

**Farmland  
Preservation  
Plan**

**Fond du Lac County**

**2012**

**FOND DU LAC COUNTY**  
**FARMLAND PRESERVATION PLAN - 2012**

**Ad-Hoc Farmland Preservation Advisory Committee Members**

Frank Bartzen, Lamartine Town Chair  
John Bertram, Calumet Town Supervisor  
Sara Bonlender, Cloverhill Dairy, Town of Ashford  
Richard Guell, Eden Town Chair  
Dan Johnson, Ripon Town Supervisor  
Joe Loehr, Town of Forest  
John Ruedinger, Town of Friendship  
Bill Wiese, Town of Rosendale

**UW-Extension Education, Agriculture and Recreation Committee**

Sherry L. Behnke, Chair  
James D. Kiser, Vice-Chair  
Steven A. Abel  
Theodore J. Eisheid  
Mary Jean Nicholson

**Fond du Lac County Planning and Park Department**

Sam Tobias – Fond du Lac County Planning and Parks Director  
Katie Gunzy – Fond du Lac County Planning and Parks Assistant

**Agency Contributions**

Lynn Mathias – Fond du Lac County Land Conservation Department County Conservationist  
Paul Tollard – Fond du Lac County Land Conservation Department Project Manager  
Ann Kitowski – GIS Specialist, Fond du Lac County Land Information Department  
Tom Janke – Highway Commissioner, Fond du Lac County Highway Department  
Paul Sponhoz – Highway Engineer, Fond du Lac County Highway Department  
Chad Glaser – Network Coordinator, Fond du Lac County Information Systems Department  
Mike Rankin, Crops & Soils Agent, UW- Extension, Fond du Lac County  
Jo Ann Giese Kent, Director, Fond du Lac County Economic Development Corporation

**Consultant: Martenson & Eisele, Inc., Menasha, Wisconsin**

Ken Jaworski, Principal Planner & Team Leader  
Brigit Duley, GIS Specialist  
Stacy E. Jepson, Environmental Specialist

# FOND DU LAC COUNTY FARMLAND PRESERVATION PLAN

## TABLE OF CONTENTS

### THE PLAN

#### Acknowledgment Page

#### Farmland Preservation Plan

##### 1.0 Introduction

1.1 Farmland Preservation and Agricultural Development Policy.....	1
1.2 Regional Location.....	1
1.3 Planning Process.....	1
1.4 Public Participation Efforts.....	3

##### 2.0 Farmland Preservation and Agricultural Development Trends, Plans or Needs

2.1 Population .....	5
2.2 Economic Growth .....	6
2.3 Housing .....	6
2.4 Transportation .....	7
2.5 Utilities and Energy.....	10
2.6 Communications.....	11
2.7 Business Development.....	11
2.8 Community Facilities and Services .....	15
2.9 Waste Management .....	16
2.10 Municipal Expansion.....	16
2.11 Environmental Preservation.....	18
2.12 Potential Climate Change Impacts.....	18

##### 3.0 Land Use

3.1 Existing Agricultural Land Use .....	22
3.2 Land, Soil, and Water Resources .....	23
3.3 Agricultural Infrastructure – (processing, storage, transport, & supply facilities).....	33
3.4 Farmland Preservation and Agricultural Development Land Use Issues.....	36

##### 4.0 Agricultural Trends

4.1 Agricultural Land Use .....	39
4.2 Agricultural Production and Enterprises.....	40
4.3 Conversion of Agricultural Lands to Other Uses .....	41
4.4 Anticipated Changes in Agricultural Production, Processing, Supply, & Distribution ....	45

##### 5.0 Farmland Preservation Areas

5.1 Rationale Used to Determine Preservation Areas.....	47
5.2 Farmland Preservation Map Category Descriptions.....	48

##### 6.0 Implementation

6.1 Goals for Agricultural Development .....	51
--	----

6.2 Housing Density (policies, goals, strategies & actions to increase housing density) ....	52
6.3 Farmland Preservation Programs .....	54
6.4 Fond du Lac County Comprehensive Plan Consistency .....	60
6.5 County Actions to Preserve Farmland and Promote Agricultural Development.....	60
6.6 County Actions to Address Land Use Issues affecting Farmland Preservation and Agricultural Development.....	61

## TABLES & FIGURES

### **Tables 100-127 Located in Appendix A**

Table 100 Population Change	
Table 101 Population Race/Ethnicity	
Table 102 Population Age and Median Age	
Table 103 Population Projections	
Table 104 Household Projections	
Table 105 Median Income	
Table 106 Household Income	
Table 107 Per Capita Income	
Table 108 Poverty Status	
Table 109 Labor Force	
Table 110 Employment of Residents by Type of Industry	
Table 111 Employment of Residents by Type of Occupation	
Table 112 Industry of Employed Persons	
Table 113 Fox Valley Wisconsin Workforce Development Area Industry Employment Projections, 2006-2016	
Table 114 Average Weekly Wages	
Table 115 Travel Time to Work	
Table 116 Educational Attainment	
Table 117 Age of Housing	
Table 118 Median Housing Values	
Table 119 Housing Values	
Table 120 Types of Housing Units	
Table 121 Housing Occupancy and Tenure	
Table 122 Vacancy Status	
Table 123 Household Types	
Table 124 Persons Per Household	
Table 125 Household Size	
Table 126 Owner Affordability	
Table 127 Renter Affordability	

### ***Farmland Preservation and Agriculture Development Trends, Plans or Needs***

Table 2-1 Fond du Lac County Largest Agricultural Employers .....	13
Table 2-2 Direct Impacts on Agricultural – Positive .....	19
Table 2-3 Direct Impacts on Agricultural – Negative .....	20
Table 2-4 Indirect Impacts on Agricultural .....	21

### ***Land Use***

Table 3-1 Existing Land Use, 2007 .....	23
Table 3-2 Watersheds in Fond du Lac County.....	31
Table 3-3 Fond du Lac County Agricultural Providers.....	34

**Agricultural Trends**

Table 4-1 Acres of Agricultural Land by Community, 2005-2009 .....40  
Table 4-2 CSM lots and Plat lots by Town, in Acres, 1999-2011 .....43  
Table 4-3 Acres Converted into CSMs & Plats, 1999-2011 .....44  
Figure 4-1 Acres Converted into CSM and Plat Lots, 1999-2011 .....44

**Farmland Preservation Areas**

Table 5-1 Farmland Preservation Acres and Prime Agricultural Soils, Fond du Lac County, 2012.....50

**MAPS**

Map 1 Project Location Map.....2  
Map 2 County Topographic Map (Source: Fond du lac County Planning).....25  
Map 3 Prime Soils Map (Source: Fond du lac County Planning) .....28  
Map 4 Farmland Preservation Plan Map .....49

**Maps 4A-4U Located in Appendix G**

- Map 4A Town of Alto
- Map 4B Town of Ashford
- Map 4C Town of Auburn
- Map 4D Town of Byron
- Map 4E Town of Calumet
- Map 4F Town of Eden
- Map 4G Town of Eldorado
- Map 4H Town of Empire
- Map 4I Town of Fond du Lac
- Map 4J Town of Forest
- Map 4K Town of Friendship
- Map 4L Town of Lamartine
- Map 4M Town of Marshfield
- Map 4N Town of Metomen
- Map 4O Town of Oakfield
- Map 4P Town of Osceola
- Map 4Q Town of Ripon
- Map 4R Town of Rosendale
- Map 4S Town of Springvale
- Map 4T Town of Taycheedah
- Map 4U Town of Waupun

**APPENDICES**

- Appendix A – Tables 100 through 127
- Appendix B – Fond du Lac County Agriculture-2011
- Appendix C – Fond du Lac County Wisconsin Economic Profile 2010
- Appendix D – Prime Agricultural Soils
- Appendix E – DATCP Certification Order
- Appendix F – County Board of Supervisors Approval Resolution 85-12
- Appendix G - Farmland Preservation Plan Maps by Town (Maps 4A- 4U)

## 1.0 Introduction

### 1.1 Farmland Preservation and Agricultural Development Policy

Fond du lac County has a strong history of preserving agricultural land and natural resources in order to maintain a high quality of life and a strong economy. Due to the importance of agriculture within the local and regional economy, it is necessary to encourage farmland preservation, protect natural resources, and minimize conflicts between farm and nonfarm land uses. Agricultural related business and infrastructure that support agriculture will be encouraged in order to maintain a strong agricultural component of the County's economy.

### 1.2 Regional Location

Fond du Lac County is located in east central Wisconsin in the center of a triangle formed by the Milwaukee, Madison, and Fox Cities (Appleton/Oshkosh) metropolitan areas. The Counties of Calumet, Winnebago, Green Lake, Dodge, Washington and Sheboygan border Fond du Lac County. Map 1 shows the regional location of the County and the governmental units within the County.

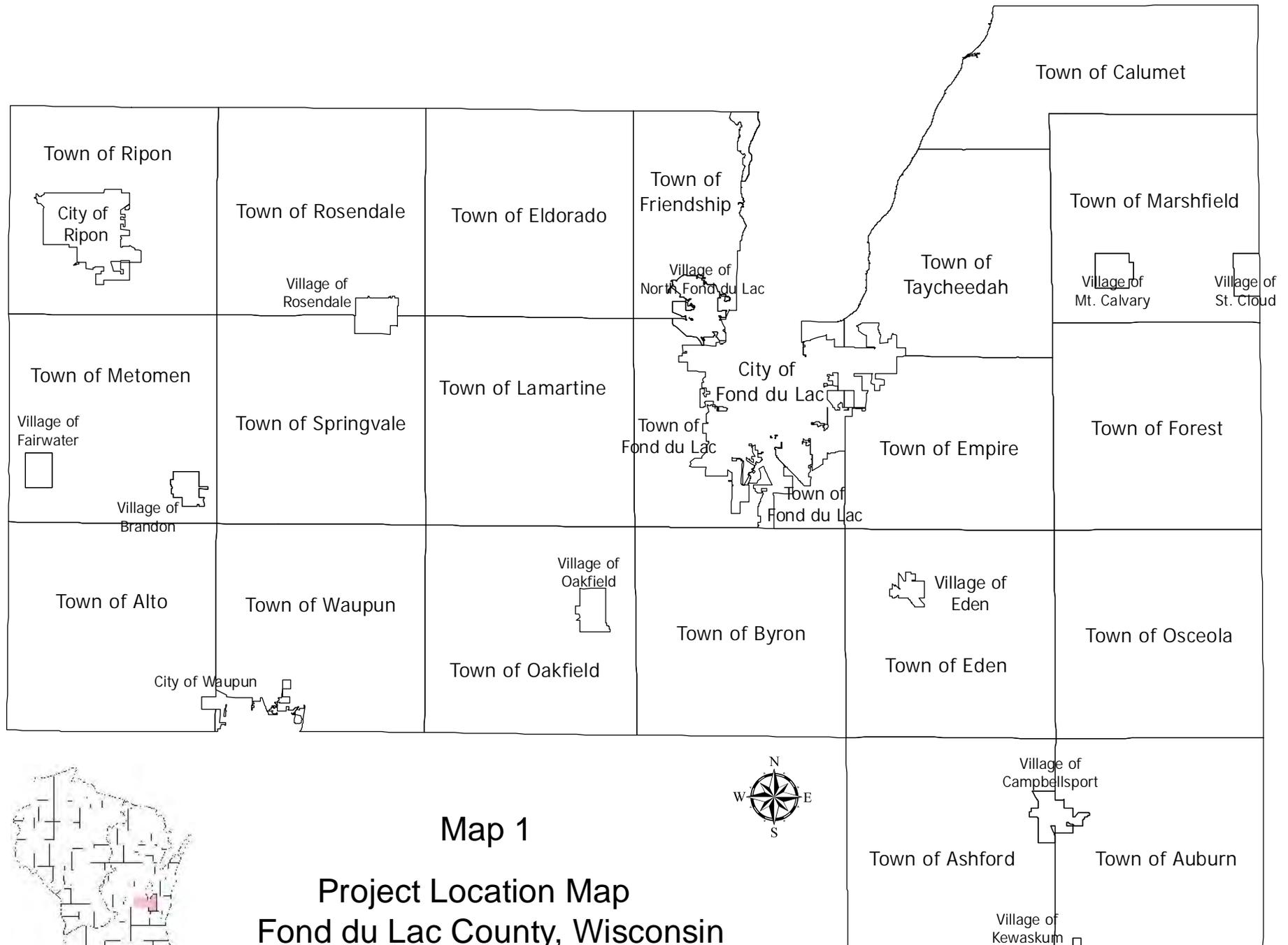
### 1.3 Planning Process

This plan was prepared in accordance with the Farmland Preservation Chapter of the Wisconsin Statutes. It establishes public policy in support of farmland preservation, agricultural development and the encouragement of a healthy agricultural economy. The legislation requires a county to develop and adopt a Farmland Preservation Plan in order for landowners in the county to be eligible for the farmland preservation programs offered by the state. The Farmland Preservation Program has been in existence since 1977 and in force in Fond du Lac County since 1980. Fond du Lac County developed the original Farmland Preservation Plan in 1980. The 2012 Farmland Preservation Plan will serve as the first update. The goal of the program is to aid local governments in farmland preservation and agricultural development through planning and the provision of tax credits to those who participate.

This plan is part of a continuing effort by Fond du Lac County to participate in the State's Farmland Preservation Program in order to encourage a progressive yet sustainable agricultural economy. It is the intent of this plan to guide County decision-makers to make the best decisions for the benefit of the agricultural economy in Fond du Lac County.

This plan represents much research, study, and effort on the part of the Fond du Lac County Planning Staff, the Ad-Hoc Farmland Preservation Advisory Committee (A-HFPAC), the Extension Education, Agriculture and Recreation Committee and the Fond du Lac County Board.

A project schedule table and cost estimate was prepared by staff in order to complete the planning process. After making a grant application to the Department of Trade, Agriculture and Consumer Protection (DATCP), Fond du Lac County was awarded a grant of \$30,000.00 to help offset



Map 1

Project Location Map  
Fond du Lac County, Wisconsin

the cost of producing the new Farmland Preservation Plan. The project schedule includes five (5) meetings with A-HFPAC, three (3) rounds of Town Cluster Meetings with town officials, two (2) meetings with the Extension Education, Agriculture and Recreation Committee and adoption by the Fond du Lac County Board. In addition, numerous special meetings were held with individual towns to obtain input on the Farmland Preservation Plan.

The Fond du Lac County Farmland Preservation Plan process was designed to meet the requirements of Chapter 91.10 of the Wisconsin State Statutes (Wis. Stats.).

Goals and recommendations stated in this plan reflect the deliberations among Planning and Development Department Staff, Consultant, the A-HFPAC, Town Officials, the Extension Education, Agriculture and Recreation Committee and the County Board. Comments and opinions expressed by the people within the County were reviewed at various stages of the planning process. References made to specific state, county, and other governmental programs do not imply endorsement but are presented for background and reference only.

## 1.4 Public Participation Efforts

The following core efforts were identified to foster public participation throughout the Farmland Preservation Planning process:

- All meetings properly noticed and open to the public.
- Notices sent to local media outlets identifying the time and location of public informational meetings and public hearings.
- Information about meetings, the Farmland Preservation Plan, and related materials were made available at the Fond du Lac City County Government Center in the City of Fond du Lac for review by local residents and interested persons.
- Information about meetings, the Farmland Preservation Plan, and related materials were made available on the Fond du Lac County Planning and Development Department website for review by interested persons.
- Input from town officials was sought to create the farmland preservation plan maps.

In addition, an address to forward written comments was provided in meeting notices. The Planning and Development Department responded to written comments at public meetings. Department staff also gave a presentation on the farmland preservation program and planning process at the Fond du Lac County Town Unit Meeting on March 1, 2012. Both meetings were coordinated by the Wisconsin Towns Association. County Planning staff provided Town officials an update on the Farmland Preservation Plan process at their quarterly meeting on June 7, 2012.

The planning process included two key meeting functions:

A-HFPAC: Comprised of 10 individuals who represent key county agricultural interests, this group worked with County Planning staff and their consultant to refine goals and objectives, review agricultural and housing trends, and assist in the rationale used to de-

termine what farmland should be preserved. The Working Group met five (5) times throughout the course of the planning process.

Community Cluster Meetings: In an effort to encourage local community involvement (primarily towns) in the planning process, municipal leaders and interested residents were invited to attend a series of Cluster Meetings. The county was divided into three sub-regions or “clusters” (Map 1). The three clusters included municipalities from the East, Central and West portions of the county. The municipalities provided input on the following:

1. Identify what areas (farmland and other resource lands) should be preserved by using their comprehensive plans (specifically, their Future Land Use Map).
2. Identify which areas are planned for non-agricultural development within the next 15 years.

## 2.0 Farmland Preservation and Agricultural Development Trends, Plans, or Needs

### 2.1 Population

Growth for a county is primarily tracked by the population within that county. Population can also serve as a baseline to determine a county's trends and needs. County needs can consist of community, recreational, housing, utility, and educational. Table 100 illustrates the population trends for Fond du Lac County over the last five decades, as well as surrounding counties and the State of Wisconsin. Please note that referenced Tables 100-127 are located in Appendix A. Population trends can be further broke down by race and ethnicity as well as median age. This information can be found in Tables 101 and 102.

Fond du Lac County had a population of 101,633 persons in 2010. This was a 4% increase from 97,296 of the previous decade. An increase of 8% was experienced from 1990 to 2000 showing greater growth throughout the 1990s with a trend of slowed growth the 2000s. Fond du Lac County closely follows growth trends experienced by the State of Wisconsin. Wisconsin's rate of growth in the 1990s was 1.6 percent higher than that of Fond du Lac County. Even with this slowing rate of growth for Fond du Lac County it is still important to monitor development pressure on agricultural lands within rural areas. Guidance can help alleviate conflicts between residential and agricultural uses.

#### Population Estimates

Population estimates are updated every year for all municipalities within Wisconsin by the Wisconsin Department of Administration Demographic Services Center and should be utilized as the primary source of population information during non-census years. The 2011 population estimate for Fond du Lac County was 101,174, a 0.5% decrease from 2010. Surrounding Counties also experienced a population decrease or extremely small increase from 2010 to 2011. Winnebago County was estimated as having a 1.4% decrease. Wisconsin overall had an increase of 0.1% from 2010 to 2011. Estimates predicted in 2011 ended a trend of increase from the previous decades. Fond du Lac County experienced a 4% increase in the ten year period from 2000 to 2010. With the current estimated decrease in population growth, it is anticipated that there will be less pressure placed on agricultural lands during this downturn in growth. However, historical population estimates indicate that there will be a cycle of increased growth. In order to prevent an increased pressure on the agricultural industry, methods should be considered to direct population growth toward urban areas, consisting of cities and villages.

