Grant County

Farmland Preservation Plan

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Southwestern Wisconsin
Regional Planning
Commission

Grant County
Farmland Preservation Plan

Prepared for:
GRANT County BOARD OF SUPERVISORS

Prepared by:
GRANT County PLANNING & ZONING COMMITTEE

With the assistance of:
SOUTHWESTERN WISCONSIN REGIONAL PLANNING COMMISSION

GRANT County BOARD OF SUPERVISORS
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Grant Loy
Dwight Nelson
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Margaret Ruf
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Patrick Schroeder
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Mark Stead
Larry Wolf

PLANNING AND ZONING COMMITTEE
Terry Loeffelholz, Planning & Zoning Administrator
Stephen Adrian
John Beinborn
Lester Jantzen
Robert Keeney
Dwight Nelson
John Patcle
Patrick Schroeder

SOUTHWESTERN WISCONSIN REGIONAL PLANNING COMMISSION
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Amy Seeboth, Transportation Planning Program Manager
Mary Jenkins Penn, Senior Planner
Tjaard van Holten, Associate Planner
Devon Piernot, GIS/Web Developer
David Buehler, GIS/Web Developer

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I. INTRODUCTION

Introduction

This document, together with appendices and maps, is a farmland preservation Plan for Grant County. The plan has been prepared so as to be consistent with State Statutes 66.1001 (Comprehensive Plans) and 91 (Farmland Preservation), along with planning and mapping standards set by the Wisconsin Department of Agriculture, Trade, and Consumer Protection. It is the intention of this plan to be consistent with existing adopted municipal and regional plans and policies.

Plan Purpose

The main purpose of this plan is to identify and preserve valuable agricultural and natural resource lands in Grant County. The method used to achieve this end is to study the land, resources, and economy of Grant County, especially as these relate to agriculture; to identify appropriate land uses for the unincorporated areas of the County; and to suggest methods whereby land may be preserved in agricultural and natural resource uses. With appropriate implementation procedures and use by local officials and citizens, this plan can be effective in guiding land use and development in Grant County.

Plan History

On June 29, 2009, Governor Doyle signed the Wisconsin "Working Lands Initiative" into law as part of the state's 2009-2011 biennial budget process. The goal of the Wisconsin Working Lands Initiative is to achieve preservation of areas significant for current and future agricultural uses through the successful implementation of the following components:

- Expand and modernize the state's existing farmland preservation program.
- Establish agricultural enterprise areas (AEAs).
- Develop a purchase of agricultural conservation easement matching grant program (PACE).

Several facts were considered by the Planning and Zoning Committee prior to undertaking the preparation of a farmland preservation plan:

- The continuing importance of agriculture to the Grant County economy.
- The recent adoption of the Grant County Comprehensive Plan.
- Considerable tax advantages for farmers would be possible with state certification of the farmland preservation plan.
- Completion of a farmland preservation plan for Grant County would give better legal support for zoning to protect farmland in those townships which wish to utilize this sort of zoning.

The Grant County Board approved funding to begin work on the plan. Work began shortly thereafter on a strategy for completing the plan. The Southwestern Wisconsin Regional Planning Commission was retained to assist in the planning process and the Grant County Planning & Zoning Committee served as a steering committee. The following text was presented as a draft scope of work for the project:

Proposed Scope of Work- Draft
(Presented to Planning and Zoning Committee February 23, 2010.)

- *Overview:* Southwestern Wisconsin Regional Planning Commission (SWWRPC) staff will assist Grant County Planning & Zoning staff with the preparation, adoption, and certification of a Farmland Preservation Plan. The following will detail the scope of work followed by a timeline and budget.

- *Meet with DATCP & Corporation Counsel:* SWWRPC staff will review the 'Scope of Work' with the Wisconsin Department of Agriculture, Trade, & Consumer Protection (DATCP) to assure that the planning process yields results that are compliant with the new requirements of the 'Working Lands Initiative'. Upon approval, SWWRPC staff will meet with Grant County Corporation Counsel to review the 'Scope of Work' and certification requirements.

- *Public Participation Plan:* SWWRPC staff will assist the Grant County Planning & Zoning Committee in developing a written 'Public Participation Plan' to encourage public involvement throughout all stages of the planning process.

- *Review Existing Plan:* SWWRPC staff will examine the existing farmland preservation plan and determine which elements of the plan are relevant. SWWRPC staff will work with County staff and DATCP to identify text and maps that will need to be added to the existing plan in order to fulfill the requirements of the 'Working Lands Initiative'.

- *Informational Website:* SWWRPC staff will develop an information website to document the entire planning process.

- *Update Data, Charts, & Text:* SWWRPC staff will update all data, charts, and necessary text to reflect changes in Grant County since the previous publication of the plan (1983).

- *Inventory & GIS Mapping:* Geographic Information System (GIS) mapping of the elements will be conducted in accordance with DATCP technical requirements. The following elements will be inventoried and mapped:
    - Population trends
    - Municipal expansion trends
    - Economic growth
    - Business development (expansion)
    - Housing
    - Utilities
    - Transportation
    - Communications
    - Community facilities and services
    - Energy
    - Waste management
    - Environmental preservation
    - Key agricultural resources (land, soil, water)
    - Key agricultural infrastructure (processing, storage, transportation, and supply)
    - Conversion of agriculture to other uses
    - Land use, proposed land use, and zoning maps

- *Analysis:* SWWRPC staff will review the inventory and trends above and assist Grant County staff in determining what course of action may be required to assure farmland preservation policy is effective in Grant County.

- *Goals, Policies, & Actions:* SWWRPC staff will work with Grant County Planning & Zoning Committee to review and revise, if necessary, and goals, policies, and actions in the plan to meet current conditions and 'Working Lands Initiative' requirements.

- *Kick-Off Meeting:* SWWRPC staff will promote and host an informational 'Kick-Off' Meeting in which planning commission members and/or board members from each participating jurisdiction will be invited to attend. The meeting will provide information regarding the overall scope and schedule of the project.

- *Local Meetings:* County staff and/or SWWRPC staff will meet with local jurisdictions one-on-one

to determine which areas will be designated for farmland preservation.

- *Farmland Preservation Maps:* Once all participating jurisdictional maps have been completed, SWWRPC staff will develop a Grant County Farmland Preservation Plan Map. The content will be accessible online.

- *Draft 1:* Once all the mapping has been completed, SWWRPC staff will develop a Draft 1 of the plan.

- *Planning & Zoning Committee Review:* The Grant County Planning & Zoning Committee will review Draft 1 of the plan and note any changes, errors, or omissions.

- *Draft 2:* SWWRPC staff will then develop a Draft 2 to be distributed to local jurisdictions for review.

- *Local Review:* SWWRPC staff will meet with each participating jurisdiction will review Draft 2 of the plan and note any changes, errors, or omissions.

- *Draft 3:* SWWRPC staff will develop a Draft 3 based local review of Draft 2.

- *Recommendation for Adoption:* The Grant County Planning & Zoning Committee will review Draft 3 and recommend the plan for adoption by the Grant County Board.

- *Public Review Draft:* SWWRPC develops and distributes a 'Public Review Draft' based on the recommended plan by the Grant County Planning & Zoning Committee.

- *Public Hearing:* A public hearing will be held to allow the general public an opportunity to speak on behalf of the proposed plan.

- *Adoption:* The Grant County Board adopts the plan with any proposed amendments.

- *Certification:* SWWRPC staff will assist Grant County Planning & Zoning Committee and Corporate Counsel with the certification of the plan.

It was realized that the process as presented to the Planning and Zoning Committee need not be followed exactly, and it was offered rather as a flexible outline of what would be done.

Preliminary Goals

In order to meet the requirements for the Wisconsin Working Lands Initiative, several key goals need to be met.

- Inventory of all agricultural-supportive businesses
- Delineate all farmland preservation areas
- Collect and analyze natural resource, agricultural resource, and economic resource data
- Identify key trends to the above resources.
- Identify key land use issues related to preserving farmland and promoting agricultural development, and plans for addressing those issues.
- Develop planning goals, policies, and actions to preserve farmland, promote agricultural development, and to increase housing density in areas other than farmland preservation areas.

Data Collection

Having established the basic form the planning process would take and having a preliminary set of goals to guide the process, the task of collection and analysis of background information relating to agricultural and natural resource-based land use was begun. The following section presents an outline of background information which was collected and analyzed.

II. BACKGROUND INFORMATION

Introduction

The purpose of this section is to provide a foundation of information from which effective analysis can be made. In order to provide a complete picture of the issues surrounding farmland preservation, it is necessary to illustrate the natural, economic, and demographic conditions.

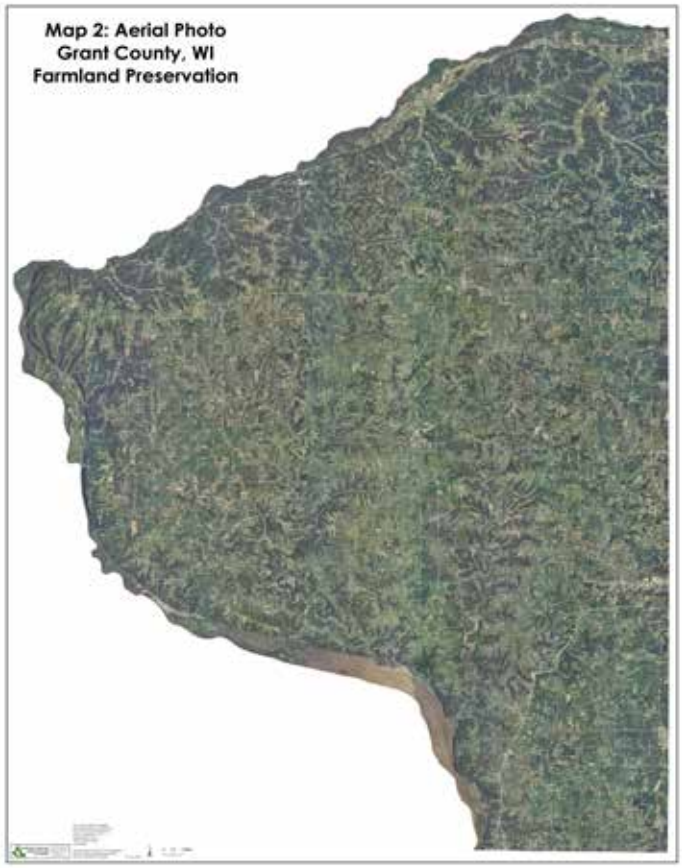
Natural History

Grant County is located in the southwestern comer of the state, bounded on the north by the Wisconsin River, on the west by the Mississippi River, on the south by Illinois, and on the east by Iowa and Lafayette Counties (See Map 1). It lies wholly within the Driftless Area, which means it largely escaped the effects of the most recent (Pleistocene) glaciation. Consequently, the topography is characterized by a dissected plateau with fairly broad, rolling ridges, steep sided valleys, and a well-developed drainage system. A high ridge known as Military Ridge extends through the northern part of the County from east to west with a relatively steep slope northward to the Wisconsin River and a gentler, longer back slope southward towards the Mississippi River. The bottoms of the valleys are at least 300 feet lower than the crests of the ridges and are 1/4 mile to two miles wide (See Map 2).

Soil

The soils of Grant County can be characterized as generally being underlain by dolomite (limestone) or sandstone bedrock, with a mantle of loess (silty, wind-blown material) ranging from 1 to 22 feet in thickness. Many of the soils have formed in this loess rather than from the underlying bedrock. The soils are generally quite fertile and suited to fairly intensive agriculture, but the steeper slopes are prone to excessive erosion and special management is necessary if they are to be cropped. As soils are such an important part of agriculture, they are

Map 1: Grant County



Map 2: Aerial Photo

dealt with in more detail in the' next section.

General Soil Characteristics (Soil Associations)

The soils of the southwestern Wisconsin region have been classified as hilly or steep, grayish-brown un-glaciated silt loams. These soils were formed from parent materials reflecting native vegetation such as prairies, oak-hickory forests, and oak savannas. Their basic materials include clay residue from weathered limestone, weathered sandstone, loess, and stream-laid sand and gravel. The latter occurs in valleys of large streams while the first three are widespread.

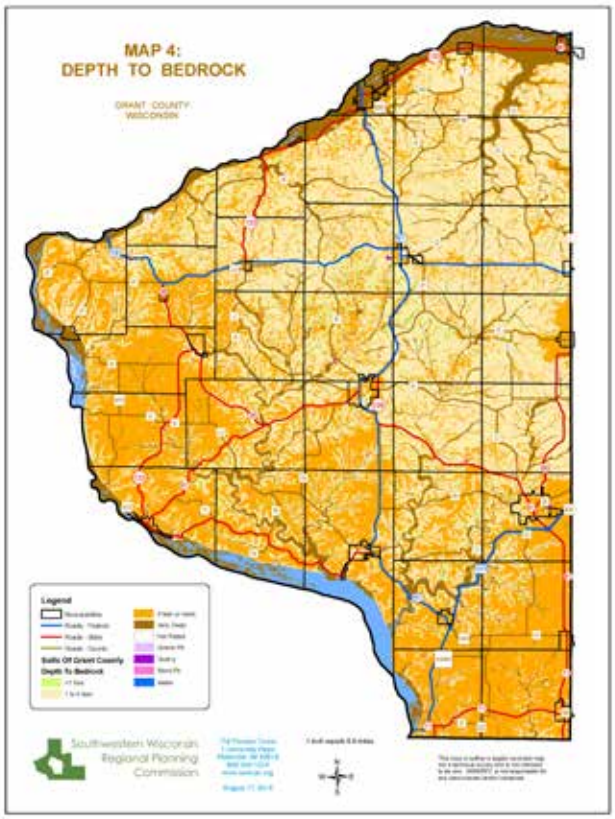
The soils of Grant County may be grouped into soil associations. A soil association is a landscape that has a distinctive proportional pattern of soils. It normally consists of one or more major soils and at least one minor soil. A description of the six soil associations present in Grant County can serve to explain the value and use of the different land areas for agriculture and other purposes, although such descriptions are not detailed enough to be useful in studying the soils of an individual farm. Each association has somewhat different capabilities for agriculture and requires generally different management practices.

- *Association 1*: Tama, Downs, Muscatine Association - Well and somewhat poorly drained. Silty, nearly level to sloping soils on loess covered uplands. These soils formed under prairie vegetation. These soils have moderate permeability and high available water capacity. Natural fertility is high.

- *Association 2*: Fayette, Seaton, Stronghurst Association - Well and somewhat poorly drained. Silty, nearly level to strongly sloping soils on loess covered uplands. These soils formed under forest vegetation. These soils have moderate permeability and high available water capacity. Natural fertility is high.

- *Association 3*: New Glarus, Valton, Eleva Associa-

Map 3: Slopes

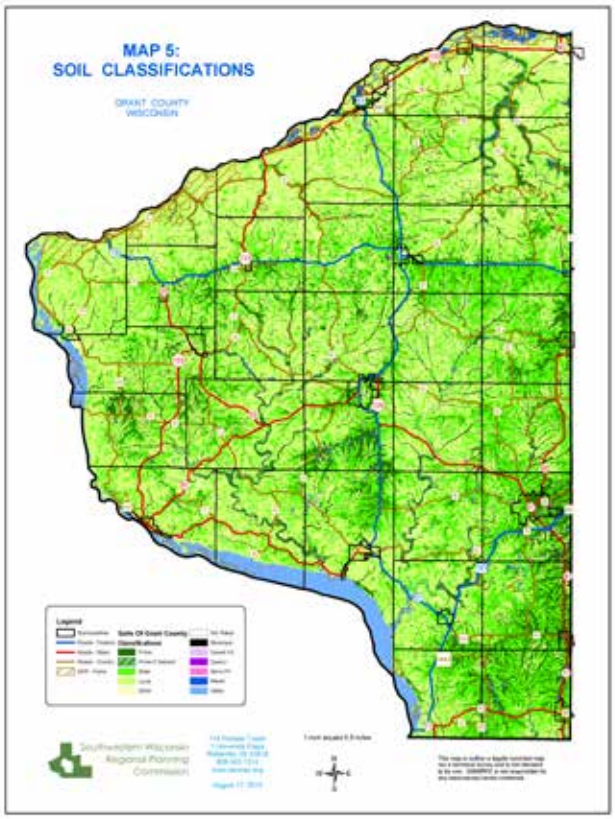


Map 4: Depth to Bedrock

tion - Well drained. Silty over clayey and loamy, gently sloping to very steep soils on loess covered soils are underlain by limestone or sandstone bedrock at 40" or more. These soils have moderately slow to moderately rapid permeability and moderate or low available water capacity. Natural fertility is medium.

- *Association 4*: New Glarus, Sogn, Rock Outcrop Association - Well drained. Shallow, silty, moderately steep to very steep soils on limestone controlled uplands or escarpments. These soils have moderate or moderately slow permeability and low available water capacity. Natural fertility is low.

- *Association 5*: Sparta, Meridian, Dakota Association - Well drained. Sandy and loamy, nearly level to sloping soils on sandy outwash plains. These soils have moderately rapid or rapid permeability and moderate or low available water capacity. Natural fertility is medium.



Map 5: Soils

- *Association 6*: Arenzville, Orion, Kickapoo Association - Moderately well drained and somewhat poorly drained. Silty and loamy, nearly level soils on stream flood plains. These soils have moderate permeability and moderate or high available water capacity. Natural fertility is medium.

Soil Classification for Agriculture

Two common classification systems relating directly to the value of soil for agricultural use are most widely used in the United States:

- *Capability grouping* is a system of classification developed by the U.S.D.A. used to show the relative suitability of soils for most kinds of field crops. It is a practical grouping based on the needs and limitations of the soils, on the risk of damage to them, and also on their response to management. Soils are placed in groups ranging from I to VIII, with the better agricultural soils generally having the lower numbers.

- *Important farmland* inventories are being made in response to the Land Inventory and Monitoring Program of the United States Department of Agriculture (U.S.D.A.). These inventories are designed to identify the most valuable land for the production of food, fiber, and timber so as to retain these lands to assure the continued productive capability and environmental values of American agriculture and forestry. Land is categorized as Prime, Unique, Farmland of Statewide Importance, and Farmland of Local Importance. In Wisconsin, land is placed in one of these groupings based in large part upon its capability grouping but also considering location and other unique factors which may make land valuable in a local or statewide sense. It was decided to map soils in Grant County via the Important Farmland Inventory system for the following reasons, among others:

    - This system considers factors other than just the soil, thereby recognizing unique lands and other lands which may be of importance locally.

- Fewer categories make the system easier to understand for the layman.

- Because this categorization utilizes the capability grouping system also, the limitations of the land, as well as its productivity, are considered.

- Agricultural Impact Statements which need to be prepared for certain projects in Wisconsin call for figures regarding the amount of land affected which is in Prime, Unique, and Statewide Importance land categories. Having land previously mapped in these categories simplifies the preparation of the impact statements.

The categories and definitions of land as mapped are as follows: Prime Farmland: Prime farmland is land best suited for producing feed, food, forage, fiber, and oilseed crops and also is available for these uses. (The 37 existing land uses could be cropland, pastureland, range land, forest land, or other land but not urban built-up land or water.) It has the soil quality, growing season, and moisture supply needed to produce sustained high yields of crops economically when treated and managed, including water management, according to modern farming methods. *(Wisconsin Definition: Most Capability Group I and II soils. 20% of Grant County land area)*

- *Unique Farmland:* Unique farmland is land other than Prime farmland that is used for the production of specific high-value food and fiber crops. It has the special combination of soil quality, location, growing season, and moisture supply needed to produce sustained high quality and/or high yields of a specific crop when treated and managed according to modern farming methods. *(Wisconsin Definition: This definition is different for different areas but was not considered to be of significant acreage to warrant mapping in Grant County at this time.)*

- *Farmland of Statewide Importance:* This is land in addition to Prime and Unique farmlands that is of statewide importance for the production of food, feed, fiber, forage, and oilseed crops. *(Wisconsin Definition: Most Capability Group III soils. 16% of Grant County land area.)*

- *Farmland of Local Importance*: In some local areas there is concern for certain additional farmlands for the production of food, feed, fiber, forage, and oilseed crops even though these lands are not identified as having national or statewide importance. *(Wisconsin Definition: This will vary from area to area but in southwestern Wisconsin some Capability Group IV and VI soils. In Grant County, these lands would be the ones with better moisture-holding capability—valuable locally for pasture and hay production. 31% of Grant County land area)*

The land in Grant County has been placed in one of the above categories as a result of collaboration between the Natural Resources Conservation Service (NRCS) State Office and the local District Conservationist, utilizing information from the published Soil Survey for Grant County with the Southwestern Wisconsin Regional Planning Commission doing the actual map coding and coloring.

The total of Prime, Statewide, and Local soils in Grant County is 503,000 acres or 67% of the total land area. A compilation of important farmlands in Grant County by the NRCS, using slightly different criteria, yields a total of 515,800 acres (69% of the total land area).

Mineral Resources

Grant County has been a mineral and mineral products producing area since about 1826 when the territory was legally opened to European settlers development. Earliest production was lead which has continued more or less constantly until recently. Zinc production began about 1860 but as of 1981 all zinc and lead producing mines in Grant County had ceased operation.

As the County developed, quarrying of local limestone for construction purposes, such as dimension stone and burned lime, became important. Today limestone is quarried primarily for agricultural lime, aggregate, and road material. A major cement company has

located substantial reserves of limestone in western Grant County that are suitable for the manufacturing of Portland cement.

In the late 1800's and early 1900's, brick clays and pigment ochers were dug at several localities in the County. Presently, sand and gravel are produced from several pits along the major rivers.

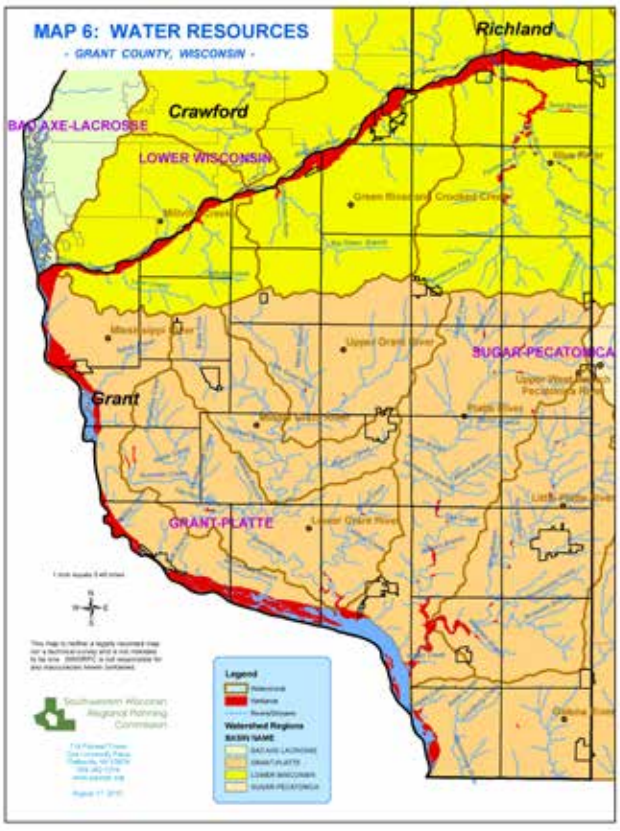
Local production of mineral resources certainly adds substantially to the industrial economy of the County. The agricultural lime, sand, gravel, and crushed stone provide relatively inexpensive material for local use and eliminate the necessity for expensive long-distance hauling.

Water

The County has an abundant supply of underground water from the Upper Cambrian Sandstone aquifer. Springs are common, and furnish an abundant supply of cold, clear water, which contributes to some of the finest trout habitat in southern Wisconsin. The Wisconsin and Mississippi Rivers furnish ample water-based recreation, but due to the well-developed drainage system in the County, there are no naturally occurring lakes. Irrigation is generally not needed in Grant County, but ample water is available for this purpose should it become necessary.

Surface Water

Surface water, which is all water naturally open to the atmosphere such as rivers, lakes, reservoirs, ponds, streams, impoundments, seas, and estuaries, in Grant County the major watersheds are Grant-Platte, Sugar-Pecatonica, and the Lower Wisconsin (See Map 6). Within these watersheds are numerous large and small rivers and watershed sub-basins. These watercourses provide recreational opportunities, such as fishing, canoeing, wildlife viewing, swimming, and bird watching. These same rivers and their feeder streams also provide essential habitat for fish, mussels, insects, and other wildlife. See Map 6 for more information. To protect



Map 6: Water Resources

surface water and shore lands Grant County uses the Shore Land and Floodplain Ordinance. These protection measures are not stricter than State requirements. (Source: SWWRPC, Grant County Comprehensive Plan, 2010).

Underground Water

The County has an abundant supply of underground water. All of the geological formations underlying the soils contain water. The Upper Cambrian Sandstone is the principal source throughout the County and springs are numerous on the lower slopes of the valleys where strata of shale outcrop (See Map 7).

There is little need for irrigation in Grant County, but water is available should it become necessary. Crops on some of the sandy soils near the Wisconsin and Mississippi Rivers would respond well to supplemental irrigation, and the rivers would provide a good supply of water. The cost of pumping water from the deep valleys to the uplands would generally be prohibitive and, consequently, irrigation is likely to be limited to soils of the bottom lands and terraces.

Wetlands

Wetlands serve a variety of functions, including an important role in stormwater management and flood control, filtering pollutants, recharging groundwater, providing a habitat for many wildlife species and plants, and offering open space and passive recreational opportunities. Wetlands include all marshes, swamps, fens, bogs, and those areas excluded from cultivation or other uses because they are intermittently wet and have hydric soils.

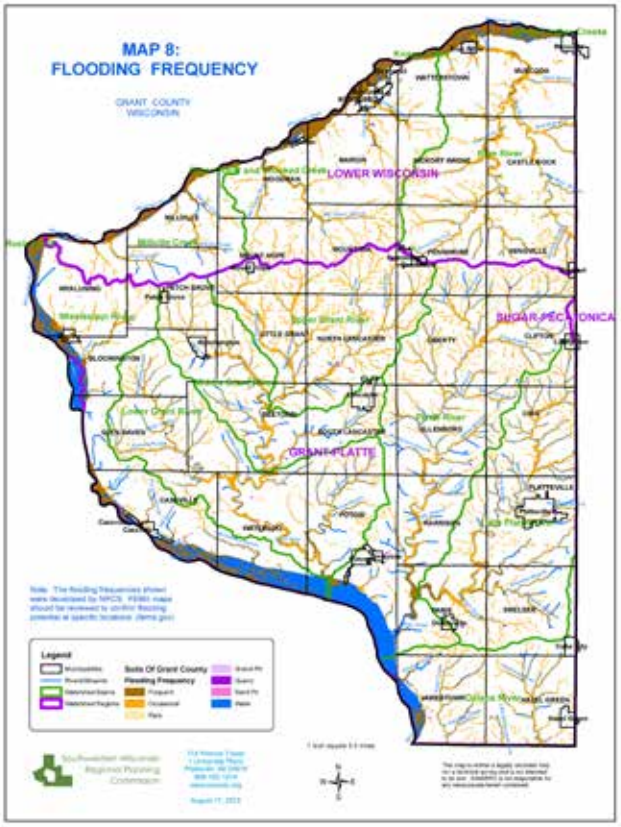
Grant County is within the Southwest Savanna and the Western Coulee and Ridges ecological landscapes, an area in which most wetlands are associated primarily with the rivers and streams. The importance of glacial activity in forming lakes and wetlands is illustrated by the lack of these water bodies in the Driftless Area of southwestern Wisconsin. In fact, wetlands comprise only 1% of the land cover in Southwest Savanna landscape (Wisconsin Land Legacy Report, 2002). The Western Coulee and Ridges region (of which northern

Map 7: Depth to Water Table

Grant County is a part of) has much more wetland area (22% open wetland, 24% forested wetland) but the overall percentage of wetland for Grant County is still only 3.1% (WI-DNR 2007). Grant County wetlands are mainly associated with either the Wisconsin or Mississippi rivers because most of the County has experienced wetland drainage for agricultural purposes or the landscape is too hilly. Also, the Driftless Area has very little open, natural lakes with associated wetlands. To protect its valuable wetlands, Grant County enforces its Wetland Zoning Ordinance. (Source: SWWRPC, Grant County Comprehensive Plan, 2010).

Flood Plains

A floodplain is a low area of land adjacent to a stream or other watercourse subject to flooding. Floodplains hold water overflow during a flood and are delineated based on the 100-year storm event - the area that would be covered by water during a flood so big it theoretically only happens every 100 years. However, the magnitude of the 100-year storm flooding can



Map 8: Flooding Frequency

occur any year. For that reason, development should not occur in drainage ways and floodplains since they serve as stormwater runoff systems and flood mitigation landscape features.

Counties, cities, and villages are required to adopt reasonable and effective floodplain zoning ordinances in order to participate in the Federal Emergency Management Agency's (FEMA) National Flood Insurance Program. Towns generally rely on their County for floodplain control.

FEMA designated flood hazard areas along many surface water resources. The importance of respecting floodways and floodplains is critical for planning and development. Ignoring these constraints can cause serious problems relating to property damage and the overall safety of residents (see Map 8). All towns participating in the comprehensive planning project rely on Grant County's Floodplain Ordinance. (Source: SWWRPC, Grant County Comprehensive Plan, 2010).

Environmental Preservation

Natural resources are materials such as water, topsoil, air, land, forests, fish and wildlife, and minerals occurring in nature that are essential or useful to humans. They have significance economically, recreationally, culturally, and aesthetically. These resources are combined into the recognized natural systems in which we live. These systems, or combinations of natural materials, can be referred to as "natural environments", "ecosystems", "biomes", or "natural habitats". Human activities affect all natural resources which in turn can have significant, sometimes adverse, impacts on the human community.

Keeping residents informed of their jurisdiction's natural resources is a proactive first step in supporting natural resource protection efforts. Flyers included with a tax mailing, articles in the local newspaper, workshops, or other similar education efforts can all help to educate residents on natural resource issues. County citizens are kept informed of natural resource issues through newsletters from the Grant County Land Conservation and the Grant County Farm Services Agency.

