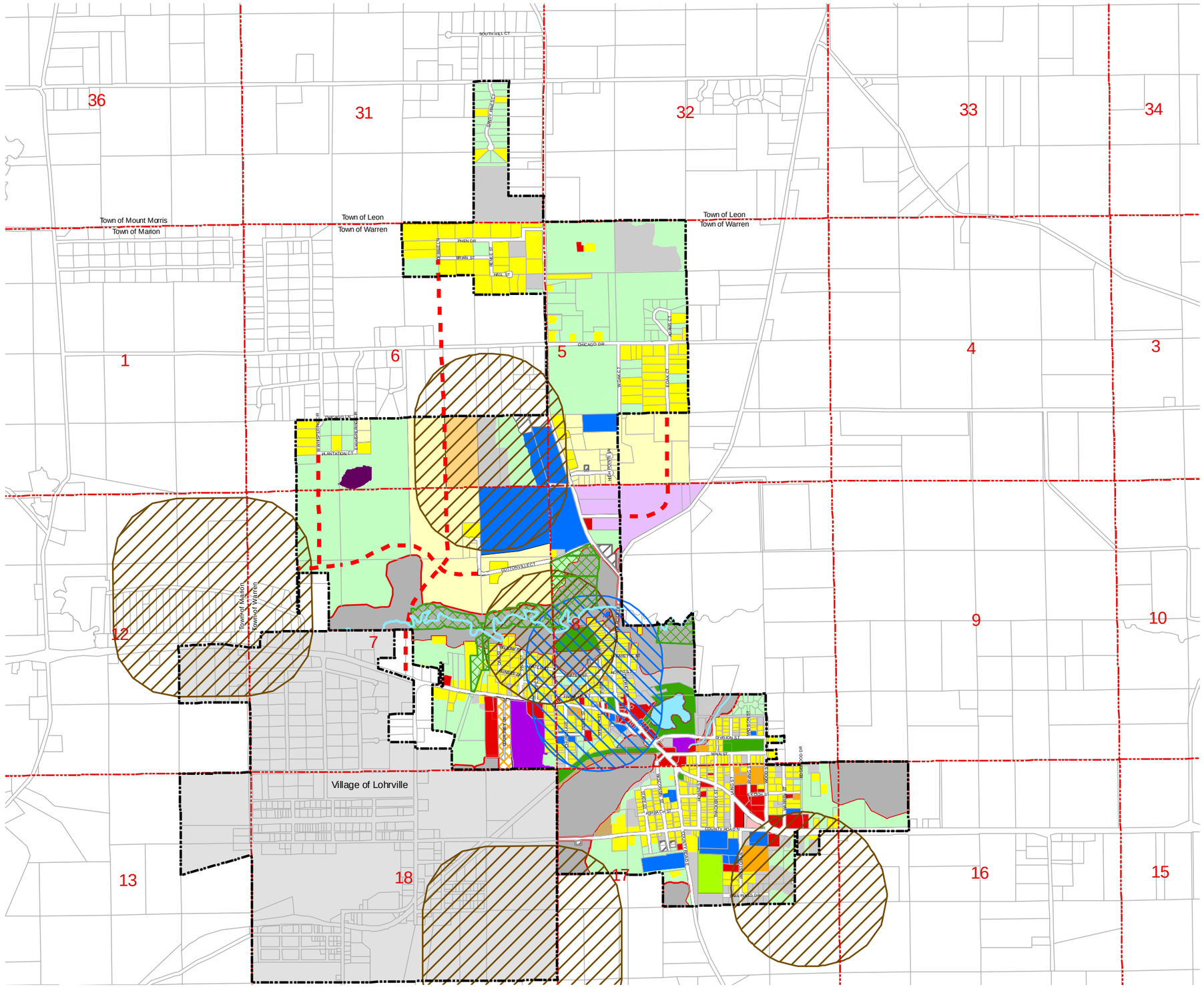

EXHIBIT 8-3
VILLAGE OF REDGRANITE
FUTURE LAND USE

FUTURE LAND USE

- Future Residential
- Future Multifamily
- Future Recreational
- Future Commercial
- Future Industrial
- Future Road

EXISTING LAND USE

- Residential (Single, Two Family, and Farmsteads)
- Multifamily and Group Quarters
- Mobile Home Parks
- Commercial
- Industrial
- Non-Metallic Mining
- Institutional Facilities
- Transportation
- Utilities/Communications
- Agriculture
- Water Features
- Recreational Facilities
- Woodlands (including Silviculture)
- Natural Resource Protection Areas*
- Other Open Land
- DNR Owned Land
- 1200' Landfill Buffer
- 1200' Village Wells Buffer
- Rivers and Streams
- Trout Streams

Source: Digital Base Data provided by Waushara County.
Land Use Created by ECWRPC.
DNR Data provided by WDNR.

* 50' buffer around wetlands (5 acres or greater), floodplains, rivers, and lakes. 100' buffer around trout streams.

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Feet

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Prepared By
EAST CENTRAL WISCONSIN
REGIONAL PLANNING COMMISSION-JULY 2006