#### Population Projections

Projected populations from the Wisconsin Department of Administration Demographic Services Center for Fond du Lac County can be found in Table 103. Projections show a plateau of approximately a 2.5% increase in population over the next 15 years. The Wisconsin Department of Administration predicts Fond du Lac County will have a population of 112,538 persons in 2030, an increase of 10,905 persons. Based on predictions for surrounding counties Fond du Lac closely aligns with predicted increases for Dodge County and slightly lags the predicted increases for Winnebago County, with Calumet County experiencing the greatest amount of increase. The average household size for Fond du Lac County in 2000 was 2.52, with a predicted size of 2.31 persons in 2030. Based on the projected population increase and household size, it

is estimated that there will be a need for 6,300 new dwelling units to house the additional population for the county. These new housing units, depending on their location and rate of density, will potentially have an effect on the amount agricultural land remaining in the County.

## 2.2 Economic Growth

Economic growth can be measured by a variety of ways including unemployment rates, household income, labor force, average wages, poverty status, employment trends, or principal employers. These trends can be found in Tables 105-112. Fond du Lac County residents have seen an increase in income over the last decade, a slightly greater increase than the State of Wisconsin. Even though Fond du Lac County falls in line with the 8% unemployment rate, they do have a lower amount of persons below poverty status than the State. Employment for the County is greatly dominated by services and manufacturing. However, agricultural-related business is an important facet within the county as it generates thousands of jobs and millions of dollars in economic activity. Additional information regarding Fond du Lac County Agriculture can be found in Appendix B, "Fond du Lac County Agriculture-2011" and in Appendix C, "Fond du Lac Economic Profile 2010".

Fond du Lac County is a leading producer in agriculture, with dairy farms located throughout the county and the largest dairy farm in the state being at the southern tip of Lake Winnebago. Fond du Lac County ranks fourth in the state and 26<sup>th</sup> in the nation for dairy production. Not only does agriculture provide for 15% of the County's jobs, each agricultural job generates 0.90 additional jobs in the county. Agricultural business is a significant anchor for the county as it generates 22% of the county's total business sales and pays \$52 million in taxes annually. As agriculture is a vital component in Fond du Lac County's economy, economic development trends and policies will have to help maintain agriculture as a major component of the economy.

Challenges will be faced by Fond du Lac County, as with most areas of the state, as there has been increased pressure on agricultural land owners to convert their farmland to other uses, as inflated land values have made it progressively more challenging for farms to expand operations or for new prospects to enter into farming operations. With the increase in land values, it has also been increasingly more attractive to sell properties for non-agricultural uses for a financial profit. As with most counties, these will be some of the challenges Fond du Lac County will have to face in the agricultural business.

## 2.3 Housing

Housing trends and analysis information can be found in Tables 117-127. Information within these tables is provided on age of housing, housing values, types of housing, occupancy, household size, and affordability.

There can be discrepancies between the rate of increase in population and the rate of increase in housing, as trends have shown a decrease in the average number of persons residing in a household. Because of the decline in persons per household, there typically is a greater increase in the number of households compared to the increase in the population. According to population projections and average persons per household for 2030, there will be a need for 6,300 new households by 2030. The location of these new households has the potential to have an effect on the amount of agricultural land available in the County.

### **Existing Housing Units**

Table 123 outlines the types and number of households for the county. There has been an increase of 10.2% total households from 2000 to 2010, with an increase in population of 4.5% from 2000 to 2010. Fond du Lac County's increase in the number of households was greater than Wisconsin by 0.8%. These statistics follow the trend of the need of more homes being used to house fewer people, thus having the housing growing at a faster rate than the population in the county.

Tables 124 and 125 outline the trend in the decrease of persons per household from 2000 to 2010. There has been a progressive decline in the average persons per household from 2.76 persons per household in 1990, 2.63 persons in 2000 and 2.50 persons in 2010. Wisconsin has seen a similar decline with 2.68 persons per household in 1990, 2.57 persons in 2000, and 2.49 persons in 2010.

### **Housing Forecasts**

Household forecasts are essential in preparing a farmland preservation plan for a county, as they aid in determining the amount of land that will be required to accommodate future residential needs. As with all projections, these projections are based on past statistics and current trends, and are therefore should be used to direct planning needs. Housing projections are obtained from the Wisconsin Department of Administration Demographics Service Center. The total number of households for Fond du Lac County is projected to be 47,362 by 2030, an increase of approximately 6,300 households from 2010. This constitutes a 15.4% increase for the 20-year period. The density and location of these 6,300 housing units will dictate the impact to agricultural resources within Fond du Lac County. The more densely these additional housing units are planned, the less impact there will be to the agricultural land in the county.

## **2.4 Transportation**

### **Existing Road System**

Fond du Lac County contains an efficient networked system of highways that makes commerce to and from Minneapolis/St. Paul, La Crosse, Rochester, Dubuque, Madison, the Fox Cities and all points beyond, accessible to agricultural markets. Fond du Lac County serves as a central location with excellent highway access to major markets in Green Bay (70 miles), Madison (70 miles), Milwaukee (60 miles), Chicago (140 miles) and Minneapolis (260 miles). U.S. Highway 41 is the major north/south route providing four lanes of traffic through the county. Highways 45 and 151 are additional north south routes with Hwy 151 recently expanding to four lanes between Fond du Lac and Madison. State Highways 23, 68, and 67 provide east-west travel and highways 26, 44, 49, 149 and 175 provide north-south access to points throughout Fond du Lac County. State Highway 23 is planned for major renovations over the next 5 years.

Fond du Lac County contains an extensive system of County highways as well. Continuing maintenance and construction is provided by the Fond du Lac County Highway Department which services 384 miles of county roads and 61 bridges.

An extremely important county road is County Trunk Highway M which is a major north-south transportation route serving the heavily agricultural base of western Fond du Lac County. Other county roads used heavily for agriculture purposes include CTH's TC (west),

C (north), Y (central) and W (east). However, in a county heavily influenced by agricultural activity, all county trunk highways play a role in the movement of agricultural product and services.

## **Additional Modes of Transport**

### Rail Transportation

There are 12 freight carriers in Wisconsin, two of which operate within Fond du Lac County. The Canadian National and the Wisconsin & Southern Railroad Co. operate service in central Wisconsin and connect to national points, east and west. Fond du Lac County, specifically the Village of North Fond du Lac, is home to the largest rail switching yard in the State of Wisconsin. Rail carriers in Wisconsin operate over 3,400 miles of track and carry over 160 million tons annually.

### Air Transportation

Of Wisconsin's eight commercial airports, four are within 90 minutes of Fond du Lac County. International flight service is available at General Mitchell International Airport in Milwaukee and at Austin Straubel International Airport in Green Bay. National and international access is available from several airports within an hour's drive, and a two-hour jaunt to Chicago (with its three international airports) affords you the opportunity to fly directly to your global destination. Fond du Lac County Airport provides charter and freight services and an all-weather instrument approach system to its aviation clients.

### Ports

Four of Wisconsin's eight ports are located within two hours of Fond du Lac County, two within ninety minutes. These modern port facilities serve as multi-modal distribution centers—linking cargo vessels with land based transportation of both highways and rail.

## **Transportation Plans and Projects**

Wis 23 Expansion Project -WIS 23, east of US 151 (in Fond du Lac) to County P (in Plymouth), in Fond du Lac and Sheboygan counties.

WIS 23 is an important east-west route through Fond du Lac County and the state of Wisconsin and needs to serve two distinct user groups, motorists passing through the area and local residents. It is classified as a Corridor 2020 connector highway, meaning it has been designated as a highly important state roadway. In 1999, WIS 23 was selected by the state Legislature to receive funding for improvements. The project objective is to add capacity, and increase safety, by expanding the existing 2-lane highway to a 4-lane expressway. No bypasses will be necessary along the route. Constructions scheduled for 2012

### US 151 Fond du Lac Bypass Corridor Preservation Study

This study will address future, long term transportation needs along the Fond du Lac Bypass. This 8.1 mile long study between WIS 175 and County WH traverses through the following municipalities:

- City of Fond du Lac
- Town of Fond du Lac
- Town of Empire
- Town of Taycheedah

US 151, between WIS 175 and WIS 23, is a 5.2 mile long four-lane divided expressway with at-grade intersections. The preservation study will map the right-of-way needs for the location of future overpasses and interchanges. Wisconsin Department of Transportation's (WisDOT) long-term vision of this segment is an ultimate freeway with increased mobility and traveler safety.

The preservation study also includes a long-term safety and operations evaluation for the two-lane segment along US 151 between WIS 23 and County WH. Right-of-way was previously acquired along this segment to accommodate a future four-lane segment.

US 151 is a [Corridors 2020](#) Backbone route in the State Highway Plan. The US 151 segment between US 41 and WIS 23 is a connector route. WisDOT views the preservation of this corridor as essential for maintaining a high level of mobility and traveler safety.

By mapping the land necessary for ultimate overpasses and interchanges, there would be a real estate cost savings to the public. Land costs become very expensive once development has occurred. Implementation of these proposed improvements can then be expedited once the land is mapped and funding becomes available.

At public and local and elected officials' request, WisDOT has accelerated this preservation study and has selected the preferred middle alternative. The middle alternative includes the area near County V (south) and US 45. A County V interchange has been selected. A north frontage road connecting County V and US 45 is still being considered. The US 45 jug handle ramps would be removed under this plan. Construction of these improvements will be dependent on completion of the mapping process and available funding.

#### US 41 (Milwaukee - Green Bay) Interstate Conversion

This project includes US 41, from Mitchell Interchange in Milwaukee following I-894, US 45, and US 41 to the US 41/I-43 interchange in Green Bay. The project goes through Milwaukee, Waukesha, Washington, Dodge, Fond du Lac, Winnebago, Outagamie and Brown counties.

Communities along the current US 41 corridor include Milwaukee, West Allis, Wauwatosa, Menomonee Falls, Germantown, Slinger, Lomira, Fond du Lac, Oshkosh, Neenah, Menasha, Grand Chute, Appleton, Little Chute, Kaukauna, De Pere, Ashwaubenon, Howard and Green Bay.

In 2005, 142 miles of US 41, from Milwaukee to Green Bay, were identified by the federal government for inclusion in Wisconsin's Interstate Highway System. This project will convert 130 mile segment of US 41 from a US highway to an Interstate. Planning started in 2007.

Designating the highway as an Interstate is expected to bring economic growth from Milwaukee to Green Bay, increase the safety of the road, create a corridor identity, and bring broader benefits to the state of Wisconsin.

Installation of Interstate shields is expected to occur in 2014, following consultation with government agencies, the completion and review of an Environmental Impact Statement (EIS), public information meetings, a final Record of Decision (ROD) and a Federal Highway Administration (FHWA)/WisDOT agreement. The conversion should not require any associated construction projects.

A long-term planning study is underway with the potential for future construction.

- Design of signing improvements anticipated to start in 2013
- Installation of Interstate signs anticipated to start in 2014

### County Highway Projects

In a county heavily influenced by agricultural activity, all county trunk highways play an important role in the movement of agricultural products and services. These roads must be maintained to a level of service adequate to meet road standards. The following county highway projects are proposed by the Fond du Lac County Highway Department over the next several years for improvements:

CTH B (Dodge County Line north to CTH D)

CTH F (CTH Y east to STH 175)

CTH T (Rogerville Rd north to STH 23)

CTH VV (Hickory St. east Morris)

CTH WW (CTH CCC to CTH WH)

CTH M (Olden Rd north to Winnebago Co.)

CTH V (1/2 mile south of CTH F north to CTH F)

CTH VV (Hickory St. east to Morris)

CTH W (USH 45 north CTH H)

CTH TC (STH 49 east to STH 26)

CTH I (STH 23 north CTH N)

## 2.5 Utilities and Energy

### **Existing Utilities and Energy Sources**

#### Electricity

There are two electricity providers within the County that serve residential and commercial users. In general, residents and commerce located in the western portions of the county are served by Alliant/WI Power and Light. Eastern electric users are served by WE (Wisconsin Electric) Energies. There are no municipalities or electric service cooperatives within Fond du Lac County that own and operate their own electrical utility service.

#### Natural Gas

There are three natural gas companies that serve users in Fond du Lac County. The primary provider is Alliant/WI Power and Light. This utility serves the western and central portions of the county. Service to the eastern portion of the county (the towns of Calumet, Marshfield, Forest and Osceola) is provided by Wisconsin Public Service. A very small western portion of the county (Village of Fairwater and portion of the Town of Metomen) is served by the Wisconsin Gas Company.

#### Wind Energy Facilities

Fond du Lac County currently has more wind turbines than any other county within the state. The county is home to three wind turbine facilities: Alliant Energy's Cedar Ridge Wind Farm, Invenergy's Forward Wind Energy Project, and WE Energy's Blue Sky Green Field. Cedar Ridge Wind Farm is located in the Towns of Eden and Empire and consists of 41 turbines producing 68 megawatts of power and powers 17,000 homes per year. Blue Sky Green Field is located within the Towns of Calumet and Marshfield and consists of 88 turbines producing 145 megawatts of power which power 36,000 homes each year. Invenergy's Forward Wind Energy Project is located within the Towns of Byron and Oakfield and part of Dodge County. This wind energy facility is capable of producing 129 megawatts per year. These wind energy facilities are predominately located on agricultural land.

Fond du Lac County has proven itself as a successful location for wind energy systems. The future existence and growth of this renewable energy resource will have a minimal impact on the conversion of agricultural land to access roads and pad locations. Overall the money paid to a farmer for leasing the land for which the wind energy system is located will assist in financing the current agricultural operation or providing funds for upgrades. Wind energy systems also assist in deterring extensive amounts of development in agricultural areas, as potential conflicts with permitted land uses. Fond du Lac County does not administer a Wind Energy Ordinance.

### **Future Needs for Utilities and Energy**

The most visual utility impact to farmland is obviously the presence of wind energy systems that dot the skyline of Fond du Lac County. The existence and likely future expansion of wind energy systems in the county have a direct impact on farmland preservation. The wind energy systems and access roads do occupy a minimal amount of formerly agricultural land. However, with the money obtained for leasing land for wind energy system development, the land owner has additional funds to make the farm operation a success for a longer period of time. Another unintended result of the wind energy systems is to provide deterrence to future nonfarm residential development in the areas of wind farms. Extensive nonfarm residential development is unlikely in areas of wind farms due to the potential for land use conflicts. Further development of wind energy systems in the county appears eminent.

All energy companies currently providing service to the county are stable in their capacity to provide future natural gas and electric service to Fond du Lac area users.

## **2.6 Communications**

Cellular telephone service is available throughout the county as well as emergency 911 services. Strength of the signal will vary depending on tower locations and topography.

## **2.7 Business Development**

Business development can benefit a community in a variety of ways including, enhancing quality of life through increasing wages and better worker training, create new jobs, encourage sustainable development, and allow a community to be more competitive for attracting residents and labor force.

### **Labor Force**

Fond du Lac County's labor force has experienced a 0.8% decrease from 2000 to 2010, whereas Wisconsin has experienced a 2.2% increase in the labor force. However unemployment rates in 2010 for both Fond du Lac County and Wisconsin are quite aligned at 8.2% and 8.3% respectively. Of those residents of Fond du Lac County employed in the labor force in 2008, 59% of the residents both reside and work within the county and 41% commute outside of the county. In regards to all employees within the county there are 52.3% working and residing in the county and 47.7% commuting into the county but residing outside of Fond du Lac County. For those residing and working in Fond du Lac County their per capita income in 2010 was \$24,455, slightly less than Wisconsin's per capita income of \$25,458.

### **Economic Base**

The foundation of the economic base for Fond du Lac County is Education and Health Services at 21.9% of total employment within the county followed closely by manufacturing with 20.6%, and Trade, Transportation, and Utilities at 19.6%. Likewise, the State of Wisconsin's top three industries consisted of Education and Health Services, employing 22.6% of the workforce, and Trade, Transportation and Utilities at 19.7%, followed by Manufacturing at 16.3%, as displayed in Table 112. Education and health services, as well as manufacturing are the basic employment areas for the county.

In regards to employment of residents by their type of industry, Fond du Lac County in 2010 had a higher percentage of total employed in the agriculture, forestry, fishing, and mining at 4.2% than the state which had a total percentage of 2.5. Fond du Lac County also experienced a slight increase in those employed in agriculture, forestry, fishing, and mining, whereas Wisconsin experienced an overall loss of 6.4% from 2000 to 2010.

Within Fond du Lac County the three largest private employers are Brunswick Corp, Agnesian Healthcare, Inc, and Alliance Laundry Systems, LLC, all employing over 1,000 persons. Fond du lac County hosts an impressive list of major agricultural employers. The list includes operations such as The Little Farmer Orchards, Cloverhill Dairy, Lake Breeze Dairy LLC, Vir-Clar Farms LLC, Abel Dairy Farms LLC, Murph-KO Dairy Farms LLC, Redtail Ridge Dairy LLC, 3D Dairy LLC, Thistle Dairy LLC, Rosendale Dairy Inc. and Gourmet's Delight Mushrooms Inc. Table 2-1, list the major agricultural employers for Fond du Lac County

**Table 2-1**  
**Fond du Lac County Largest Agricultural Employers**

<b>Employer Name</b>	<b>City</b>	<b>Industry</b>	<b>Employment</b>
The Little Farmer	Malone	Apple Orchards	50-99
Clover Hill Dairy LLC	Campbellsport	Dairy Cattle and Milk Production	20-49
Abel Dairy Farms LLC	Eden	Dairy Cattle and Milk Production	20-49
Murph-Ko Farms Inc	Fond du Lac	Dairy Cattle and Milk Production	20-49
Vir-Clar Farms LLC	Fond du Lac	Dairy Cattle and Milk Production	20-49
Lake Breeze Dairy LLC	Malone	Dairy Cattle and Milk Production	20-49
Redtail Ridge Dairy LLC	Malone	Dairy Cattle and Milk Production	20-49
3-D Dairy LLC	Malone	Dairy Cattle and Milk Production	20-49
Thistle Dairy LLC	Van Dyne	Dairy Cattle and Milk Production	20-49
Gourmet's Delight Mushrooms Inc	Eden	Mushroom Production	20-49
Homeland Dairy LLP	Brandon	Dairy Cattle and Milk Production	10-19
Pebble Knolls Dairy LLC	Brandon	Dairy Cattle and Milk Production	10-19
Daane Dairy LLC	Brandon	Dairy Cattle and Milk Production	10-19
Silver Leaf Dairy Inc	Campbellsport	Dairy Cattle and Milk Production	10-19
Beck Dairy Farms LLC	Campbellsport	Dairy Cattle and Milk Production	10-19
Second Look Holsteins LLC	Eden	Dairy Cattle and Milk Production	10-19
Rickert Bros LLC	Eldorado	Dairy Cattle and Milk Production	10-19
Pine Drive Dairy LLP	Fond du Lac	Dairy Cattle and Milk Production	10-19
Bo-Kay Dairy LLC	Fond du Lac	Dairy Cattle and Milk Production	10-19
J&J Pickart Dairy LLC	Malone	Dairy Cattle and Milk Production	10-19
Hillside Dairy LLC	Mount Calvary	Dairy Cattle and Milk Production	10-19
Rose-Eld Farms Inc	Rosendale	Dairy Cattle and Milk Production	10-19
Ruedinger Farms Inc	Van Dyne	Dairy Cattle and Milk Production	10-19
B & B Dairy LLC	Waupun	Dairy Cattle and Milk Production	10-19
James Senn	Campbellsport	Dairy Cattle and Milk Production	10-19

**Source: WorkNet Large Employer Database Apr 2011 - <http://worknet.wisconsin.gov/worknet/largemp.aspx?menuselection=ed>**

Prepared by Fond du Lac County Economic Development Corp.