Fostering working relationships with your neighboring jurisdictions can help Grant County protect shared, contiguous natural areas that give local residents space to pursue recreational opportunities. Tapping into state and federal programs aimed specifically at protecting farmland, wetlands, and forests can help protect Grant County's natural resources. State and federal agencies and contact information are listed at the end of this chapter. Unfortunately, Grant County currently does not work with its neighboring jurisdictions to protect shared natural resources but perhaps in the future, the jurisdictions concerned could share information from their Plans. (Source: SWWRPC, Grant County Comprehensive Plan, 2010).

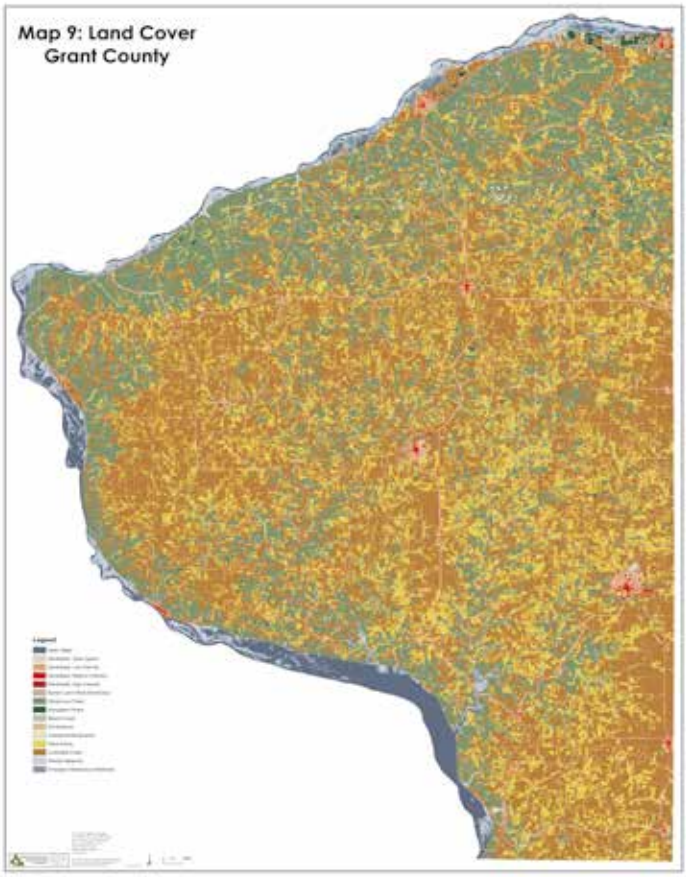
<u>Natural Resource Areas</u>

Ecological landscapes are comprised of natural communities – assemblages of plants and animals at specific locations. Because of the biotic and abiotic differences between ecological landscapes, the natural communities within each are typically different as well.

The deeply dissected, un-glaciated Southwest Savanna landscape was composed of tall grass prairie, oak savanna and some wooded slopes of oak forest. Today, this landscape is primarily in agricultural production with scattered woodlands, savannas and remnant prairies. The highly eroded, un-glaciated Western Coulee and Ridges hilly landscape is primarily forested and often managed for hardwood production. Agricultural activities are primarily dairy- and beef farming, confined mainly to valley floors and ridge tops. This landscape has the world's largest concentration of hillside prairies, which often support species of rare plants, insects, and reptiles.

Forests and Vegetation

Most of Grant County is in the region of Central Hardwood Forests of the United States. Some of it, however, is in the prairie area that extends northward from Illinois. The County lies within an area called a tension zone in which minor changes in climate might, in the absence of man, cause changes in the vegetation. For example, if the climate becomes cooler or wetter than at the present time, the forests will encroach upon the prairie areas. On the other hand, if the climate becomes drier or warmer, the prairie grasses will encroach upon the forests. Man, of course, now controls to a large degree the type of vegetation present (See Map 9).



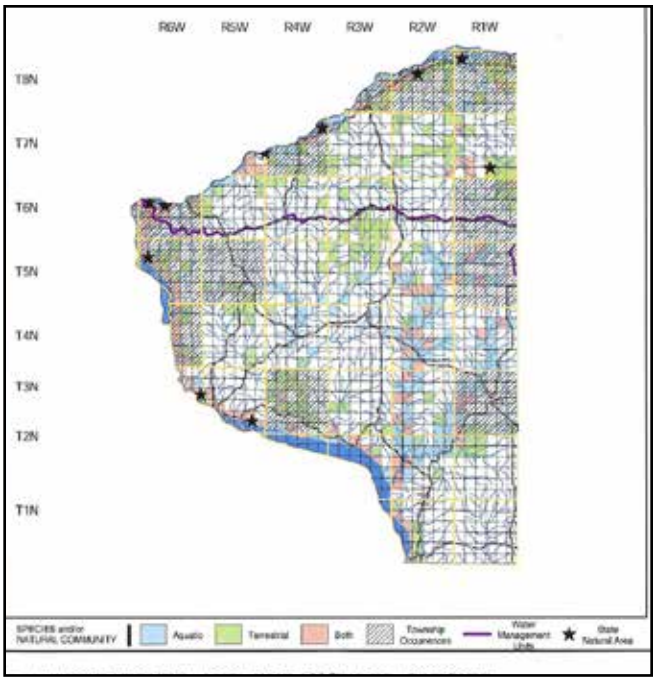
Map 9: Landcover

Forests once covered much of the area and marshes and swamps occupied a small acreage. Today the forests generally occupy areas that have rolling or rough topography. The most extensive of the marshy and swampy areas are in the towns of Boscobel, Muscoda, Watterstown, and Wyalusing.

Forests provide raw materials for the forest products industry and a venue for hunting, hiking, and fishing. Forests help sustain water resources and provide habitat for a wide variety of plants and animals, including threatened and endangered species and by balancing global warming effects and air pollution by producing oxygen and storing carbon. Over half the forested lands in Wisconsin are privately owned (57%). Map 10 illustrates the general location of threatened and endangered species in Grant County.

Trees are important components of a community's green infrastructure, offering substantial environmental benefits, including cleaner air and water, quieter streets, cheaper energy bills, cooler temperatures, and wildlife habitat. Tree-planting programs, preserving established trees, and using sustainable forestry techniques not only increase property values for Town residents, but also lower air and water remediation costs for the environment.

While Grant County has a great deal of land in agriculture, over a quarter of the County is forested: in 1983, 25% of Grant County (186,400 acres) was forested. As of 2004 (the most recent data available), 28% of the County was forested (209,623 acres). Most was in private ownership: 187,356 acres. (Data showing amount of forested land per town was not available.) In Grant County in 2006, the total number of privately owned acres of land in the Managed Forest Law



Map 10: Threatened & Endangered Species

Map 11: Natural Corridors and Recreational Resources

program (MFL) was 19,510 acres, 3,751 of which were open to public for hunting and recreation. By February 2008 there were 20,239 acres of MFL in Grant County. (Source: SWWRPC, Grant County Comprehensive Plan, 2010).

Environmental Corridors

Environmental corridors are physical areas containing groups of features (such as hedgerows or river bottoms) allowing animals and plants to move unobstructed across the landscape. Areas of concentrated natural resource activity ("rooms"), such as wetlands, woodlands, prairies, lakes, and other features, become even more functional and supportive of wildlife when linked by such corridors ("hallways"). If corridor resource features are mapped, they can depict linear spaces that can be helpful in future land development decisions. Fish and wildlife populations, native plant distribution, and even clean water all depend on movement through environmental corridors. For example, wildlife populations isolated in one wooded location can overpopulate, die out, or cause problems for neighbors if there are not adequate corridors to allow the population to move about and disperse freely. Over 70% of all terrestrial wildlife species use riparian corridors, according to the USDA Natural Resources Conservation Service (NRCS). By preserving environmental corridors, wildlife populations, both plant and animals can maintain themselves and be healthier. See Map 11 for natural resources that might lend themselves to providing wildlife unimpeded access through the landscape. (Source: SWWRPC, Grant County Comprehensive Plan, 2010).

Soil Erosion/Water Quality

Soil erosion is a particularly important, and ongoing, problem in Grant County. Thirty years ago the County had the dubious distinction of having within its borders the river basin with the highest overall soil erosion per square mile (as measured by the United States Geological Survey) of any river basin in Wisconsin. This was the Grant River basin, which was expressing, in terms of tons of sediment per square mile of drainage basin, the highest yield in the state with 969 tons of sediment per

square mile per year being transported by the river. The total sediment load for the Grant River per year was 260,646 tons. This amount of sediment would fill 5,213 railroad box cars--a train 53 miles long!

The best indicator of the amount of soil erosion taking place is the sediment that finds its way into streams. Sediment has been shown to be the nation's greatest pollutant of streams and lakes, by volume. What are the consequences of this soil erosion as evidenced by sedimentation of water bodies?

First, there is the irreparable loss of soil at the source, soil that has usually taken many thousands of years to form and, for practical purposes, must be considered a nonrenewable resource. Over the years, sheet and rill erosion contributes more to total soil loss than more easily noticed forms of erosion such as roadbank erosion or gullying in fields. (Although some of these other forms of erosion may cause greater immediate problems, i.e. mudslides onto roads, gullying in fields making harvesting of crops very difficult, etc.) The end result of soil erosion for agriculture is the same, no matter by what method it occurs: a long-term loss in basic soil productivity.

Second, sediment and the pesticides, manure, runoff, fertilizer, and other materials that are carried with it pollute streams and impair the process of water purification and distribution.

Third, sediment causes damage where it comes to rest. Fine sediments (silt and clay particles) settle in backwater and slow moving water areas, covering fish spawning beds, reducing open water areas, reducing the depth of water, and generally reducing the quality and quantity of fish and wildlife habitat as well as the quality and quantity of water-based outdoor recreation. Coarser sediments (sand) fill the main channels of streams and rivers, again reducing water-based recreation possibilities and often making dredging necessary to keep a channel open for navigation.

The reasons for the high degree of soil erosion in Grant County are fairly obvious. The steep topography with the well-developed dendritic drainage system common to the un-glaciated area combines to assure rapid runoff. The deposits of loess which have formed silt loam soil types erode easily. The high percentage of the land in agricultural use means that much of the soil is bare for much of the year. Soil conservation practices once used are now sometimes discarded because the economics of farming dictate raising row crops more intensively, sometimes on land that is better suited to forage production and grazing.

<u>Groundwater Contamination</u>

There are a variety of land use practices influencing water resource quality. Potential pollution sources that can affect groundwater in Grant County include but are not limited to

- On-site septic systems
- Sewage Treatment Plants
- Surface Waste Water Discharge
- Landfills
- Underground Storage Tanks
- Feedlots
- Junkyards
- Abandoned Quarries
- Abandoned Wells
- Pesticide and Fertilizer Applications
- Road Salt
- Household Cleaners and Detergents

- Unsewered Subdivisions
- Gas Stations
- Chemical Spills
- Leaking Sewer Lines

Because of its mobile nature, contaminants can travel far from their source through the water cycle. Contaminants in water coming from a variety of sources identified as non-point source pollution (NPSP), which can come from things like agriculture runoff, leaking septic systems, road salt and road building, parking lots, lawn, and golf course runoff, all of which directly impact water resources. Point source pollution comes from identifiable sources such as a single factory or overflow from a sewage treatment facility.

Pinpointing pollution sources can be made easier by identifying the location of potential pollutants, so communities can plan where and how much development can be built with the least amount of impact to the watershed. Contamination of local drinking water resources can be devastating, very costly to reverse, and affects all area residents. The greatest potential groundwater contaminant in the County is nitrates, a byproduct of septic systems and human and animal waste. Major sources for this contaminant are old, abandoned wells and agricultural runoff such as pesticides, fertilizer and manure. The County protects its water resources through actions taken by the Land and Water Conservation Committee.

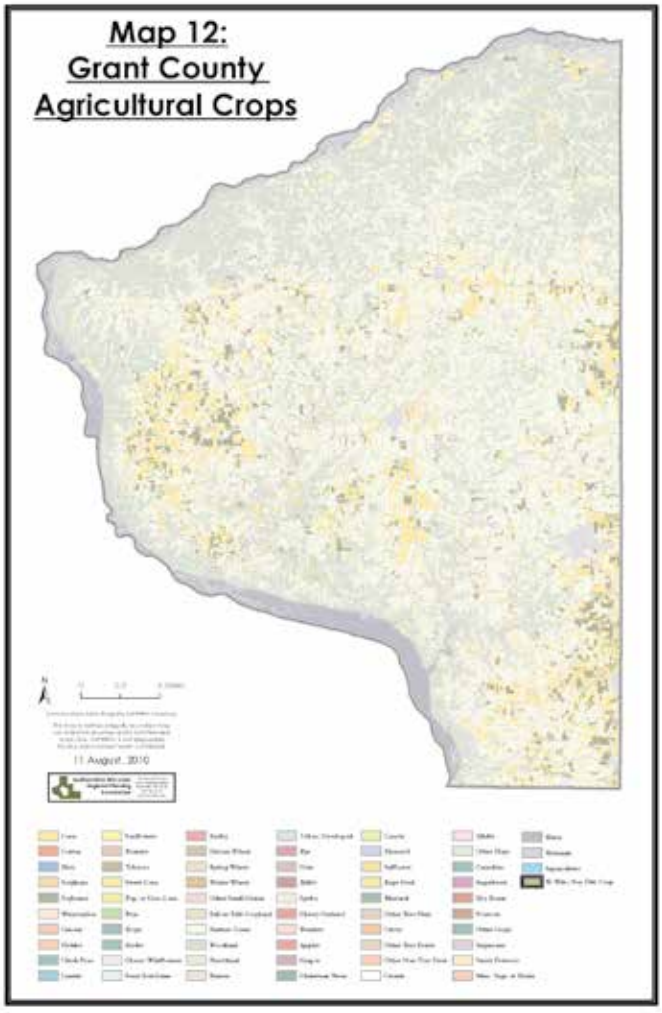
A wellhead protection plan lists potential contaminants as well as aim at preventing those contaminants from entering the area of land around wells. This area includes, "the surface or subsurface area surrounding a water well or wellfield supplying a water system, through which contaminants are reasonably likely to move toward and reach such well or wellfield" (Source: US EPA. 1987).

Agriculture

The agricultural industry is the collection of several interdependent infrastructures-production, processing, storage, transportation, supply, and other support services. In order for us to have a clear understanding of the state of agriculture in Grant County, it is necessary to take into account these infrastructures along with statistical information, to reveal trends, issues, and opportunities.

Agricultural Uses

The working landscape defines much of Grant County's heritage and economy. Agriculture is one of the top industries that drives the County and at times leads the State. The map below illustrates the Agricultural Crops in Grant County.



Map 12: Agricultural Crops

Key Agricultural Infrastructure

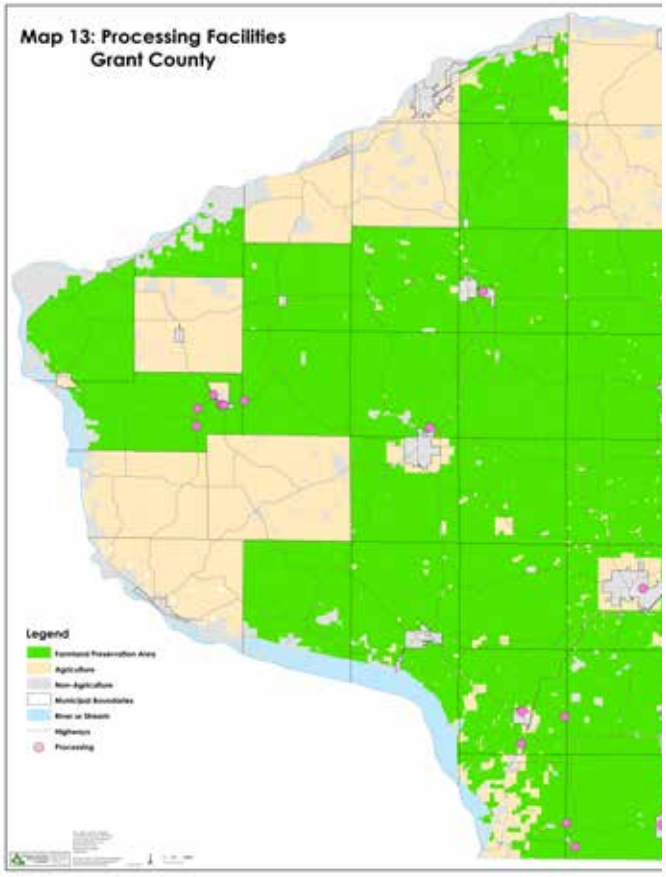
In addition to farming, many ag-related businesses benefit from the County's productive land. In turn, theses businesses contribute to the key agricultural infrastructure necessary to sustain farmers. The following describes these infrastructures.

Processing

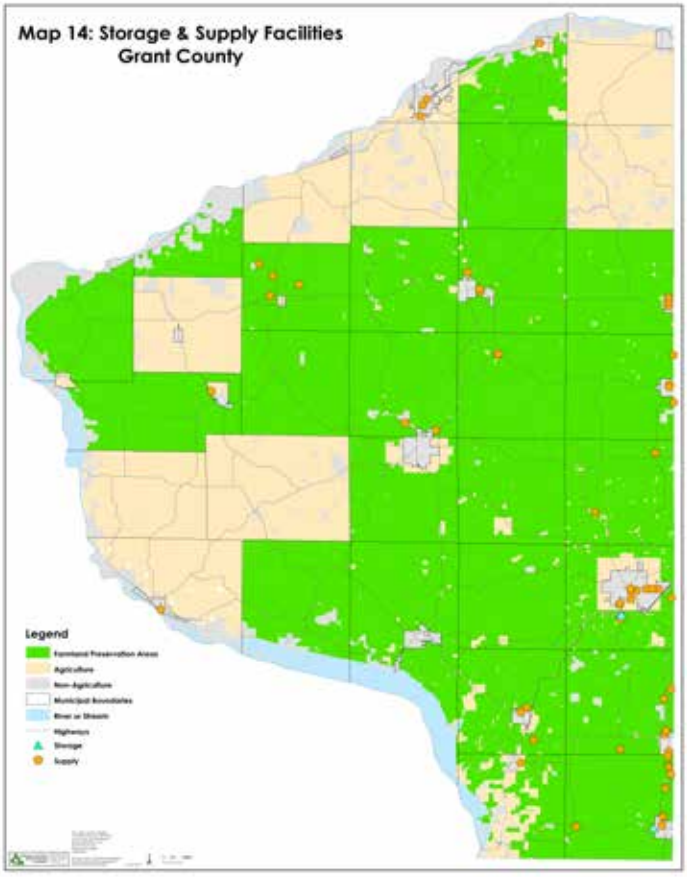
Grant County is home to more than 21 processing facilities that include milk, cheese, livestock feed, and meat. These facilities add increased value to the raw materials and in turn, provide additional employment and tax base throughout the County. Map 13 illustrates the existing processing infrastructure in Grant County.

Storage

There are at least 2 agricultural storage facilities located in Grant County and as many as 21 processing facilities that provide on-site storage as well. These facilities range in capacity and transportation access.



Map 13: Processing Facilities



Map 14: Storage & Supply Facilities

Map 14 illustrates the existing storage infrastructure in Grant County.

Supply

There are at least 54 agricultural supply facilities located throughout the County. These facilities provide a variety of materials including fertilizers, chemicals, and seed. Map 14 illustrates the existing supply infrastructure in Grant County.

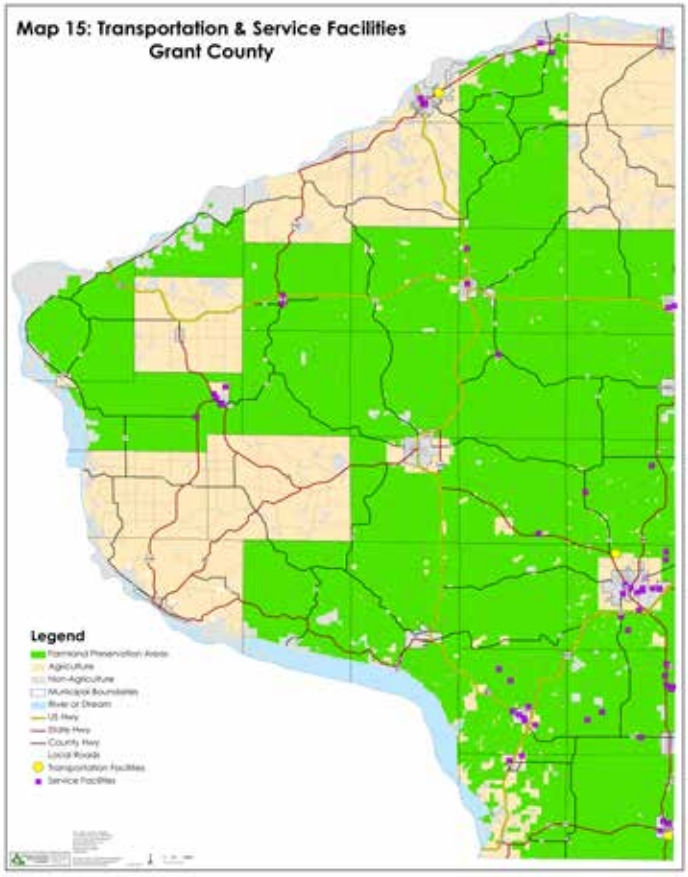
Transportation

Bringing product to market is extremely important. Grant County benefits from a network of highways, roads, and rail to assure that materials, people, and equipment can move freely. Within the County, there are at least 3 major rail access points. The map below illustrates the key transportation nodes and networks throughout the County. Map 15 illustrates the existing transportation infrastructure in Grant County.

Service

There are 32 agricultural service facilities located throughout the County. These facilities provide a variety of services ranging from veterinary, repair, and consultation. Map 15 illustrates the location of existing service infrastructure in Grant County.

All of these infrastructure types contribute to an overall agricultural infrastructure that is necessary for a sustainable agricultural economy. Loss to one type can have a 'domino' effect on others. Because of this, it is important that economic development strategies support existing and grow new agricultural-supportive businesses.



Map 15: Transportation & Service Facilities

Agricultural Statistics

The following statistical data illustrates the role that agriculture plays in defining the County.

Several of the figures in Table 1 are particularly interesting:

- The number of farms has increased, while the size of farms has decreased.
- Average farm value more than tripled from 1987 to 2007.
- The number of operators who worked off the farm more than 200 days or more during the year increased by almost 700.
- The number of goats (milk) increased from 450 to 6,504.
- The number of hogs and pigs sold decreased by almost 200,000.
- While family or individual farms have been increasing in number, partnerships and corporate operation of farms have been decreasing.

Assessors are required by law to provide the Wisconsin Department of Agriculture, Trade and Consumer Protection with crop and livestock data annually. This work is in addition to their regular assessment functions and cannot be used for taxation. Assessors' farm statistics provide information for use at township and County levels and make available year-to-year changes in agriculture not available from any other source.

The annual reports from the assessors, while generally as complete as possible, still do not constitute a complete enumeration. Environmental conditions, changes to tax law, and changes to classification definitions account for incompleteness in some areas.
Still, the statistics offer information not available from any other source and are

Table 1: U.S. Census Of Agriculture - Grant County, Wisconsin

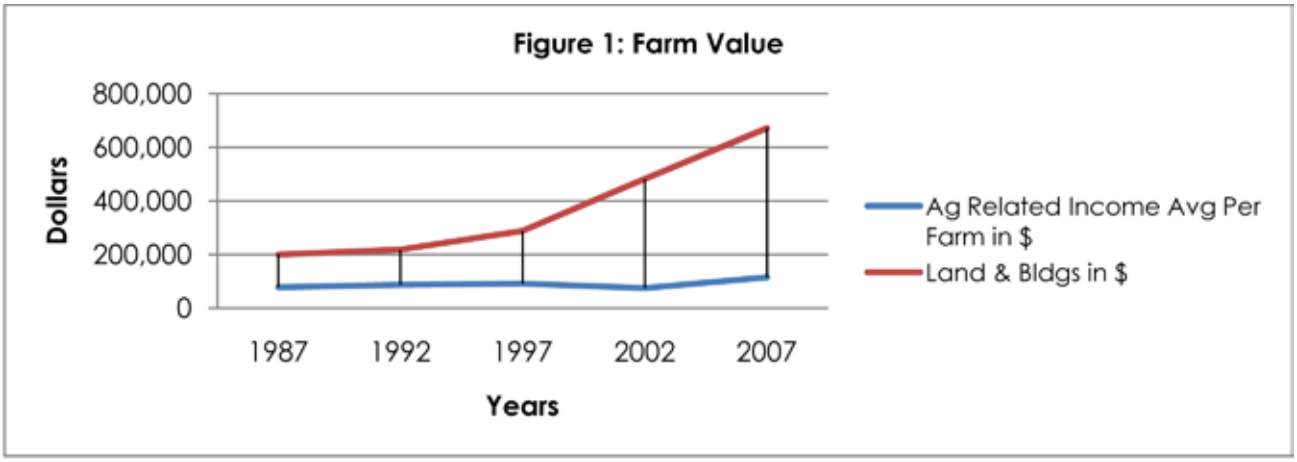
Blank = no data					
Farms & Land in Farms	1987	1992	1997	2002	2007
Farms	2,470	2,340	2,238	2,490	2,866
Land in Farms (acres)	648,318	620,951	599,617	605,836	610,914
Average Size of Farm (acres)	262	265	268	243	213
Estimated Market Value of Land & Buildings ($)	1987	1992	1997	2002	2007
Average per Farm	200,147	218,074	287,666	481,634	671,204
Average per Acre	760	818	1,112	1,925	3,149
Machinery & Equipment	1987	1992	1997	2002	2007
Estimated Market Value of All Machinery and Equipment (average per farm)	60,226	73,237	67,775	81,950	106,736
Land According to Use	1987	1992	1997	2002	2007
Total Cropland (acres)	419,596	400,489	376,191	374,984	354,606
Harvested cropland (acres)	322,431	313,561	297,085	297,206	301,359
Irrigated Land (acres)	766	360		291	488
Agricultural Products Sold and Farm-Related Income	1987	1992	1997	2002	2007
Market Value of Products Sold ($1000)	192,879	204,675	204,300	186,645	329,706
Average per Farm ($)	78,089	87,468	91,287	74,958	115,041
Operators by principal occupation:	1987	1992	1997	2002	2007
Farming	1,928	1,744	1,474	1,590	1,412
Other	542	596	764	900	1,454
Operators by days worked off farm: Any	767	848	963	1,305	1,728
Operators by days worked off farm: 200 days or more	462	519	611	899	1,157
Farms by Type of Organization (number of farms)	1987	1992	1997	2002	2007
Full Owners (farms)			1,692	1,726	2,111
Part Owners (farms)			621	601	607
Owned land in farms (acres)			172,724	177,912	170,252
Rented land in farms (acres)			92,810	102,553	108,830
Tenants (farms)			199	163	163
Principal Operator Characteristics	1987	1992	1997	2002	2007
Sex of Operator					
Male operated farms			2,345	2,280	2,602
Female operated farms			167	210	264
Primary occupation (both sexes):					
Farming			1,537	1,590	1,412
Other			975	900	1,454
Livestock and poultry (numbers)	1987	1992	1997	2002	2007
Cattle and calves inventory	208,770	195,510	178,329	163,392	176,970
Beef cows	21,129	20,935	24,584	21,828	25,017
Milk cows	66,728	58,995	52,702	46,564	46,303
Cattle and calves sold	88,209	85,097	76,834	69,981	86,243
Hogs and Pigs Inventory	194,192	170,466	117,593	75,332	79,940
Hogs and Pigs sold	349,626	311,166	220,147	149,194	156,758
Sheep and lambs Inventory	3,972	3,427	2,422	2,303	4,798
Goats (milk)	450	1,012	1,349	4,173	6,504
Layers 20* weeks old and older Inventory	56,715	33,863	49,351	5,920	16,346
Broilers and other meat-type chickens sold	9,458	630	6,481	3,619	3,693

(Source: USDA Ag Census)

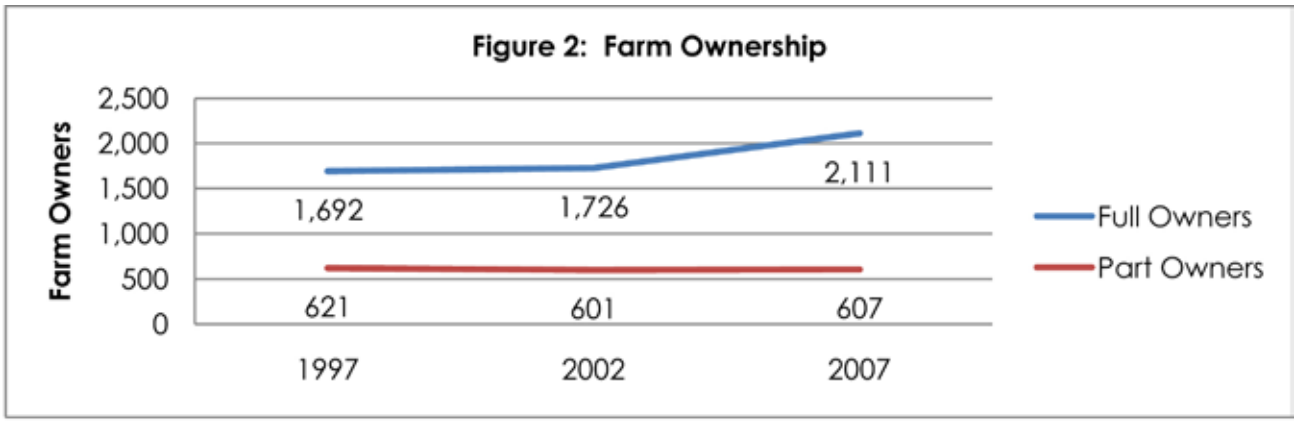
valuable for noting changes over a period of time.

Some interesting comparisons can be made of statistics within the Assessor's Farm Statistics table:

- The value of ag-related income (average per farm) has remained relatively constant.
- The value of land and buildings has dramatically increased (See Fig. 1).
- The number of full owners has increased versus the relatively steady number of part-owners (See Fig. 2).