According to data obtained from the UW Cooperative Extension Office, Fond du Lac County agriculture:

- Provides 8,692 jobs throughout the county (15% of the county total of 59,221)
- Pumps \$2.3 billion into the economy
- Contributes \$576 million to county income and
- Pays \$52 million in taxes

### **Business Development Trends and Outlook**

According to the Fond du Lac County Economic Development Corporation, Fond du Lac County's pursuit of a diverse economy starts with expanding existing business and attracting new business. Targeting specific industry sectors to expand or start fresh in Fond du Lac County will always be an ongoing effort.

To create a balanced industry mix in Fond du Lac County, seven targeted industry clusters have been selected. These industries are as follows (in no priority order):

1. Advanced Manufacturing: Machinery & Metal
2. Advanced Material Manufacturing
3. Agribusiness, Food Processing & Technology
4. Biomedical/Biotechnical (Life Sciences)
5. Energy (Fossil and Renewable)
6. Printing and Publishing
7. Transportation & Logistics

Within the seven industries, an in-depth study revealed market opportunities for existing businesses to expand or for new businesses to locate in Fond du Lac County or within the 7-county region (Fond du Lac, Calumet, Dodge, Green Lake, Sheboygan, Washington and Winnebago counties).

The in-depth study (available on-line from the Fond du Lac Economic Development Corporation at <http://www.fcedc.com/sft386/summaryagwithmarketopptsvfinal.pdf>), identified the following unmet needs specifically in Fond du Lac County:

- **Crop and animal production**
- **Ag chemicals (pesticides) and fertilizer**
- **Fluid milk manufacturing (manufacturing processed milk products or fluid milk dairy substitutes)**
- **Wholesale trade agents and brokers**
- **Alternative energy to replace petroleum and natural gas imports**
- **Dry, condensed and evaporated dairy products**
- **Soybean processing**
- **Plastic bottle manufacturing**
- **Flavoring syrup and concentrate manufacturing**
- **Commercial banking**

These identified opportunities suggest a void in local services spawned by existing agricultural economy. Obviously, some of these needs can be addressed regionally by other adjacent counties. Nonetheless, the study reveals the “spin –off” economic effects agricultural activity can generate to the local and regional economy.

Identified strengths of the region include the following:

- The county and region have very strong support in: crop and animal production; veterinary services; farm supplies and equipment; food processing and transportation equipment; transportation (trucking and rail); warehousing; and printing and packaging (paper, cardboard, metal, plastic).
- The county and state have very strong education, research, and support organizations for the industry cluster such as: Moraine Park Technical College; University of Wisconsin and UW-Extension; Wisconsin Department of Commerce; Wisconsin Department of Agriculture; Trade, and Consumer Protection.
- Four biomass (manure) digesters on dairy farms produce enough electricity for 1,000 homes.
- Fond du Lac County serves as a central location with excellent highway access to major markets in Green Bay (70 miles), Madison (70 miles), Milwaukee (60 miles), Chicago (140 miles) and Minneapolis (260 miles).

## 2.8 Community Facilities and Services

### Existing Services

Local features such as parks, schools, and protective services help define a community's character. In Fond du Lac County, many of the smaller incorporated communities provide necessary support services for the outlying agricultural towns. These services require substantial investment supported by local tax bases or user fees. Industry and business which are supportive to agriculture rely heavily on fundamental services like public water and sewer to operate their businesses.

#### Sanitary Sewer and Public Water Facilities

Sanitary sewer and public water facilities are provided by the individual village and city (incorporated) communities. These systems accommodate concentrated development which makes the system cost effective. System infrastructure needs such as municipal wells, wastewater treatment plants and service lines are monitored by their respective municipal departments with water quality oversight provided by the Wisconsin Department of Natural Resources.

#### Private Onsite Wastewater Treatment System (POWTS) Facilities

POWTS facilities, more commonly known as septic systems are primarily located within unincorporated areas of the county that do not have accessibility to public sanitary sewer. POWTS systems, which are installed by licensed plumbers, are required to abide by the POWTS

Maintenance Program administered by Fond du Lac County Code Enforcement Office. Depending on the size of the POWTS system, pumping is required every one to three years. Notices are sent to the property owner at the appropriate pumping interval.

### **Future Needs**

The efficient provision of high quality community facilities and services boosts property values, controls taxes, and contributes to many aspects of the quality of life within Fond du lac County. Wisconsin's comprehensive planning legislation requires that the Utilities and Community Facilities element of the comprehensive plan include an approximate timetable that forecasts the need to expand or rehabilitate existing utilities or to create new utilities. Each community in Fond du Lac County that developed a comprehensive plan identified major public facility projects for implementation. The recommendations are based on system condition, performance and the need for expansion due to population and industrial growth.

Collaboration between towns, villages and cities is very important in providing necessary support infrastructure to the agricultural business industry. Not only do the incorporated villages and cities provide many of the food processing and services industries but they provide housing opportunities for much of the labor required to fill job opportunities within these industries.

## **2.9 Waste Management**

Fond du Lac County does not provide services in regards to residential and commercial solid waste or recycling pick up. Solid waste and recycling is primarily provided by private companies with some municipalities providing the service. The type of service typically consists of curbside collection. The county does participate in the Clean Sweep Program that allows for Fond du Lac County citizens to have a way to dispose of hazardous materials. There are no licensed landfills currently operating within the county. Cities, villages, and towns typically organize their own municipal waste pick up and disposal using commercial haulers.

There are 33 responsible units for recycling within the county. Each city, village or town indicated is responsible for complying with recycling regulations.

## **2.10 Municipal Expansion**

Fond du Lac County is home to 33 municipalities (3 cities, 9 villages, and 21 towns). Incorporated community expansion is going to be an issue for towns in Fond du Lac County, as cities and villages can expand into town territory. Municipal expansion occurs through annexation and often results in the loss of agricultural land. Cooperative boundary agreements between a town and a city or village present an alternative to annexation.

### **Cooperative Boundary Agreements**

Cooperative boundary agreements can reduce some of the conflict regarding boundary issues, including annexation, that often arise between towns and their incorporated neighbors (cities and villages). The Legislature has provided express enabling authority for these agreements. The communities involved in such agreements undertake cooperative preparation of a plan for the areas concerned. The plan for changing or maintaining boundaries, and for controlling land use and services is sent to the Department of Administration. If the plan is approved, a contract binding the parties to it is put into effect

Cooperative boundary plans or agreements involve decisions regarding the maintenance or change of municipal boundaries for a period of 10 years or more. The cooperative plan must include a plan for the physical development of the territory covered by the plan, a schedule for changes to the boundary, plans for the delivery of services, an evaluation of environmental features and a description of any adverse environmental consequences that may result from the implementation of the plan, and it must address the need for safe and affordable housing. The participating communities must hold a public hearing prior to its adoption.

In Fond du Lac County, there is one intergovernmental agreement between the City of Fond du Lac and the Towns of Empire, Fond du Lac, Friendship and Taycheedah. The agreement addresses growth, service arrangements and other details. The agreement expires in 2016. The City's Comprehensive Plan recommends extending the agreement.

### **Annexation**

Cities and villages have the power to annex given to them by the state. The power to extend municipal boundaries into adjacent unincorporated (town) lands allows a community to control development on its periphery. Contrary to popular belief, annexation occurs at the request of town residents, not at the request of the incorporated municipality. Petitions for annexation are filed by the town landowners and the village or city acts upon the annexation petition.

Wisconsin Statute, 66.021, Annexation of Territory, provides three petition methods by which annexation may occur. Annexation involves the transfer of one or more tax parcels from a town to a city or village. Cities and villages cannot annex property without the consent of landowners as required by the following petition procedures:

1. Unanimous approval - A petition is signed by all of the electors residing in the territory and the owners of all of the real property included within the petition.
2. Notice of intent to circulate petition (direct petition for annexation) - The petition must be signed by a majority of electors in the territory and the owners of one-half of the real property either in value or in land area. If no electors reside in the territory, then only the landowners need sign the petition.
3. Annexation by referendum - A petition requesting a referendum election on the question of annexation may be filed with the city or village when signed by at least 20 percent of the electors in the territory.

### **Wisconsin Act 317 — Revisions to Annexation Procedures**

Under this Act which was enacted in April of 2004, no city or village may annex any territory if none of the city's or village's territory is in the same county as the territory to be annexed. The Act also requires cities and villages to make payments for five years to towns that lose territory due to annexations. Cities and villages will have to pay to the town from which the land is annexed the amount of the town tax for the annexed property. The Act gives an exemption from this payment for cities and villages that have boundary agreements with the neighboring towns. Although Wisconsin Act 317 helps towns financially when land is annexed by a city or village, it does not stop the loss of agricultural land that may occur.

## 2.11 Environmental Preservation

Being stewards of the environment is important in order to preserve the natural resources relied upon by all. Natural resources are continually facing significant pressure as populations are growing and expanding. With this growth and expansion there has been increased demand for groundwater, land, and raw materials. Planned development patterns can be a vital aspect in preserving and regulating the use of the natural resources within Fond du Lac County. There has been a growing demand for country living which has put growing stress on agricultural operations. There is a continued migration of persons from urban areas to more rural type suburbs, which has the potential for negative impact on the natural resources.

Many sensitive areas have state and federal regulations protecting them, such as wetlands, floodplains, and shore lands. Many of the state laws establish protective area setbacks for such resources, as well as minimized use requirements. Unlike wetlands, shore lands, and floodplains, not all resources are protected by state law. Municipalities have the ability to choose to protect additional natural resources that they value within their community. Local ordinances help set standards and deal with any issues or conflicts that may arise during land use or development, and in turn provide protection for valued natural resources in the county.

### **Environmental Preservation Tools**

Fond du Lac County Land and Water Conservation Department promotes environmental preservation through supplying financial, technical, and land planning assistance to landowners in the county. Programs administered by the Department, consist of the Farmland Preservation Program, the Land and Water Resource Management Plan, Wildlife Damage Control, Information and Education Programs, Environmental Quality Incentives Program (EQIP) and Conservation Reserve Enhancement Program (CREP). The Land and Water Resource Management Plan primary purpose is to maintain funding levels needed to implement the conservation practices and programs in order to make a positive impact on resources in the county. The County also implements a Shoreland-Wetland District in order to prevent water pollution and maintain stable and healthy conditions. In doing so the district protects fish spawning grounds and aquatic life by preserving shore cover within the county.

The Sand County Foundation operates in Fond du Lac County as well as other counties and currently is overseeing the Milwaukee River Watershed Project. The primary focus of the foundation is on fostering, facilitating and supporting private individuals and local communities with their natural resources. They provide financial and technical support as agents of long-term landscape-scale conservation and management.

## 2.12 Potential Climate Change Impacts

Climate change has the potential to impact agriculture in Wisconsin directly in both positive and negative ways, as summarized in Tables 2-2 and 2-3. These direct impacts typically consist of changes in temperature and precipitation amounts. Besides direct impacts to agriculture there are also indirect situational changes that will affect Wisconsin agriculture (Table 2-4). These changes are likely to continue in the future and agricultural activities will need to adapt to these changes. There is increased pressure to increase current yields of agricultural crops, in order to continue to provide ecosystem goods as well as support the growth in bioenergy. The response

by agricultural producers to these climate changes contains plenty of uncertainty, as different climate scenarios require different responses in planting times and herbaceous and pest management practices in order to maximize crop yields.

With agriculture being a major economic component in Fond du Lac County and Wisconsin, it will be important for agricultural producers and policy-makers to have the best available information on climate change and the effects on agricultural production. Climate change will continue to have an effect on production and yields. It will be essential for policy-makers and agricultural producers to work together in order to continue to keep agriculture a strong and growing aspect of the economy and culture of Fond du Lac County.

**Table 2-2**  
**Direct Impacts on Agriculture - Positive**

<u>Aspects of Climate Change</u>	<u>Impact on Agricultural Production</u>
Longer frost-free periods	Use of higher-yielding genetics
More freeze/thaw cycles in winter	Increased soil tilth and water infiltration
More summer precipitation	Reduced plant stress
Higher dew point temperatures	Reduced moisture stress
More diffuse light (increased cloudiness)	Reduced plant stress
Higher water-use efficiency	Higher yields
Warmer spring soil temperatures	Use of higher-yielding genetics
Reduced risk of late spring or early fall frosts	Use of higher-yielding genetics
Increased atmospheric CO <sub>2</sub> levels	Increased photosynthesis and yields

Source: "Agriculture and the Soil Resource", Wisconsin Initiative on Climate Change Impacts

**Table 2-3**  
**Direct Impacts on Agriculture - Negative**

<u>Aspects of Climate Change</u>	<u>Impact on Agricultural Production</u>
More spring precipitation causes water-logging of soils	Delayed planting, reduced yields, compaction, change to lower-yielding genetics
Higher humidity promotes disease and fungus	Yield loss, increased remediation costs
Higher nighttime temperatures in summer	Plant stress and yield loss
More intense rain events at beginning of crop cycle	Replanting and field maintenance costs; loss of soil productivity and soil carbon; Increased soil erosion and runoff;
More droughts	Yield loss, stress on livestock, increase in irrigation costs, increased costs to bring feed and water to livestock
More floods	Replanting costs, loss of soil productivity and soil carbon; damage to transportation infrastructure may reduce delivery to milk processing plants
More over-wintering of pests due to warmer winter low temperatures	Yield loss, increased remediation costs
More vigorous weed growth due to temperature, precipitation and CO <sub>2</sub> changes	Yield loss, increased remediation costs
Summertime heat stress on livestock	Productivity loss, increase in miscarriages, may restrict cows on pasture
Temperature and precipitation effects on pollinators	Losses to cropping (forage, fruits, vegetables) systems
New diseases or the re-emergence of diseases that had been eradicated or under control	Enlarged spread pattern, diffusion range, and amplification of animal diseases

Source: "Agriculture and the Soil Resource", Wisconsin Initiative on Climate Change Impacts

**Table 2-4**  
**Indirect Impacts on Agriculture**

<u>Situational Change</u>	<u>Impact on Wisconsin Agriculture</u>
Regulation involving greenhouse gas emissions	Potential increased costs to meet new regulations; opportunities to participate in new carbon markets and increase profits
Litigation from damages due to extreme events or management of carbon markets	Legal costs may increase
New weed and pest species moving into Wisconsin	Control strategies will have to be developed; increased pest management costs and crop losses
Vigorous weed growth results in increased herbicide use	Increase in resistance or reduction in time for development of resistance; regulatory compliance costs or litigation over off-site damages from pesticides
Possibility of increased inter-annual variability of weather patterns	Increased risk in crop rotation, genetic selection, and marketing decisions
Increased global demand for food production due to climate and demographic changes	New markets; increase in intensification of production; increase in absentee ownership
Increased period for forage production	Decreased need for large forage storage across winter for livestock operations
Increased taxes or regulations on energy-dependent inputs to agriculture (for example- nitrogen fertilizer)	Profitability impacts on producers; loss of small-scale farm supply dealers

Source: "Agriculture and the Soil Resource", Wisconsin Initiative on Climate Change Impacts

## 3.0 Land Use

### 3.1 Existing Agricultural Land Use

Agriculture has traditionally been the predominant land use in Fond du Lac County. Generally speaking, the largest tracts of agricultural land are featured in the flatter topographic region of western Fond du Lac County. This area also features the best agricultural soils so the opportunity to grow vegetable crops such as green snap beans and sweet corn and grain crops such as corn, soybean and winter wheat is greatest in this region. As the topography transitions into more hills and irregular soils found in the eastern portion of the County, land use becomes more diversified. Here, top soils are thin along the escarpment and hill regions of the county.

However, agricultural land use is still the top land use type in all of the 21 Fond du lac County towns.

The three largest open space land use types are state managed wildlife management areas. These areas include the Eldorado State Wildlife Area (north central), The Mullet Creek Wildlife Area (eastern) and the Kettle Moraine State Forest (south east). In addition to these major complexes, the state also manages scattered properties throughout the western and central portions of the county for wildlife purposes. The Federal Government's Fish and Wildlife Service also manages the Horicon Marsh complex. Although most of the Horicon Marsh complex is located in Dodge County (south of Fond du Lac County), a small portion of the Marsh is located along the southern border of Fond du Lac County in the Towns of Waupun and Oakfield. Together, these wildlife areas, both federal and state, contain approximately 28,502 acres, comprising 6.1 % of the County's acreage total. Many acres are associated with prime agricultural soils.

The land area around the City of Fond du Lac, located along the southern shore of Lake Winnebago, accommodates the most intensively (concentrated residential, commercial, industrial and institutional) developed region of the County. Scattered small cities and villages throughout the County, also contain intensive development. Although, the cities and villages do not contain much agricultural land, they provide an important function to the surrounding agricultural towns relative to support materials and services. The interconnected function between town and incorporated communities is as evident and important in Fond du lac County than as anywhere in the State of Wisconsin. Table 3-1 shows a detailed assessment of land use within Fond du Lac County. Together, agriculture, woodlands and other open lands comprise over 88% of the County land use total.

**Table 3-1**  
**Existing Land Use, Fond du Lac County, 2007**

<u>Land Use</u>	<u>Acreage</u>	<u>Percent of Total</u>
Residential	19,368.6	4.2%
Commercial	1,971.5	0.4%
Industrial and Quarries	2,878.2	0.6%
Communication and Utilities	360.9	0.0%
Institutional/Government	1,800.9	0.4%
Transportation	18,225.3	3.9%
Parks and Recreation	2,814.8	0.6%
Water Features	6,853.6	1.5%
Woodlands	58,741.5	12.6%
Agricultural	280,445.9	60.2%
Other Open Lands	72,289.9	15.5%
<u>Total</u>	<u>465,751.1</u>	<u>100.0%</u>

Source: Fond du Lac County Planning Department

## 3.2 Land, Soil, and Water Resources

In order to preserve and protect the natural resources in the County, it is important to understand the land, soil, and water resources within the County.

### Geology

The rocks which underlie Fond du Lac County range in age from Precambrian to Quaternary. They can conveniently be divided into consolidated bedrock, which consists of older crystalline rocks such as granite and of younger sedimentary rocks such as sandstone, shale, and dolomite, and unconsolidated overburden which consists both of sorted and unsorted deposits of sand, gravel, and clay.

The sedimentary rock formations dip gently to the east and southeast. Where they crop out at the surface the harder layers, which have resisted erosion through time, stand in relief as ridges; the softer layers form valleys between the ridges.

Glacial deposits were formed during the Pleistocene geologic age by glaciers which advanced into Wisconsin out of Canada, eroded the bedrock surface, and deposited a mantle of sand, gravel, and clay. Erosion by a lobe of the glacier which moved down Green Bay to slightly beyond the Horicon Marsh cut deeply into the soft Maquokta Shale to form the broad valley of Lake Winnebago and Horicon Marsh. The harder Silurian dolomite to the east resisted erosion and thus remains as a ridge which overlooks the valley.

Deposits from the glacier cover most of the county and consist of a variety of different land forms. Included are moraines, accumulations of glacial materials deposited by direct action of

glacier ice and piled into uneven ridges at the front edge of a glacier, or sand, gravel, and clay laid down as the glacier melted; drumlins, oblong hills formed as the glacier piled up and over-rode mounds of loose sediment; kames, coned-shaped hills composed mainly of gravel and sand deposited by running water at the edge of the glacier or in cracks or holes in the glacier through which water moved; eskers, ridges of gravel and sand formed in the beds of streams running either on or beneath glaciers; lake deposits which formed between the glacier and high ground to the west and which consist of clay and fine sand; and outwash plains, aprons of sand and gravel spread out in front of the glacier by melt water from the glacier. Another topographic feature common to this area is the depression, called kettle, which is often associated with area kames and which form on the land surface when a buried ice block melts.

### Topography

Land relief within the county is approximately 520 total feet, ranging in elevation from approximately 746 feet at the shore of Lake Winnebago to approximately 1,260 feet in the Town of Eden. Reference Map 2.

Major topographic features of Fond du Lac County are controlled by bedrock formations which dip very gently to the east. Hard limestone layers in the bedrock form three ridges, called cuestas, which trend from north to south. The most prominent cuesta, the Niagara escarpment, is located east and south of Lake Winnebago and is a dominant feature of the landscape. This escarpment rises abruptly 150 to 250 feet above the broad lowland to the west, and is bordered on the west by the broad valley containing Lake Winnebago and the Horicon Marsh.

The northeastern part of the county has a gently rolling surface, characterized by numerous hills and drumlins, interspersed with long, nearly level valleys and a few flat areas. The drumlins are short and oval-shaped and have their steepest slope facing north to northwest.

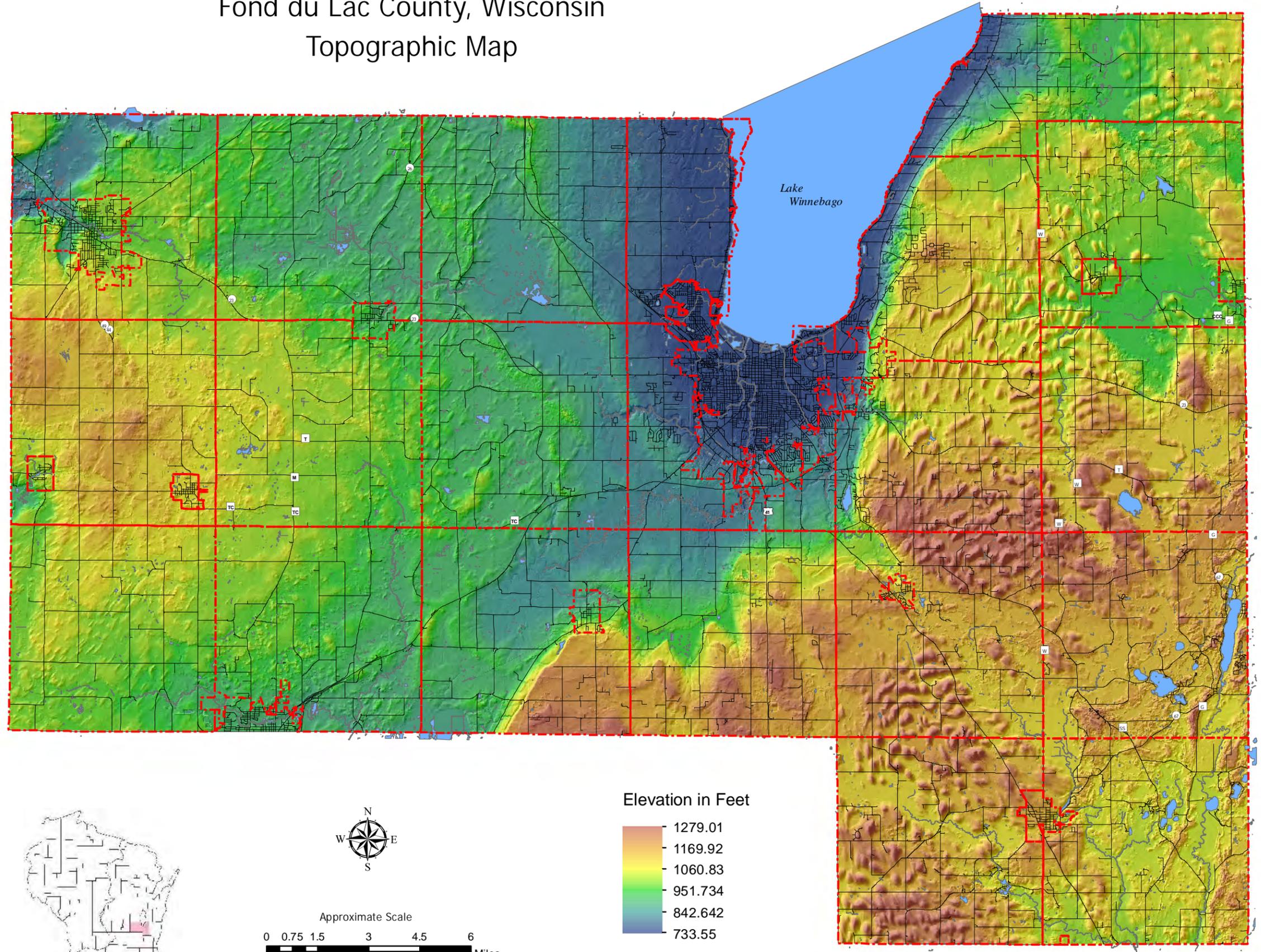
The county's southeastern portion consists chiefly of nearly level to sloping outwash plains and terraces cut by shallow drainage ways, and the moraine area included in the Kettle Moraine State Forest. Parts of the plain are interrupted by numerous sloping to steep-sided kettle holes, ranging in size from a fraction of an acre to more than 15 acres. The highest hills in the county have bedrock cores and are found in this area, primarily in the Towns of Empire, Eden and Ashford.

The Kettle Moraine area is a rolling to hilly mass of ridges, kames, and kettles with complex slopes. Nearly level to gently sloping terraces, ranging from a few acres to several hundred acres in size, are interspersed among the kames and kettles. Many of the kettles form ponds or lakes.

A large flat plain three to eight miles wide lies immediately west of the Niagara escarpment and extends to nearly the county's southern border. The plain slopes gently northeastward and has the lowest elevations in the county.

West of the plain, the surface again becomes a gently rolling ground moraine with low ridges interspersed with nearly level uplands and depressions. The land in this area slopes gradually toward the north and south county boundaries from a high elevation of about 1,100 feet a few miles northwest of Brandon. An exception to the gentle topography of this area is the steep but low Platteville-Galena escarpment and Silver Creek basin north and west of Ripon.

# Fond du Lac County, Wisconsin Topographic Map

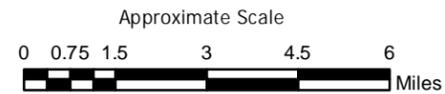


The base map was created with data from Fond du Lac County Planning Department who in no event assumes any liability regarding fitness of use of the information and any application by others, is the responsibility of the user.

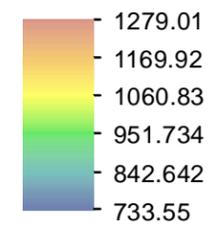
## Martenson & Eisele, Inc.

1377 Midway Road  
Menasha, WI 54952  
www.martenson-eisele.com  
info@martenson-eisele.com  
920.731.0381 1.800.236.0381  
pnargic337919fip.mxd\_FPP\_November 6, 2012

Planning  
Environmental  
Surveying  
Engineering  
Architecture



### Elevation in Feet



## Soil

The soils of Fond du Lac County were mainly formed by deposits from the last continental glacier. Most of the major soil types of the county are, in part, developed from glacial drift. The variable nature of the drift from one area to another has resulted in ten soil associations.

### Soil Group I: Lomira-Virgil Association

This association is part of a ground moraine underlain by calcareous loam glacial till. The landscape is mostly one of low ridges and knobs, and between the ridges, nearly level uplands and depressions. This association is about 175 square miles in area and it makes up about 24 percent of the county. This association is used mainly for crops, with limitations being slight to moderate. Wetness is the main limitation for the Virgil and Pella soils. Lomira soils are classified as prime farmland. This soil association is predominately found in the Towns of, Rosendale, Eldorado, Metomen, Springvale, Lamartine, Alto, Waupun, and Oakfield.

### Soil Group II: Theresa-Pella -Lamartine Association

This association is mainly on a ground moraine consisting of calcareous loam glacial till. Much of this moraine is sloping to steep knobs and oval drumlins. Between the sloping areas are numerous long, narrow valleys and a few broad depressions. This association has an area of about 160 square miles and makes up about 22 percent of the county. A large part of this association is used for crops and the soils are easy to farm. Erosion and wetness are the two main limitations. This soil association is predominately found in the Towns of Eden, Ashford, Empire, Forest, Taycheedah, Marshfield, and Calumet.

### Soil Group III: Plano-Mendota Association

This association is on a ground moraine underlain by calcareous loam glacial till. The landscape is one of gently sloping and sloping low ridges and knobs and nearly level uplands and depressions. It is dissected by the shallow waterways of an immature drainage pattern. A few segments of a recessional moraine that has complex slopes also occur within the association. This association has a total area of about 65 square miles and makes up about 9 percent of the county. Almost all of this association is used for crops. A few isolated areas are used for woodlots and permanent pasture. The limitation is slight to moderate for farming. Erosion is a hazard in sloping areas if row crops are grown. This association is predominately found in the Towns of Ripon, Metomen, Alto, and Waupun.

### Soil Group IV: Beecher-Elliot Association

This association occupies a ground moraine of calcareous clay loam to silty clay glacial till that has high shale content. The landscape is one of nearly level to moderately steep uplands, nearly level depressions, waterways, and broad lowlands. It occupies most of the Towns of Oakfield and Byron and most of the upper watershed of the valley of the East Branch Fond du Lac River. This association is about 40 square miles in area and makes up about 6 percent of the county. Most areas are used for crops. A few are used as permanent pasture and woodlots, or are idle.

### Soil Group V: Kewaunee-Manawa Association

This association occupies glacial ground moraines, terminal moraines, and areas underlain by lacustrine deposits. It is mainly in an area 1 to 6 miles wide bordering Lake Winnebago. The ground moraines, which are on uplands, are nearly level to sloping. The terminal moraines are gently sloping to steep. The areas of lacustrine deposits are nearly level to gently sloping. The drainage pattern is complex and weakly developed, especially on the lower slopes. This association has a total area of about 111 square miles and makes up about 15 percent of the county. Most of the association is used for crops. A few steep areas are used for permanent pasture or woodlots. Some poorly drained areas are in permanent pasture; some are idle. This association

is predominately found in the Towns of Eldorado, Friendship, Fond du Lac, Taycheedah, and Calumet.

#### Soil Group VI: Fox-Casco Association

This association is on outwash plains and terraces. The soils are nearly level to gently sloping. They formed in stratified sand and gravel deposited by glacial melt waters. These deposits occur mainly as plains dissected by shallow drainage ways. In some places the plain is interspersed with a few to many, sloping to steep-sided kettle holes or depressions. These kettle-shaped depressions range from a fraction of an acre to 15 acres or more in size. This association is about 58 square miles in area, or about 8 percent of the county. The major soils of this association are used mainly for crops. In spite of the hazards of drought and erosion, they are easy to farm. A large acreage of Sebewa soils is used for permanent pasture. This association is predominately found in the Towns of Marshfield, Forest, Eden, and Osceola.

#### Soil Group VII: Casco-Rodman Association

This association occupies the Kettle Moraine part of the county. The Kettle Moraine, which formed between lobes of glacial ice, is a series of ridges, knobs, and kettle holes that have complex slopes. Organic deposits, ponds, or lakes occupy many of the kettle holes. Nearly level and gently sloping terraces, ranging from a few acres to several hundred acres in size, occur at various elevations among the hills and kettle holes. This association has an area of about 58 square miles and makes up about 8 percent of the county. This association is primarily not ideal for farmland production. This association is predominately found in the Towns of Osceola and Auburn.

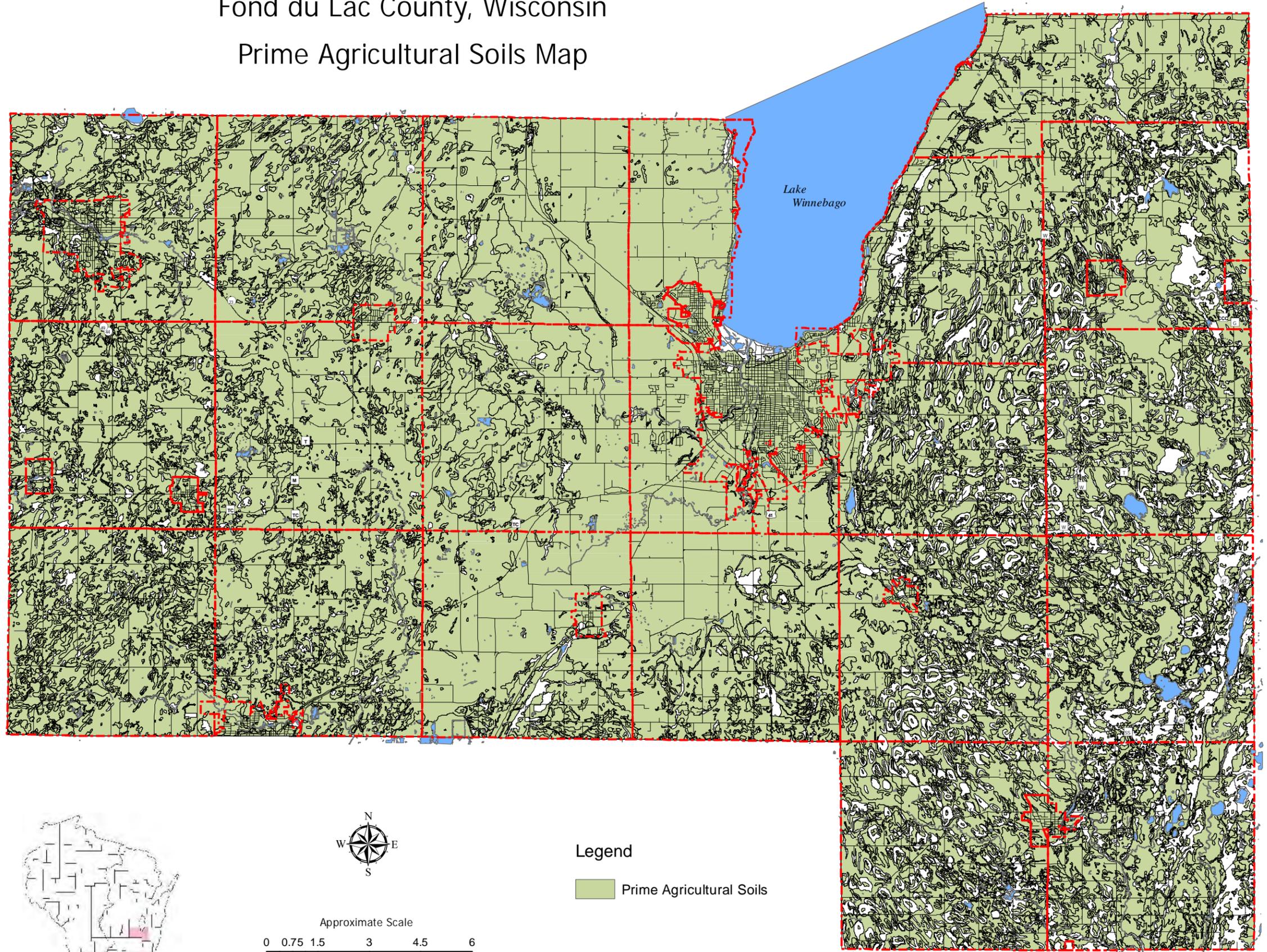
#### Soil Group VIII: Houghton-Palms Association

This association occupies large, nearly level depressions and wetland areas throughout Fond du Lac County. The soils formed in fibrous plant remains. They are poorly drained and are subject to ponding. This association has a total area of about 58 square miles, or about 8 percent of the county. If drainage is improved this association can be used for crops, otherwise it is not ideal for farmland production. Wetness is the main limitation. This association is sporadically located throughout the Towns of Ripon, Rosendale, Eldorado, Metomen, Springvale, Larmartine, Alto, Oakfield, Calumet, Marshfield, Empire, Forest, Eden, Osceola, Ashford, and Auburn.

### **Prime Agricultural Soils**

In an effort to further correlate the targeted areas for farmland preservation with productive agricultural soil types, Map 3 was developed. This map indicates the location of all 'Prime Agricultural Soils' as classified by the Fond du Lac County Soil Survey. For the purpose of this plan, prime agricultural soils are defined as Soil Conservation Service capability classes I, II and III. Appendix D indicates all the soil names that comprise the 'Prime Agricultural Soils' definition in Fond du lac County. Please note that location of these soils do not automatically represent agricultural use. Some of these soils support woodlands and other open space uses. Some have been converted to non-farm development. Best management practices can overcome class ratings of soils. Thus, a key resource becomes large, undisturbed tracts of farmland over soil type. One practice, strip farming and contour farming, is used to accommodate crop production on east side of the county. Some irrigation is utilized is on the west side of the county.

# Fond du Lac County, Wisconsin Prime Agricultural Soils Map

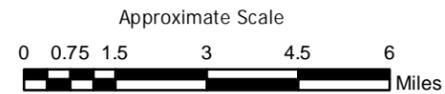


The base map was created with data from Fond du Lac County Planning Department who in no event assumes any liability regarding fitness of use of the information and any application by others, is the responsibility of the user.

## Martenson & Eisele, Inc.

1377 Midway Road  
Menasha, WI 54952  
www.martenson-eisele.com  
info@martenson-eisele.com  
920.731.0381 1.800.236.0381  
pnargic337919flp.mxd\_FPP\_November 6, 2012

Planning  
Environmental  
Surveying  
Engineering  
Architecture



### Legend

 Prime Agricultural Soils

### **Metallic and Non-Metallic Mineral Resources**

There are fifty-two active non-metallic operations in Fond du Lac County. Fond du Lac County requires non-metallic mines opened after August 21, 2001 to develop a mining reclamation plan.