(Source: USDA Ag Census)



(Source: USDA Ag Census)

Table 2: Grant County Agricultural Production

Selected crops harvested (acres)	1987	1992	1997	2002	2007
Corn for grain	129,933	136,806	126,233	120,617	135,862
Corn for silage and green chop	9,802	17,056	16,879	17,357	19,840
Wheat for grain, All		612	69	678	1,689
Winter wheat for grain				678	1,582
Spring wheat for grain		189			107
Oat for grain	31,454	24,804	15,505	12,065	7,509
Soybeans	2,228	7,245	30,128	48,396	44,964
Hay-alfalfa, other, wild, silage	523,050	432,846	128,475	103,866	95,505
Yields by Crop					
Corn for grain (bushels/acre)	131	121	137	166	175
Alfalfa Hay (tons-total)	426,000	302,000	289,500	263,000	212,500
Oats (bushels -total)	2,090,000	1,544,000	1,045,000	875,000	571,000
Soybeans (bushels-total)	65,000	347,000	1,552,000	2,603,800	2,320,000
Top Crop Items (acres) RANK IN STATE					
Corn for grain			3	5	4
Forage - land used for all hay and haylage, grass silage, and greenchop			3	3	3
Soybeans for beans			10	8	12
Corn for silage			12	11	4
Oats for grain			2	1	2
TOP LIVESTOCK INVENTORY ITEMS (number) RANK IN STATE					
Cattle and calves			1	1	1
Hogs and pigs			1	1	1
Ducks			7	3	2
Layers			9	17	14
Sheep*, Goats			7	1	1

(Source: USDA Ag Census)

Grant County has held its relative position amongst Wisconsin counties in agricultural production over the past 10 years, and appears likely to retain that position in the future. Since 1997, Grant County has been number 1 in all cattle and calves and hogs and pigs. Since 2002, it has led the State in sheep and goats. It has consistently been within the top 5 counties in the State in production of forage, corn for grain, and production of oats (See Table 2).

Table 3 illustrates the number of farms in Grant County for the years 1987 through 2002. The County showed a 0.8% increase in farms between 1987 and 2002. Paradoxically, as the number of farms has increased, the acres of farmland have decreased 7% in the same time-frame.

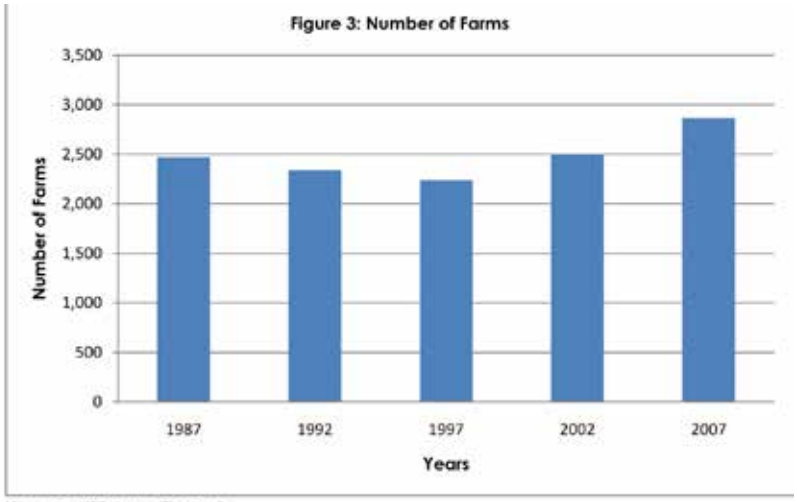
Although average farm size decreased 7% from 1987 to 2002, in the same period, small farms (10 to 49 acres) increased 124%. Very large farms (1,000+ acres) increased 35%, as did farms from 50 to 179 acres (15%). All other

farm size classes decreased. The conclusion is that there are more very large ("super") farms, "hobby" farms have more than doubled, while "working" or "family" farms have declined. (Source: SWWRPC, Grant County Comprehensive Plan, 2010).

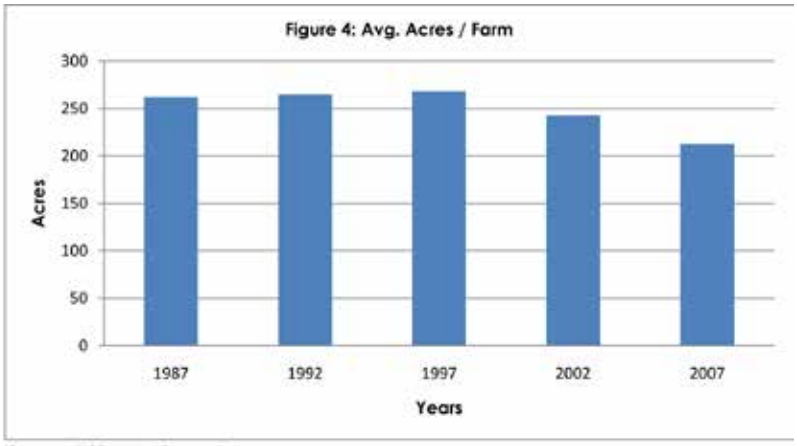
Table 3: Trends in Farm Numbers 1987 – 2002

Grant County	1987	1992	1997	2002
Farms (number)	2,470	2,340	2,238	2,490
Land in farms (acres)	648,318	620,951	599,617	605,836
Average size of farm (acres)	262	265	268	243
Number of farms by size – 1 to 9 acres	136	115	73	105
Number of farms by size – 10 to 49 acres	178	204	234	398
Number of farms by size – 50 to 179 acres	728	645	681	836
Number of farms by size – 180 to 499 acres	1,155	1,100	982	900
Number of farms by size – 500 to 999 acres	230	226	221	193
Number of farms by size – 1,000 acres or more	43	50	47	58
Total cropland (farms)	2,307	2,159	2,051	2,185
Total cropland (acres)	419,596	400,489	376,191	374,984

(Source: 1987, 1992, 1997, 2002 U.S. Census of Agriculture)



(Source: USDA Ag Census)



(Source: USDA Ag Census)

Table 4: Trends in Dairy Farms 1987 – 2002

Grant County	1987	1992	1997	2002
Milk cows (farms)	1,313	1,089	878	665
Milk cows (number)	66,728	58,995	52,702	46,564

(Source: 1997, 2002, U.S. Census of Agriculture)

Table 4 shows clearly that both the number dairy farms and dairy cows in Grant County dropped dramatically (49% and 30% respectively) between 1987 and 2002. (Source: SWWRPC, Grant County Comprehensive Plan, 2010).

Table 5: Grant County Agricultural Land Sales (Total Agricultural Land)

Agricultural land continuing in agricultural use							
	1999	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**
Number of transactions	78	43	32	25	29	67	43
Acres sold	9,772	6,603	3,652	2,173	3,872	9,459	4,967
Dollars per acre	$1,326	$1,512	$1,822	$1,549	$2,073	$2,377	$2,532
Agricultural land diverted to other uses							
Number of transactions	41	9	13	9	5	9	12
Acres sold	3,114	822	981	311	360	528	1,241
Dollars per acre	$1,137	$1,572	$1,750	$1,435	$2,676	$2,336	$2,857
Totals							
Number of transactions	119	52	45	34	34	76	55
Acres sold	12,886	7,425	4,633	2,484	4,232	9,987	6,208
Dollars per acre	$1,280	$1,519	$1,807	$1,535	$2,124	$2,375	$2,597

(Source: 2006, National Agricultural Statistics Service)

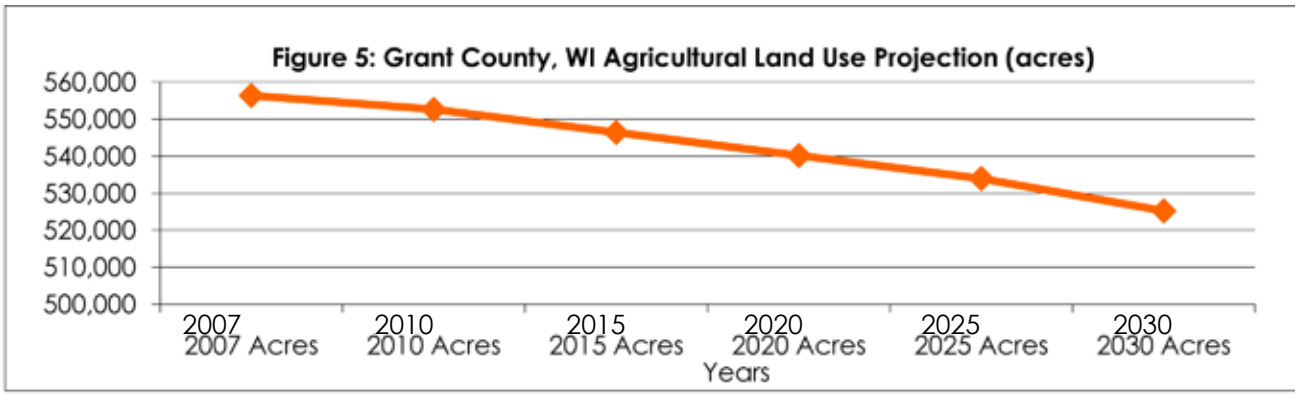
Over the seven-year period, 1999-2005, average prices paid per acre of all agricultural land sold increased by $1,206/acre (191% increase) for land which remained in agricultural use and by $1,720/acre (251% increase) for land which was diverted to other, non-agricultural, uses. The average sale of land which was to remain in agriculture was 124.3 acres. The average sale of land which was diverted to other uses was 73.1 acres. For land only, people wishing to divert the land to other uses paid, per acre:

- $ 189 less in 1999
- $ 60 more in 2000
- $ 72 less in 2001
- $114 less in 2002
- $603 more in 2003
- $41 less in 2004
- $325 more in 2005 than did people who intended on keeping the land in agricultural use. Over the seven-year period, an average of 6,836 acres of agricultural land were sold each year with an average of 1,051 acres (15.4% of yearly average) being diverted from agricultural use. A total of 7,357 acres were diverted from agricultural uses to other uses during this time period.

Land Supply & Demand

Tables 6 and 7 and Figure 6 illustrate the trends in land use for Grant County (counting from 2007) over the last 25, 20, 15, 10, and 5 years, respectively. Figure 5 illustrates land use projections for the next 20 years. Use caution when comparing years since some land classifications have been changed, some jurisdictions did not report in certain years, and technological advances have given the WI-DOR better land identification techniques. These changes can account not only for some land classifications not having a value in one year, but also then having values in another year. Local assessors have changed over time, which contributes differences as well.

Historically, agriculture has been the dominant land use throughout Grant County. Forestry is the second largest land use classification in the County, with manufacturing as the third largest. Residential has used very little of the land area in the County compared to other land uses over the past 25 years, although it has grown steadily. (See Tables 8-12).



(Source: WI Department of Revenue Report on Property Values, and SWWRPC)

Years

Table 6: Average Annual Grant County Land Use Change in Acres (1982-2007)

Grant County	Average Annual Change 1982-1987	Average Annual Change 1987-1992	Average Annual Change 1992-1997	Average Annual Change 1997-2002	Average Annual Change 2002-2007	Average Annual Change 1982-2007
Residential	-109	228	529	320	213	202
Commercial	-29	77	101	34	619	106
Manufacturing	29	27	-29	37	-21	16
Agriculture	-18488	8665	615	7104	-1246	-1246

(Source: WIDOR Statement of Assessment, SWWRPC)

Table 7: Grant County Land Use – 2007

Classification	Land in Acres	Parcel Count	Average Parcel Size	Percent of Land Use (Acres)
Residential	9806	16578	0.6	1.5%
Commercial	3558	2124	1.7	0.5%
Manufacturing	812	92	8.8	0.1%
Agricultural	556,365	22537	24.7	82.9%
Undeveloped (formerly Swamp/Waste)	24623	10221	2.4	3.7%
AG-Forest	48,403	4037	12.0	7.2%
Forest	20,553	1717	12.0	3.1%
Other (Federal, State, County, School, Cemetery)	6916	4561	1.5	1.0%
Real Estate Totals	671,036	61,867		100.0%

(Source: WI Department of Revenue, 2007 Statement of Assessments)

Figure 6: Grant County-Percent Land Area (Acres)

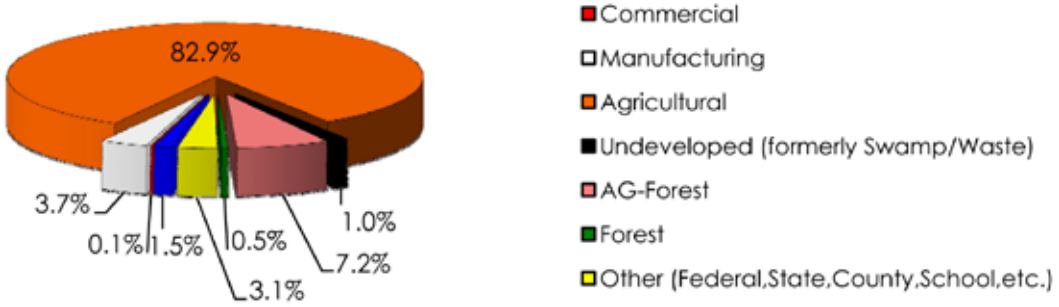


Table 8: Grant County Land Use Assessment Statistics - 1982

Classification	1982 Total Acres	1982 Percent of Land Use in Acres
Residential	4635	0.7%
Commercial	1072	0.2%
Manufacturing	394	0.1%
Agricultural	584,020	90.3%
Swamp & Waste	10729	1.7%
Forest	46,231	7.1%
Real Estate Totals	647,081	100.0%

(Source: WIDOR, 1982 Statistical Report of Property Values)

Table 9: Grant County Land Use Assessment Statistics - 1987

Classification	1987 Total Acres	1987 Percent of Land Use in Acres
Residential	4204	0.7%
Commercial	774	0.1%
Manufacturing	568	0.1%
Agricultural	495,076	79.6%
Swamp & Waste	6094	1.0%
Forest	114,982	18.5%
Real Estate Totals	621,698	100.0%

(Source: WIDOR, 1987 Statistical Report of Property Values)

Table 10: Grant County Land Use Assessment Statistics – 1992

Classification	1992 Total Acres	1992 Percent of Land in Acres
Residential	5342	0.8%
Commercial	1160	0.2%
Manufacturing	701	0.1%
Agricultural	538,399	78.8%
Swamp & Waste	6425	0.9%
Forest	130,954	19.2%
Other (Federal, State, County, School, etc.)	5342	0.8%
Real Estate Totals	682,981	100.0%

(Source: WIDOR, 1992 Statistical Report of Property Values)

Table 11: Grant County Land Use Assessment Statistics – 1997

Classification	1997 Total Acres	1997 Percent of Land in Acres
Residential	6928	1.1%
Commercial	1462	0.2%
Manufacturing	615	0.1%
Agricultural	510,374	79.3%
Swamp & Waste	6502	1.0%
Forest	115,484	17.9%
Other (Federal, State, County, School, etc.)	2296	0.4%
Real Estate Totals	643,661	100.0%

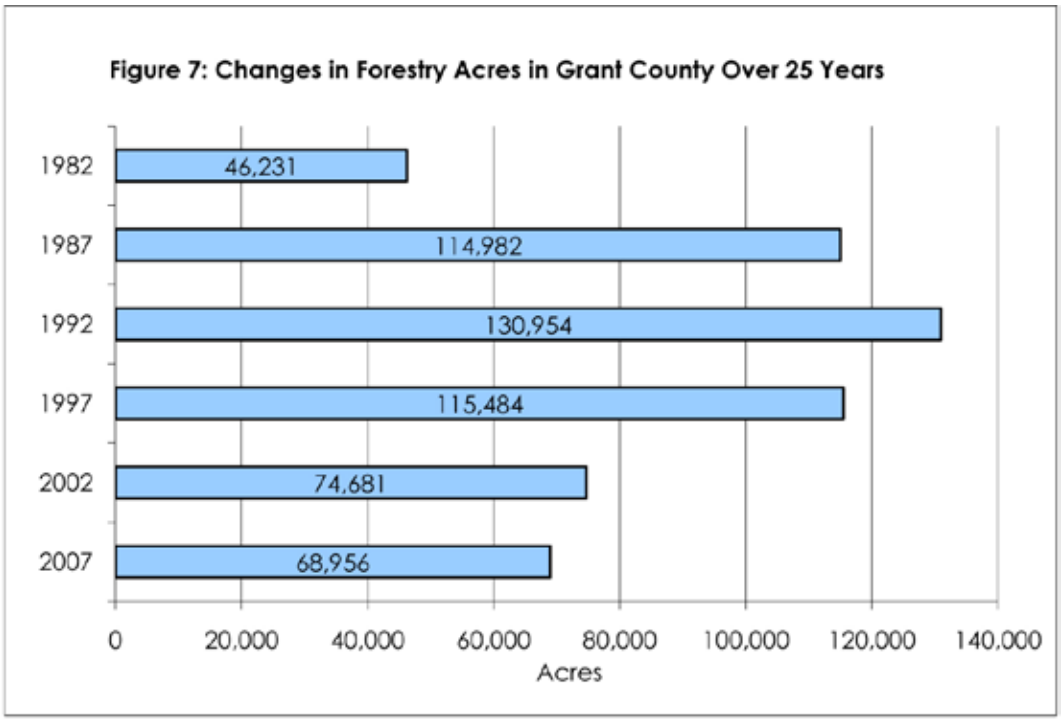
(Source: WIDOR, 1997 Statistical Report of Property Values)

Table 12: Grant County Land Use Assessment Statistics – 2002

Classification	2002 Total Acres	2002 Percent of Land in Acres
Residential	9166	1.4%
Commercial	1702	0.3%
Manufacturing	874	0.1%
Agricultural	560,103	82.8%
Swamp & Waste	22743	3.4%
Ag-Forest	0	0.0%
Forest	74,681	11.0%
Other (Federal, State, County, School, etc.)	7231	1.1%
Real Estate Totals	676,500	100.0%
Note: Since 2002, "Forest" had been divided into two new classifications: "Ag-Forest" and "Forest".		

(Source: WIDOR, 2002 Statistical Report of Property Values)

Figure 7: Changes in Forestry Acres in Grant County Over 25 Years



(Source: WI Department of Revenue Report on Property Values)

Table 13: Average Full Value of Agricultural Land (per acre)

Formula = Eq. Value of Land (w/no improvements) divided by #Ag acres)								
Jurisdiction	1980	1982	1987	1992	1997	2002	2007	2009
Town of Beetown	$702	$853	$398	$475	$480	$222	$124	$202
Town of Bloomington	$797	$840	$464	$571	$611	$249	$204	$214
Town of Boscobel	$657	$730	$341	$409	$489	$198	$171	$179
Town of Cassville	$555	$658	$431	$511	$417	$174	$153	$152
Town of Castle Rock	$414	$453	$416	$467	$487	$165	$120	$142
Town of Clifton	$852	$1,060	$459	$547	$605	$233	$199	$199
Town of Ellenboro	$635	$670	$384	$407	$429	$173	$79	$163
Town of Fennimore	$758	$904	$437	$500	$532	$248	$185	$221
Town of Glen Haven	$841	$884	$501	$589	$625	$216	$185	$194
Town of Harrison	$744	$798	$529	$578	$574	$185	$168	$158
Town of Hazel Green	$1,568	$1,755	$692	$939	$887	$248	$239	$182
Town of Hickory Grove	$568	$606	$330	$385	$428	$200	$92	$174
Town of Jamestown	$1,059	$1,113	$681	$885	$910	$216	$213	$221
Town of Liberty	$664	$735	$452	$500	$524	$173	$154	$153
Town of Lima	$870	$1,008	$477	$520	$538	$196	$193	$204
Town of Little Grant	$714	$744	$335	$410	$414	$196	$140	$148
Town of Marion	$449			$328	$340	$168	$150	$160
Town of Millville	$395	$425	$440	$413	$481	$106	$103	$131
Town of Mount Hope	$787	$829	$440	$510		$199	$171	$171
Town of Mount Ida	$677	$710	$461	$468	$480	$179	$134	$134
Town of Muscoda	$468	$483	$351	$428		$176	$163	$163
Town of North Lancaster	$746	$790	$404	$428	$450	$177	$169	$174
Town of Paris	$698	$847	$467	$556	$654	$208	$115	$190
Town of Patch Grove	$717	$769	$402	$539	$542	$213	$161	$161
Town of Platteville	$1,080	$1,188		$758	$758	$259	$206	$220
Town of Potosi	$716	$743	$413	$448	$681	$196	$175	$174
Town of Smelser	$1,279	$1,344	$692	$941	$885	$205	$180	$253
Town of South Lancaster	$795		$533	$556	$608	$212	$117	$219
Town of Waterloo	$545	$618	$419	$537	$545	$169	$118	$87
Town of Watterstown	$548	$615	$335	$407	$438	$166	$141	$141
Town of Wingville	$685	$793		$517	$440	$193	$164	$173
Town of Woodman	$521	$536	$298	$337	$372	$159	$122	$122
Town of Wyalusing	$662	$621	$276	$322	$333	$176	$138	$120
Average	$732	$810	$442	$521	$547	$196	$156	$173

(Source: 1980-2009 Statistical Report of Property Values - Grant County, Wisconsin, Wisconsin Department of Revenue)

Table 13 lists the average equalized value per acre of land classified as 'agricultural' by the various town assessors. A higher value per acre does not necessarily mean better farmland but may mean greater demand for the land for conversion to non-agricultural uses. Note that in 2002, land values dropped significantly due to a change in calculation methodology relating to "use tax".

Land in Farms

The U.S. Census of Agriculture indicates a loss of 42,482 acres of land in farms over the 15-year period 1987-2002. This equals a decrease of 2,832 acres per year. Between 1987 and 1997, the loss was reported as 48,701 acres or an

average loss of 4,870 acres per year. In 2002, 605,836 acres were reported as land in farms indicating an increase of 6,219 acres, averaging 1,244 acres per year.

According to the Wisconsin Department of Revenue Statement of Assessment, Grant County has experienced a loss of agricultural land at an average of 1,246 acres per year from 1982-2007. Upon closer inspection, the County experienced a significant loss (-18,488 acres) from 1982-1987, and gained agricultural land from 1987-2002 . From 2002 to 2007, the County has lost agricultural land at an average of 1,246 acres per year. See Table 6 above for a closer look at average annual Grant County land use change.

Cropland

During the same time period in which the amount of land in farms is thought to have been decreasing, the amount of land used as cropland appears to have decreased at a slower rate from 1997-2002 (a loss of 1,207 acres). Here are some additional items of interests:

The U.S. Census of Agriculture shows a total loss of 44,612 acres of cropland between 1987 and 2002 (2,974 acres per year). Total cropland in 2002 is listed as 374,984 acres.

The U.S. Census of Agriculture shows a total loss of 122 farms between 1987 and 2002. Total farms in 2002 are listed as 2,185 farms. When looking at the average size of farms, the numbers differ. From 1987 to 2002, the following net gains and losses were experienced:

- Loss of 31 farms (1 to 9 acres is size)
- Gain of 220 farms (10 to 49 acres in size)
- Gain of 108 farms (50 to 179 acres in size)
- Loss of 255 farms (180 to 499 acres in size)
- Loss of 37 farms (500 to 999 acres in size)
- Gain of 15 farms (1,000 acres or more in size)

The average size farm in Grant County has remained relatively stable. Between 1987 and 2002 the average size has been 262 (1987), 265 (1992), 268 (1997), and 243 (2002).

Economics & Development

Grant County's early development until 1850 was based primarily on lead mining. Since that time, agriculture has gained in importance and remains the most important economic activity in the County. Over the 20 year period, cash receipts from farm marketing in Grant County increased by $136.8 million. Crops, including nursery and greenhouse crops are increasingly from only 8.4% in 1987 to 23.8% of the total cash receipts in 2007. Sale of livestock, poultry, and their products contributed 91.6% in 1987 but decreased to 76.2% in 2007. Notably, total cash receipts increased from 2002 to 2007 ($143 million) bouncing back from a 10 year decline of -$18 million (see Table 14).

As shown in Table 15, 1,673 persons living in Grant County listed their occupations as farmer or farm manager in the 2000 U.S. Census. Note that these occupations may not be in the town the farmer or farm manager is living in, but it does provide a general overview of the County's population of farmers.

As indicated in Table 16, Grant County has 27,496 available within the workforce. As indicated, 1,223 are unemployed, giving Grant County an unemployment rate of 4.4%.

Table 14: Grant County Cash Receipts From Farm Marketings

Cash Receipts from Farm Marketing ($1000)**	1987	1992	1997	2002	2007
Crops, including nursery & greenhouse crops	$16,331	$21,746	$36,634	$38,768	$78,548
Livestock, poultry, and their products	$176,548	$182,929	$167,666	$147,876	$251,158
Total	$192,879	$204,675	$204,300	$186,644	$329,706

(Source: USDA Ag Census)

Table 15: Farmers and Farm Managers as Number and Percent of Total Town Population

Jurisdiction	Population	Number of Persons Employed as Farmers and Farm Managers	Percent of Persons Employed as Farmers and Farm Managers
Town of Beetown	734	93	12.7%
Town of Bloomington	399	43	10.8%
Town of Boscobel	433	4	0.9%
Town of Cassville	487	54	11.1%
Town of Castle Rock	487	37	7.6%
Town of Clifton	304	42	13.8%
Town of Ellenboro	608	35	5.8%
Town of Fennimore	599	31	5.2%
Town of Glen Haven	490	48	9.8%
Town of Harrison	497	36	7.2%
Town of Hazel Green	1043	63	6.0%
Town of Hickory Grove	443	40	9.0%
Town of Jamestown	2077	48	2.3%
Town of Liberty	552	57	10.3%
Town of Lima	721	85	11.8%
Town of Little Grant	257	66	25.7%
Town of Marion	517	25	4.8%
Town of Millville	147	9	6.1%
Town of Mount Hope	225	33	14.7%
Town of Mount Ida	523	52	9.9%
Town of Muscoda	674	20	3.0%
Town of North Lancaster	515	65	12.6%
Town of Paris	754	63	8.4%
Town of Patch Grove	390	58	14.9%
Town of Platteville	1343	48	3.6%
Town of Potosi	831	43	5.2%
Town of Smelser	756	48	6.3%
Town of South Lancaster	808	67	8.3%
Town of Waterloo	557	51	9.2%

Town of Watterstown	362	23	6.4%
Town of Wingville	394	59	15.0%
Town of Woodman	194	12	6.2%
Town of Wyalusing	370	31	8.4%
Village of Bagley	339	0	0.0%
Village of Bloomington	701	14	2.0%
Village of Blue River	429	2	0.5%
Village of Cassville	1085	7	0.6%
Village of Dickeyville	1043	2	0.2%
Village of Hazel Green	1171	11	0.9%
Village of Livingston	584	10	1.7%
Village of Montfort	603	0	0.0%
Village of Mount Hope	186	2	1.1%
Village of Muscoda	1357	5	0.4%
Village of Patch Grove	166	4	2.4%
Village of Potosi	711	2	0.3%
Village of Tennyson	370	6	1.6%
Village of Woodman	96	0	0.0%
City of Boscobel	3047	3	0.1%
City of Cuba City	1945	17	0.9%
City of Fennimore	2387	19	0.8%
City of Lancaster	4070	32	0.8%
City of Platteville	9989	48	0.5%
Total	49770	1673	

(Source: U.S. Census, 2000)

Directly correlated with the above labor force statistics are the industries in which these persons are employed. Table 17 outlines all industries and the percent of the population employed by each industry. The table shows the number of persons and percent population of Grant County working in a particular industry. The same information is also included for surrounding Wisconsin counties. As indicated below, Grant County leads the other counties in the industry of educational, health and social services. This is not surprising, considering the number of educational institutions within the County, including the University of Wisconsin – Platteville and Southwest Technical College.

In Grant County, the largest employer is the University of Wisconsin – Platteville along with the County of Grant. The top five industries of employment in the County include the following:

- Educational, health and social services (21.3%)
- Manufacturing (17.3%)

Table 16: SWWRPC Labor Force Statistics

	Available Labor Force	Employed	Unemployed	Unemployment Rate
Grant	27,496	26,273	1,223	4.4%
Green	20,349	19,462	887	4.4%
Iowa	14,436	13,813	623	4.3%
Lafayette	9,158	8,780	378	4.1%
Richland	10,112	9,645	467	4.6%

(Source: Wisconsin WorkNet 2006)

- Retail Trade (13.9%)
- Agriculture, forestry, fishing and hunting, and mining (10.1%)
- Arts, entertainment, recreation, accommodation and food services (8%)

Table 18 indicates the educational attainment in Grant County. This closely correlates with the employment of workers in particular industries as indicated in Table 17. Education levels also closely correlate with income levels (indicated in Table 19). As indicated in Table 18, Grant County, when compared to other surrounding counties, has a lower percent of the population with a high school diploma or higher (83.5%), but has a higher percentage than other counties when it comes to a bachelor's degree or higher (only 17.2%). As indicated above, income levels

Table 17: Percent Population Employed by Industry

	Grant	Green	Iowa	Lafayette	Richland
Agriculture, forestry, fishing and hunting, and mining	10.1%	7.8%	10.4%	16.4%	11.4%
Construction	5.4%	6.5%	9.2%	5.5%	7.5%
Manufacturing	17.3%	22.8%	13.6%	17.8%	25.7%
Wholesale trade	3%	3.2%	2.4%	3.9%	2.1%
Retail trade	13.9%	14.4%	23.7%	13.8%	12.4%
Transportation and warehousing, and utilities	4%	4%	3.3%	5.1%	4%
Information	2%	2.1%	1.2%	1.3%	1.3%
Finance, insurance, real estate, and rental and leasing	3.6%	4.6%	4.3%	4.1%	3.5%
Professional, scientific, management, administrative, and waste management services	4.1%	5%	3.9%	3.5%	2.6%
Educational, health and social services	21.3%	17.5%	17%	17%	18.1%
Arts, entertainment, recreation, accommodation and food services	8%	5.2%	5.5%	4.9%	5.5%
Other services (except public administration)	4.5%	3.7%	2.8%	4%	3.4%
Public administration	2.9%	3.1%	2.7%	2.8%	2.5%

(Source: U.S. Census, 2000)

often directly correlate with educational attainment. However, this is not to imply that all individuals need to have some form of advanced education.