The Wisconsin Department of Natural Resources has principal regulating authority for metallic mining activities in the State. Further information regarding metallic mining in Wisconsin can be viewed at <http://dnr.wi.gov/topic/Mines/Metallic.html>.

Further information about non-metallic mines in Fond du Lac County can be found at the following web site: <http://www.fdlco.wi.gov/Index.aspx?page=287>.

Mining will have an impact on farmland loss. However, the materials derived from mining such as crushed stone and gravel are important materials in supporting local economic development, agricultural infrastructure included.

### **Surface Water Features**

The county ranks eleventh among Wisconsin counties in total amount of surface water, due largely to Lake Winnebago. There are 48 lakes and 50 streams located entirely or partially in Fond du Lac County, with 45 lakes entirely within the county affording about 1,650 acres of surface water.

Lakes are not well distributed throughout the county. The Town of Auburn, dominated by geologic features of the Kettle Moraine, contains 18 of the 48 lakes and the adjacent Town of Osceola contains 10 lakes. There are six towns not bordering Lake Winnebago that contain no lakes.

The part of Lake Winnebago within the county boundary (about 38.2 square miles) represent the largest surface water body in the county with the exception of Rush Lake, which largely lies in Winnebago County; the next largest lakes include Long, Kettle Moraine, and Mullet. Most lakes in the county are small, with the median size being 14 acres.

Fond du Lac County's primary drainage system consists of 50 streams and rivers. Most of the streams are small, shallow, and slow moving. In total the county contains 281 miles of streams, but the average stream is only 3.6 miles long. The longest section of stream is the Main Branch of the Milwaukee River (19 miles), followed in length by the West Branch of the Rock River and West Branch of the Fond du Lac River. The average stream width in the county is four feet, with only nine streams having an average width in excess of ten feet. The Main Branch of the Milwaukee River has the greatest width, followed by the Sheboygan River and the East Branch of the Fond du Lac River.

The total surface acreage of streams and rivers in the county is 405 acres; with the average acreage per stream is less than two. Eight rivers have a surface acreage exceeding ten acres in the county. The link below is to WDNR's Surface Water Data Viewer, an interactive GIS site that allows users to identify the locations of water features such as navigable streams and wetlands.

<http://dnrmaps.wisconsin.gov/imf/imf.jsp?site=SurfaceWaterViewer.deswaters>

## **Natural Wildlife Areas**

### Environmentally Sensitive Areas

Environmentally Sensitive Areas (ESAs) are areas within a landscape that encompass especially valuable natural resource features that should be protected from development.

The following areas within the County should be considered environmentally sensitive:

- Navigable waters with a 75 foot buffer
- WDNR wetlands with a 50 foot buffer
- FEMA floodplains
- Moderately steep to steep areas (>12% slopes)
- Areas that provide habitat for threatened and endangered species.

### State Natural Areas

State Natural Areas (SNAs) protect significant landscape features, geological formations, and archeological sites throughout Wisconsin. These areas are valued primarily for research and educational purposes, while providing rare safe havens for scarce plants and animals. Site protection is provided by land acquisition, donations, conservation easements, and cooperative agreements.

Fond du Lac County has 10 SNAs. State Natural Areas include Haskell Noyes Memorial Woods, Ripon Prairie, Waupun Park Maple Forest, Spruce Lake Bog, Milwaukee River and Swamp, Spring Lake, Oakfield Ledge, Crooked Lake Wetlands, Milwaukee River Tamarack Lowlands and Dundee Kame, and Oakfield Railroad Prairie. For more information on SNAs go to <http://dnr.wi.gov/org/land/er/sna/bycountylist.htm>.

### Public Wildlife Recreation Land

The Eldorado Wildlife Area contains 6,371 acres of state-owned hunting land that includes brush, grass, marsh, and woodlands. In addition to hunting, Eldorado Wildlife Area provides opportunities for dog training, snowmobiling, boating, and fishing.

Mullet Creek Wildlife Area is a 2,217 acre property located in east-central Fond du Lac County. Mullet Creek Wildlife Area consists of a rich array of wetland, forest, grassland and farmland. This undeveloped inland lake with intact wetland vegetation provides important breeding, nesting, and migratory habitat for numerous bird, reptile, and amphibian species.

Each area has unique wildlife, recreational opportunities, and physical features. Likewise, each area has special rules and terms of use that require strict adherence to. For more information go to [http://dnr.wi.gov/org/land/wildlife/wildlife\\_areas/map.htm](http://dnr.wi.gov/org/land/wildlife/wildlife_areas/map.htm)

## **Glacial Habitat Restoration Program**

The DNR owns and manages 30 properties that are part of Wisconsin's Glacial Habitat Restoration Program within Fond du Lac County. The Glacial Habitat Restoration Area (GHRA) is a Wisconsin Department of Natural Resources (WDNR) program which takes a regional approach to wildlife management by restoring, creating and maintaining habitat for waterfowl, wild pheasants, and non-game songbirds. For more information on this program, go to <http://dnr.wi.gov/org/land/wildlife/ghra/>

## **Wildlife Habitat and Threatened and Endangered Species**

Federal and state records provide general information on wildlife habitat and threatened and endangered species, and should be consulted as part of the review process for new develop-

ment projects. Township-wide occurrences of terrestrial, threatened or endangered species are indicated in the county. Information on wildlife habitat and threatened and endangered species is available from the Wisconsin Department of Natural Resources at <http://www.dnr.state.wi.us/org/land/er/nhi/CountyData/>.

**Watersheds and Drainage**

Surface waters in the county belong to 14 different watersheds as listed below in Table 3-2:

**Table 3-2  
Watersheds in Fond du Lac County**

<u>Watershed</u>	<u>Acres</u>	<u>Floodplain</u>	<u>% Floodplain</u>
Beaver Dam River	999	360	36.07%
Big Green Lake	27,505	3,567	12.97%
East Branch Rock River	8,877	394	4.43%
East & West Branch Milwaukee River	86,742	20,024	23.08%
Fond du Lac River	132,177	20,665	15.63%
Fox River	8,992	454	5.05%
Lake Winnebago	24,773	24,724	99.80%
Lake Winnebago - East	37,600	2,251	5.99%
Mullet River	11,587	3,174	27.39%
North Branch Milwaukee River	790	0	0.00%
Sheboygan River	52,411	9,564	18.25%
South Branch Manitowoc River	17,539	3,220	18.36%
Upper Grand River	11,490	1,232	10.73%
Upper Rock River	68,591	12,714	18.54%
Totals	490,075	102,344	20.88%

Source: Fond du Lac County Planning

East of the ledge, the County is drained by the Manitowoc, Sheboygan, and Milwaukee Rivers and their tributaries which flow eastward to Lake Michigan. The north central part of the county is drained by the Fond du Lac River and De Neveu, Taycheedah, and Anderson Creeks, all which flow into Lake Winnebago. Silver Creek and the Grand River drain the northwestern part of the county, flowing northeastward into the Fox River which itself drains a small section of the county. The headwaters of the Rock River drain the southwestern part of the county southward to the Mississippi River

The Rock River watershed represents a sub-continental divide which is important if sewer or water systems are contemplated in the area of the divide because of the legal problems involved in transferring water between major watersheds. The general elevations of the upland divides between watersheds are 1,000 to 1,200 feet above sea level.

The Big Green Lake Watershed was selected as priority watershed in 1980 due to the high sediment and nutrient load discharges into lake. Streams that are part of this watershed include Silver Creek and tributaries, as well as Dankin Creek and its tributaries.

The Fond du Lac River watershed is a major contributor of sediment to Lake Winnebago, and is listed on the DNR's 303d impaired water list.

### **Floodplains**

Portions of the County are susceptible to flooding. According to the FEMA flood rate maps produced for the County, these areas are located primarily along the navigable waterways within the County. Future development in and around these areas will be restricted. Building can occur between the floodway and flood fringe (between the 10 and 100-year flood event) in these areas if the lowest first floor elevation is two feet above the 100-year flood elevation, or the basement is flood-proofed.

The flood history indicates problems in many parts of the county and during seven months of the year, February through August. Hardest and most frequently hit by floods are the City of Fond du Lac and low-lying agricultural croplands. The worst damage has occurred along the Fond du Lac River and De Neveu Creek.

### **Groundwater**

Groundwater in Fond du Lac County is of the calcium-magnesium-bicarbonate type. It is hard to very hard and contains excessive iron in some places but otherwise it is satisfactory for most uses. According to the state's Groundwater Susceptibility Map (see the link below), most of the County is located in an area deemed to be moderately to highly susceptible to groundwater contamination. The reasons for this designation are the relatively shallow depths to bedrock (<50 feet) and the sandy soils found in the area:

<http://wi.water.usgs.gov/gwcomp/find/fonddulac/susceptibility.html>

The protection of groundwater is especially important to the residents of the County as many rely on private wells for their primary source of water. It is critical that the quality of the potable water be monitored to identify any contamination. The dolomite aquifers underlying the County are very susceptible to contamination because of the poor filtering characteristics of the dolomite, particularly where the overlying glacial drift is thin.

Septic tanks can be a major source of local contamination, particularly when situated on soils unsuitable for this purpose. According to the U.S. Soil Conservation Service, at least 80 percent of the soils in the county are unsuitable for septic tank construction.

More information about arsenic, including treatment options, can be found at the following web site: <http://www.dnr.state.wi.us/org/water/dwg/arsenic/recommend.htm>

More information regarding groundwater that is specific to Fond du Lac County can be found at the following web site: <http://wi.water.usgs.gov/gwcomp/integrate/develop.html>

The Wisconsin Groundwater Coordinating Council (GCC) is an interagency group whose purpose is to serve as a means of increasing the efficiency and facilitating the effective functioning of state agencies in activities related to groundwater management. More information about the council's responsibilities, actions, activities, and coordination efforts with local officials can be viewed at this web site: [www.dnr.wi.gov/org/water/dwg/gcc/index.htm](http://www.dnr.wi.gov/org/water/dwg/gcc/index.htm)

In addition to the above, the A-HFPAC identified the following water quality facts and trends that will impact agricultural activities in the Fond du Lac County region:

- High iron and some sulfur have been identified as water quality concerns. However, it was felt that these issues can be managed and overcome for farming purposes.
- Fractured bedrock along the escarpment still presents contamination concerns for nitrates and other contaminants due to thin soils.
- There are groundwater issues along the Niagara Escarpment, particularly in the Towns of Eden and Oakfield.
- Abandoned wells are a water concern due to lack of proper abandonment procedures. Most abandoned wells occur around old farmsteads.
- While most people associate groundwater problems with the presence of livestock, some feel that grain farming can also negatively affect groundwater.
- Water is generally not an issue – quality or quantity. UWEX has a water quality program for testing well water.

### Wetlands

Development in wetlands can destroy important environmental benefits, including the filtering of storm water runoff, the provision of wildlife habitat, and natural flood control. Wetlands are the gateway to the recharge of groundwater aquifers. The DNR and Corps of Engineers have regulating authority over all wetlands, including the placement of fill materials within a wetland. In general, the most restrictive regulations apply to proposed development projects. The U.S. Department of Agriculture incorporates wetland preservation criteria into its crop price support program.

There are a large number of mapped wetlands within the county. Approximately 15% of the county consists of mapped wetlands. Most of the wetlands are associated with the waterways or depressions. This link ([www.dnr.wi.gov/org/water/fhp/wetlands/programs.shtml](http://www.dnr.wi.gov/org/water/fhp/wetlands/programs.shtml)) is a useful point of reference for community officials, developers, and/or interested persons to gain direction with wetland questions related to development projects or protection issues. The page provides links to specific administrative rules, discussions on wetland laws and programs, as well as other wetland issues.

## 3.3 Agricultural Infrastructure

Agricultural infrastructure is essential for maintaining a viable and productive agricultural network. This agricultural infrastructure consists of a network of businesses that are needed to keep agricultural day to day operations running smoothly. Without this infrastructure network it would be impossible for the agricultural community to be successful. Services provided by many of these businesses consist of supply, transportation, processing, and storage. Listed below is a summary of the agricultural infrastructure network within Fond du Lac County. This list may not be all conclusive.

**Table 3-3**  
**Fond du Lac County Agricultural Providers**

<b>Activity</b>	<b>Fond du Lac County Agricultural Provider</b>
Cheese Factories	Baker Cheese Factory Inc., Park Cheese Co. Inc.,
Co-ops	Agri-Partners Co-Op Ripon Div., United Cooperative
Farm Supplies	Agri-Blender, Agri-Partners Co-Op Ripon Div., Community Ag Svc Inc Feed Mill, Country Hills Animal Health Sc, Fairwater Feed & Supply, Farmers Elevator Co, Hennings Hometown Inc, Jacobson Farmers Supply Inc, Land O'Lakes Purina Feed, Norm's AG Svc LLC, Waupun Feed & Seed Co
Feed Mills/ Feed Storage	Community AG Svc Inc Feed Mill, Oakfield Elevator Co. Inc, Farmers Elevator Co
Seed/ Fertilizer / Chemical Suppliers	Waupun Feed & Seed Co, Agri-Partners Co-Op Ripon Div, Central Wisconsin Seed, United Cooperative, Helena Chemical Co
Implement/ Equipment Dealerships	Gelling's Implement, Inc., Riesterer & Schnell Inc., L&S Truck Center, Ballweg Implement, Derksen Used Farm Machinery, Ed Priebe Sales and Service, Hulls 151 Implement Used Equipment, Lyle Hull Used Machinery, Schrage Brothers Ford, Service Motors Case, Waupun Equipment, American Implement
AI Industry	ABS Global, ABS, Accelerated Genetics, Alta Genetics, East Central Select Sires, Garden of Eden Genetics, Genex/CRI
Animal Nutrition	Agri-Nutrition Consulting, TLC Tech Services
Grain Marketing	ADM & Unified Cooperative
Dairy Equipment and Supplies	Braun Hardware, Dairyman's Corner New Pulse, Narges Products Used Milk Coolers, Redeker Dairy Equipment Alfalaval Agri
Dairy Plants	Suputo Cheese USA, Baker Cheese, Inc., Dairy Farmers of America, Park Cheese Company Inc,
Agricultural Equipment	Agromatic Inc. Barn Equipment, Armstrong Repair, Derco Manufacturing Company, Rosendale Farm Equipment, Barn Eq., Valley Farm Service, Grain Equipment
Livestock Haulers	Batterman Trucking, Tim Schrauth, Steffes Trucking
Nutrition/ Feed Suppliers	Banner Feed and Equipment, CP Feeds, Fairwater Feed & Supply, Farmers Elevator Company, Grand River Cooperative, Hennings Hometown, Oakfield Elevator, Purina Mills, Waupun Feed & Seed, Community Ag Services.
Veterinary Care	Associated Veterinary Clinic, Campbellsport Veterinary, County Hills Animal Health, Dairyland Veterinary Associates SC, Eden Veterinary Clinic, Malin Embryo Transfer, Waupun Veterinary Service, Wright Veterinary Service
Vegetable Processors	Bonduel Foods, Chiquita Processed Foods, Seneca Foods
Miscellaneous Activities	Custom planting, harvesting, and chemical application, milk testing, hoof trimming, insurance, lenders, agricultural tire services, excavating and tiling services, manure haulers, milk haulers

Please note that the agricultural provider list above may not be comprehensive and/or complete as business names, business startups and business closings occur occasionally.

Source: Fond du Lac County Economic Development Corporation.

In addition to the agriculture provider list, the A-HFPAC identified the following agriculture infrastructure facts and trends that will impact the growth, transportation and processing of commodities in the Fond du Lac County region:

- Canning and processing plants are located in Ripon, Oakfield and Eden (Seneca) and in Fairwater (Allen). They are key processing locations.
- Highways 151, 23, 41, TC and M provide the core infrastructure to move product by truck through the county. Typical product movement goes from the local town or county road system, to highway to rail. Most farm products are shipped to locations south of the county.
- The ability of the town road system to accommodate weight loads presented by agriculture especially around the farm hubs is a concern. Dairy centers, in particular, contain the most vehicular and farm equipment traffic in a “hub” location.
- Dairy processing occurs within the communities of Waupun, St. Cloud, Brownsville and Chilton. Dairy farmers have done a good job in controlling milk hauling costs by such means as increased storage. Milk hauling costs are typically paid by the dairy producers thus giving them an incentive to look for ways to reduce costs.
- Farmers are naturally consolidating trucking because of costs (fewer but larger loads).
- Milk processing plants appear to be in good balance with the dairy production in the county. Plants appear to be distributed well throughout the county to serve farmers.
- Consolidation of implement dealers has already occurred. The number of implement dealers appears stable at this time.
- There appears to be a correlation between the size of farming operations and the size of feed mills. i.e. small feed mills support small farming operations and larger mills support large operations. Some growth may be realized in support services but limited. Vet clinics will likely consolidate.
- Cooperatives are consolidating. Small farms and feed mills are on the decline. The trend of custom raising dairy heifers has subsided and farmers are now raising their own heifers.
- Dairy processing plants are scattered. The presence of 41, 151, and 23 make access easy.
- Processing plants are “right-sized” to accommodate producers. No one is buying processing plants to close them.
- The size of trucks serving the farms is increasing, causing premature wear of town roads.

### 3.4 Farmland Preservation and Agricultural Development Land Use Issues

There are various natural and human activities affecting the rural areas of the County. Many of these activities are responsible for emerging land use trends. These emerging land use trends and the changing demographics can have an effect on the County's farmland preservation and agricultural development activities. Below is a list of land use issues affecting rural land in Fond du Lac County:

- Nonfarm residential development in rural areas will continue to increase in order to accommodate County's increasing population, which will further place demands on county land resources.
- Citizens will continue to seek housing while commuting to employment centers in the Fox Valley region, Ripon, Waupun and Milwaukee.
- Household numbers will continue to increase as the population increases and the number of persons per household will continue to decrease requiring more housing units and more land to accommodate the county's growing population.



- Land values will increase as the pressure to convert open space/farmland to other nonagricultural land uses increases after the recent recession. This trend could be compounded due to the increased competition for agricultural land
- Interest in land preservation programs will fluctuate by landowner, as some seek to maximize land sale profits by developing land, while others will seek to preserve as much land as possible.
- Interest in dairy, cash cropping and specialty farming will increase, thereby increasing demand for more agricultural land.
- Interest in "value-added" businesses to complement small dairy and general farming operations will increase.

In addition to the above, the A-HFPAC identified the following agriculture land use facts and trends that will impact the agricultural economy in the Fond du Lac County region:

- The gap between the values of land for agriculture versus development is narrowing. Increase in gas prices along with a slumping building economy has reduced the market for rural residential lots and subdivisions.
- Residential growth has dramatically slowed, decreasing the demand for agricultural land. The recent economic slowdown is the likely cause. More local and better paying jobs are needed for demand to change. Gas prices staying above \$3.00 per gallon will also play a factor in reducing the demand for rural type development.

- Land prices for agriculture land sales have recently ranged from \$4000 to \$6000 an acre. Agricultural land in the western portion of the county falls on the higher end of that range. Hilly land associated with the eastern third of the county generally falls within the lower end of the range.
- Residential lots of approximately 1.5 acres in size have been demanding \$20,000. However, lots as part of a subdivision will demand \$40,000. Choice “prime” lots in subdivisions could demand even more with some in excess of \$60,000.
- It was felt that Fond du Lac County would be primarily a commodity based agriculture region focusing on large efficient farming operations. Limited “specialty” or “niche” market development would occur but likely in a limited capacity due to the county’s distance to high end populated markets. Some specialty agriculture identified included Kelley’s Ice Cream, a new goat farm/dairy and replacement dairy heifers. Expansion of organics appears limited due to the demand of land to support dairy and grain farming.
- Fond du Lac County will need an ample amount of agricultural land to support the crop base necessary to be self-sufficient to the dairy industry. Three acres per animal was a ratio used by the committee to accommodate crop and animal waste.
- It appears 4,000 to 5,000 cows are optimal for a large dairy. A farmer needs to have about 3 acres per cow. Having farms of this size will put more stress on town and county roads.
- There is a concern over how many large dairy farms the County could support without driving up the demand and price for support land. Could farmers drive themselves into hardship or even bankruptcy based on appreciated land values?
- A direct competition for land between dairy farmers and grain farmers was identified driving up land rent cost. Grain farmers are not always local and will travel to rent property impacting the local dairy farmer’s ability to pay land rent cost.
- Government habitat programs were mentioned as a concern. Are too many acres being taken out of agriculture for habitat conservation purposes? The Glacial Habitat Restoration Project was discussed in particular. While the Glacial Habitat Restoration program has resulted in the purchase of good farmland, it appears that the program has slowed down or stopped.
- Few projects were identified that would impact the loss of farmland. The expansion of Highway 23 from Fond du Lac to Plymouth was mentioned as one. Most highway corridors already contain adequate acreage for expansion.
- Discussion occurred on the need for restrictions on driveway length to prevent the consumption and fragmentation of farmland.
- Ag land is being converted to other uses. The federal and state government are buying farmland for natural habitat and taking it out of production. Transportation improvements have consumed farmland, particularly Highway 151.
- The conversion of land for residential use has slowed dramatically. The economy needs to turn around before residential use will start consuming farmland.

- Wind energy has not taken significant amounts of farmland out of production.
- Organic farming is small in nature and scattered geographically.
- Efforts to cluster houses away from agricultural areas needs to be implemented.
- Efforts to maintain large tracts of farmland need to be implemented.

Combined, all these land use activities have an effect on farmland preservation and agricultural development. Of all these land use issues, nonfarm residential development in rural areas is the largest issue. Although residential development slowed significantly between 2008 and the present, it will likely rebound in the years ahead. Nonfarm residential development in agricultural areas will make farmland preservation more difficult creating obstacles for agricultural expansion. Nonfarm development is and will continue to be a key land use issue in rural areas. Community leaders and officials must develop tools to deal with development pressures, demographic changes and land preservation in order to balance growth and farmland preservation.

## 4.0 Agricultural Trends

### 4.1 Agricultural Land Use

Acres of agricultural land are computed on an annual basis by Wisconsin Department of Revenue. These acres are based on assessment records. This is valuable information when tracking the amount of agricultural land in use each year. It also shows the trend in conversion of agricultural land to other uses. Table 4-1 shows the amount of existing agricultural acreage in each community within the county in 2005 and 2009.

According to 2009 statement assessments, Fond du Lac County had 284,857 acres of agricultural land. This is a 2.34% decrease from the amount of agricultural land available in 2005. Slightly less than 7,000 acres have been converted to other uses within the county over the 5 year time span. Towns within the County have primarily followed the same trend of a decrease of 2.45% in agricultural land from 2005 to 2009. The greatest losses were experienced by the Towns of Fond du Lac, Oakfield, and Waupun. These towns experienced a percent decrease from approximately 5% to 11% of total agricultural land available. The Town of Oakfield experienced the greatest acreage loss of 1,850 acres, which was over 25% of all acreage lost by the townships within Fond du Lac County.

Due to annexations and development, it varied whether the villages or cities gained or lost agricultural land over the 5 year period. Villages within the county had a net loss of 17 acres, whereas the cities within the county had a net gain of 274 acres which can be attributed to annexations from surrounding townships.

The loss in farmland does not appear to be excessive. However, once lost, the acreage can not be replaced. In some cases, land can be converted from an idle state back to production, but typically those acreages are marginal land for farming.

The best approach to maintaining farmland continues to be minimizing the conversion to other uses. Although land use planning and zoning play major roles, commodity prices play a huge factor in maintaining farmland. If markets are strong, farmers will stay in farming creating a demand for farmland. The result is the desire to convert farmland to other uses is reduced.



**Table 4-1  
Acres of Agricultural Land by Community, 2005-2009**

Community	Acres		5 Year Change		
	2005	2009	Number Change	Percent Change	
Towns	T. Alto	16,064	16,032	-32	-0.20%
	T. Ashford	15,213	14,670	-543	-3.57%
	T. Auburn	8,152	7,868	-284	-3.48%
	T. Byron	18,812	18,538	-274	-1.46%
	T. Calumet	13,895	13,704	-191	-1.37%
	T. Eden	14,891	14,607	-284	-1.91%
	T. Eldorado	15,179	15,141	-38	-0.25%
	T. Empire	12,373	12,004	-369	-2.98%
	T. Fond du Lac	7,029	6,309	-720	-10.24%
	T. Forest	12,876	12,870	-6	-0.05%
	T. Friendship	7,717	7,415	-302	-3.91%
	T. Lamartine	12,426	12,469	43	0.35%
	T. Marshfield	13,645	13,612	-33	-0.24%
	T. Metomen	16,991	16,940	-51	-0.30%
	T. Oakfield	16,472	14,622	-1,850	-11.23%
	T. Osceola	9,135	9,000	-135	-1.48%
	T. Ripon	15,892	15,500	-392	-2.47%
	T. Rosendale	16,852	16,744	-108	-0.64%
	T. Springvale	19,399	19,199	-200	-1.03%
T. Taycheedah	13,621	12,959	-662	-4.86%	
T. Waupun	12,809	12,145	-664	-5.18%	
<b>Subtotal</b>	<b>289,443</b>	<b>282,348</b>	<b>-7,095</b>	<b>-2.45%</b>	
Villages	V. Brandon	147	157	10	6.80%
	V. Cambellsport	111	156	45	40.54%
	V. Eden	40	49	9	22.50%
	V. Fairwater	196	192	-4	-2.04%
	V. Mount Calvary	277	274	-3	-1.08%
	V. North Fond du Lac	66	39	-27	-40.91%
	V. Oakfield	188	188	0	0%
	V. Rosendale	296	296	0	0%
	V. Saint Cloud	343	296	-47	-13.70%
<b>Subtotal</b>	<b>1,664</b>	<b>1,647</b>	<b>-17</b>	<b>-1.02%</b>	
Cities	C. Fond du Lac	400	392	-8	-2.00%
	C. Ripon	188	393	205	109.04%
	C. Waupun	0	77	77	----
<b>Subtotal</b>	<b>588</b>	<b>862</b>	<b>274</b>	<b>46.60%</b>	
<b>Fond du Lac County Total</b>	<b>291,695</b>	<b>284,857</b>	<b>-6,838</b>	<b>-2.34%</b>	

Source: Wisconsin Department of Revenue

## 4.2 Agricultural Production and Enterprises

Fond du Lac County is a major player in the state’s agricultural economy. Dairy is the key county agricultural industry. In fact, the County ranks 4<sup>th</sup> in the state and 26<sup>th</sup> in the nation in dairy production. This high ranking is due to the dominance of dairy farms throughout rural Fond du Lac County. Other agriculture production highlights for Fond du Lac County include the following:

## FOND DU LAC COUNTY FARMLAND PRESERVATION PLAN

Total number of farms: 1,643

Average farm size: 204 acres

Net cash farm income average per farm: \$62,825

Cows: 54,000 (4th in State) on 344 dairy farms (With Rosendale Dairy approx. 7,500)

Annual milk production: Over 1 billion pounds (22,400 pounds per cow)

Market value of products sold: \$290.4 million (5th in State)

- Livestock, poultry and their products: \$220.7 million
- Crops: \$69.7 million

Top 5 products:

- Milk and other dairy products from cows - \$192.3 million
- Corn - \$33.6 million
- Cattle and calves - \$23.7 million
- Soybeans - \$13.7 million
- Vegetables - \$9.5 million

Data Sources: EMSI: Strategic Advantage 4th Q 2009 & 1st Q 2010 data; 2007 USDA, National Agricultural Statistics Service (NASS) Census of Agriculture; County Data 2008 USDA NASS; Reference USA Company listings - April, 2010; Wisconsin Department of Workforce Development LMI - Quarterly Census of Employment & Wages - annual 2008

Additional information regarding Fond du Lac County agriculture production and growing enterprises can be found in Appendix B, "Fond Du Lac County Agriculture-2011"

### 4.3 Conversion of Agricultural Lands to Other Uses

Outside the City of Fond du Lac, Fond du Lac County is largely a rural agricultural area. Historically, there has always been pressure to convert agricultural land to other nonagricultural uses, especially nonfarm residential development. However, development pressure has not been uniform throughout the County as some towns receive more pressure than others. For example, the eastern third of the county has a greater mixture of rolling topography, lake views, and forested areas which often attract rural residential home buyers and recreational land seekers. The land use pattern in eastern Fond du Lac County is evidence to this fact. Likewise, farmland adjacent to incorporated cities and villages also receive more development interest. Often, these lands are annexed, developed and farmland is lost. However, the county must accommodate population growth in order to maintain a viable work force and economy. As long as growth is planned and controlled to ensure an efficient development pattern, the impacts of farmland conversion can be lessened significantly. Commodity prices play a huge roll as well. Strong farm markets will keep farmers working the land and lessen the desire to convert land to other uses.

All communities; cities, villages and towns have done an excellent job creating and maintaining comprehensive plans to manage growth and change within their respective borders. Some, like the City of Fond du Lac, have even executed intergovernmental agreements with adjacent towns to manage change. Since all towns in Fond du Lac County have planned for and zoned land for Exclusive Agriculture, the planned conversion of farmland to other non-farm uses has been minimized in most towns. Since the agricultural economy fared better than most industries during the recent economic recession, the perceived value of farmland to the local economy has increased. This increased value should equate to further protection of farmland during future

planning efforts. The development, adoption and certification of the *2012 Fond du Lac County Farmland Preservation Plan* should create the foundation for future local planning efforts.

There are various methods that can be used to show development pressure, one method is to track the number of land divisions. Since most land divisions require County approval, the number of land division applications by town is a good indicator of the growth pressure within the county. Table 4-2 summarizes the land division activity by town over the last 13 years. This data set incorporates the years of economic prosperity (early to mid 2000's) in conjunction with the more recent economic recession. Although Fond du Lac County contains a strong agricultural land use presence, the county is not immune to the transition of farmland to other uses. During this period of time, 4,781 lots were created consuming 19,881 acres of land. The average annual loss of land to lot creation was 1,529 acres. On average, each lot created in Fond du Lac County, consumes 4.1 acres. Please note that all lots created are not for just for residential type uses. Lots created for commercial, industrial and institutional type uses also utilize land for development and often require larger parcel acreage. In addition, not all land utilized for lot creation may have been farmland. Also, one cannot assume all the acreage utilized to create lots and parcels, has been lost entirely to the practice of farming although the fragmentation of land is never conducive to the long range benefit of agricultural activity. Tracking land division activity is a useful barometer in gauging non-farm development activity.

From a general perspective, the towns located in the western portion of the county (where agriculture is more predominant), lost fewer acres to lot creation than the central and eastern towns. Since the demand for agricultural land appears strongest in the western portion of the county, it is expected that the conversion of farmland to other uses will continue to be less there than other portions of the county.

**Table 4-2**  
**CSM lots and Plat lots by Town, in Acres, 1999-2011**

<u>Town</u>	<u>Acres</u>	<u>% of Total</u>	<u>No. of Lots</u>
Alto	681	3.43%	87
Ashford	1,395	7.02%	226
Auburn	1,338	6.73%	237
Byron	1,329	6.68%	216
Calumet	1,040	5.23%	236
Eden	697	3.50%	122
Eldorado	765	3.85%	164
Empire	958	4.82%	237
Fond du Lac	1,074	5.40%	726
Forest	1,103	5.55%	130
Friendship	856	4.31%	205
Lamartine	953	4.79%	255
Marshfield	1,126	5.66%	188
Metomen	461	2.32%	53
Oakfield	930	4.68%	111
Osceola	907	4.56%	248
Ripon	605	3.04%	167
Rosendale	480	2.41%	71
Springvale	551	2.77%	63
Taycheedah	1,713	8.62%	885
Waupun	918	4.62%	154
<b>Total</b>	<b>19,881</b>		<b>4,781</b>

Source: Fond du Lac County Planning Department, 2012

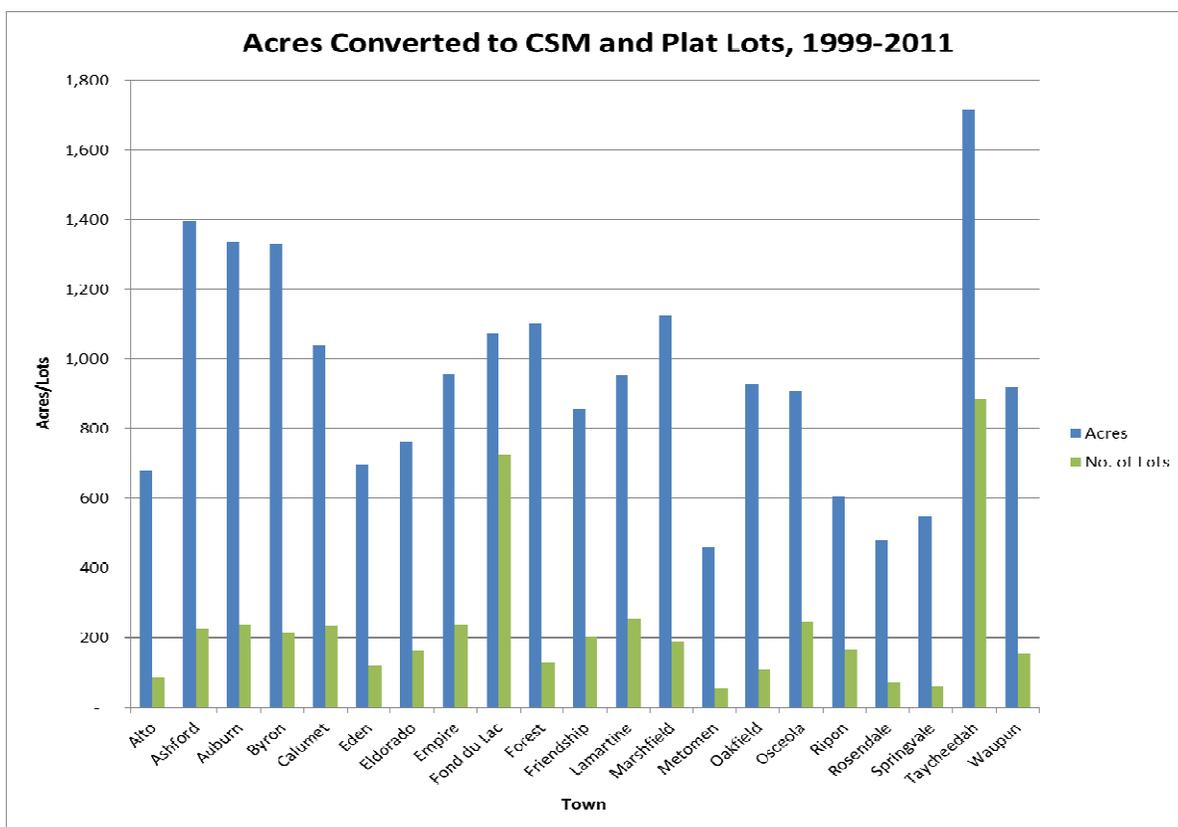
Table 4-3 shows the chronological activity of lot creation during the same 13 year period. As one would expect, lot creation followed the economic condition of the country. Lot creation was strongest during the period from 2003 to 2007. Since 2008, lot creation activity has fallen sharply. In contrast, the agricultural economy stayed steady to strong, creating more demand for farmland to satisfy crop and dairy markets.

**Table 4-3**  
**Acres Converted into CSMs &**  
**Plats 1999-2011**

<u>Year</u>	<u>Acres</u>	<u>No. of Lots</u>
1999	1,340	312
2000	1,857	375
2001	1,447	388
2002	1,836	544
2003	2,212	460
2004	1,580	427
2005	2,054	658
2006	1,612	423
2007	1,582	439
2008	1,150	268
2009	1,148	158
2010	1,109	141
2011	954	158
	<hr style="width: 100%; border: 0.5px solid black;"/>	
	19,881	

Source: Fond du Lac County Planning Department, 2012

**Figure 4-1**



Source: Fond du Lac County Planning Department, 2012

Another source of information to track farmland loss is through the 2007 Census of Agriculture. This report indicates that Fond du lac County lost 8,541 acres of farmland in the five year period between 2002 and 2007. This window of time was a very active economic period as evidenced in Table 4-3. According to this source of information, farmland loss averaged 1,708 acres per year. Putting farmland loss into another perspective, 8,500 acres accounts for 13 sections of land throughout the county.

#### 4.4 Anticipated Changes in Agricultural Production, Processing, Supply, and Distribution

The anticipated changes for agriculture production, processing, supply and distribution look very favorable for growth throughout the County and the region. According to agriculture professionals within the county, Fond du Lac County is home to high quality farms which produce high quality milk that is in demand. This milk is processed and packaged locally. Fond du Lac County provides a well-built transportation network and support infrastructure that allows for product to move in and out of the county easily and efficiently. Finally, due to agricultural roots, workers in Fond du Lac County are known for their strong work ethic, making them attractive to local business and industry.

As indicated in Section 2.7, Business Development, the growing agricultural base of Fond du Lac County has created ten (10) specific opportunities for additional economic activity. Currently agriculture within the county generates \$2.3 billion or 22 percent of the county’s total business sales. Every dollar of sales from agricultural products generates an additional \$.40 of business sales in other parts of the county’s economy.

## FOND DU LAC COUNTY FARMLAND PRESERVATION PLAN

The direct effect of agriculture equals \$1.65 billion and includes the sale of farm products, processed and other value-added products.

Purchases of agricultural and food-processing inputs, services and equipment add another \$543.6 million in business sales. For example, this includes business-to-business purchases of fuel, seed, fertilizer, feed and farm machinery, as well as veterinary services, crop and live-stock consultants and financial services. This business-to-business activity then generates another \$115 million in business sales when people who work in agriculture-related business spend their earnings in the local economy.