Table 18: Percent Educational Attainment for the Population 25 Years and Over

	Grant	Green	Iowa	Lafayette	Richland
High School Diploma or Higher	83.5%	84.1%	88.5%	85.5%	82.1%
Bachelor's Degree or Higher	17.2%	16.7%	18.5%	13.3%	14.1%

(Source: U.S. Census, 2000)

In Table 19, Grant County had a per capita personal income of $26,374 in 2005. Per capita personal income is the income that is received by persons from all sources. It is calculated as the sum of wage and salary disbursements, supplements to wages and salaries, proprietors' income with inventory valuation and capital consumption adjustments, rental income of persons with capital consumption adjustment, personal dividend income, personal interest income, and personal current transfer receipts, less contributions for government social insurance.

Table 20 pertains to the percent of the labor force working within the County of Residence. In Grant County, 70% of the available County workforce works in Grant County. The other 30% of available workforce are seeking employment outside the County. This can be seen as an opportunity for Grant County, as there is an ample supply of workers residing within the County. Grant County, compared to surrounding counties, does well at retaining its labor force.

Table 19: Per Capita Personal Income

	Grant	Green	Iowa	Lafayette	Richland
2005 Per Capita Personal Income	$26,374	$30,870	$31,399	$25,153	$25,467
Rank in State (out of 72 Counties)	49th	24th	22nd	61st	58th

(Source: 2007 Bureau of Economic Analysis and 2000 US Census)

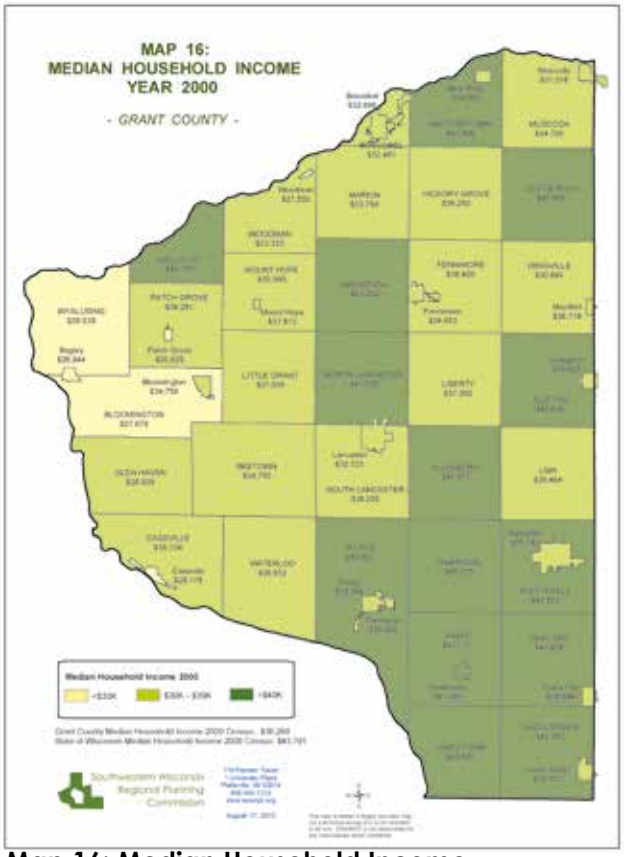
In 2000, Grant County had a median household income of $36,268. Higher incomes are geographically concentrated in the southern part of the County with lower incomes in the northwest. See Map 16 for a breakdown of median household income for each jurisdiction in Grant County.

Tourism is another aspect of economic development that needs to be addressed. As indicated in Table 21, Grant County ranks 42nd of 72 counties in the State for tourism spending. In 2006, travelers spent 72 million dollars within Grant County. Forty-five million dollars of that supported employee wages. There were also 1,856 jobs supported by tourism spending.

Table 20: Percent of Local Labor Force Working Within the County of Residence

	Grant	Green	Iowa	Lafayette	Richland
% of Labor Force Working Within the County of Residence	70%	66%	64%	54%	67%

(Source: U.S. Census, 2000)



Map 16: Median Household Income

Table 21: Tourism Spending

County	Dollars Spent by Travelers in 2006	County Rank in State for Traveler Spending (72 WI Counties)	Employee Wages from Tourism Spending	Full Time Equivalent Jobs Supported from Tourism Spending
Grant	75 Million	42nd	47 Million	1,931
Green	44 Million	58th	18 Million	1,307
Iowa	55 Million	52nd	35 Million	1,422
Lafayette	21.5 Million	68th	13.5 Million	553
Richland	23 Million	67th	14 Million	587

(Source: Wisconsin Department of Tourism 2006)

Population

At the time in which this plan was collecting data, the U.S. Census Bureau was conducting its 2010 census. The data from the 2010 Census was not available for this plan. The following reflects the demographics of Grant County using the best available data.

Table 22: Total Population

Population	Grant County Number	Grant County Percent
Total Population (1900)	38,881	
Total Population (1910)	39,007	
Total Population (1920)	39,044	
Total Population (1930)	38,469	
Total Population (1940)	40,639	
Total Population (1950)	41,460	
Total Population (1960)	44,419	
Total Population (1970)	48,398	100.0%
Total Population (1980)	51,736	100.0%
Total Population (1990)	49,264	100.0%
Total Population (2000)	49,597	100.0%
Est. Population (2010)	51,517 (State Demographer)	
Est. Population (2020)	52,622 (State Demographer)	

(Source: U.S. Census, 1900 to 2000)

Table 23: 2000 Population-Sex & Age

SEX AND AGE (2000)	Grant County Number	Grant County Percent
Male	25,164	50.7%
Female	24,433	49.3%
Under 10 years	5,738	11.6%
10 to 19 years	8,490	17.1%
20 to 34 years	9,995	20.2%
35 to 44 years	7,096	14.3%
45 to 59 years	8,533	17.2%
60 to 74 years	5,918	12.0%
75+ years	3,827	7.7%
		100.0%
Median Age (2000)	35.9	

(Source: U.S. Census, 1900 to 2000)

The 1900 through 2000 figures are U.S. Census figures. 2010 and 2020 estimates are projections from SWWRPC. The percentage of the population in rural areas (townships) has been decreasing and is expected to continue decreasing. The following table illustrates this.

Table 24: Grant County Urban & Rural Population

Urban vs. Rural	1930	1940	1950	1960	1970	1980	1990	2000	2010	2020
Urban (%)	42.6%	45.7%	49.7%	54.7%	58.0%	58.2%	66.3%	65.4%	55.1%	55.1%
Rural (%)	57.4%	54.3%	50.3%	45.3%	42.0%	41.8%	33.7%	34.6%	44.9%	44.9%

(Source: U.S. Census, 1930 to 2000 and SWWRPC, 2010)

These figures reflect, in a large part, the adoption of modern agricultural methods and the present agricultural prices situation. The great majority of rural population in Grant County is comprised of farm families. With the increasing substitution of manual labor by mechanization and by virtue of the continually increasing scale of agriculture, one family can farm many more acres than previously. With larger farms, this necessarily means less farm families. Also affecting the rural population is the cost-price squeeze. With the margin of profit often quite small, inefficient operations are forced out of business and the people involved often move into a village or city and take up another line of work. This simultaneously reduces the rural population while increasing the city and village population.

Non-farm Town Population

A question which interests many towns and which has definite effects upon rural land use and taxation is the amount of non-farm population within the township. In the past, farmers have been by far the predominant population group and the voting majority in most townships. Traditionally, farmers have demanded a relatively low level of services from local government - a good road system, of course, is essential for transportation of agricultural goods and services as is a good educational system for children. Other than education ("school tax"), the amount of money required for the other government services has been quite low, hence the relatively low tax levy required for services other than education.

It had commonly been thought in the past that new non-farm development in a township would increase the tax base upon which property taxes are levied, thereby reducing the tax burden on the pre-existing (farm) property. However, tax base neutrality has negated many of these supposed benefits. As the tax base increases within a taxing district, the amount of state school aids decreases. Therefore, as far as reducing the education portion of the property tax is concerned, new development has little advantage for farm property owners. Often overlooked is the fact that new residents living in the new development are often young families with school-age children. The cost of educating these children is borne by all property owners and is likely to fall proportionately more to the farmer because of his typically greater property ownership.

Rural non-farm residents, whether they live in new housing or in former farm houses, may demand more government services than the typical farmer. Increased levels of police and fire protection, garbage pickup, even street lights, curb and gutter, and public sewer and water may be requested. Paving of township roads is often one of the first requests from new rural residents.

A low level of non-farm population in a township does not seem, in most cases, to cause undue problems or expense for the township. The non-farm population is in a minority and generally accepts (or is forced to accept) the farmers' viewpoint on taxes and services. However, when the non-farm population reaches near the 50% mark, voting on taxes and services can become very different. At this point, farmers may be forced into paying for levels of services they neither want nor need.

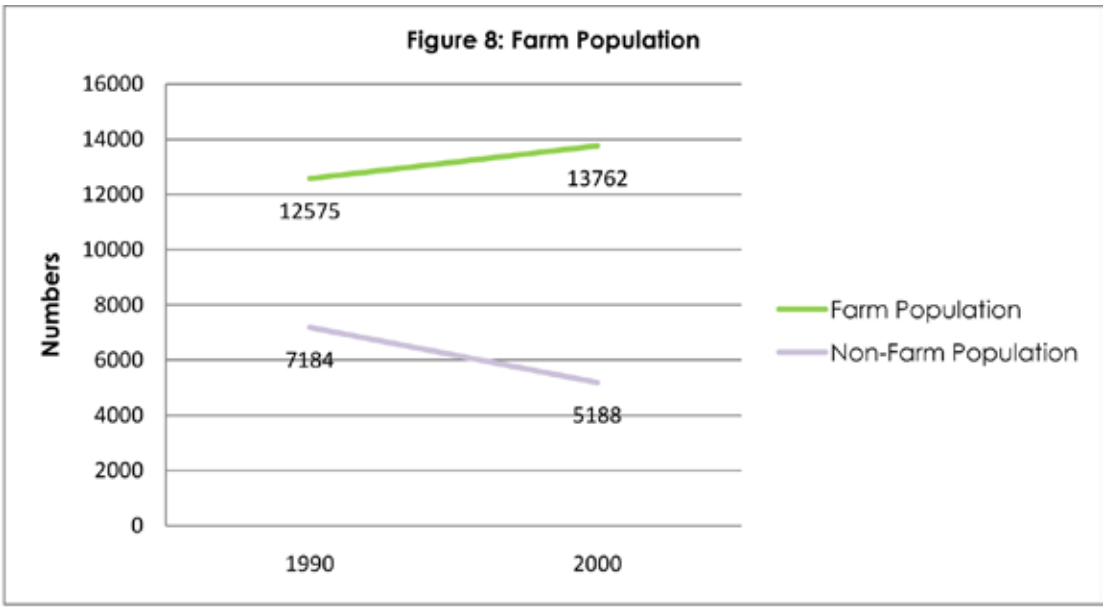
For these reasons, it was thought proper to look at the non-farm town population and how it has been changing in Grant County. The following table lists total population, non-farm population, and the percentage of the total population which is non-farm population in 1990 and 2000. The following graph illustrates County total figures.

While total town population dropped approximately 800 between 1990 and 2000, farm population increased by 1,187 (from 12,575 to 13,762) and non-farm population decreased by 1,996 (from 7,184 to 5,188).

Table 25: Total Town Population & Non-Farm Town Population

Jurisdiction	1990 Rural Pop.		2000 Rural Pop.	
	Non-farm	Farm	Non-farm	Farm
Town of Beetown	405	395	280	471
Town of Bloomington	205	124	211	214
Town of Boscobel	13	389	4	253
Town of Cassville	189	341	114	394
Town of Castle Rock	145	130	94	208
Town of Clifton	154	157	146	152
Town of Ellenboro	287	219	124	446
Town of Fennimore	211	352	261	375
Town of Glen Haven	332	207	177	307
Town of Harrison	252	287	189	376
Town of Hazel Green	419	689	256	770
Town of Hickory Grove	199	212	161	260
Town of Jamestown	356	1,819	233	1,849
Town of Liberty	191	369	129	429
Town of Lima	309	408	238	503
Town of Little Grant	194	205	134	122
Town of Marion	136	346	97	388
Town of Millville	22	131	15	134
Town of Mt. Hope	118	126	102	134
Town of Mt. Ida	207	317	272	216
Town of Muscoda	127	434	83	557
Town of North Lancaster	311	246	158	326
Town of Paris	228	586	192	546
Town of Patch Grove	219	160	153	305
Town of Platteville	309	1,111	215	968
Town of Potosi	340	623	185	643
Town of Smelser	237	445	179	571
Town of South Lancaster	291	618	184	573
Town of Waterloo	254	316	166	388
Town of Watterstown	102	264	141	253
Town of Wingville	207	172	180	225
Town of Woodman	55	125	44	148
Town of Wyalusing	160	252	71	258
	7,184	12,575	5,188	13,762

(Source: US Census 1990, 2000, Table P05, P5 resp.)



(Source: US Census 1990, 2000)

Municipal Expansion

From 2007 to 2010, 36 communities in Grant County participated in the 'Smart Growth' Comprehensive Planning process. One of the key outcomes from that process was a series of proposed land use maps that indicate the jurisdictions' intent for future land uses and expansion. From that process a total of 2,346.3 acres have been identified as land that would be annexed by villages or cities within the next 20 years. (See Table 26).

Table 26: Municipal Expansion

Jurisdiction	Anticipated Acres of Municipal Expansion (Next 20 years)
City of Boscobel	348.3
City of Cuba City	0
City of Fennimore	0
City of Lancaster	101.0
City of Platteville	1,277.4
Village of Bagley	0
Village of Bloomington	0
Village of Blue River	0
Village of Cassville	0
Village of Dickeyville	40.5
Village of Hazel Green	0
Village of Livingston	0
Village of Montfort	0
Village of Muscoda	579.1
Village of Patch Grove	0
Village of Potosi	0
Village of Tennyson	0
Village of Woodman	0
Total acres	2,346.3

(Source: SWWRPC, 2010)

Business Development

The recognition of the need and necessary support to retain existing jobs and attract new business is strong in Grant County. For economic development success, a community needs to identify its strengths and weaknesses, then leverage the strengths, and minimize the effects of the weaknesses.

There are many strengths in Grant County that lend themselves to new businesses and industries: lower cost of doing business, a well-trained labor force, a good availability of workers, the location of UW-Platteville and Southwest Technical College, access to US Hwy 151 and rail, and fiber optics. New businesses and industries that the County could promote include wind energy manufacturing, advance manufacturing,

added-value agriculture, and bio-mass industries.

The main weaknesses of Grant County to attract new businesses and industries are rural stereotypes, an aging labor force, Wisconsin's regulatory climate, and a lower rate of college graduate returns to the community.

Existing Business and Industry Parks

An industrial park or business park is an area of land set aside for development. A business park is a more "light-weight" version of the industrial park, having offices and light industry, rather than heavy industry which has high intensity truck traffic, noise, odor, etc. (for simplicity sake, the rest of this section will refer to both business and industrial parks as industrial parks). Industrial parks are usually located close to transport facilities, especially where multiple transportation modes such as highways, railroads, airports, and navigable rivers are available.

The idea of setting land aside through this type of zoning is based on several concepts:

- To be able to concentrate dedicated infrastructure in a delimited area to reduce the per-business expense of that infrastructure. Such infrastructure includes roadways, railroad sidings, ports, high-power electric supplies (often including three-phase power), high-end communication cables, large-volume water supplies, and high-volume gas lines.

- To be able to attract new business by providing an integrated infrastructure in one location.

- To set aside industrial uses from urban areas to try to reduce their environmental and social impact.

- To provide for localized environmental controls specific to the needs of an industrial area.

Different industrial parks fulfill these criteria to differing degrees. Many small communities have established industrial parks with only access to a nearby highway, and with only the basic utilities and roadways, and with few or no special environmental safeguards.

Industrial parks have also been criticized because of their frequent remoteness of urban areas, one of the characteristics that had been touted as a benefit. One reason for this specific criticism is that industrial parks often destroy productive and valuable agricultural land. Another is that industrial parks become remote to their employee pool, requiring longer commutes and limiting employment accessibility for poorer employees. Another reason is that many urban areas have extensive areas of brownfield land that many feel should be the first priority in redeveloping as industrial sites.

Currently, Grant County has nine established industrial parks. The following communities currently have an industrial park: City of Boscobel, City of Cuba City, Village of Dickeyville, City of Fennimore, Village of Hazel Green, City of Lancaster, Village of Livingston, Village of Muscoda, and the City of Platteville. Most of these industrial parks have acres available for development.

Future Business and Industry Parks

As of 2009, there are over 250 total acres of appropriate locations for commercial development in the County for industrial parks. There are eight developed industrial parks, located in Muscoda, Boscobel, Fennimore, Livingston, Platteville, and Cuba City. There are two in the City of Lancaster alone. There are also industrial parks proposed for the communities of Dickeyville, Cuba City, and Kieler.

In addition to acreage, there are buildings and building sites available for commercial and light manufacturing businesses in Grant County. Perhaps more importantly, there is consensus in the County to establish or expand places for commercial and/or light manufacturing businesses.

Housing

Information on housing is essential to any plan dealing with developed versus open land use or provision of public facilities to a populace. In this farmland preservation plan, particular importance is placed on rural (town) housing. Rural housing in Grant County, for various reasons, is often placed upon the better agricultural land. Certainly, farmsteads need to occupy a certain amount of acreage; however, very few, if any, new farmsteads on new acreages are being built now. The County essentially reached its maximum farmstead density years ago and is now declining in both farmstead numbers and farm population. Most of the new rural housing units built now plus many former farm houses are housing non-farm residents, with potentially different values and expectations of rural life.

Housing Statistics

There has been an increase of 38% of total households in Grant County between 1970 and 2000 (Table 27). A household includes all the people who occupy a housing unit as their usual place of residence. Between 1970 and 2000, total housing units have also increased by 38%. Assuming that the number of people per household is stabilized at 2.5 (2000 County average), population projections suggest that the County will increase its number of households with no losses projected (see Figure 9). These projections are based on past trends and do not reflect the potential impact of unprecedented development pressures such as large industries coming into the County.

Figure 9 shows the projected households for the years 2010, 2020, and 2030. Household projections are based on population projection figures and the average number of people per household during the year 2000, of 2.5 people per household. The red line indicates a future high projection, while the blue line indicates a future low projection. State projections, which only go to 2020, project between the high and low but it is clear that all lines show households increasing over time.

Table 28 illustrates household and housing unit projections through 2030. Housing unit projections take into account Grant County's 2000 vacancy rate of 7%.

Table 27: Housing Statistics

Housing	Grant County Number	Wisconsin Number
Total Households (1970)*	13,355	1,328,804
Total Households (1980)	16,686	1,652,261
Total Households (1990)	17,169	1,822,118
Total Households (2000)	18,465	2,084,544
People per Household (1970)	3.4	3.2
People per Household (1980)	2.9	2.8
People per Household (1990)	2.7	2.6
People per Household (2000)	2.5	2.5
Housing Units 1970**	14,451	1,473,000
Housing Units 1980	18,204	1,863,897
Housing Units 1990	18,450	2,055,774
Housing Units 2000	19,940	2,321,144

Note:
Total Households equal the number of ***occupied*** housing units. Total Housing Units are all those available, including occupied ***and*** vacant units.

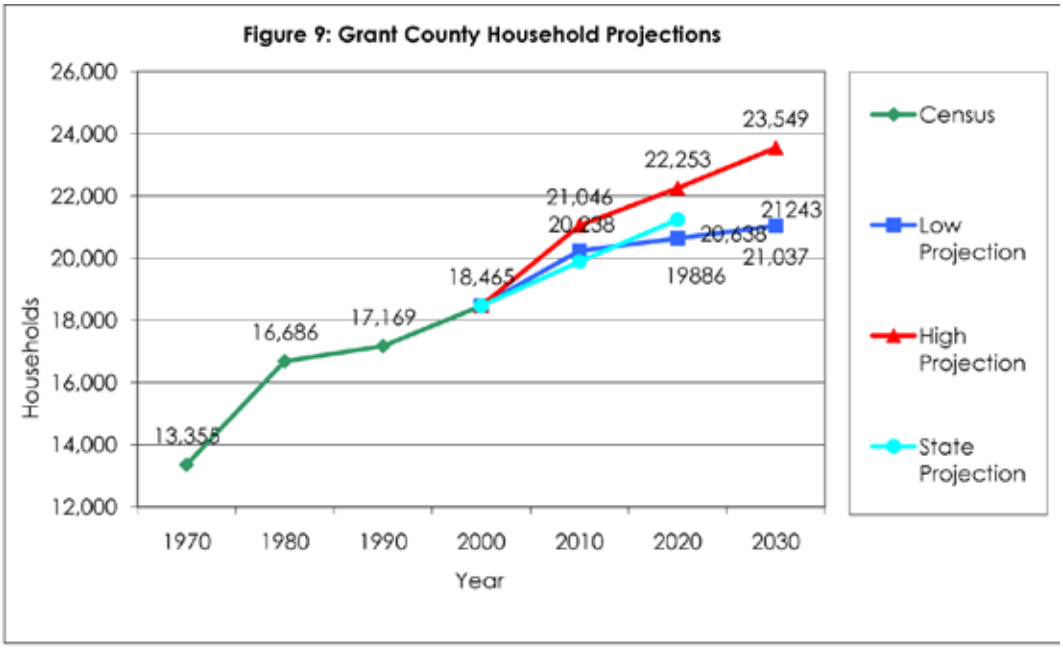
(Source: U.S. Census, 1970 to 2000)

Table 28: Household and Housing Unit Projections

Year	Households	Housing Units
2010 Low	20,238	24,488
2010 High	21,046	25,466
2020 Low	20,638	24,971
2020 High	22,253	26,926
2030 Low	21,037	25,455
2030 High	23,549	28,495

(Source: U.S. Census & SWWRPC, 2010)

Figure 9: Grant County Household Projections



(Source U.S. Census, 1970 to 2000 and SWWRPC, 2010)

Sanitary Permits

Permits for the installation of sewage disposal systems in the non-incorporated areas of Grant County are issued in accordance with the Grant County Sanitary Code by the Grant County Sanitarian's Office. The issuance of a sanitary permit does not necessarily mean that a system will be installed or a house/business built to utilize the system but usually the installation of the system and subsequent use of the system does occur.

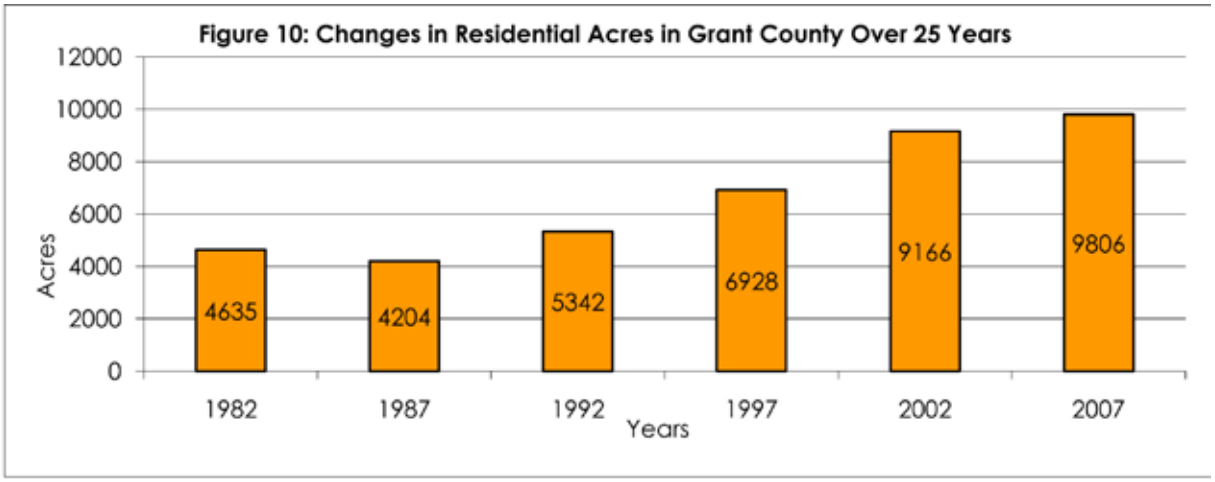
Statistics for permits issued for new private sewage disposal systems (for new houses and mobile homes--farm houses included) were readily available for the years 1980-2009. These statistics are listed in the following table and, while not giving a precise count of new housing construction during these years, they do indicate relative amounts of building activity throughout the County.

Table 29: Sanitation Permits (1980-2009)*

Sanitation Permits	Year					
	1980-1985	1991-1995	1996-2000	2001-2005	2006-2009	Total Permits
New	396	366	830	977	370	2,939
Replacement	37	45	102	101	454	739
Yearly Totals	433	411	932	1,078	824	3,678

(Source: Grant County Sanitation, 2010)
** Data for years 1986-1990 are unavailable*

Table 29 illustrates that from 1980 to 2009, 3,678 sanitation permits were issued in Grant County. Of that, 2,939 of those permits were for new systems. One can assume that those new systems represent new construction in areas of the County that previously were undeveloped/farmed. Upon closer inspection, it appears that there was a 'building boom' between 1996 and 2005 that has since passed. In addition, Grant County averages 377 permits during years outside of the 'boom'.



(Source: WI Department of Revenue Report on Property Values)

Community Facilities & Services

Roads, water and sewer, schools, parks, and fire and police protection are all examples of community facilities and services provided to County residents. The availability of such services has definite effects on the development of the County. Public facilities have been discussed in a general manner in Section II, Economics and Development. Information on existing and proposed facilities, can be found in the Grant County Outdoor Recreation Plan and plans of individual communities, school districts, and agencies.

Utilities

Water supply and sanitary sewage disposal have a particularly important relationship to rural land use and residential development. Availability of public sewer and water can encourage development in certain areas where it would otherwise have been impossible. Excessive development, causing waste accumulations beyond the capacity of sewage systems to adequately treat such waste, can and has caused water pollution problems in nearby streams, rendering the water unfit for water-based recreation and altering the aquatic ecosystem. The laying of sewer and water lines across open farmland in order to reach a developed area separated from the village or city will likely result in the eventual conversion of the farmland to developed uses. For a list of city and village community facilities and capacities, please refer to Appendix (p.1).

Transportation

The continued growth and development of Grant County depends upon the availability of good transportation, whether to carry the County's agricultural products to market or to provide people with a means of access to the recreational opportunities. Transportation is the critical intermediate step.

- *Highways.* The highway network is the most prevalent and important link in the transportation system in Grant County. As of 2010, the mileage of public highways in rural areas was as follows: state trunk - 259 miles (12.2%), County trunk – 311 miles (14.6%), local roads and streets – 1,554 miles (73.2%), for a total of 2,124 miles. The most important highway route is U.S. 151 which links southwestern Grant County with Dubuque to the west and Madison, Milwaukee, and Chicago to the east. U.S. Highways 18 and 61 provide the northern part of the County with links to Madison, Dubuque, and La Crosse as well as to larger regional Cities, such as Milwaukee, Minneapolis and Chicago. These highways, as well as others in the County, are generally in good condition and are adequate for present traffic.

- *Airports.* Grant County is presently served by five publicly owned airports (Prairie du Chien, Dubuque, Platteville, Lancaster, and Cassville). Of these, only Dubuque has scheduled air passenger service. The other airports serve mainly private and business aircraft.

- *Waterways.* Of the County's many rivers and streams, only the Mississippi River carries significant amounts of freight traffic. Commercial freight docks are located at Prairie du Chien, Cassville, and Dubuque.

- *Railroads*. Rail service is routed along the perimeter of Grant County. Burlington Northern-Santa Fe operates the rail line parallel to the Mississippi River on the western border of the County, while Wisconsin and Southern Railroad operates the rail corridor

running north along the Wisconsin River (the old Chicago, Milwaukee, St. Paul and Pacific line which was once abandoned and has since become a corridor under the protection of the Wisconsin River Rail Transit Commission). Of the three rail lines which historically served the County, only one is now abandoned. The Chicago and Northwestern line which served Montfort, Fennimore, and Lancaster was officially abandoned in June of 1980.

Communications

Telecommunication towers, specifically cellular phone towers, are on the rise with increased use of cellular phones. Refer to the Federal Communications Commission FCC - (www.wireless2.fcc.gov) or the Grant County Planning and Zoning Committee for more information on telecommunication regulations. Internet services are provided by mhtc.net and satellite. According to information from each jurisdiction, there are at least 42 cell towers currently in Grant County. *SWWRPC, Grant County Comprehensive Plan, 2010.*

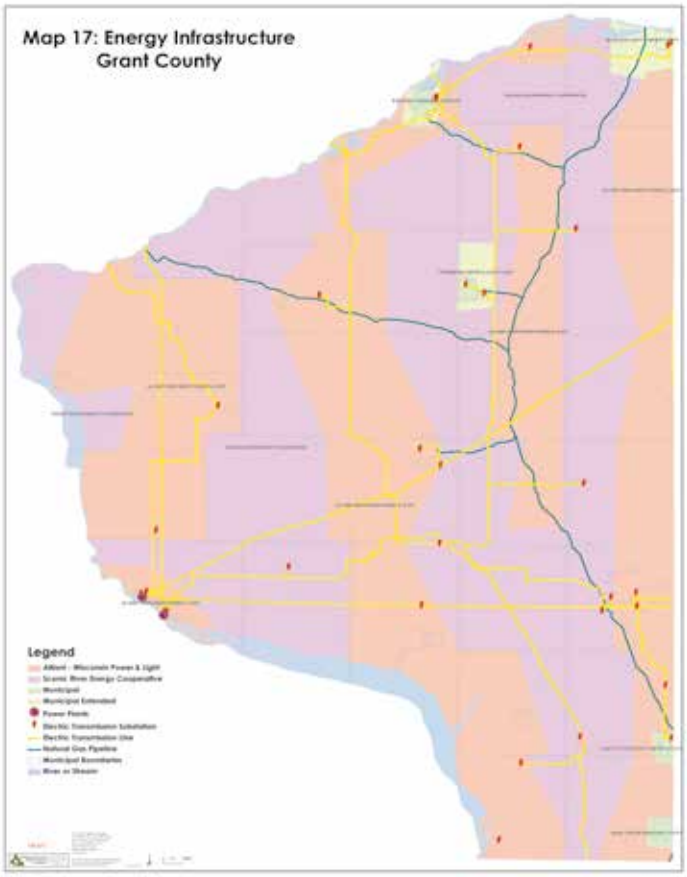
Energy

Grant County's power needs are supplied by the Alliant/ Wisconsin Power and Light Company, the Scenic River Energy Cooperative, and the Dairyland Power Cooperative (DPC). For information regarding their service territories, transmission lines, and substations, refer to Map 17. *SWWRPC, Grant County Comprehensive Plan, 2010.*

Waste Management

Solid waste disposal is an essential government service but it constitutes a growing problem. The growing amount of wastes, the great expenditures necessary to dispose of them and the difficulty of finding suitable disposal sites have combined to elevate solid waste disposal to one of the major concerns of local government.