### **ORGANIC FARMING and ECONOMIC IMPACTS:**

Wisconsin has seen dramatic growth as the number of certified organic farms has grown from 422 in 2002 to 1,202 in 2007, an increase of 285%. Fond du Lac County should expect an increase in organic activity similar to the state. Here are some key facts on organic farming:

- From 2002 to 2011, organic acreage in Wisconsin has increased from 81,026 acres to 195,603 acres, a 241% increase.
- About 250 farmers raise and sell organic vegetables on about 1,750 acres in Wisconsin. With per acre income levels averaging \$3,741, these farms generate about 70% more income per acre than their non-organic counterparts. With our existing vegetable growing expertise and processing infrastructure in the state, and the proven strength in organic produce sales (about 38% of total organic sales nationally), there is great potential for growth in this sector in future years.
- Based on data from the University of Wisconsin Center for Dairy Profitability, even in the current economic downturn, Wisconsin organic farms generated nearly \$1,000 in net profit per cow in 2009 while farmers receiving conventional prices for their milk lost \$147 per cow. The organic farms in the study averaged \$65,000 in net farm income in 2009.

For more information and to download the report please visit:

<http://datcp.wi.gov/uploads/Farms/pdf/OrganicAdvisoryCouncilNewsletter.pdf>

Continued growth in agriculture production, processing, supply and distribution can be expected county-wide and regionally.

## 5.0 Farmland Preservation Areas

This chapter provides detail on how the Farmland Preservation Maps were developed.

### 5.1 Rationale Used to Determine Preservation Areas

The Fond du Lac County Farmland Preservation Plan Map (Map 4) identifies two areas: "Farmland Preservation Areas" and "Nonagricultural Development Areas". The "Areas of Agricultural Use and Agriculture Related Use" are considered to be within the Farmland Preservation Area and the "Areas of Nonagricultural Development" are within the Nonagricultural Development Area. The rationale and criteria used to determine the Farmland Preservation Areas and Areas of Nonagricultural Development were as follows:

#### **Farmland Preservation Areas (Areas of Agricultural Use and Agriculture Related Use)**

Please note that land designated as a farmland preservation area only needs to meet one of the following criteria.

- Farmland shown as "Planned Agriculture" in town comprehensive plans
- Farmland currently and historically farmed, grazed or used for forestry
- Farmland currently zoned "Agriculture" or "Exclusive Agriculture"
- Existing land uses complimentary to farming
- State and federal owned property managed for forestry, habitat conservation and recreation purposes that has been planned and zoned as "Agriculture" or "Exclusive Agriculture".
- Farmland expected to stay in farming over the next 15 years.

It must be noted that the initial primary source for delineating farmland preservation areas in each town were town comprehensive plans. However, many of the comprehensive plans were developed prior to the economic recession, a time when housing and business development were far more aggressive. Contrary to the economic slowdown in the development industry, the agricultural economy remained stable to strong and agricultural land process rose in many areas of the county. The demand for farmland increased.

As towns participated in the Fond du Lac County farmland preservation planning process, it provided them a new opportunity to reconsider and adjust land use decisions. In addition, the provisions of the Working Land Initiative, Wis. Chap. 91, now provided the opportunity to accommodate some non-farm residential development within the designated farmland preservation areas through farmland preservation zoning. This was not an option prior to the Working Lands Initiative when many of the plans were developed and often low density residential areas were planned to accommodate this type of use. Hence, the Fond du Lac County farmland preservation process provided a new opportunity to adjust land use planning. The resultant adjustments provided a more accurate assessment of planning decisions within each town.

Town officials understand that amendments to local comprehensive plans are necessary to reflect the farmland preservation areas noted as part of this Fond du Lac County Farmland Preservation Plan. This effort will ensure consistency between the local comprehensive plans and the county FP plan.

Those lands planned for a use other than agriculture in town plans; but are included in the county FPP as farmland preservation areas are a more accurate representation of land demands and conditions within the towns. These lands are planned to stay in agricultural use over the next 15 years. Likewise, some lands that were previously shown as planned agriculture in local comprehensive plans may have been excluded given a change of use or zoning on the parcel.

#### **Areas of Nonagricultural Development (Excluded)**

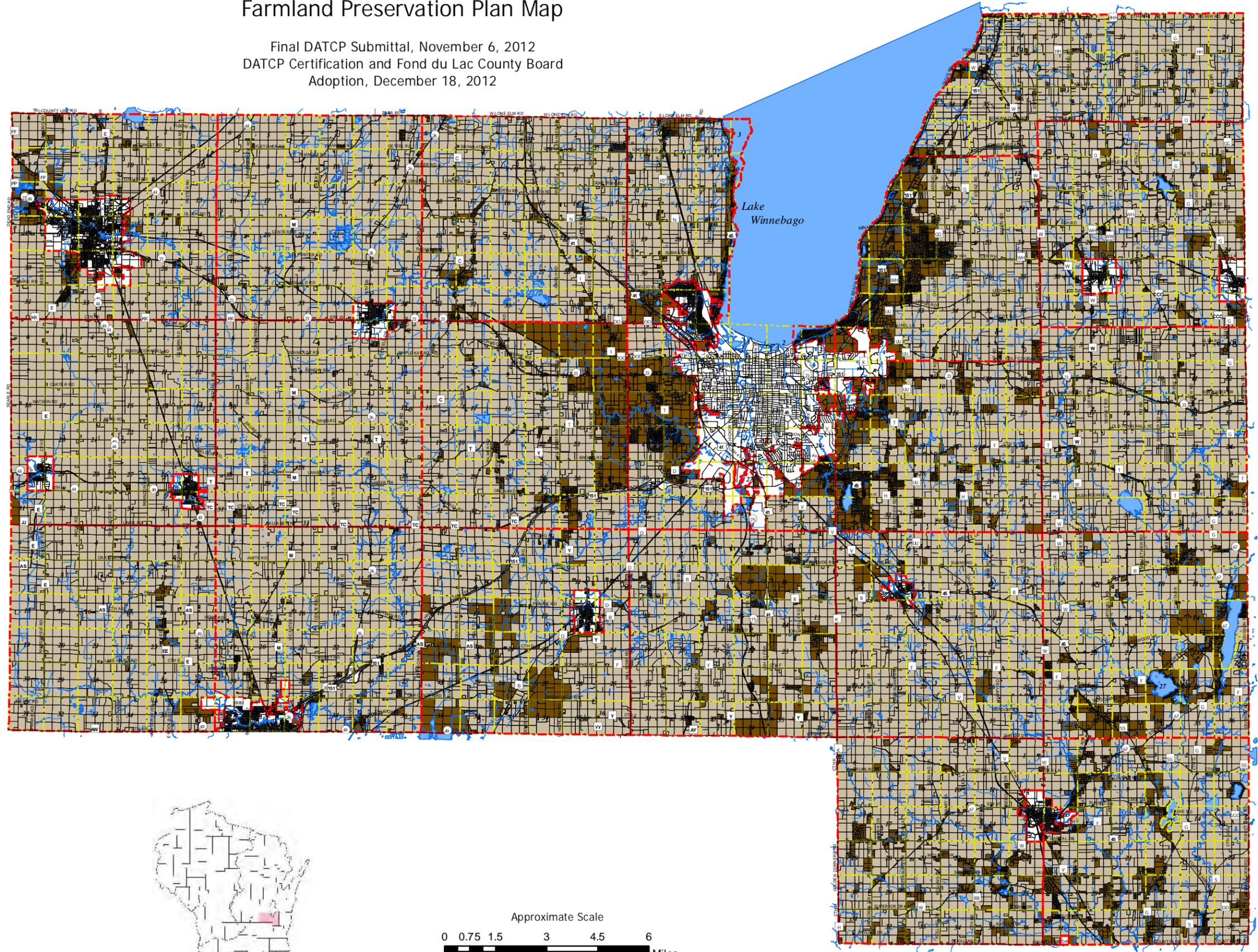
- Land within incorporated municipalities (villages & cities)
- Land planned for uses other than agriculture and open space in the town comprehensive plans over the next 15 years.
- Land within a defined Sewer Service Area Planning boundary of a city, village or town sanitary district.
- Land zoned for intensive uses other than agriculture.
- Clustered non-farm residential lots within agricultural areas.
- State and federal owned property managed for forestry, habitat conservation and recreation purposes that have been planned and zoned as a "Conservancy" District". This criterion only applies to land within the Towns of Lamartine, Oakfield and Taycheedah.

## **5.2 Farmland Preservation Map Category Description**

There are only two description categories on the Farmland Preservation Plan Map: Farmland Preservation Areas and Nonagricultural Development Areas. The Farmland Preservation Areas include those areas of Agricultural Use and Agriculture Related Use (Light Brown Color) in accordance with the rationale described in section 5.1. The Nonagricultural Development Areas include all other land uses and are placed within the Areas of Nonagricultural Development on the Map (Dark Brown Color). The Farmland Preservation Map and Map Legend include highways, town roads, railroads, town boundaries, section lines, parcel boundaries, incorporated areas, water bodies, and rivers and streams. The Farmland Preservation Map is done for the entire county excluding incorporated areas. However, in order to provide the necessary detail, the maps provided in the Farmland Preservation Plan are

# Fond du Lac County, Wisconsin Farmland Preservation Plan Map

Final DATCP Submittal, November 6, 2012  
DATCP Certification and Fond du Lac County Board  
Adoption, December 18, 2012



### Farmland Preservation Areas

Areas of Agricultural Use and Agriculture Related Use

### Nonagricultural Development Areas

Areas of Nonagricultural Development

U.S. Highway

State Highway

County Highway

Town Road

Town Boundary

Section Line

Parcel Boundary

Rivers and Streams

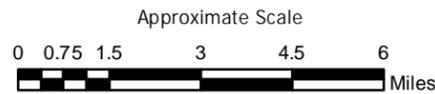
Waterbodies

The base map was created with data from Fond du Lac County Planning Department who in no event assumes any liability regarding fitness of use of the information and any application by others, is the responsibility of the user.

## Martenson & Eisele, Inc.

1377 Midway Road  
Menasha, WI 54952  
www.martenson-eisele.com  
info@martenson-eisele.com  
920.731.0381 1.800.236.0381  
pnargic337919fip.mxd\_FPP\_November 6, 2012

Planning  
Environmental  
Surveying  
Engineering  
Architecture



FOND DU LAC COUNTY FARMLAND PRESERVATION PLAN

shown on a town by town basis. Table 5-1 includes the acreage totals of the Farmland Preservation Areas within each town. For comparison purposes, those acreages are compared against the prime soil acreage totals for each town. As indicated by Table 5-1, the farmland preservation planning process has been successful capturing prime agricultural soils within the Farmland Preservation Areas. A total of 374,439 acres have been designated as farmland preservation areas, accounting for 87.4% of the County's unincorporated area.

**Table 5-1  
Farmland Preservation Acres and Prime Agriculture Soils, Fond du Lac County, 2012**

<u>Township</u>	<u>Town Acres</u>	<u>Prime Ag Soil Acres</u>	<u>% Prime Ag Soils</u>	<u>Farmland Preservation Acres</u>	<u>% Farmland Preservation</u>	<u>Acres in FP &amp; Prime Ag Soils</u>	<u>% FP &amp; Prime Ag Soils</u>
Alto	22,586	21,265	94.2%	21,985	97.3%	20,756	91.9%
Fond du Lac	10,675	10,402	97.4%	5,412	50.7%	5,358	50.2%
Metomen	21,622	20,377	94.2%	21,254	98.3%	20,055	92.8%
Taycheedah	18,329	15,500	84.6%	12,540	68.4%	10,916	59.6%
Eden	22,404	17,366	77.5%	21,417	95.6%	16,679	74.4%
Marshfield	21,348	17,129	80.2%	19,151	89.7%	15,446	72.4%
Forest	22,324	17,305	77.5%	21,673	97.1%	16,942	75.9%
Waupun	21,084	19,739	93.6%	20,265	96.1%	19,015	90.2%
Byron	22,573	21,259	94.2%	19,314	85.6%	18,535	82.1%
Eldorado	22,333	21,809	97.7%	21,259	95.2%	20,773	93.0%
Calumet	18,809	17,696	94.1%	17,617	93.7%	16,640	88.5%
Empire	17,698	14,121	79.8%	12,474	70.5%	9,952	56.2%
Rosendale	22,217	21,446	96.5%	22,034	99.2%	21,277	95.8%
Osceola	22,561	15,783	70.0%	17,083	75.7%	13,271	58.8%
Springvale	22,472	21,683	96.5%	22,362	99.5%	21,596	96.1%
Ripon	19,372	18,164	93.8%	17,305	89.3%	16,562	85.5%
Friendship	10,942	10,067	92.0%	8,064	73.7%	7,953	72.7%
Lamartine	22,629	21,983	97.1%	17,252	76.2%	16,674	73.7%
Ashford	22,119	16,267	73.5%	19,692	89.0%	14,713	66.5%
Oakfield	22,254	21,174	95.1%	18,091	81.3%	17,377	78.1%
Auburn	22,150	15,442	69.7%	18,195	82.1%	12,937	58.4%
<b>Total</b>	<b>428,503</b>	<b>375,978</b>	<b>87.7%</b>	<b>374,439</b>	<b>87.4%</b>	<b>333,427</b>	<b>77.8%</b>

- Notes: (1) Cities/Villages and road right-of-ways have been excluded from all calculations.  
 (2) Sorted by % designated prime ag soils and farmland preservation.

## 6.0 Implementation

### 6.1 Goals for Agricultural Development

The A-HFPAC discussed changes to the Goals, Objectives and Policies listed in the initial Fond du Lac County Farmland Preservation Plan (1980). The Ad-Hoc Committee decided to drop any reference to “rural character” as it is not a measurable term. Per the edits agreed upon, the revised goals, objectives and policies for agricultural development are as follows:

#### Farmland Preservation Goals

1. It is the goal of the Fond du Lac County to protect, preserve and keep in production as much of the County’s agricultural land as is possible and maintain a viable local agricultural economy.
2. It is the goal of the Fond du Lac County to make as many of the county’s citizens as possible aware of the Farmland Preservation Program.
3. It is the goal of the Fond du Lac County to make as many landowners as possible eligible for tax credits under the Wisconsin Working Lands Initiative.
4. It is the goal of the Fond du Lac County to encourage higher housing density in areas designated for nonagricultural development.

#### Objectives

1. Protect agricultural land from development.
2. Protect existing farm culture within the county.
3. Prevent and minimize conflicts between urban and rural land uses.
4. Encourage large, contiguous blocks of farmland.
5. Utilize land use controls to ensure preservation of valuable farmland.
6. Utilize best management practices to protect natural resources.
7. Preserve and grow the enterprises that support the agricultural industry.
8. Focus and plan new growth in areas that will not adversely impact planned agricultural areas of the County.
9. Protect the right of livestock facilities, regardless of the number of animal units to operate in areas zoned for agricultural use, provided all state and local regulations are met.
10. Provide for enterprises that support the agricultural industry the right to locate in areas zoned for agricultural use and not be required to obtain commercial or industrial zoning.
11. Encourage and support the creation of nontraditional agricultural operations.

12. Recognize the importance Fond du Lac County agriculture plays in the role of satisfying the demand for food on a global scale.
13. Encourage the utilization of hands on agricultural education through such opportunities as local Farmer Markets in urban areas, rural food produce stands and fairs.

### **Policies**

1. Apply exclusive agricultural zoning provisions should be applied to all farmlands identified for preservation.
2. Towns shall report all land divisions and rezones promptly to the County Planning Department.
3. Towns may rezone land out of farmland preservation if they find that the land is better suited for a use not allowed in the farmland preservation zoning district and that the rezoning will not substantially impair or limit current or future agricultural use of surrounding parcels of land that are zoned for or legally restricted to agricultural use.

## **6.2 Goals, policies, strategies and proposed actions to increase housing density in areas that are not identified as farmland preservation areas**

The need for housing units will increase in Fond du Lac County. Table 104, Household Projections, show there will be a need for 5,128 additional housing units in the next 15 years (2010 to 2025).

The County will need to prepare for the increased housing demand. Maintaining higher housing density in areas suitable for housing development has been a long-time goal for the County.

There are many benefits to increasing housing density in properly planned locations. Such benefits include: the need for fewer acres per housing unit, reduced local government expenses as shorter/narrower streets cost less to maintain and fewer miles of sewer/water piping are needed, reduced storm-water runoff can reduce utility costs, public transit systems are more cost effective and higher housing density encourages healthier life styles (walk-able communities).

However, due to the mixture of zoned towns; housing development regulations are not uniform. Fortunately, all towns in Fond du Lac County are in farmland preservation zoning. That said, it is very important the County's Farmland Preservation Plan address an approach to balance future housing needs with agriculture.

Below are policies, goals and strategies and/or proposed actions the county may implement to achieve higher housing densities in areas outside the mapped farmland preservation areas.

Wisconsin Statutes 91.10 (c)(7m) requires a statement of policies, goals, strategies, and proposed actions to increase housing density in areas that are not identified as farmland preservation areas per Wisconsin Statutes 91.10(d). Goals are general statements, whereas the policies build on the goals by providing more detailed actions to the goals. Policies that direct action using the words "will" or "shall" are advised to be mandatory and regulatory aspects of implementation.

## FOND DU LAC COUNTY FARMLAND PRESERVATION PLAN

In contrast, those policies that direct action using the words “should”, “could”, or “may” are advisory and intended to serve as a guide. Policies are used to assist the future decisions makers in the towns and the county.

Strategies and/or proposed actions are specific actions that the county should be prepared to complete. The completion of the strategies and proposed actions are consistent with the policies, and therefore will help fulfill the goals of the Farmland Preservation Plan.

### Goal

Encourage higher housing density in areas designated for nonagricultural development.

### Policies

1. Residential development in farmland preservation zoned areas, shall not exceed the density ratio standard established in Chapter 91 of the Wisconsin Statutes.
2. Fond du Lac County towns should review the use of conservation subdivision guidelines in zoning and land division ordinances.
3. Infill development and new housing developments shall be encouraged within areas served by public facilities.
4. Cluster residential development should be promoted to minimize land use impacts and increase housing density.

### Strategies

1. The County should implement a housing program that provides funds to repair and maintain existing housing stock.
2. Fond du Lac County towns, villages and cities should always identify areas of residential infill or cluster development on the future land use map when updating their comprehensive plans.

### Strategies and Proposed Actions to achieve goals and policies

County Planning Staff will continue to be a resource to towns wishing to update their existing comprehensive plans and zoning ordinances. This cooperation should ensure consistency between local planning, zoning and *the 2012 Fond du Lac County Farmland Preservation Plan*. Specifically, staff can work with communities to identify areas that are available for infill development. Identifying areas that are available for new housing development will provide a readily usable database (map) for developers to reference. Developers are encouraged to develop underutilized areas, prior to developing in to open space and/or agricultural areas.