In 1996, Wisconsin revised its solid waste rules to exceed the Federal (Subtitle 'D') rules for municipal solid waste landfills becoming the first state to receive approval of its solid waste program by the U.S. Environmental Protection Agency. The WI DNR authorizes solid waste disposal pursuant to Wis. Stats. 289.35 and numerous WI Administrative Codes. Refer to the WI DNR and the Department of Planning and Zoning for more information on landfill regulations. Table 30 lists the solid waste and recycling services and facilities available in participating towns in Grant County.



Map 17: Energy Infrastructure

Table 30: Solid Waste and Recycling Services by Town

Town	Garbage Pick-up or Drop-off?	Recycling Pick-up or Drop-off?	Share These Services? With?	Closed Landfills in the Town?
Bloomington	Drop-off	Drop-off	No	No
Cassville	Drop-off	Drop-off	No	Yes, no closure date
Clifton	Drop-off	Drop-off	No	No
Ellenboro	Drop-off	Drop-off	No	No
Harrison	Pick-up (4x/month)	Pick-up (2x/month)	No	No
Hazel Green	Pick-up (4x/month)	Pick-up (2x/month)	No	No
Hickory Grove	Drop-off	Drop-off	No	No
Jamestown	Pick-up (4x/month)	Pick-up (4x/month)	No	Yes, closed 1978
Liberty	Drop-off	Drop-off	No	Yes, closed 1985
Lima	Pick-up (2x/month)	Pick-up (2x/month)	No	No
Little Grant	Drop-off (4x/month)	Drop-off (4x/month)	No	No
Mount Hope	Drop-off	Pick-up	No	No
North Lancaster	Pick-up (4x/month)	Pick-up (2x/month)	No	Yes, closed 1988
Potosi	Pick-up (4x/month)	Pick-up (4x/month)	No	Yes
Smelser	Pick-up (2x/month)	Pick-up (2x/month)	No	No
South Lancaster	Drop-off	Drop-off	No	No
Waterloo	Drop-off	Drop-off	No	No
Watterstown	Drop-off	Drop-off	No	No
Wingville	Drop-off	Drop-off	No	No
Woodman	Drop-off	Drop-off	No	No
Wyalusing	Pick-up (2x/month)	Pick-up (2x/month)	No	No

(Source: SWWRPC, 2010)

III. ANALYSIS

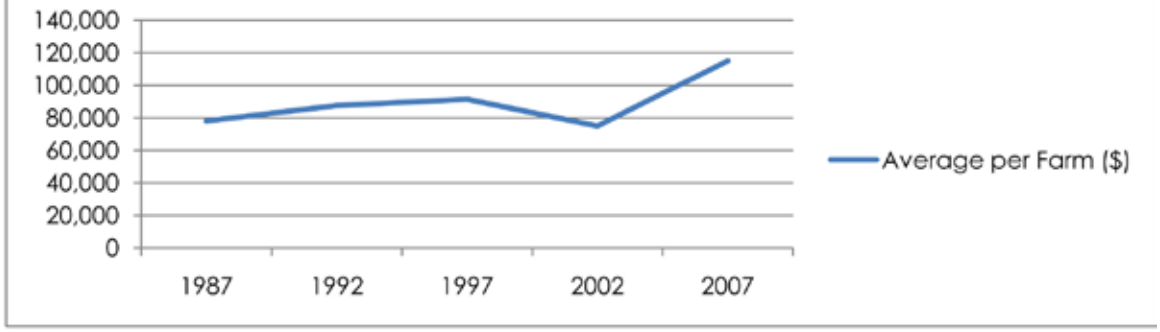
Significant Trends

In the 1990's, Grant County experienced an overall decline in agricultural production and sales. However, the 2000's brought on a sharp increase (approximately 33%) in production, sales, and land value while at the same time there was virtually no change in additional farmland. Furthermore, it is expected that the demand for additional commercial and residential land will only increase over time. The convergence of these trends only stresses the importance of farmland preservation. The following text will provide further detail to the factors that contribute to these trends.

Agricultural Production

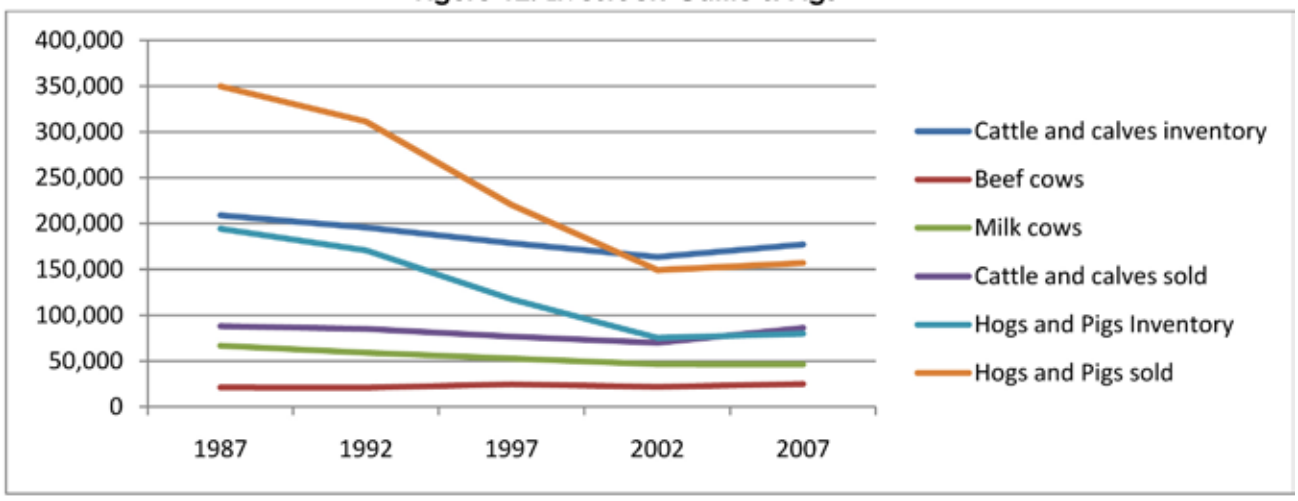
While the number of farms has increased over time, the average size of the farm has gotten smaller. For the most part, productivity has increased. The figures below illustrate trends in agricultural production from 1987 to 2007. As you can see from the figure above, production has remained relatively stable from 1987 to 1997 with a sharp drop from 1997 to 2002. Since 2002, average agricultural products sold and farm-related income has increased.

Figure 11: Average Agricultural Products Sold and Farm-Related Income Per Farm (1987 - 2007)



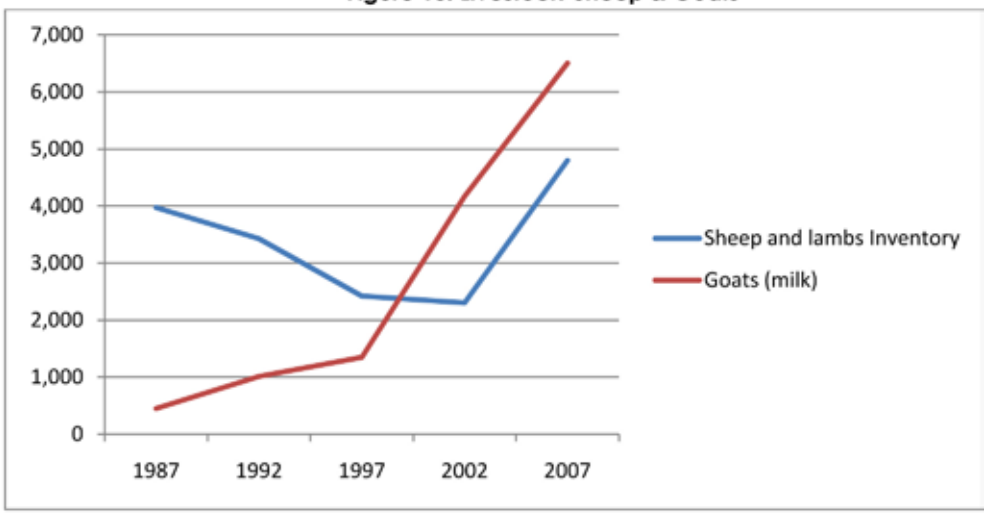
(Source: USDA Ag Census)

Figure 12: Livestock-Cattle & Pigs



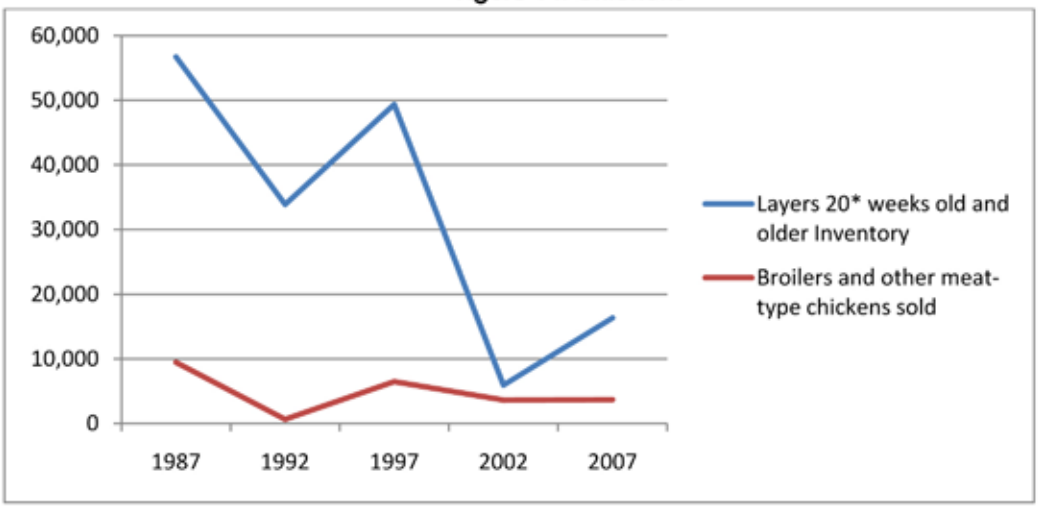
(Source: USDA Ag Census)

Figure 13: Livestock-Sheep & Goats



(Source: USDA Ag Census)

Figure 14: Chickens

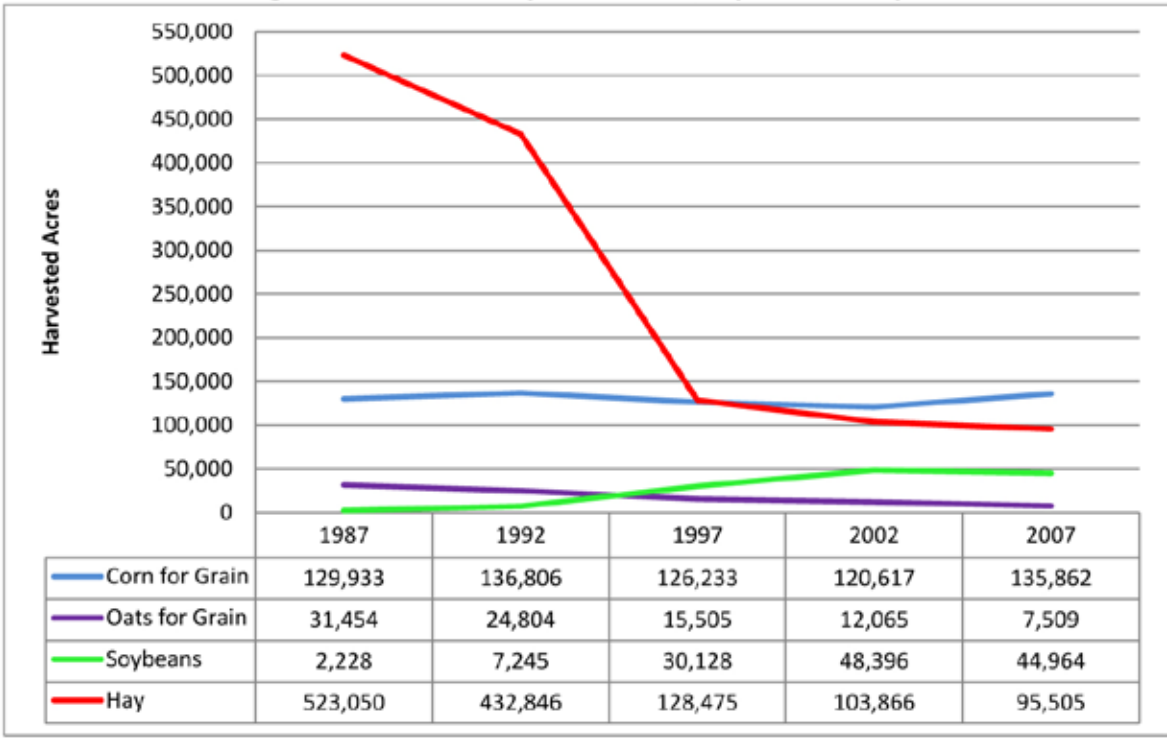


(Source: USDA Ag Census)

The following figures illustrate livestock production (cattle & pigs, sheep & goats, and poultry & eggs).

Figures 12-16 all illustrate a general trend where production fell during the late 90's and began to bounce back in 2002. Cattle (beef and milk), pigs (pigs & hogs), and chickens (meat) have stabilized with little or no increase in production since 2002. Sheep (and lambs), goats (milk), and chickens (eggs) have risen sharply. Notably, goats (milk) have been increasing in production from 1987 through 2007. Figure 16 illustrates how overall cash receipts from farm marketing increased between 2002 and 2007.

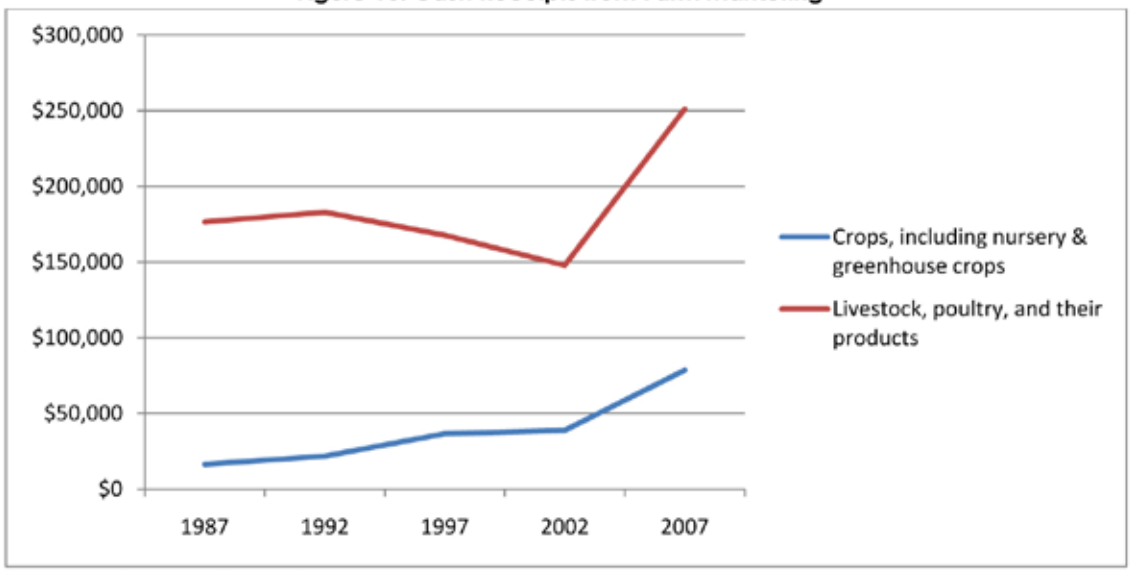
Figure 15: Selected Crops-Corn, Oats, Soybeans, & Hay



	1987	1992	1997	2002	2007
Corn for Grain	129,933	136,806	126,233	120,617	135,862
Oats for Grain	31,454	24,804	15,505	12,065	7,509
Soybeans	2,228	7,245	30,128	48,396	44,964
Hay	523,050	432,846	128,475	103,866	95,505

(Source: USDA Ag Census)

Figure 16: Cash Receipts from Farm Marketing



(Source: USDA Ag Census)

Enterprises Related to Agriculture

In 2009, the Center for Regional Competitiveness conducted a strategic economic study of the tri-state area near Dubuque, Iowa known as the 'RiverLands'. Several economic opportunities regarding agriculture were identified. The following describes several key opportunities for enterprises related to agriculture from that study.

"Most of the best opportunities for RiverLands appear to lie in the realm of small farming, local foods, and specialty food production. To be sure, the region will continue to have a comparatively small number of producers who remain competitive in commodities, but participants felt this group would be "self-sufficient" and also will not likely spur any new economic development in the region. Therefore, the region's best food and agriculture option is to develop a comprehensive strategy to seize new specialty food and niche opportunities. This approach will have some important synergies with separate efforts to spur tourism in the region. Finally, participants felt that conditions are right in the region to increase biomass and energy production. However, it is not clear whether this will be of sufficient scale to have a big economic impact on the region. "

The key strategic options facing enterprises related to agriculture are:

"Support a new renewable fuel industry in RiverLands: By one estimate, up to 20 percent of RiverLands total land resource may be highly suited to biomass production. These lands are "fragile," and ill-suited to other types of food or commodity production. Thus, this strategy will be highly complementary to other strategic options. A comprehensive strategy for RiverLands biomass production is lacking, however. Due to the need to transport huge volumes of biomass, regional coordination may pay big dividends. A comprehensive strategy would also help to focus the region's activities; participants noted there are currently three or more areas in the region with different biomass strategies.

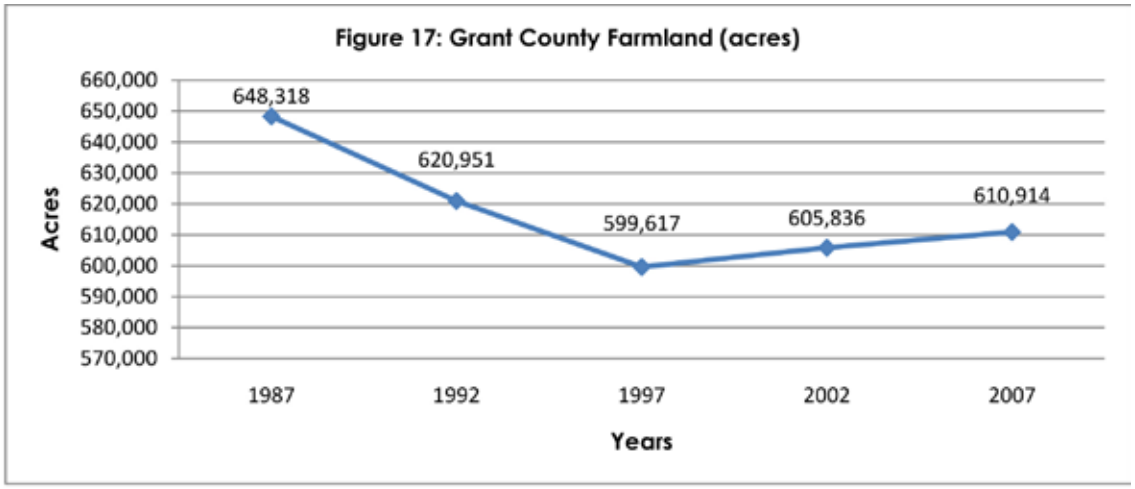
Expand specialty foods production, with a focus on regional branding and synergies with tourism: Leaders noted that local foods are gaining momentum in RiverLands, but the activity is highly fragmented at present. The region has many local food markets, though most are seasonal. A real problem for many specialty food growers is marketing their products and supplying them in sufficient scale to attract the attention of grocers and restaurants. Thus, one critical element of the strategy may be cooperative business models that can build brand recognition that benefits all growers. Another important element of this strategy will be developing synergies with the region's emerging tourism strategy. Wine trails, agri-tourism, and promoting local products in the region's restaurants and inns will be critical shared initiatives. Leaders felt that land-grant universities could be important partners in this overall strategic thrust.

After creating a regional brand, grow markets in nearby metropolitan areas: Participants agreed that near-by markets like Chicago offer huge upside for specialty foods grown in RiverLands, but breaking into these markets will require skill and planning. A regional brand will be an important first step before considering a broader marketing strategy beyond the region. Moreover, several participants noted that if the Region can attract more tourists to the region and they learn about the Region's high quality specialty foods, the markets will grow by word of mouth. In the end, though, leaders also acknowledged that the biggest potential for the region's specialty foods will be in markets, like Chicago, that lie beyond the region itself. Tapping these markets will require a concentrated marketing strategy that likely can be mounted only through regional collaboration, and with cooperative business models that unite the diverse strengths of a large number of specialty food growers. Again, land grant universities could be good partners in developing suitable approaches to both branding and the best business model."

Conversion of Agriculture Lands to Other Uses

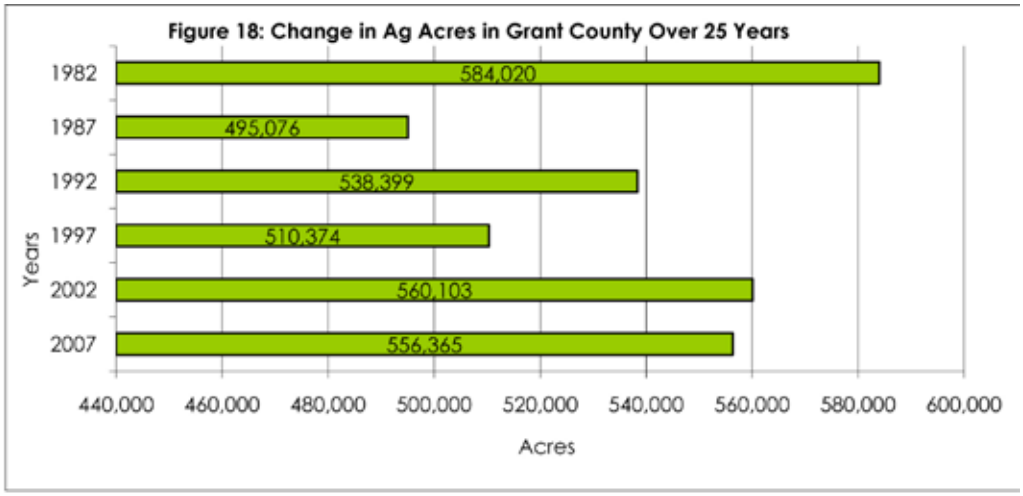
One of the primary threats to the future of agriculture is the loss of farmland to other developments. It is important to have an understanding on the rate in which farmland is being loss and to what particular activities. The following will detail the development trends in Grant County and attempt to project future impacts.

Grant County has lost significant amount of farmland from 1987 to 1997, but since then, the trend has slowly reversed, see Figure 17 below.



(Source: USDA Ag Census)

Figure 18 illustrates the change in agriculture acres from 1982 to 2007. According to the Wisconsin Department of Revenue, Grant County has had a net loss of 27,655 acres of agricultural land since 1982. Over the years, the amount of agricultural land has fluctuated with an increase of 43,323 acres between 1987 to 1992 and 49,729 acres between 1997 and 2002. The latest figures indicated a slight loss of 3,738 acres between 2002 and 2007.



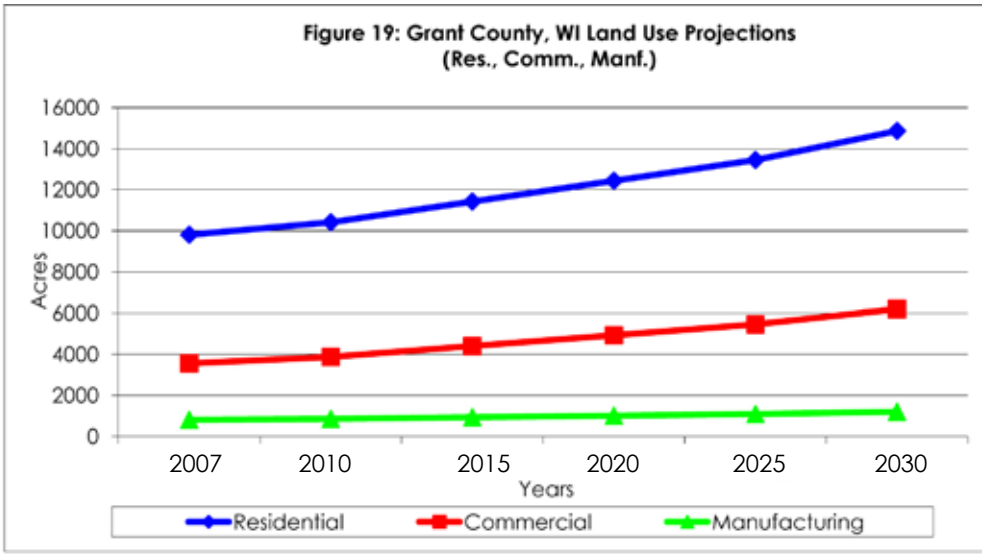
(Source: WI Department of Revenue Report on Property Values)

Table 31: Land Re-Zoned Out of Exclusive Agriculture (2005-2009)

New Zoning Classification	Year					
	2005	2006	2007	2008	2009	Classification Totals
A-1	15	13	13	6	7	54
A-2	7	11	10	9	8	45
R-1	1					1
R-2	1					1
C-1	1	2	1	1		5
C-2	1			2	1	4
M-1	1			2		3
Yearly Totals	27	26	24	20	16	113

(Source: Grant County Planning & Zoning, 2010)

Figure 19: Grant County, WI Land Use Projections (Res., Comm., Manf.)



(Source: WI Department of Revenue Report on Property Values, and SWWRPC)

When we compare both the USDA's data to the WDOR the common conclusions are:

- Grant County has less farmland now than it did in the 1980's.
- There has been a dramatic loss of farmland since then.
- The trend is reversing.

When land is re-zoned from 'Exclusive Ag' to another zoning classification, there is a loss of farmland and a gain of something else. Since 2005, 113 re-zones have resulted in the loss of 'Exclusive Ag' lands (See Table 31). The yearly trend has decreased, slightly, since 2005 and averages 23 re-zones a year. Of those re-zones, a majority (87.6%) remained in some form of agriculture (A-1 or A-2). This reflects a tendency for land owners to continue farming their land, but to allow for development opportunities as well.

Farming is the predominant part of the Grant County economy and supports and is supported by many agricultural-related businesses and services. Manufacturing, however, has been steadily gaining in importance and, as the cost-price squeeze in farming continues to tighten, more and more people seek at least part-time employment off the farm. The cost-price squeeze is also forcing the cultivation of marginal lands, resulting in increased soil erosion.

Soil erosion "takes" land just as surely as do urban and developed land uses, but is not as noticeable year to year.

While the taking of agricultural land for non-farm uses has not occurred equally throughout all parts of the County, there are local areas where it has caused considerable problems for farmers and for town government. It appears that most cities and villages in Grant County have adequate room for projected growth within their existing boundaries and further development should be encouraged to locate in these municipalities and in other areas (sanitary districts and platted subdivisions) where necessary facilities are already present or can be economically provided.

Development that does occur in rural areas should be encouraged to locate in such a manner so as to not take good farmland out of production or cause difficulties to established farming operations.

The removal of land from agricultural uses is not always avoidable. Roads need to be built; people need places to live, work, and play. On the other hand, agriculture is not only the basis of Grant County's economy but supports and makes possible the economic power of the entire United States. Considering that agriculture needs land in order to operate and that land is one commodity we cannot make more of, it seems logical to make some efforts to assure that there will be land available to farm in the future.

Anticipated Changes

While it is impossible to see into the future, the statistical trends do provide us with a basic understanding of what we might anticipate. The following text will provide a snapshot of changes that may affect production, processing, and supply and distribution.

Production

Based on trends, it appears as though agricultural production in Grant County will continue to increase over time. As land continues to be developed for commercial and residential use, it will become increasing important to preserve farmland.

Processing

Southwestern Wisconsin's agricultural processing heritage has transformed over the years to include cottage industries such as goat cheese, wineries, and microbreweries. Economic developers are quick to point out that these 'value-added' products are much more beneficial to the region's economy. One can anticipate further expansion of these 'cottage industries' in the future.

Supply & Distribution

Grant County benefits from a strong network of transportation options. The dairy industry demands investments in roads that are not normally found in other rural areas of the Midwest. In addition, rail service has been preserved, and in some areas enhanced, to provide a high level of service to the region. As production and processing increases over time, one can expect supply and distribution facilities to experience a stronger demand and need for investment.

Key Land Use Issues & Strategies

The trends affecting farming in Grant County reveal several issues in which strategies should address. These strategies, in turn, will be supported through planning goals, policies, and actions, along with programs and resources to implement those actions. The following text will identify the issues and strategies concerning farmland preservation and promoting agricultural development.

Farmland Preservation

With the changes in development pressure and the transition out of farming by many, the nature of the industry is rapidly changing. Some of the conflicts and threats are within local control and some are tied to state, national and global decisions. This comprehensive plan cannot impact decisions such as commodity prices, which are set on the world market and the reduced marketing opportunities as a result of consolidation. What the plan can do, is respond to local conflicts and issues. The following text identifies some of the most pressing local issues and conflicts.

- Issue: Conflicts with new residents with non-agriculture backgrounds, including smells and odors, traffic conflicts, animal waste disposal, trespassing, dust, manure and mud on the roads, chemical applications, equipment noise, lights, and fencing requirements.
    - Strategy: Provide new residents with a copy of the Wisconsin Farm Bureau Federation's publication: 'Partners in Rural Wisconsin-A Guide to Positive Neighbor Relations in Wisconsin Farm Country'.
- Issue: Fragmentation of farm fields as new parcels are created.
    - Strategy: Encourage new development to cluster along the edges of parcels in the least agriculturally-productive areas.
- Issue: Agricultural land values exceeding possible agricultural income opportunities.
    - Strategies: Be sensitive to property tax issues that affect the land value of farmland, provide incentives for 'value-added' agribusiness, and maintain and enhance farming infrastructures (processing, storage, transportation, and supply) in the County.
- Issue: The challenges of developing a new generation of farmers.
    - Strategies: Support educational and community efforts such as FFA, 4H, Local Fare, and the Grant County Fair as methods in which to promote agriculture.

Promoting Agricultural Development

Agriculture is changing rapidly and it is likely to continue to do so. It appears that the future will include three types of operations: larger commodity producers, niche/specialty producers, and life-style farming operations. In the past, the commodity producers were dominant, but this is changing as traditional dairy producers and older farmers are leaving the business. Now, more than ever, the County must promote agricultural development as a means of preserving its cultural heritage as well as its economic health. Several strategies that can promote agricultural development are:

- *Property Tax*: Be sensitive to property tax issues that affect the land value of farmland so as not to encourage the development of productive farmland.

- *Value-Added Agriculture*: Provide incentives for 'value-added' agribusiness that can lead to economic spillover effects.

- *Maintain and enhance farming infrastructures*: Assure that agricultural development will be supported by an efficient infrastructure of processing, storage, transportation, and supply facilities.

- *Education & Marketing*: Work with local organizations and government agencies to promote the agricultural industry and to 'grow' a new generation of farmers and agribusiness people.

IV. PLANNING PROCESS

Introduction

The planning process used to develop this document uses a 'bottom-up' approach to align the County and local Comprehensive Plans with Grant County's Farmland Preservation Plan. In order to accomplish this, it was necessary to divide the project into two parallel planning processes-one at the County level and one at the local level. As information was collected, it was shared with the other process to inform and shape this planning document. The following text will describe the 2 pieces of legislation that the plan addresses as well as the 'bottom-up' planning approach.

Wisconsin Working Lands Initiative

On June 29, 2009, Governor Doyle signed the Wisconsin Working Lands Initiative into law as part of the state's 2009-2011 biennial budget process. The goal of the Wisconsin Working Lands Initiative is to achieve preservation of areas significant for current and future agricultural uses through the successful implementation of the following components:

1. Expand and modernize the state's existing farmland preservation program.
2. Establish agricultural enterprise areas (AEAs).
3. Develop a purchase of agricultural conservation easement matching grant program (PACE).

The following explains the Wisconsin Working Lands Initiative in greater detail (Source: DATCP, "Planning for Agriculture", 2009):

"Planning is essential for effective farmland preservation. Through good planning, the best farmland can be preserved and land use conflicts can be minimized. Under the Working Lands Initiative, counties are encouraged to participate in the program through the development of farmland preservation plans. Counties that develop a farmland preservation plan and have it certified by the state Department of Agriculture, Trade and Consumer Protection (DATCP) enable eligible farmers to participate in Working Lands programs.

Farmland Preservation Plan Requirements:

- Chapter 91, Subchapter II of Wisconsin State Statutes specifically identifies planning requirements to obtain state certification of a County farmland preservation plan. All plans must clearly state the County's policy related to:
  - Farmland preservation, and
  - Agricultural development, including development of enterprises related to agriculture

The plan must also identify, describe and document other relevant information to support the County's stated policy. Two other key components for plan development include the identification of farmland preservation areas and a discussion of the County's strategy to increase housing density outside of identified farmland preservation areas.

- Farmland Preservation Areas: A key component to development of a County farmland preservation plan is the identification of "farmland preservation areas." A farmland preservation area is an area where the County plans to preserve agriculture and agricultural related uses. These areas may also include natural resource areas such as wetlands. Counties must develop an objective rationale to explain the areas chosen for farmland preservation. The mapping of farmland preservation areas has direct implications for development of farmland preservation zoning ordinances since certification of farmland preservation zoning districts requires that the district be located within a farmland preservation area. Similarly, agricultural enterprise areas and PACE easements that receive DATCP grants may only be located in an area identified as a farmland preservation area.

  A County may wish to designate one general type of farmland preservation area for certification, or they may wish to designate multiple types of farmland preservation areas. In designating these areas, a County must anticipate how other land use tools, such as farmland preservation zoning districts, will be used to ensure that there is consistency between the plan and these other tools.

When making a decision about what to designate as a farmland preservation area, the County must be sure to include a fact-based rationale for designation of the farmland preservation area. This rationale should include reasonable criteria such as location of existing farmland, soil type, quality and productivity, topography, drainage, potential for continued agricultural use, and proximity to incorporated areas. This rationale may not be based on landowner interest in being located in one of these designated areas.

- Increasing Housing Density: The statute also requires a County farmland preservation plan to include policies, goals, strategies, and proposed actions to increase housing density in areas outside of the identified farmland preservation areas. There is no prescribed method for how a County must approach this requirement. Instead, it is up to each County to use its best judgment to make a good faith effort to adopt goals and strategies for increasing housing density in areas outside of farmland preservation areas.

It is up to the County to determine how to develop the farmland preservation plan to meet all of the requirements in s. 91.10(1). When developing a farmland preservation plan, it is recommended that a County use the "County Application for Farmland Preservation Plan Certification" as a guide to ensure that the plan meets all statutory requirements. The application form is developed by the Wisconsin Department of Agriculture, Trade and Consumer Protection and is available at: http://workinglands.wi.gov."

'Smart Growth' Comprehensive Planning

In 1999, the Wisconsin Comprehensive Planning Law (s. 66.1001, Wis. Stats.) was signed into law. Although sometimes referred to as the 'Smart Growth Law', the Comprehensive Planning Law does not prescribe where development should occur. The purpose of the Comprehensive Planning Law is to improve the amount and quality of communication within and between jurisdictions, especially in regards to land use decisions. There are 9 chapter 'elements' that must be included in the Comprehensive Plan:

1. Issues & Opportunities
2. Utilities & Community Facilities
3. Agriculture, Natural, & Cultural Resources
4. Housing
5. Transportation
6. Economic Development
7. Intergovernmental Cooperation
8. Land Use
9. Implementation

Beginning January 1, 2010…"*any program or action of a local governmental unit that affects land use" must be consistent with that unit's comprehensive plan, including the following:*

- Municipal incorporations, consolidations & detachments
- Annexations
- Cooperative boundary agreements
- Official mapping
- Local subdivision regulation
- Extraterritorial plat review
- Zoning ordinances (enacted or amended)
- Transportation facility economic assistance & development matching grants
- Agricultural preservation plans (new or revised)
- Impact fees ordinances
- Land acquisition for recreational lands and parks under sec. 23.09
- Any other ordinance, plan or regulation relating to land use" (Source: Sec. 66.0295(3), Wis. Stats.)

Therefore, the Grant County Farmland Preservation Plan must be 'consistent' with the Grant County Comprehensive Plan. In order to assure consistency, there has been a deliberate action to link the two documents in data, analysis, text, maps, and policies. In addition, this planning process also provided for the opportunity to align the County plan with local comprehensive plans.

Public Participation Plan

In order to ensure active public engagement, a Public Participation Plan was created. The Plan promotes participation using the following techniques:

- Promote the Grant County Farmland Preservation Plan via mailings, informational meetings, and website.
- Hold a large group information meeting at Lancaster Youth & Ag Building.
- Hold cluster meetings at local sites to map agricultural resources and farmland preservation districts.
- Maintain an informational website that contains all planning materials.
- Assure that all Grant County Planning & Zoning meetings are open to the public.
- Host a public hearing prior to adopting the proposed plan.
- Publish the adopted planning document online and make available to the public at the Grant County Planning & Zoning Department.

The Public Participation Plan in its entirety can be found in the Appendix pp. 2-4.

Schedule

SWWRPC and Grant County Planning & Zoning staff held a information workshop on December 2nd, 2009 at the Lancaster Youth & Ag Building. The purpose of the workshop was to allow DATCP, UW Extension, and Grant County Planning & Zoning present and answer questions regarding 'Working Lands Initiative'. The workshop was well-attended and a follow-up by Grant County Land and Water Conservation with a spring workshop.

In February, 2010, Grant County authorized SWWRPC to begin updating its existing farmland preservation plan to make it compliant with the 'Working Lands Initiative'. The following lists the schedule of planning activities that occurred from March 2010 to September 2010.

- March 2010: Public Participation Plan is crafted and Grant County Planning & Zoning Committee members are introduced to the 1982 Farmland Preservation Plan and to 'Working Lands Initiative. Letters are sent to all jurisdictions inviting them to a 'Kick-Off' workshop in April.

- April 2010: Purpose Statement is finalized by Grant County Planning & Zoning Committee and 'Kick-Off" event is held on April 7th at the Lancaster Youth & Ag Building.

- May 2010: Grant County Planning & Zoning Committee reviews the Farmland Preservation Area mapping process. SWWRPC and Grant County staff begin meeting one-on-one with local jurisdictions to identify agriculture-supportive businesses and delineate farmland preservation areas.

- June 2010: Grant County Planning & Zoning Committee compares the farmland preservation goals and policies to the Grant County Comprehensive Plan to assure consistency. Local one-on-one meetings continue.

- July 2010: Grant County Planning & Zoning Committee reviews the 'Background' content of planning document. Local one-on-one meetings continue.

- August 2010: Grant County Planning & Zoning Committee reviews "Analysis" content of planning document. Jurisdictions receive draft of local 'Farmland Preservation Area" map for review.

- September 2010: Grant County Planning & Zoning Committee reviews and finalizes "Goals, Policies, & Actions" content in planning document. Corporation Counsel reviews document and begins certification process.

- October 2010: Grant County Planning & Zoning Committee recommends plan for adoption. Grant County Board Chair chooses a public hearing time and date. Planning document is sent to DATCP for certification. Local planning committees approve their respective "Farmland Preservation Area" maps, select a public hearing time and date. Pub-

lic review copies of the County planning document are sent to surrounding counties, local jurisdictions, libraries, and pertinent agencies for review.

- November 2010: 30-day public review of County's planning document. Local jurisdictions conduct their respective public review of their local "Farmland Preservation Area" maps.

- December 2010: Grant County Board hosts public hearing and adopts plan by ordinance. Local jurisdictions host their respective hearings and adopt their respective maps by resolution. DATCP certifies plan.

Planning Process: Bottom-Up Approach

The overall goal of the project design was to develop a certified farmland preservation plan by the end of 2010 that tied local comprehensive plans to the County's farmland preservation plan. In order to accomplish this, local planning meetings were held to identify farmland preservation areas and agriculture-supportive businesses while County meetings were held to review data, develop strategies, and select goals and policies. Participating jurisdictions provided valuable information that was reflected in the County plan. Non-participating jurisdictions, either by election or by exemption (those that did not have a local comprehensive plan) were excused from the process. Farmland within those areas was evaluated using the Grant County Comprehensive Plan and Zoning Ordinance.

Local Planning Efforts

The Grant County Farmland Preservation Plan is built from the 'bottom-up" to assure consistency among all comprehensive plans from the participating jurisdictions as well as the County's plan. SWWRPC staff worked directly with each participating jurisdictions' planning commission to delineate farmland preservation areas and inventory agricultural-support businesses in the County. Local planning commissions were briefed on the purpose of the Grant County Farmland Preservation Plan, the details of the Wisconsin Working Lands Initiative, and provided mapping instructions.

County Planning Efforts

SWWRPC Staff met monthly with the Grant County Planning & Zoning Committee and almost weekly with the Grant County Planning & Zoning Administrator. The purpose of those meetings was to assure that the planning process reflected the values and concerns of the citizens of Grant County. Planning & Zoning committee members participated in dialogue that shaped this text including: stakeholder identification, planning logistics and communication, data analysis, strategy development, and goal, policy and action selection. In addition, Grant County Planning & Zoning as well as Grant County Tax Listings and Grant County Sanitation helped provide data essential to the completion of this document.

Plan Synthesis

Even though the 2 planning processes ran parallel, both aided one another and fed directly into the finished document. Questions and comments from local meetings were brought forward to County meetings. Those questions and comments often led to discourse that shaped the process as well as the plan content. Suggestions from the County level were incorporated into local planning efforts. Information slowly converged over time to produce a single planning document.

Farmland Preservation Areas

The Grant County Farmland Preservation Plan uses a 2-pronged approach to delineate 'Farmland Preservation Areas". The first approach relies on geographic information systems (GIS) in which a computer model expresses the values of the Grant County Comprehensive Plan's agricultural, natural resource, and land use policies. The second approach relies on each of the jurisdiction's Proposed Land Use Maps from their respective comprehensive plans. Both approaches were used simultaneously by local jurisdictions to evaluate their landscape. For those jurisdictions who did not participate in the planning process, either by election, or by exemption (lack of a comprehensive plan), the Grant County Comprehensive Plan, Zoning Ordinance, and LESA maps were used for guidance. The following text describes the 2 approaches in greater detail.

Land Evaluation Site Analysis (LESA)

A Land Evaluation Site Analysis (LESA) model was assembled using the policies from the Grant County Comprehensive Plan and the best available data. All parcels within the County were given a score (1-100) based on a series of measurable factors. The more points a parcel scored, the more it should be preserved as farmland.

The LESA analysis is 2-fold, the first being the 'Land Evaluation' which looks at each individual parcel's characteristics regardless of proximity. The second aspect is the 'Site Analysis' which focuses the parcel's proximity to its environs.

The Land Evaluation provides 30% of the total scoring while the Site Analysis provides the remaining 70%. Because Grant County is blessed with extremely productive soil throughout, proximity was given the higher proportion of the total scoring. The scoring system is illustrated in Table 32 (See Map 18.1a for the LESA map).

Unzoned townships in Grant County may be planned for farmland preservation. However, farmlands in these towns are not eligible for tax credits until they certify a farmland preservation zoning ordinance or petition for an Agricultural Enterprise Area so landowners may sign farmland preservation agreements. In determining the county plan areas for these towns, parcels receive the full 30 points for the "Zoning/Participation" Criteria for the LESA score. All other criteria for identifying farmland preservation plan areas in unzoned townships are calculated in the same manner as with the rest of the county. Revised maps for these towns will be added as appendices to this plan as needed.

The Town of Castle Rock is currently included, and other unzoned towns that may be included in the future despite being unzoned. Being part of an AEA, Castle Rock and other unzoned towns are eligible for $5 per acre tax credits if they enter into a 15-year farmland preservation agreement with DATCP. The only change to calculating their LESA score is that every parcel received 30 points for the "Zoning/Participation" criteria. All other criteria were calculated in the same manner as with the rest of the county.

Proposed Land Use Maps

For every jurisdiction within Grant County, there is a 'Proposed Land Use Map' derived from either the jurisdiction's local Comprehensive Plan, or for those jurisdictions that do not have a local plan, the Grant County Comprehensive Plan. A Proposed Land Use Map illustrates the projected and desired land uses a community foresees for the next 20 years. It is the result of years of painstaking analysis and debate. Because farmland preservation plans must be consistent with Comprehensive Plans, these maps were critical in identifying areas for farmland preservation.

Participating jurisdictions were asked to verify which areas within their respective 'Proposed Land Use' maps designated as 'farmland' should be preserved for farming in the future. LESA analysis maps were used in conjuncture to verify land characteristics.

Rough drafts of local farmland preservation maps were developed and returned to each jurisdiction for review and acceptance via the planning commission and board/council resolutions.

Map Synthesis

In order to bring the 2 maps together in a uniform fashion, a couple of ground rules were put in place. The first being, all areas designated as 'farmland preservation' on the Farmland Preservation Map should be consistent with those areas designated as 'agriculture' on the Proposed Land Use Maps. Exceptions to this must have a logical rationale behind it. Some examples include:

- Changes in jurisdictional boundaries
- Modifications to the Proposed Land Use Map since their adoption
- Changes in development pressure in areas once thought to be reserved for municipal expansion or commercial development

Table 32: Land Evaluation Site Analysis (LESA) Scoring System

Land Evaluation (30%)		
Comprehensive Planning Policy Factor	characteristic	points
Prime Farmland (20 points possible)	90% or more	20 points
	75% to 89.9%	15 points
	50% to 74.9%	10 points
	25% to 49.9%	5 points
	Less than 25%	0 points
Size of Parcel (10 points possible)	More than 30 acres	10 points
	10 to 29.9 acres	5 points
	Less than 10 acres	0 points
Site Analysis (70%)		
Comprehensive Planning Policy Factor	characteristic	points
Zoning (25 points possible)	Exclusive Ag	25 points
	A1 Agriculture	10 points
	A2 Agriculture	5 points
	Other	0 points
Proximity to City or Village (15 points possible)	Outside ¾ mile of limits	15 points
	Within ¾ mile of limits	0 points
Slope (10 points possible)	Low Average	10 points
	Medium Average	0 points
	High Average	5 points
Rivers and Streams (10 points possible)	Trout Stream	10 points
	Named Stream	7 points
	Unnamed Stream	5 points
	None	0 points
Endangered Species (5 points possible)	Both Terrestrial & Aquatic	4 points
	Terrestrial	2 points
	Aquatic	2 points
	+ Bonus Township Occurrence	+1 points
Highway Adjacency (5 points possible)	Non-adjacent	5 points
	Adjacent	0 points

(Source: SWWRPC, 2010)

Figure 20: Mapping Process

Farmland Preservation Areas Defined:

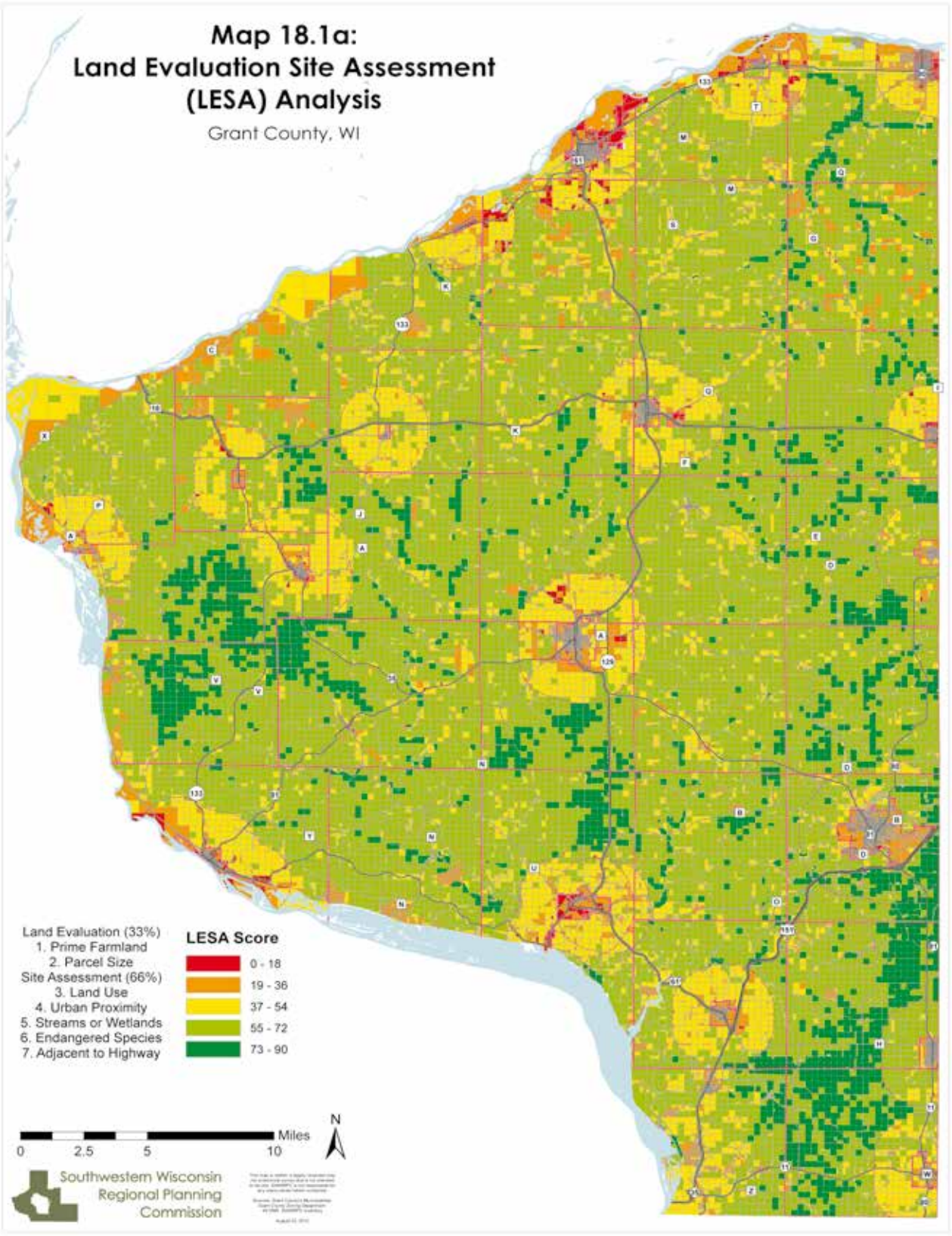
Areas were chosen to be in the designated Farmland Preservation Areas based upon the analysis discussed above, and, specifically, because they met the following criteria:

- The land is suitable for agricultural activities,
- The current and future land use identified within the local Comprehensive Plans were agricultural,
- The land is compliant with criteria defined in WI Stat. 91.10
- Local residents and Grant County Zoning Staff agreed with the designations.

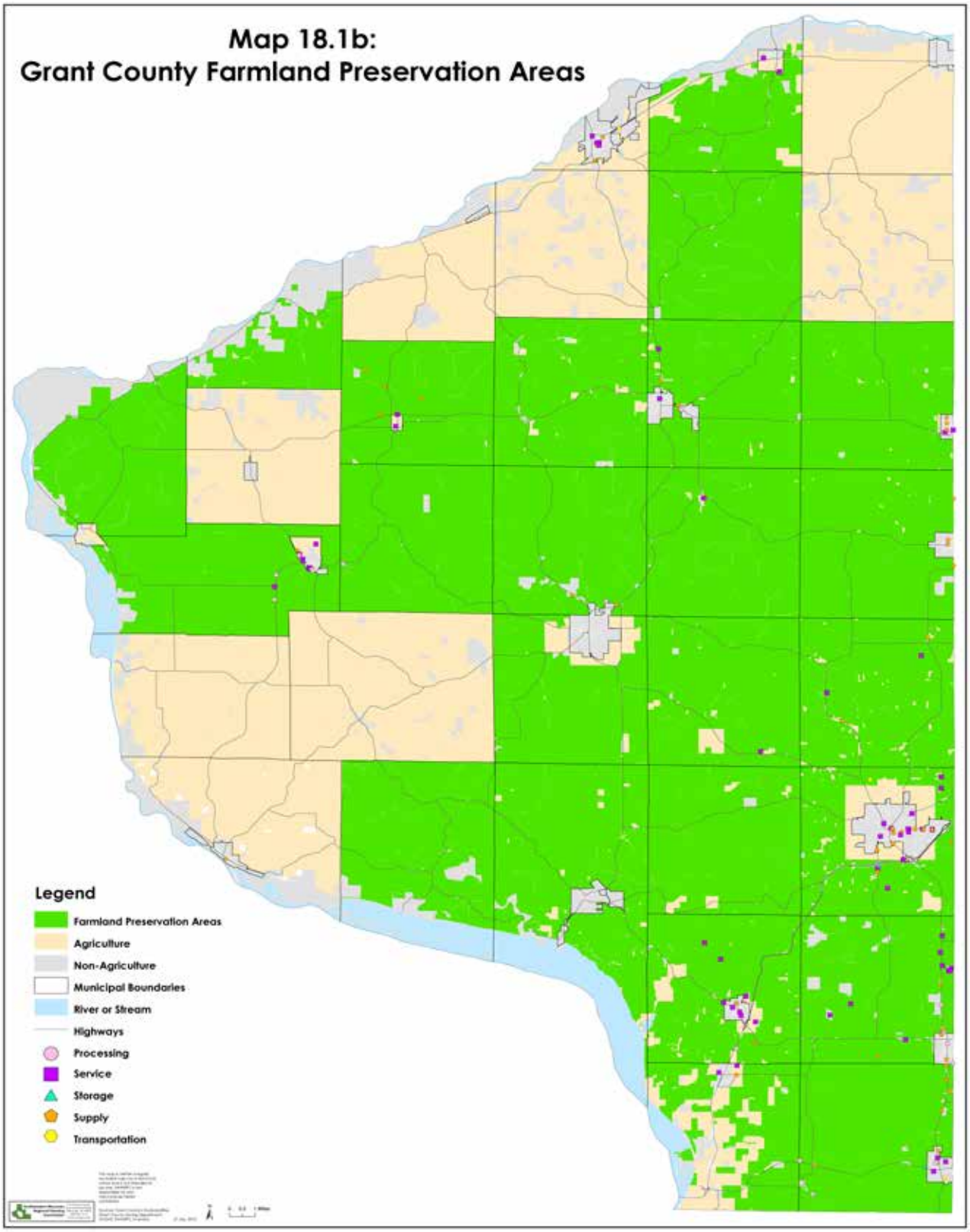
The final results our Farmland Preservation Area designations are illustrated in the Grant County Farmland Preservation Area Map (See Map 18.1b). In the Map, all of the land in the County has been designated as either:

- "Farmland Preservation Area" (areas in green)- These areas are designated for certification by DATCP as particpating in the "Farmland Preservation Program" as defined by Wis. Stat. 91.10
- "Agriculture" (areas in tan) will allow for farming and future non-agricultural development to occur, but are not certifiied for participation in the Farmland Preservation Program.
- "Non-Agricultural" (areas in gray) are lands unsuitable for farming or are within municipal or DNR boundaries.

Local Farmland Preservation Area Maps can be found in section VII Maps.



Map 18.1a: LESA Analysis



Map 18.1b: Farmland Preservation Areas

V. IMPLEMENTATION

Introduction

The purpose of any plan is to offer a guide for future actions. However, if attempts are not made to carry out the plan, the effort and thought put into it will be wasted. Consequently, this section of the Grant County Farmland Preservation Plan details the goals, policies, and actions that are being taken and could be taken to preserve and promote the wise use of agricultural and other resources in Grant County.

Goals & Policies

Goals and policies are the framework around which the development, adoption, and implementation of the Farmland Preservation Plan are built. Goals are future situations which are thought to be desirable and policies describe the approach which will be taken in order to achieve those goals. Actions are the specific methods to execute the policies.

The following goals and policies have been developed as a result of comments received and views expressed at public meetings and consideration of established County land use policies and accepted planning principles. The goals and policies affect all County residents but are specifically focused on farmland and the agricultural situation.

GOAL 1: AGRICULTURAL LAND PRESERVED FOR AGRICULTURAL USE

- Policy 1.1: Land in productive farm operations, in addition to important farmlands as defined by the Soil Conservation Service, will be maintained for present and future agricultural use by all means available. Other County policies and action must take this policy into consideration.

- Policy 1.2: Land to be preserved is generally identified on the farmland preservation areas map included as an integral part of this plan.

- Policy 1.3: An exclusive agricultural zone will be made available as part of the Grant County zoning ordinance. Towns will be encouraged to utilize this zoning if they feel it is necessary to protect farmland in their township.

GOAL 2: SOIL EROSION REDUCED TO A MINIMUM THROUGH INCREASED USE OF SOIL CONSERVATION MEASURES

- Policy 2.1: All rural landowners will be encouraged to become cooperators with the Grant County Land Conservation Department and to

implement the conservation plans developed by the landowner and the LCD.

- Policy 2.2: Increased levels of funding will be sought for financing conservation measures so that the cost of installing and maintaining conservation practices are not borne entirely by the present landowner.

- Policy 2.3: Educational efforts stressing the need for soil conservation as the preservation of an irreplaceable natural resource will be encouraged.

GOAL 3: ENVIRONMENTAL AREAS PRESERVED AND PROTECTED

- Policy 3.1: Areas of environmental significance, especially those located within environmental corridors as defined and indicated in this plan, will be preserved and protected for present and future use consistent with their limitations and capabilities. Private as well as public methods to preserve these areas will be encouraged as will innovative methods of protection.

- Policy 3.2: In those areas which have zoning, environmentally significant areas will be encouraged to be placed in a conservancy zone. Alternatively, if the environmental area is included within an operating farm, it may be placed in the exclusive agricultural zone which gives the area protection against nonfarm development.

GOAL 4: FUTURE NON-AGRICULTURAL DEVELOPMENT LOCATED IN EXISTING COMMUNITIES

- Policy 4.1: Future industrial, commercial, and residential development will be encouraged to locate within existing communities which have the capability to provide the necessary urban services. Rezoning of rural agricultural land (if applicable) will be discouraged if suitable sites for the proposed use are available within existing communities.

- Policy 4.2: Encourage and assist communities to provide the amenities and services which are attractive to development.

- Policy 4.3: Encourage areas outside of farmland preservation areas to increase in housing density.

- Policy 4.4: These policies are to be consistent with adopted city and village plans. In case of inconsistencies, the township/County and the city/village will work together to resolve the differences.

GOAL 5: NON-FARM RURAL DEVELOPMENT WHICH IS FOUND TO BE NECESSARY LOCATED SO AS TO CAUSE MINIMUM INTERFERENCE WITH OR INTRUSION INTO THE PRACTICE OF AGRICULTURE AND MINIMAL DAMAGE TO ENVIRONMENTALLY SENSITIVE AREAS.