The County should also deny land division requests to create major subdivisions (5 or more lots) within agricultural zoned areas. This may result in more development occurring in areas planned for residential growth.

As indicated earlier, a strong regional agricultural economy and support infrastructure is vital to further industry growth. As agriculture grows and prospers in the region, the momentum to preserve farmland will increase beyond the need to rely on regulation. Agricultural resources

such as prime farmland, already is essential to the area economy. In order to promote a strong economic base for agriculture, business marketing and recruitment efforts such as those put forth by the Fond du Lac County Economic Development Corporation must be supported by the county. Further investment in agriculture systems will anchor preservation efforts.

## 6.3 Farmland Preservation Programs

There are many farmland preservation programs available to landowners in Fond du Lac County. Programs are available on the county, state and federal levels. The principle effort of farmland preservation and rural land preservation programs is to implement agricultural conservation practices and natural resource protection. Both farmland and natural resource protection programs are listed below, as these programs often work in combination.

Landowners can get program information from the Fond du Lac County Planning Department, Fond du Lac County Land Conservation Department, Natural Resource Conservation Service, USDA Farm Service Agency and the Wisconsin Department of Natural Resources. Agricultural related programs available to County landowners are listed below.

### County Programs

#### Farmland Preservation Program (Working Lands Initiative)

The purpose of this program is to help preserve farmland and promote soil and water conservation practices through local planning and zoning. Landowners that participate in the program are eligible for state tax credits. In order to be eligible for the program, land must be located in a certified farmland preservation zoning district and also be in compliance with the State's soil & water conservation standards.

#### Land and Water Resource Management Plan

The purpose of this program is to control soil erosion and reduce nonpoint source water pollution. The program provides a cost share and technical assistance to landowners to install soil and water conservation practices. The following agricultural conservation practices may be utilized; grass waterways, diversions, critical area stabilization, terraces, grade stabilization structure, sediment basin, barnyard runoff control practices, rural well abandonment, manure storage abandonment and roof runoff system. The Land and Water Resource Management Plan is required through Wisconsin Statutes Chapter 92.10.

#### Wildlife Damage Control

The purpose of this program is to provide Federal leadership and expertise to resolve wildlife conflicts to allow people and wildlife to coexist. Wildlife Services' operational activities to protect agriculture occur on farms, ranches, aquaculture facilities, forested lands, and other sites across the nation. The program uses many methods and techniques in order to prevent and reduce damage.

#### Information and Education Programs

These programs serve the urban and rural population and include educational activities such as Outdoor Classroom, school/classroom presentations, Farm Shows, farmer workshops and Fond du Lac River Cleanup.

## FOND DU LAC COUNTY FARMLAND PRESERVATION PLAN

### Environmental Quality Incentives Program (EQIP)

This is a voluntary conservation program. Landowners may receive financial and technical help with structural and management conservation practices that protect soil and water quality.

### Conservation Reserve Enhancement Program (CREP)

This voluntary land retirement program helps agricultural producers protect environmentally sensitive land, decrease erosion, restore wildlife habitat, and safeguard ground and surface water. This is done by setting aside cropland or pasture adjacent to surface water with annual rental payments through the contract period. Included in this program is cost-sharing for practice installation along with other incentives.

### Tree Sales

The Fond du Lac County Land and Water Conservation Department offers seedling trees to establish windbreaks, develop wildlife habitat, or reforest small areas. The trees are sold in increments of 50, on a first come first serve basis. Prices and varieties of trees vary from year to year.

### Manure Spreader Calibration Service

This service assists farmers with calculating the manure nutrient credits and spreading rates for the fields. The fee to have a manure spreader calibrated is \$50.00 a spreader.

### Erosion Control & Storm water Management and Animal Waste Storage Ordinances

The purpose of these ordinances is to protect the groundwater and surface water resources. The Animal Waste Storage Ordinance requires a permit from the Fond du Lac County Land and Water Conservation Department for new manure storage facilities or reconstruction of existing facilities.

## **State and Federal Conservation Programs**

### Conservation Reserve Program (CRP) & Conservation Reserve Enhancement Program (CREP)

The purpose of these programs is to reduce erosion, increase wildlife habitat, improve water quality, and increase forestland. Landowners that set aside agricultural land to conduct program practices are eligible for annual land rental payments. Program practices may include tree planting, grass cover, small wetland restoration and prairie/oak savannah restoration.

### Environmental Quality Incentives Program (EQIP)

The purpose of EQIP is to provide technical and financial help to landowners that install or implement structural and management practices on agricultural lands. Landowners that participate in the program may be eligible for cost sharing.

### Agricultural Water Enhancement Program (AWEP)

The AWEP is part of the EQIP and is a voluntary conservation initiative that provides financial and technical assistance to agricultural producers to implement agricultural water enhancement activities on agricultural land to conserve surface and ground water and improve water quality.

### Farmland and Ranch Lands Protection Program (FRPP)

The purpose of this program is to maintain prime farmland in agricultural uses through permanent agricultural easements. The program provides funding to state, tribal, church, hospital, school, or local government programs for the purchase of development rights on prime agricultural land. Program funds are used to pay for up to 50 percent of the permanent easement cost.

FINAL DATCP SUBMITTAL, NOVEMBER 6, 2012,

DATCP CERTIFICATION AND FOND DU LAC COUNTY BOARD ADOPTION, DECEMBER 18, 2012

Grassland Reserve Program (GRP)

This is a voluntary program for landowners and operators to protect grazing uses and other related conservation values by restoring and conserving eligible grassland and certain other lands through rental contracts and easements. This program is available on privately owned lands, which include private and Tribal lands. The program provides funding to eligible entities including any agency of the state or local government or federally recognized Indian tribe, and some non-governmental organizations.

Grazing Lands Conservation Initiative (GLCI)

This program focuses on providing technical assistance to help new grazers begin using rotational grazing methods. Trained grazing specialists work one-on-one with farmers developing grazing plans, including seeding recommendations, fencing and watering plans.

Wetland Reserve Program (WRP)

This is a voluntary program for private property owners to receive financial incentives to restore wetlands that have been drained for agriculture. Landowners choosing to participate in this program may sell a conservation easement or enter into a cost-share restoration agreement with USDA to restore and protect wetlands.

Wildlife Habitat Incentive Program (WHIP)

This is a voluntary program for people who own private agricultural or non-industrial private forestland currently in production or capable of production. The purpose of this program is to develop or improve wildlife habitat on private lands. WHIP offers technical and financial assistance to help protect, restore, develop, and enhance fish and wildlife habitat.

Managed Forest Law (MFL)

The purpose of this program is to promote good forest management; property tax incentives/reduction is available to participating landowners. In order to participate, a landowner must follow an approved management plan (plan is free) and must own 10 contiguous acres (80% must be capable of producing merchantable timber).

Purchase of Agricultural Conservation Easements (PACE) — Farmland Preservation Program

The PACE program provides state funding for the purchase of agricultural conservation easements. An agricultural conservation easement allows a landowner to be compensated for limiting development on his or her farmland. Easements are permanent and are carried over to subsequent landowners if the property is sold. The Department of Agriculture, Trade and Consumer Protection (DATCP) will provide funding to cooperating local entities (local governments or non-profit organizations) for the purchase of easements from willing landowners. Local entities purchase the easements and may be reimbursed for up to 50 percent of the easement cost by the PACE program. The state and local entities will then be co-holders of the easement. PACE funded easements are intended to strengthen areas that have been planned and designated as local farmland preservation areas in a certified county farmland preservation plan.

Targeted Runoff Management (TRM) Grants

The purpose of this program is to control polluted runoff from agricultural sites and urban areas. Grants are available to help fund various Best Management Practices, purchase of property, and property easements. Local units of government, special purpose districts, tribal commissions and regional planning agencies are eligible for grants.

Wisconsin Forest Landowner Grant Program (WFLGP)

The purpose of this program is to assist landowners in protecting and enhancing forest lands, prairies and waters. Program practices include forest stewardship plan development, reforestation, timber stand improvement, fish and wildlife habitat enhancement, fire hazard reduction, invasive species control, watershed protection and wetland restoration. Qualifying landowners may be eligible for cost sharing.

**State and Federal Financial Programs**

Dairy 30X20 Initiative

The purpose of this program is to improve the long-term viability of Wisconsin's dairy industry through services to achieve an annual milk production of 30 billion pounds by 2020. The following are aspects of the program that can provide financial assistance:

*Dairy Investment Tax Credit*

This tax credit is for dairy farm modernization or expansion and includes money spent to construct, improve or acquire buildings or equipment for dairy animal housing feeding, milk production or waste management.

*Beginning Farmer & Farm Asset Owner Tax Credit*

This tax credit provides a refundable income tax credit for established farmers based on 15% of the annual cash lease payments of depreciable agriculture assets. A \$500 refundable educational credit is available for beginning farmers to be used towards the tuition costs of Farm Financial Management courses.

*Dairy Manufacturing Facility Investment Credit*

This program provides for refundable credits for businesses that have invested to modernize or expand dairy manufacturing facilities.

*Food Processing Plant & Warehouse Investment Credit*

This refundable tax credit is for businesses who have invested to modernize or expand food processing plants or food warehouses.

*Planning & Preparation Teams Grant*

These funds, up to \$5,000 can be used towards different business development areas such as business planning, financial analysis, transition planning and farm transfers. The funds also can be used for dairy farm modernization and expansion efforts to provide assistance with professional services costs related to siting, engineering and design. The assistance for related professional services and consultant require cost share payments by the farmer at 20% of the grant amount.

*Dairy Profit Teams Grant*

These funds, up to \$5,000 are for the development of an on farm management team to assist dairy producers in improving management of existing operational systems and identify opportunities to improve profit. The assistance to cover meeting expenses including facilitator's expenses, consultant fees, applicable testing and associated costs require cost share payments by the farmer at 20% of the grant amount.

Farm Service Agency (FSA): Beginning Farmer Loans and Guarantees

The purpose of this program is to make loans available for farmers to use towards farm ownership and operating costs. The FSA provides direct and guaranteed loans to beginning farmers and ranchers who are unable to obtain financing through commercial credit sources. This program is for farmers and ranchers who have operated for more than 3 years and less than 10.

FSA: Direct Farm Loans

Direct loans are made and serviced by FSA officials, who also provide borrowers with supervision and credit counseling. Farm ownership, operating, emergency, and youth loans are the main types of loans available under the direct loan program. With a direct farm ownership loan, you can purchase farmland, construct or repair buildings and other fixtures. Operating loans may be used to purchase items such as livestock, farm equipment, feed, minor improvements to buildings, family subsistence, and to refinance debts under certain conditions.

FSA: Guaranteed Farm Loans

FSA guaranteed loans provide lenders (i.e. banks, farm credit system institutions, credit unions) with a guarantee of up to 95% of the loss of principal and interest on a loan. Farmers and ranchers apply to an agricultural lender, who then arranges for the guarantee. The FSA guarantee permits lenders to make agricultural credit available to farmers who do not meet the lender's normal underwriting criteria. With a direct farm ownership loan, you can purchase farmland, construct or repair buildings and other fixtures. Operating loans may be used to purchase items such as livestock, farm equipment, feed, minor improvements to buildings, family subsistence, and to refinance debts under certain conditions.

FSA: Emergency Farm Loans

FSA provides emergency loans to help producers recover from production and physical losses due to drought, flooding, other natural disasters, or quarantine. Emergency loan funds may be used to restore or replace essential property, pay all or part of production costs associated with the disaster year, pay essential family living expenses, reorganize the farming operation, and refinance certain debts.

WHEDA: Beginning Farmer Bonds

The purpose of the Wisconsin Housing and Economic Development Authority (WHEDA) Beginning Farmer Bond program, uses bond funds to be used for the purchase a first farm including land, equipment, livestock, or buildings. Bonds can be used for transactions between related persons.

WHEDA: Credit Relief Outreach Program (CROP)

The purpose of the Wisconsin Housing and Economic Development Authority (WHEDA) — Crop program is to make loans to farmers, which can be used to buy animal feed, seed, fertilizer, pesticides, or to pay land rent, custom hire, crop insurance, feeder animals, tillage services, equipment rental and repair, or utilities for commodity production.

WHEDA: Farm Asset Reinvestment Management (FARM)

The purpose of the Wisconsin Housing and Economic Development Authority (WHEDA) — Farm program is to make loans to farmers, which can be used for a farm expansion or for the modernize an existing operation. The loan can be used to purchase agricultural assets including machinery, equipment, buildings, land, and livestock. The money can also be used to make improvements to farm buildings and land for agricultural purposes or refinance existing debt if

the farmer is expanding their existing farm operation. The refinanced debt must not exceed 75% of the WHEDA guaranteed loan.

#### WHEDA: Agribusiness Guarantee Program

The purpose of the Wisconsin Housing and Economic Development Authority (WHEDA) — Agribusiness Guarantee program is to make loans to farmers for projects developing products, markets, method of processing or marketing for a Wisconsin-grown commodity. The maximum guarantee of 80% on loans can be used for equipment, land, buildings, working capital, inventory and marketing expenses.

### **State and Federal Technical Assistance Programs**

#### AgrAbility of Wisconsin

The purpose of the AgrAbility program is to promote success in agriculture for people with disabilities through the development of a customized assistance plan based on the type of farm operation, type of disability, and the needs of the individual with a disability and their family. This plan could include: equipment and worksite modification, farm job restructuring, community and health care coordination, peer support involvement, etc. The Wisconsin AgrAbility Project is a cooperative effort of the University of Wisconsin Extension Service, University of Wisconsin Biological Systems Engineering and Easter Seals Wisconsin.

#### Center for Dairy Profitability

The purpose of the Center for Dairy Profitability is to develop, coordinate and conduct effective interdisciplinary educational and applied research programs, emphasizing business management, human resource management, production systems, and finance and marketing systems that enhance dairy profitability. In keeping with this mission statement, the Center's website has a variety of software programs, spreadsheets, and CDROMS to improve production efficiency and profitability. The Center also has a real-time internet financial benchmarking site.

#### Dairy 30X20 Initiative

The purpose of this program is to improve the long-term viability of Wisconsin's dairy industry through services to achieve an annual milk production of 30 billion pounds by 2020.

#### Dairy Business Innovation Center (DBIC)

The DBIC is a non-profit Wisconsin corporation offering technical assistance to dairy producers and cheese processors for product development, business planning, market development and other services. The Center boasts a team roster of more than 20 world-class dairy experts and is led by a stakeholder board.

#### Milk Money

The Milk Money program is a UW-Extension outreach program of the University of Wisconsin Department of Dairy Science supported by the Wisconsin Milk Marketing Board and offered to all Wisconsin dairy producers. Milk Money uses the 'team management concept to help producers improve milk quality.

#### Wisconsin Farm Center

The Wisconsin Farm Center provides services to Wisconsin farmers and agribusinesses to promote the vitality of the state's agricultural economy and rural communities. Also, they provide services in the areas of financial counseling and analysis, mediation, employment and training, farm succession and two-generation linking, legal information related to FSA programs and Rural Electric Power Services.

### Wisconsin Farmer's Resource Guide

The Wisconsin Farmer's Resource Guide is a directory for farmers and rural citizens to find helpful information and services offered by public and private agencies across the state. Whether you need legal aid or want to apply for a loan, seek job training or financial counseling, this guide will help you find the right person to talk to.

### **State and Federal Young Farmer Programs**

#### Farm Link

The Wisconsin Department of Agriculture, Trade and Consumer Protection Farm Link Program provides farm succession information and assistance linking farmers with other farmers and beginning farmers. The program is a coordinated network of resources available to assist new dairy farmers and also assists retiring farmers. The mission is to "develop and sustain a coordinated network of resources and policies to assist dairy farm entry and transfer in Wisconsin.

#### Wisconsin Farm Bureau Federation Young Farmer Program

The Wisconsin Farm Bureau Federation Young Farmer Program is a leadership program for farmers under the age of 35. The Young Farmer Program provides leadership and skills development opportunities, along with the chance for young farmers to meet and network with other young farmers.

### **State and Federal Environmental Assistance Programs**

#### Discovery Farms

Discovery Farms is a University of Wisconsin program designed to address the environmental research needs of agricultural producers. Through addressing those needs, Discovery Farms is working to assure a healthy environment and a healthy farm economy. Discovery Farms is part of UW-Extension and the College of Agriculture and Life Sciences at UW-Madison, and have a relationship with the Wisconsin Agriculture Stewardship Initiative.

#### Wisconsin Focus on Energy

Focus on Energy works with eligible Wisconsin residents and businesses to install cost effective energy efficiency and renewable energy projects. Focus information, resources and financial incentives help to implement projects that otherwise would not be completed, or to complete projects sooner than scheduled. Its efforts help Wisconsin residents and businesses.

## **6.4 Fond du Lac County Comprehensive Plan Consistency**

As of the writing of this farmland preservation plan, Fond du Lac County has not developed or adopted a county wide comprehensive plan under Stats 66.1001. That said, *The 2012 Fond du Lac County Farmland Preservation Plan* is a stand-alone county document at this time. Should the County embark on a comprehensive planning effort in the future; the farmland preservation plan will be incorporated into the county comprehensive plan. For the purposes of this farmland preservation planning effort, guidance was obtained by utilizing the individual local comprehensive plans developed by each community in Fond du Lac County.

## **6.5 County Actions to Preserve Farmland and Promote Agricultural Development**

1. Develop and adopt a Farmland Preservation Plan in accordance with state statutes in order to allow all interested towns to be eligible for farmland preservation programs.

2. Develop Farmland Preservation Plan Maps for each town and encourage towns to provide input into the map development process.
3. Encourage towns, villages and cities to maintain consistency with the Farmland Preservation Plan.
4. Share with towns, villages, cities, the general public, and other interested groups on the benefits of the Fond du Lac County Farmland Preservation Plan.
5. Update the Farmland Preservation Plan at least once every 10 years or sooner as the need for amendments occur.
6. Pursue the development of Agriculture Enterprise Areas where desired and consistent with the Farmland Preservation Plan to further support and market agricultural products and increase tax credits.

## 6.6 County Actions to address Land Use Issues affecting Farmland Preservation and Agricultural Development

1. County Planning Staff should support and facilitate planning services to towns to update their comprehensive plans and zoning ordinances in accordance with Chapter 91, WI. Stats. in order to maintain or obtain eligibility for the Farmland Preservation Program. Amended town zoning maps shall include all land shown as a Farmland Preservation to be zoned accordingly. This action should ensure planning and zoning consistency with the Farmland Preservation Plan.
2. Continue to support the business marketing and recruitment efforts by the Fond du Lac County Economic Development Corporation to promote a strong economic base for regional agriculture.
3. The County should deny any request for a major subdivision (5 or more lots) in areas designated as a Farmland Preservation Area unless an amendment to the local comprehensive plan identifying the change has occurred.
4. Implement the strategies and actions proposed in Section 6.2 of this Plan in order to increase housing density in the County.