- Policy 5.1: Non-farm development will be directed to non-agricultural soils or less productive agricultural soils, consistent with the needs of the development.

- Policy 5.2: Non-farm development will be directed to areas where it will cause minimum disruption of established farm operations' damage to environmentally sensitive areas.

- Policy 5.3: Non-farm development will be encouraged to locate so as to leave a maximum amount of farmland in farmable size parcels.

- Policy 5.4: Non-farm residential development will be directed to existing platted subdivisions and sanitary district.

- Policy 5.5: Agriculturally-related development, while not discouraged in rural areas, will still comply with other policies set forth in this section, consistent with being located where it will be of maximum benefit to agriculture.

- Policy 5.5: In those areas which have zoning, the preceding policies will guide rezoning decisions.

GOAL 6: A STRONG LOCAL ECONOMY WHICH SUPPORTS AND IS SUPPORTED BY AGRICULTURE

- Policy 6.1: Local trades and businesses, especially those which serve agriculture, will be supported and encouraged. New development will be encouraged if it is compatible with and/or complementary to the agricultural base.

- Policy 6.2: Encourage the development of enterprises related to agriculture as this is critical in sustainable an agricultural economy.

GOAL 7: PRESERVATION OF THE FAMILY FARM

- Policy 7.1: Support state and national agricultural policies which are beneficial to the varieties of agriculture practiced in Grant County.

GOAL 8: PRESERVE FARMLAND AND ENVIRONMENTAL AREAS CONSISTENT WITH CURRENT AND EXPECTED FUTURE SITUATIONS

- Policy 8.1: This plan will be reviewed (and revised, if necessary) every five years, sooner if situations dictate.

These goals and policies are in general agreement with previously adopted goals, objectives, and policies of the Grant County Comprehensive Plan, 2010.

Actions

In order to carry out the intent of the above goals and policies, it is necessary to take specific actions. Table 33 illustrates the actions in which Grant County must take in order to implement its Farmland Preservation Plan. For each action item a description, list of goals that item supports, resources needed to execute the item, timeline for completion, and measure to recognize the successful completion of the item has been denoted.

Table 33: Grant County Farmland Preservation: Action Plan

Action	Description	Goals it Supports	Resources	Timeline	Measure
Action 1	Create zoning database to track 'Base Farm Tracts'.	1, 3, 4, 5	SWWRPC	1 year	Database
Action 2	Update Grant County Zoning Ordinance and Zoning Map.	1, 3, 4, 5	SWWRPC	1 year	Ordinance
Action 3	Provide information about land and soil conservation to land owners.	2	Grant County Land & Water Conservation	1 year	Materials available at Grant County Planning & Zoning office and online
Action 4	Assist un-zoned jurisdictions in becoming zoned, if requested.	1, 3, 4, 5	n/a	Ongoing	n/a
Action 5	Co-host a workshop on zoning, farmland preservation, and land and water conservation.	1, 2, 3, 4, 5, 6, 7	UWEX & Grant County Land & Water Conservation	1 year	Workshop and online materials
Action 6	Review plan for relevancy.	8	n/a	Every other year	Formal review by Grant County Planning & Zoning
Action 7	Investigate developing an additional development fee in farmland preservation areas.	1, 3, 4, 5, 6,	SWWRPC	3 years	Recommendation

Implementation Resources

Zoning

Zoning is a tool which is widely used throughout the United States to conserve and protect urban and rural land for its most appropriate use. It seeks to direct certain land uses to those areas (called districts or zones) which are suited to such uses, thereby encouraging the most appropriate use of land. Zoning is applicable to changes in the existing land use but cannot be applied retroactively. Grant County adopted a comprehensive zoning ordinance in 1970. The parts of the ordinance which pertain to flood plains and shore lands are in effect in all unincorporated areas in Grant County which are not involved in extraterritorial zoning. The remainder of the ordinance is effective only in those townships which adopt it. (Six towns have adopted the entire ordinance as of January 2010.)

The Grant County Zoning Ordinance divides the unincorporated areas of the County into 12 zoning districts:

Exclusive Agricultural EAZ
Agricultural A-I
Agricultural A-2
Residential R-I
Residential R-2
Residential R-3
Commercial C-I
Commercial C-2
Industrial M-I
Industrial M-2
Conservancy-Forestry-Recreation CFR
Flood Plain FP

A detailed explanation of each district will not be attempted here; interested readers may consult the text of the Grant County Zoning Ordinance. Suffice it to say that the residential, commercial, and industrial zones offer ample opportunity for developed land uses.

The EAZ Agricultural District is basically an agriculture-only district, with a 35 acre minimum lot size. This zone meets the requirements of an exclusive agricultural zone as set by the Agricultural Lands Preservation Board, thereby qualifying land so zoned for special tax credits. This zone allows agriculture essentially free rein and grants certain protection to agricultural land.

The A-1, A-2, and A-3 Agricultural Districts are less restrictive to non-farm uses, but also offer less protection for agricultural land and land so zoned does not qualify for the special tax credits.

The conservancy-forestry-recreation (CFR) district is intended as a multiple use district to:

"…protect, preserve, enhance, and provide for the optimum use of those areas which have unique historic, scenic, scientific or natural assets…"

This district has the potential for protecting unique and valuable natural resource areas but allows certain developed uses, including cottages for seasonal occupancy and planned unit developments, as conditional uses. It seems likely that this zone could also be more effective if made more restrictive.

The flood plain (FP) district severely restricts developed land uses within flood prone areas. However, agriculture and conservancy uses ~generally permitted so this district offers some protection to farming and natural resources in flood prone areas.

Subdivision Ordinance

Subdivision control ordinances are designed to regulate the subdivision of land into smaller parcels, especially for development uses, so that this dividing up of land is done in a logical and sensible manner in response to a demonstrated or planned need and within the environmental capabilities of the site. State minimum standards for land subdivision have been established but counties, cities, and villages may enact more restrictive ordinances. Subdivision ordinances may set standards for layout and building and may require that streets, lights, sewer, water, etc. be installed before approval is granted. Additionally, even if a city, village, or township has not enacted a subdivision ordinance, they still have plat approval authority within their respective jurisdictions. In case of overlapping jurisdictions, the more

restrictive regulations would apply but all levels would have approval authority.

The Grant County Subdivision Ordinance, which became effective in February, 1971, and which applies to the creation of three or more lots of five acres each or less in area within a five-year period, has the following to say about land suitability for subdivision:

No land shall be subdivided which is held unsuitable for the proposed use by the County Planning Agency for reason of flooding, inadequate drainage, soil and rock formations with severe limitations for development, severe erosion potential, unfavorable topography, inadequate water supply or sewage disposal capabilities or any other feature likely to be harmful to the health, safety or welfare of the future residents of the proposed subdivision or of the community…

Specifically, the ordinance sets design standards which must be met by the developer. These design standards include the following:

- The layout of streets, lots, and blocks must conform with the Grant County Highway Plan
- Street standards, with right-of-way and per cent of grade relating to lot size and classification of streets; also, alignment, access, and street names
- Setbacks and vision corners relating to functional classification of streets and highways
- Block size, shape, and orientation
- Lot size, shape, and orientation
- Easements
- Dedication
- Planned unit developments

Additionally, certain improvements are required (paved streets, water supply, sewage disposal, drainage, etc.) and standards are set for these improvements.

This ordinance, while not specifically addressing farmland or natural resource lands or the usage thereof, does aim to prevent excessive governmental operating costs and aims to assure that development of land be carried out with all necessary protections against deterioration and obsolescence. By virtue of these regulations, rural landowners (including farmers) are given some protection against higher taxes due to improvements and services to the development and are given some protection against a diminution of their own property value due to substandard development nearby. Planned unit developments, whereby the density of housing may be increased if an area of land is devoted to open space, common space, or recreation areas and which have an advantage of providing housing in a more economical manner while retaining more of the rural character of the surrounding area, are also provided for in the subdivision regulations and are, in fact, encouraged.

Sanitary Code

A sanitary code establishes minimum standards for the location, installation, alteration, design, and use of public and private sewer and water systems. In Wisconsin, minimum standards have been set by the state and may be strengthened by local ordinance. Benefits of a sanitary code include protection of public health through protection of surface and underground water quality and protection of the land resource by not allowing installation on environmentally unsuitable lands.

A sanitary code has a potentially great influence on land use. The great majority of rural homes in Grant County are served by individual septic tank-filter field disposal systems.

Private Sewage System Ordinance

Effective March 25, 2009, Grant County adopted a new ordinance to regulate private sewage systems in Grant County, simultaneously repealing the old ordinance which had previously been in effect since 1980. The first section of the ordinance is hereby quoted:

"SECTION 4.01 INTRODUCTION

(1) Legislative Intent

The general intent of this Ordinance is to regulate the location, construction, installation, alteration, design and use of all private sewage

systems as so to protect the health of residents and transients; to secure safety from disease and pestilence; to further the appropriate use and conservation of land and water resources; and to preserve and promote the beauty of Grant County and its communities. It is further intended to provide for the administration and enforcement of this Ordinance and to provide penalties for its violation.

(2) Finding of Fact

The increase in population, leisure time and family income throughout the County coupled with the proximity of Grant County to urban metropolitan areas, its unique beauty and its abundant recreational and scenic resources have recently resulted in a rapid increase in the construction of rural residential and vacation homes and rural businesses and industries. This increase in development has created certain problems. Among these are the layout of lots unsuitable for development due to terrain or soil conditions, the installation of private sewage systems on soil types unable to absorb their effluent or on lots so small as to create health hazards, the construction of buildings and improvements in flood plains and floodways where they are periodically endangered or damaged by floods, and lowering of the water table." (Source: Grant County Ordinances, Chapter 4, Ordinances to Regulate Private Sewage Systems in Grant County, Wisconsin)

The old ordinance had placed soils into various categories of limitations for installation of septic systems, based upon Soil Conservation Service guidelines. Practical experience, however, has shown that because of the questions of scale and accuracy in determining the precise soil type at a given spot, the limitations for septic systems information is of limited use for single family dwellings. It is known, however, that maps indicating flood-prone areas and areas of steep topography (slopes) are still valuable in indicating where permits for private sewage systems are likely to be denied or, receiving approval, are more likely to fail within a given period of time. Resource maps indicating steep slopes and flood prone areas produced as part of this plan should prove useful in administration of the Grant County Private Sewage System Ordinance.

This discussion of the Grant County Sanitary Code dealt with the suitability of a given site for a private sewage disposal system. Many other factors are also examined when a particular building site is considered, including the following:

Location in respect to:

- Existing development
- Availability of public utilities and other public services
- Transportation availability of employment (or employees)
- Physical attractiveness of the site

Availability in respect to:

- Is the land for sale?
- Is the price affordable?

Alternatives in respect to:

- Alternative sewage disposal systems
- Alternative foundation/building systems to
- Utilize an otherwise unbuildable site

Any one of these factors may be considered of more importance than the soils limitations or suitability, or the long-term value of the soil for agriculture. The economic reasons for building in a particular area may, in-the short run, override the long-term benefits of land producing food and fiber and of clean air and water. The problem is that once land is converted to a developed use, it becomes extremely expensive and difficult, if not impossible, to return it to its original state. In light of this fact, and the fact that land is one commodity that we cannot produce more of, it would seem judicious that some thought and consideration be given as to where essentially non-reversible land uses are located.

The Grant County Soil Survey was undertaken for agricultural purposes, where the exact characteristics of a soil within a very small (greater than ½ acre) area were not important enough to justify the added expense of accurately mapping such an area.

Other Implementation Tools

A number of other implementation methods are available to protect agricultural and environmental lands. Some of these methods are briefly discussed below.

Agricultural Enterprise Area (AEA)

One method for preserving farmland is to designate an area as an 'Agricultural Enterprise Area". These contiguous land areas are devoted primarily to agricultural use and target local agricultural preservation and agricultural-supportive development. AEAs are designated by DATCP through a competitive application process. In order for an area to be designated an "AEA", the area must be:

- Located in a farmland preservation area
- Be a contiguous land area
- Primarily agricultural in use

AEAs preserve farmland by creating formal land agreements with adjacent landowners and the state in return for increased tax credits. (Source, DATCP, Agricultural Enterprise Areas, 2009.) To learn more about AEAs, contact DATCP at:

Wisconsin Department of Agriculture, Trade and Consumer Protection
2811 Agriculture Dr
PO Box 8911
Madison, WI 53708-8911

Purchase of Conservation Easements (PACE)

Another method for preserving farmland for generations to come is to have local governments and non-profit organizations purchase land easements from landowners. These purchases result in the permanent preservation of farmland regardless of ownership. The land remains on property tax rolls but cannot be redeveloped for any purpose that would prevent the land from being farmed.

"The PACE program provides state funding or the purchase of agricultural conservation easements. 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. Agricultural conservation easements may also provide additional protection to areas that have been designated as agricultural enterprise areas." (Source: DATCP, "PACE-Purchase of Agricultural Conservation Easements", 2009.)

PACE funds are only available to land located within a farmland preservation area. Landowners must relinquish the easement (development rights) willingly. Contact DATCP for additional information regarding the PACE program at:

Wisconsin Department of Agriculture, Trade and Consumer Protection
Attn: ARM Division – PACE
2811 Agriculture Dr
PO Box 8911
Madison, WI 53708-8911

Public Ownership

Public ownership can take different forms, from easements (purchase of specific rights relating to a parcel of land) to fee simple purchase. Nelson Dewey and Wyalusing State Parks are owned outright by the State of Wisconsin. The U.S. Government (U.S. Army Corps of Engineers, the Department of the Interior) and the State of Wisconsin (Department of Natural Resources) together own approximately 30,000 acres in Grant County which are managed as wildlife habitat and public hunting grounds. Other acreage in Grant County is available for public use by virtue of easements on the land to allow public access for fishing. At least four scientific areas are protected via State of Wisconsin ownership.

There has been some concern in Grant County about

continued state purchases of land. Once land is owned by the state, it is taken off the tax rolls and the tax burden formerly borne by this land must be redistributed to the remaining land in the township. A program exists whereby payments in lieu of taxes are made by the state to the township(s) affected and the sort of land usually bought by the state for recreational purposes generally did not contribute a great deal of tax revenue in any case, but this program is generally not well understood and has made for ill feelings towards the DNR. Further state control of large tracts of land is likely to be more favorably received if it occurs via lease or easement methods or if the state continues tax payments comparable to similar privately owned lands.

Additional Programs & Resources

USDA Farm Service Agency

The U.S. Department of Agriculture's Farm Service Agency (FSA) has a direct financial impact on rural Wisconsin families through the programs and services they offer. They are dedicated to stabilizing farm income, helping farmers conserve land and water resources, providing credit to new or disadvantaged farmers and ranchers, and helping farm operations recover from the effects of disaster.

Programs and services offered by the FSA include:

- *Farm Loan Program (FLP)*: The Farm Service Agency offers direct and guaranteed farm ownership and operating loans to farmers who are temporarily unable to obtain private, commercial credit. Often, FLP borrowers are beginning farmers who cannot qualify for conventional loans because they have insufficient financial resources. The Agency also helps established farmers who have suffered financial setbacks from natural disasters, or whose resources are too limited to maintain profitable farming operations.

- *Conservation Reserve Program (CRP)*: The CRP is a voluntary program that offers annual rental payments, incentive payments for certain activities, and cost-share assistance to establish approved cover on eligible cropland. The program encourages farmers to plant long-term resource-conserving covers to improve soil, water, and wildlife resources. The Commodity Credit Corporation (CCC) makes available assistance in an amount equal to not more than 50 percent of the participant's costs in establishing approved practices. Contract duration is between 10 and 15 years.

- *Direct and Counter-Cyclical Payments (DCP):* The 2002 Farm Bill makes payments to eligible producers of covered commodities for the 2002 through 2007 crop years. Direct and counter- cyclical payments are made to producers with established crop bases and payment yields. Payment rates for direct payments were established by the 2002 Farm Bill and are issued regardless of market prices. Producers also are eligible for counter-cyclical payments, but payments are issued only if effective prices are less than the target prices set in the 2002 Farm Bill. Commodities eligible for both direct and counter- cyclical payments include wheat, corn, sorghum, barley, oats, upland cotton, rice, soybeans, sunflower seeds, canola, flaxseed, mustard, safflower, rapeseed, and peanuts.

- *Milk Income Loss Contract Program (MILC)*: This program, authorized by the 2002 Farm Bill, financially compensates dairy producers when domestic milk prices fall below a specified level. Eligible dairy producers are those who produced milk in any state and marketed the milk commercially beginning December 2001. To be approved for the program, producers must be in compliance with highly erodible and wetland conservation provisions and must enter into a contract with USDA's Commodity Credit Corporation to provide monthly marketing data.

For more information contact USDA at:

USDA Farm Service Agency
Wisconsin State Office
8030 Excelsior Drive
Madison, WI 53717-2905

Phone (608) 662-4422
Fax (608) 662-9425
http://www.fsa.usda.gov/WI

Natural Resources Conservation Service (NRCS)

The Natural Resources Conservation Service (NRCS) is the federal agency that works with landowners on private lands to conserve natural resources. NRCS is part of the U.S. Department of Agriculture, formerly the Soil Conservation Service. Nearly three-fourths of the technical assistance provided by the agency goes to helping farmers and ranchers develop conservation systems uniquely suited to their land and individual ways of doing business. The agency also assists other private landowners and rural and urban communities to reduce erosion, conserve and protect water, and solve other resource problems. NRCS provides:

- *Technical Assistance for Conservation*: Conservation technical assistance is the basis of NRCS mission to conserve, sustain, and improve America's private lands. NRCS staff works one-on-one with private landowners to develop and implement conservation plans that protect the soil, water, air, plant and animal resources on the 1.5 billion acres of privately owned land in the United States.

- *Soil Survey*: NRCS is responsible for surveying the soils of the United States, publishing and interpreting soil information. Soil information is the basis for natural resource and land use planning, key to assessing site potential for specific uses and identifying soil characteristics and properties.

- *National Resources Inventory*: Every five years, NRCS conducts the National Resources Inventory (NRI) on nonfederal rural land in the United States. This inventory shows natural resource trends, such as land cover and use, soil erosion, prime farmland, and wetlands. The 1992 NRI, for example, shows that farmers are dramatically reducing soil erosion on cropland. From 1982 to 1992, erosion on all cropland declined by about one-third, going from 3.1 billion to 2.1 billion tons a year.

- *Wetlands*: Wetland conservation is an important and sensitive issue. During 1982-1992, wetland losses due to agriculture slowed to about 31,000 acres a year, a more than 90 percent reduction compared to conversion rates between 1954 and 1974. NRCS is one of the four primary federal agencies involved with wetlands.

- *Wetlands Reserve Program*: In the Wetlands Reserve Program, conservation easements are purchased from landowners to restore or enhance wetland areas. Ownership, control of access, and some compatible uses remain with the landowner.

- *Wetland Identification*: NRCS has technical leadership for identification and delineation of wetlands on agricultural lands and on all USDA program participant's lands. NRCS maintains a list of hydric soils and a wetland inventory on agricultural land.

- *Soil Quality*: Over the past decade, NRCS has been helping producers develop and implement 1.7 million conservation plans on 143 million acres of highly erodible cropland as part of the conservation compliance provision of the Food Security Act of 1985. As a result, erosion on the most highly erodible cropland has been cut by two-thirds.

- *Water Quality*: NRCS assists farmers to improve water quality. This includes improving nutrient and pesticide management and reducing soil erosion, thus decreasing sediment that would otherwise end up in lakes and streams. Technical assistance, including engineering, structure design and layout for manure management and water quality practices contributes significantly to state water quality efforts. Through the Environmental Quality Inventive Program, NRCS provides technical and financial assistance for local resource priorities.

For more information, contact NRCS at:

Natural Resources Conservation Service
6515 Watts Road
Suite 200

Madison, WI 53719
Phone (608) 276-USDA
http://www.wi.nrcs.usda.gov

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. Services include:

- *Growing Wisconsin Agriculture*: Wisconsin is committed to the long-term profitability of agricultural businesses. Legislation passed in 2004 strengthens agriculture and invites producers to invest, reinvest and expand.

- *Financial Counseling and Advising*: The Farm Center's financial experts are trained in feasibility analysis, enterprise analysis, debt analysis along with restructuring and cash flow projection. They can personally assist producers and answer specific questions, providing useful resource materials.

- *Farm Mediation*: The Farm Center's farm mediation program provides dispute resolution services to farmers with problems involving creditor-debtor issues; U.S. Department of Agriculture program benefits; contracts with food processors, fertilizer, seed or feed dealers; conflicts within farm families; and landlord-tenant issues.

- *Stray Voltage*: Through Rural Electrical Power Services, the Farm Center provides information about stray voltage and power quality issues; answers to regulatory questions; on-farm and distribution system investigations by a technical team that can assist farmers in working with the utility or electrician to resolve a power quality conflict; a format for dispute resolution; and research on electrical issues.

- *Legal*: The Farm Center's agricultural attorney can answer general legal questions about farm business organization, landlord-tenant issues, debt restructuring, legal procedures, creditor-debtor law, and tax reorganization and estate planning.

- *Vocational*: The Farm Center can help farmers or their family members make a successful transition to off-farm employment. It can help them examine their skills and explore their career options, regardless of whether they are looking to add off-farm income to the farm operation, starting a new small business, or seeking off-farm employment.

- *Farm Transfers*: Through its Farm Link program, the Farm Center can help farmers who want to start their own operation, retiring farmers who want someone to take over their operation, or farmers who want to relocate due to urban or environmental pressures.

- *Animal Agriculture*: Animals are a vital part of agriculture in Wisconsin. Whether you are a farmer, a veterinarian, a livestock dealer or trucker, or a consumer, DATCP provides information and regulates many aspects of animal agriculture.

- *Crops*: Statistics show Wisconsin ranks first in production of a number of agriculture crops. Farmers in the State continue to adopt traditional and specialty crops. Cultivating and protecting them is key.

- *Land and Water*: The State works with County land conservation departments to protect the environment through conservation practices, incentive programs and regulation.

For more information, contact DATCP at:

Wisconsin Department of Trade,
Agriculture, & Consumer Protection
(DATCP)
Wisconsin Farm Center
2811 Agriculture Drive
PO Box 8911
Madison, WI 53708

Phone (608) 224-4960
http://www.datcp.state.wi.us

APPENDIX

TABLE OF CONTENTS

Municipal Sanitary Sewer: Current Capacity & Projections

Jurisdiction	Current Operational Capacity	2030 Projected Low	2030 Projected High
City of Boscobel	57.6%	65.4%	79.4%
City of Cuba City	60.0%	73.9%	79.6%
City of Fennimore	48.5%	57.8%	61.2%
City of Lancaster	48.2%	54.1%	56.0%
City of Platteville	Not available	Not available	Not available
Village of Bagley	50.0%	58.4%	66.2%
Village of Bloomington	54.5%	59.4%	65.8%
Village of Blue River	54.8%	61.5%	63.7%
Village of Cassville	24.0%	23.1%	26.9%
Village of Dickeyville	18.9%	21.6%	30.9%
Village of Hazel Green	48.5%	61.3%	63.6%
Village of Livingston	50.0%	59.5%	59.5%
Village of Montfort	76.2%	108.0%	108.8%
Village of Muscoda	57.0%	79.0%	89.0%
Village of Patch Grove	36.3%	35.9%	39.4%
Village of Potosi	59.9%	64.4%	73.8%
Village of Tennyson	59.9%	64.4%	73.8%
Village of Woodman	N/A	N/A	N/A

Municipal Water: Current Capacity & Projections

Jurisdiction	Current Operational Capacity	2030 Projected Low	2030 Projected High
City of Boscobel	28.2%	33.5%	38.9%
City of Cuba City	16.7%	20.5%	22.1%
City of Fennimore	31.4%	37.3%	39.5%
City of Lancaster	10.8%	12.4%	17.6%
City of Platteville	Not available	Not available	Not available
Village of Bagley	4.2%	4.9%	5.5%
Village of Bloomington	55.0%	59.9%	66.3%
Village of Blue River	5.0%	5.6%	5.8%
Village of Cassville	8.0%	7.7%	9.0%
Village of Dickeyville	9.6%	11.0%	15.7%
Village of Hazel Green	40.0%	50.6%	52.5%
Village of Livingston	80.3%	96.5%	96.5%
Village of Montfort	8.5%	12.1%	12.2%
Village of Muscoda	69.9%	96.6%	109.7%
Village of Patch Grove	50.0%	49.4%	54.2%
Village of Potosi	91.1%	103.3%	122.7%
Village of Tennyson	Not available	Not available	Not available
Village of Woodman	N/A	N/A	N/A

(Source: US Census, 2000 and SWWRPC, 2010)

Grant County Farmland Preservation: Public Participation Plan

INTRODUCTION

The public participation procedures must provide for a broad dissemination of proposals and alternatives, public meetings after effective notice, opportunity for written comments, provisions for open discussion, and consideration of and response to public comments. These enhanced procedures augment the minimum public notification requirements required by law.

A Public Participation Plan forms the basic framework for achieving an dialogue between local decision makers, the farmland preservation planning consultant, and citizens. The Public Participation Plan documents the strategy for soliciting public review and input for the development of the plan.

The creation of the Public Participation Plan is the first step in meeting the requirements of Wisconsin's Wisconsin Working Lands Initiative (Wis Statues 91.18) and Comprehensive Planning "Smart Growth" Legislation (1999 Wisconsin Act 9 and AB 872 Technical Changes). This Public Participation Plan will apply throughout the local planning process leading to the adoption of the Farmland Preservation Plan.

PUBLIC PARTICIPATION GUIDELINES

The main goal of the Public Participation Plan is to make citizens aware of the progress of the farmland preservation planning process occurring and to offer the public opportunities to make suggestions or comments during the process. Taken individually, the activities described in this plan are not expected to reach and inform each and every resident of the County. Collectively, however, the public participation plan activities are designed to effectively and efficiently provide a broad-based dissemination of information and maximize the opportunity for citizen involvement and comment.

Provisions for Open Discussion

Grant County will ensure that public meetings allow for an open discussion of the relevant issues at hand and that public hearings allow for appropriate testimony. When public meetings or hearings are conducted, the County will make every effort to ensure those who choose to participate in the public process have the opportunity to have their voices heard. To accomplish this, the following actions will be implemented:

- An agenda will be established that clearly defines the purpose of the public meeting or hearing, the items to be discussed, and any actions that may be taken.
- The scheduled date, time, and place will be convenient to encourage maximum participation by residents.
- A clearly identifiable facilitator or chair will conduct the meeting or hearing in an orderly fashion to ensure that all attendees have an opportunity to offer comments, discuss issues, or provide testimony.
- The facilitator or chair will provide opening remarks that clearly outline the purpose of the meeting or hearing, describe procedures attendees should use during the meeting or hearing when offering input, and describe how the public input will be used.

• As appropriate, an overview of documents or proposals to be considered will be discussed.

• All persons attending the meeting or hearing that desire to participate should be allowed to do so. However, specific factors, such as the meeting or hearing purpose, number in attendance, time considerations, or future opportunities to participate may require that appropriate constraints be applied. These constraints will be clearly outlined by the facilitator or chair if the need arises.

• All attendees will be encouraged to sign in using a provided sign in sheet.

• Meetings and hearings will be recorded by County officials.

• Summaries or minutes of meetings or hearings will be transcribed from the afore mentioned recordings and made available as soon as possible following the meeting or hearing through mailings.

• Special arrangements will be made under the provisions of the Americans with Disabilities Act (ADA) with sufficient advance notice.

Opportunity for Written Comments

Detailed comments can most often be better expressed through written format. To encourage citizens to express written comment throughout the planning process, the following steps will be taken:

- All meeting and hearing notices will include the name, address, and e-mail address (if applicable) of person(s) to whom written comments should be sent along with any deadlines for submitting comments.
- Persons speaking or testifying will be encouraged to concisely express their comments and provide specific details in written format.

Consideration of and Response to Public Comments

The following steps will be taken to ensure that public recommendations and comments are taken into consideration by the decision-makers when developing the farmland preservation plan:

- Time will be reserved subsequent to the close of a meeting, hearing, or comment deadline and prior to the actual decision or recommendation being made to ensure that decision makers can adequately review all relevant materials or comments.
- Decision makers may reconvene a public hearing for the purpose of addressing public comments.
- The record (written comments or testimony, tape recordings, or transcripts) of hearings and meetings will be compiled by County and made available to decision makers for their review and consideration prior to a recommendation or decision being made.
- Substantive comments pertaining to studies, analyses, or reports, along with appropriate responses, will be included in the published documents itself.

Public Participation Plan Methods

Grant County will use the following public participation methods to inform and include its citizens in the farmland preservation planning process.

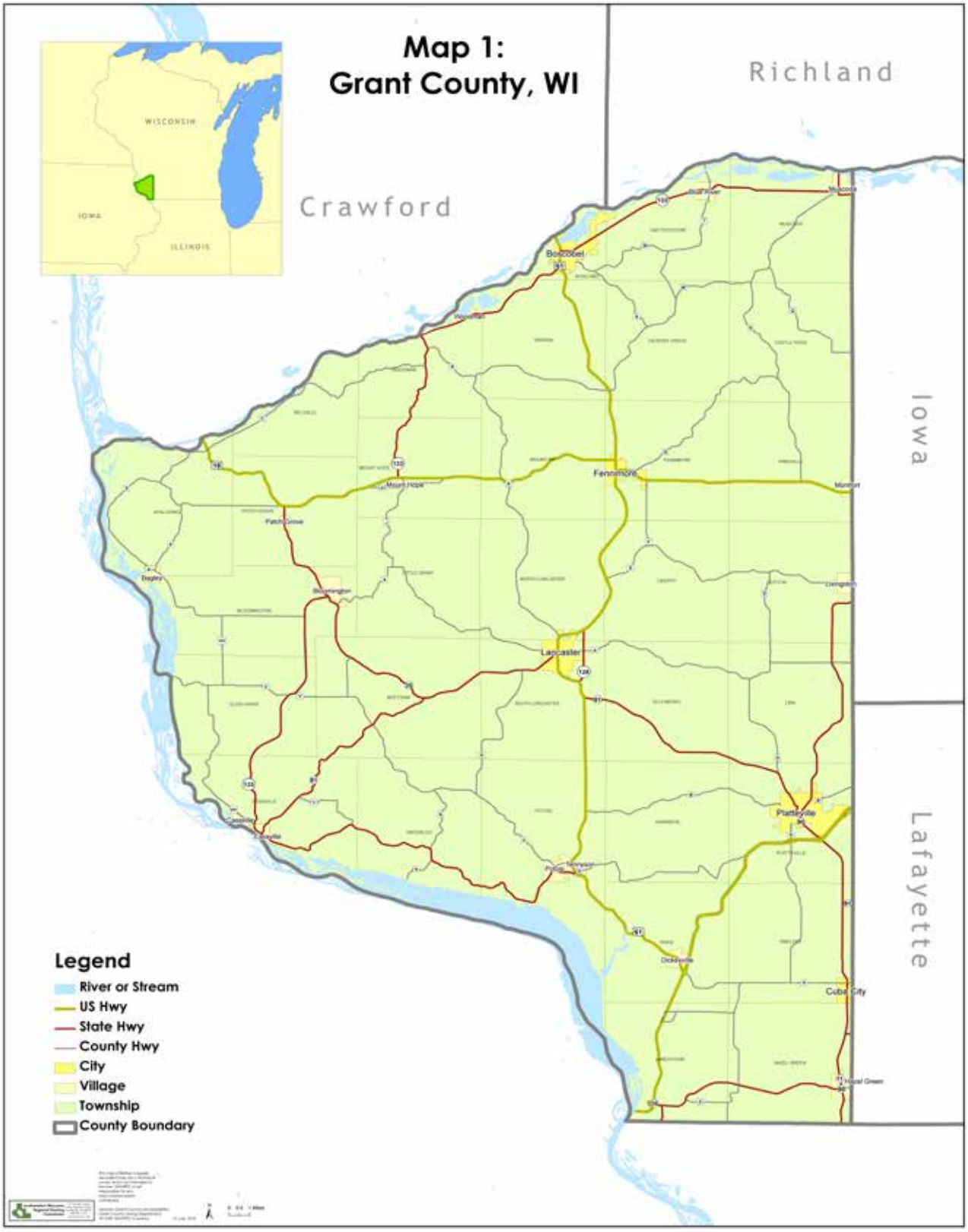
- Promote the Grant County Farmland Preservation Plan via mailings, informational meetings, and website.

1. **Workshops**: Hold a large group information meeting at Lancaster Youth & Ag Building.
2. **Cluster Meetings:** Hold cluster meetings at local sites to map agricultural resources and farmland preservation districts.
3. **Website:** Maintain an informational website that contains all planning materials.
4. **Meetings:** Assure that all Grant County Planning & Zoning meetings are open to the public.
5. **Public Hearing:** Host a public hearing prior to adopting the proposed plan.
6. **Publication:** Publish the adopted planning document online and make available to the public at the Grant County Planning & Zoning Department.

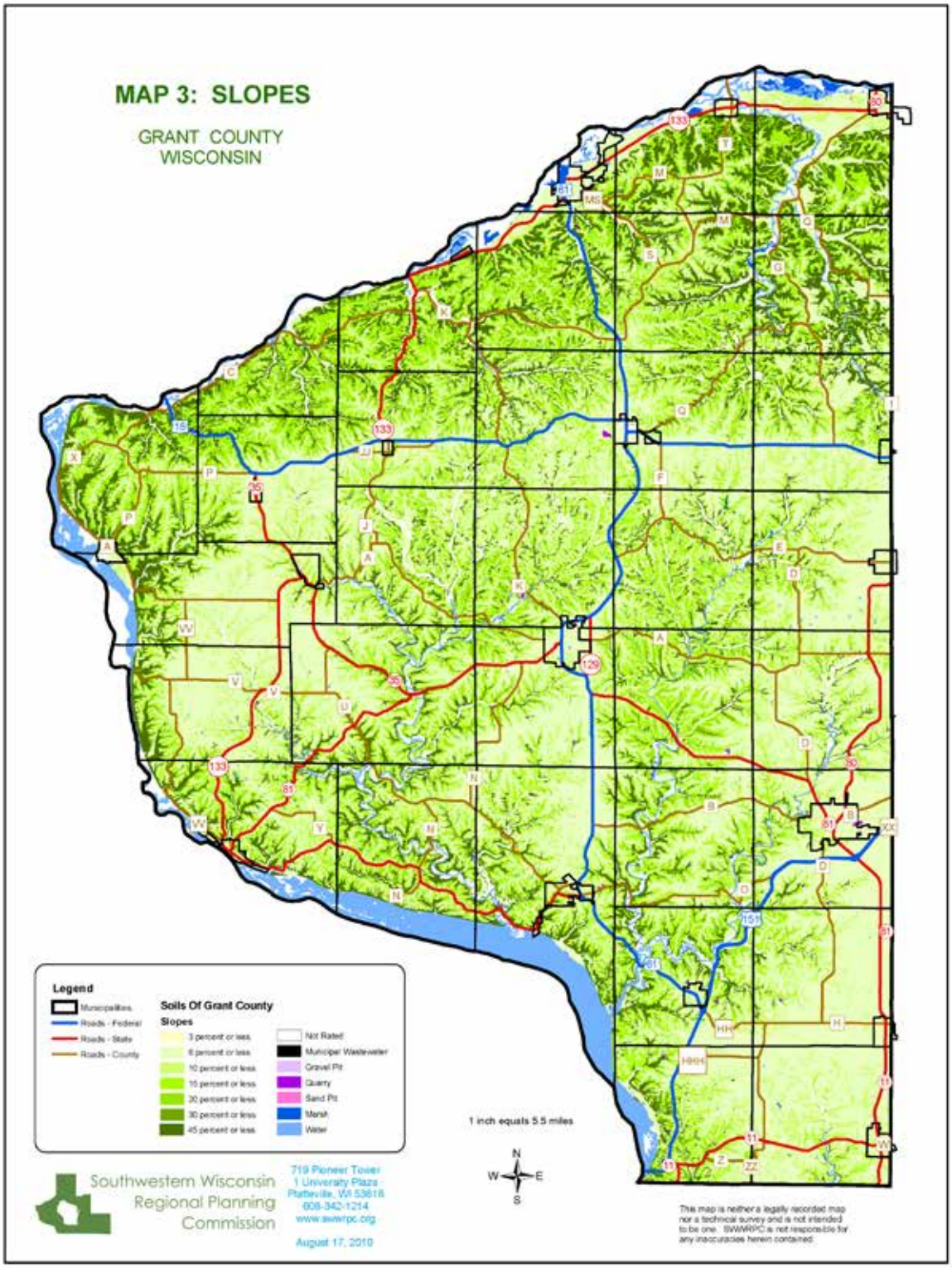
FARMLAND PRESERVATION PLAN ADOPTION PROCESS

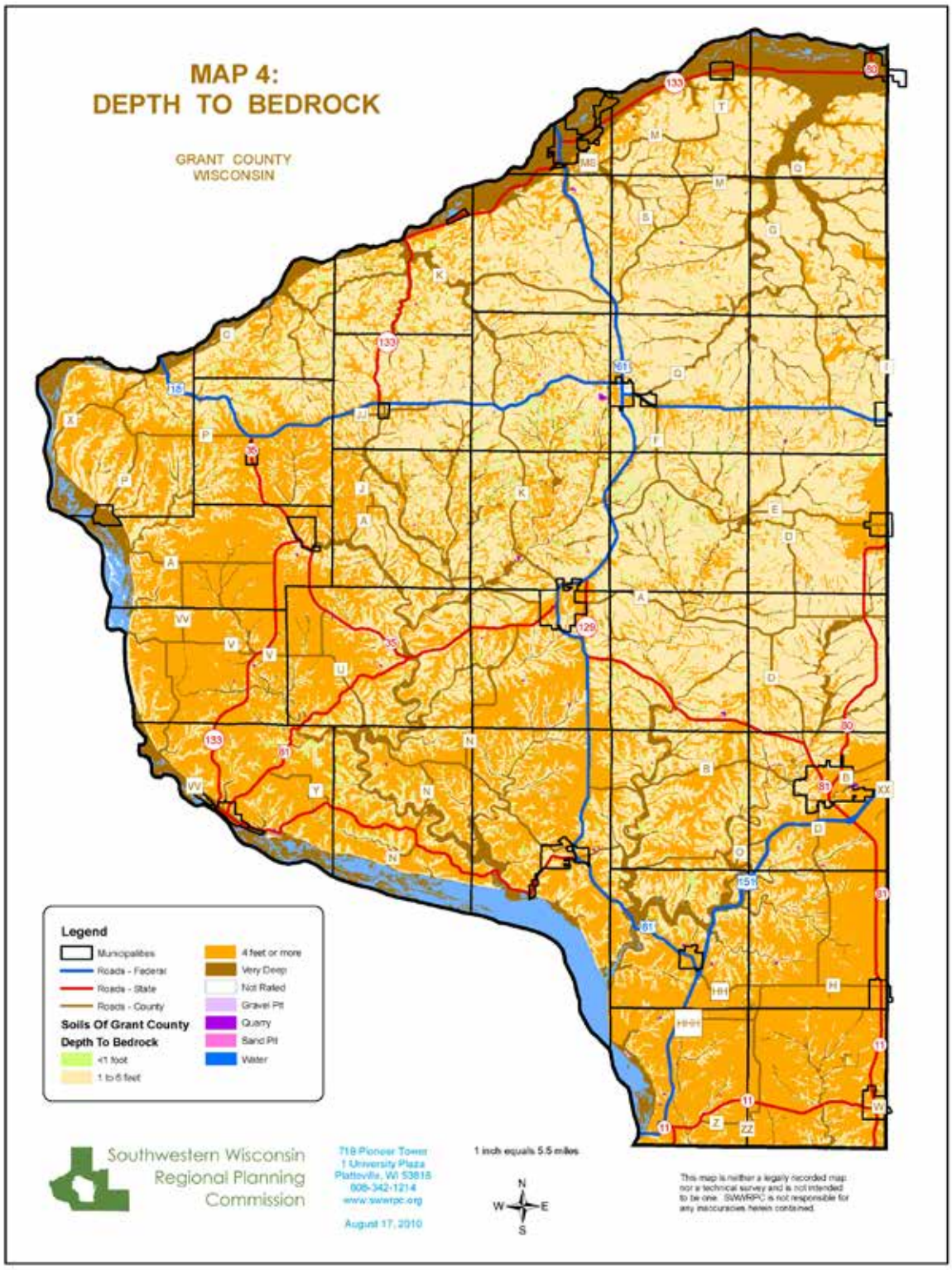
The County will follow the procedures for adopting the farmland preservation plan as listed in §66.1001 (Comprehensive Planning). The first step in the adoption process is being met by the adoption of this document that details written procedures that are designed to foster public participation throughout the farmland preservation planning process.

Map 1: Grant County, WI




Map 2: Aerial Photo
Grant County, WI
Farmland Preservation


MAP 3: SLOPES
GRANT COUNTY
WISCONSIN
Legend
Municipalities
Roads - Federal
Roads - State
Roads - County
Soils Of Grant County
Slopes
3 percent or less
8 percent or less
10 percent or less
15 percent or less
30 percent or less
30 percent or less
45 percent or less
Not Rated
Municipal Wastewater
Gravel Pit
Quarry
Sand Pit
Marsh
Water
1 inch equals 5.5 miles
N
W
E
S
Southwestern Wisconsin Regional Planning Commission
719 Pioneer Tower
1 University Plaza
Platteville, WI 53818
608-342-1214
www.swwrpc.org
August 17, 2010
This map is neither a legally recorded map nor a technical survey and is not intended to be one. SWWRPC is not responsible for any inaccuracies herein contained.


MAP 4:
DEPTH TO BEDROCK
GRANT COUNTY
WISCONSIN
Legend
Municipalities
Roads - Federal
Roads - State
Roads - County
Soils Of Grant County
Depth To Bedrock
<1 foot
1 to 5 feet
4 feet or more
Very Deep
Not Rated
Gravel Pit
Quarry
Sand Pit
Water
Southwestern Wisconsin
Regional Planning
Commission
719 Pioneer Tower
1 University Plaza
Platteville, WI 53818
608-342-1214
www.swwrpc.org
August 17, 2010
1 inch equals 5.5 miles
N
W
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S
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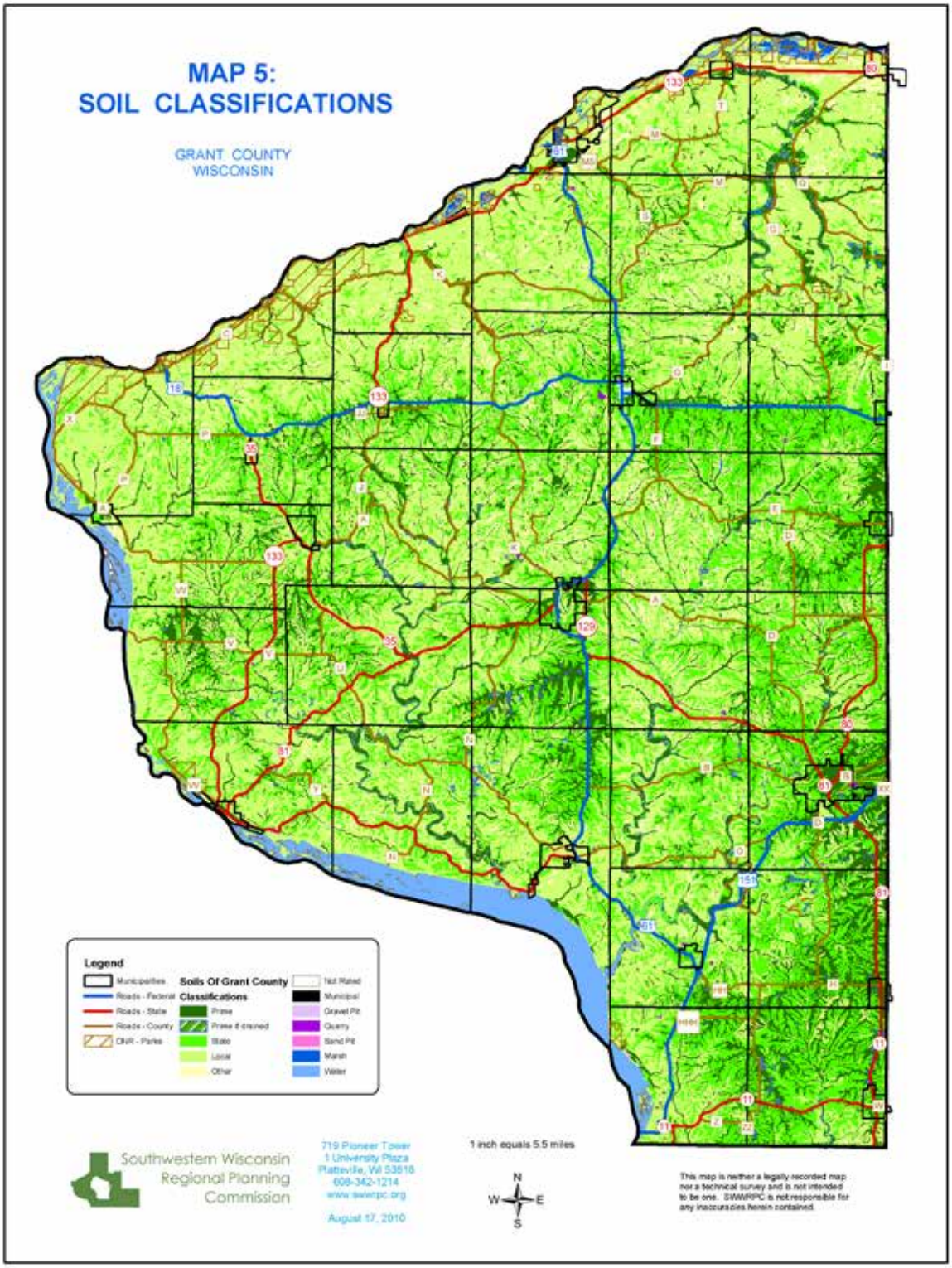
MAP 5:
SOIL CLASSIFICATIONS
GRANT COUNTY
WISCONSIN
Legend
Municipalities
Roads - Federal
Roads - State
Roads - County
DNR - Parks
Soils Of Grant County
Classifications
Prime
Prime if drained
State
Local
Other
Not Rated
Municipal
Gravel Pit
Quarry
Sand Pit
Marsh
Water
Southwestern Wisconsin
Regional Planning
Commission
719 Pioneer Tower
1 University Plaza
Platteville, WI 53818
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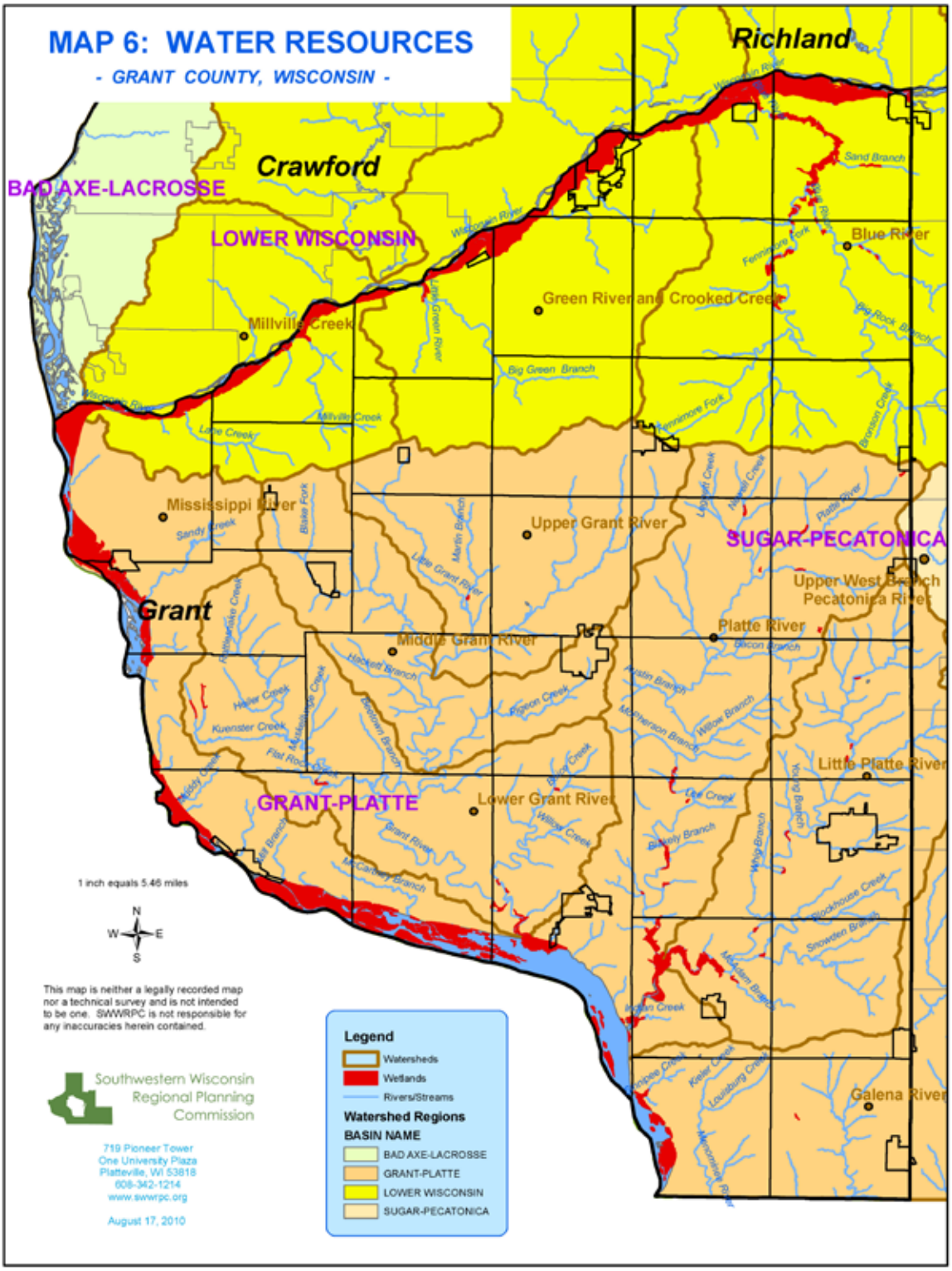
MAP 6: WATER RESOURCES
- GRANT COUNTY, WISCONSIN -
Richland
Crawford
BAD AXE-LACROSSE
LOWER WISCONSIN
Wisconsin River
Sand Branch
Blue River
Green River and Crooked Creek
Millville Creek
Big Green Branch
Mississippi River
Sandy Creek
Blake Fork
Upper Grant River
SUGAR-PECATONICA
Upper West Branch Pecatonica River
Platte River
Grant
Middle Grant River
Little Grant River
Martin Branch
Hackett Branch
Pigeon Creek
Kuenster Creek
Flat Rock Creek
Willow Branch
Little Platte River
GRANT-PLATTE
Lower Grant River
Willow Creek
Brant River
Galena River
1 inch equals 5.46 miles
N
W
E
S
This map is neither a legally recorded map nor a technical survey and is not intended to be one. SWWRPC is not responsible for any inaccuracies herein contained.
Legend
Watersheds
Wetlands
Rivers/Streams
Watershed Regions
BASIN NAME
BAD AXE-LACROSSE
GRANT-PLATTE
LOWER WISCONSIN
SUGAR-PECATONICA
Southwestern Wisconsin Regional Planning Commission
719 Pioneer Tower
One University Plaza
Platteville, WI 53818
608-342-1214
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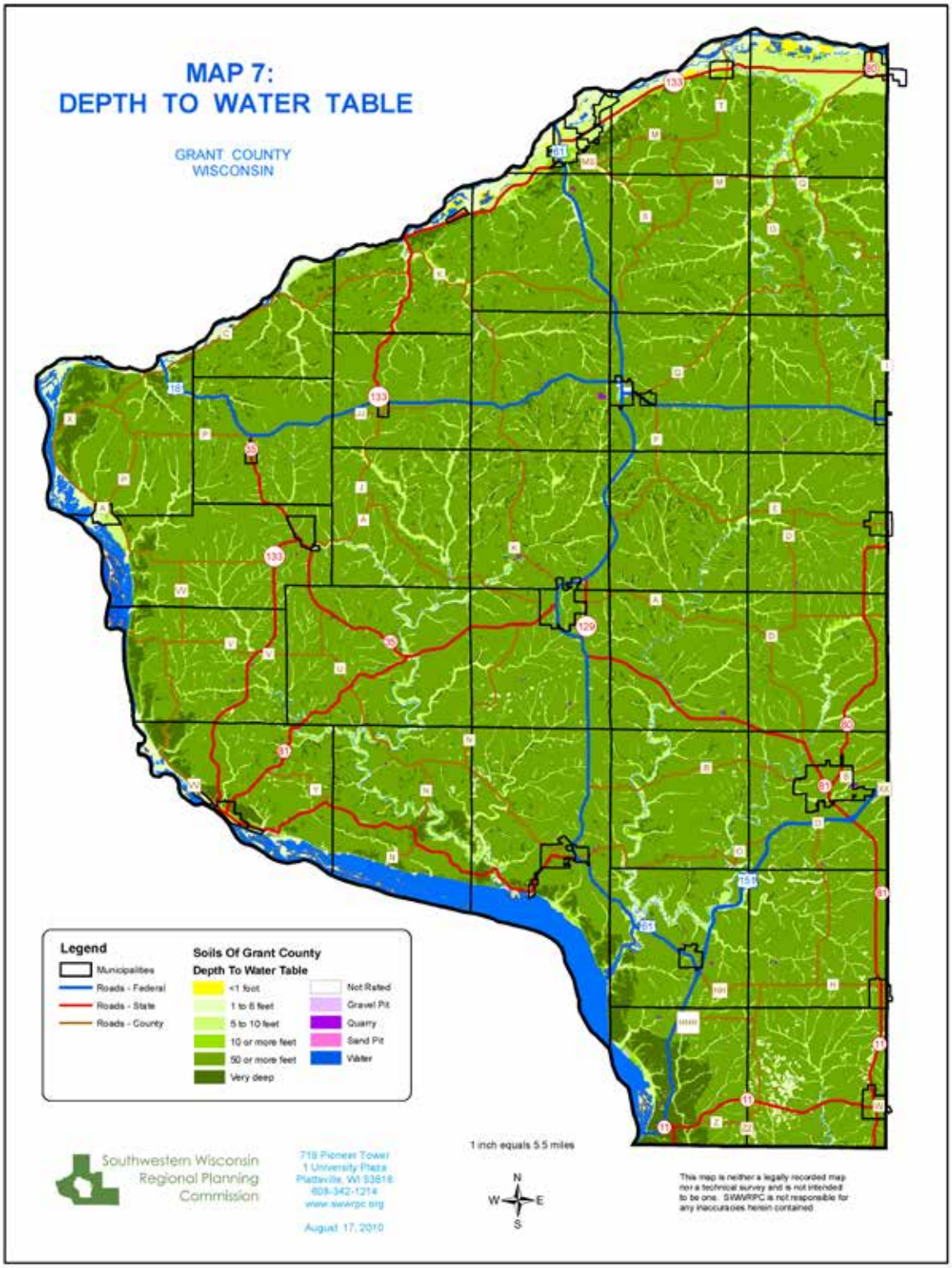
MAP 7:
DEPTH TO WATER TABLE
GRANT COUNTY
WISCONSIN
Legend
Municipalities
Roads - Federal
Roads - State
Roads - County
Soils Of Grant County
Depth To Water Table
<1 foot
1 to 5 feet
5 to 10 feet
10 or more feet
50 or more feet
Very deep
Not Rated
Gravel Pit
Quarry
Sand Pit
Water
1 inch equals 5.5 miles
N
W
E
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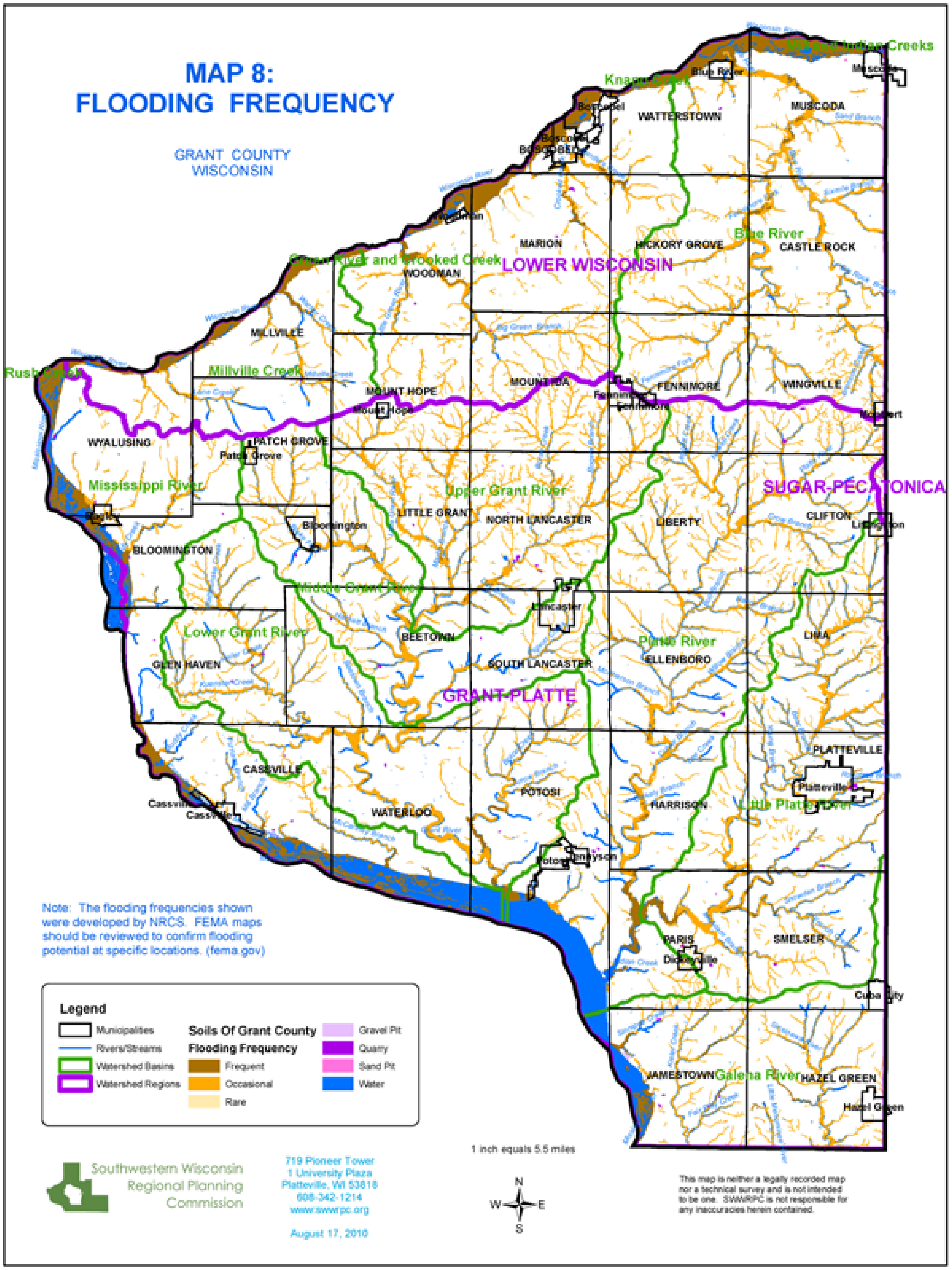
MAP 8:
FLOODING FREQUENCY
GRANT COUNTY
WISCONSIN
LOWER WISCONSIN
SUGAR-PECATONICA
GRANT-PLATTE
WATTERSTOWN
MUSCODA
MARION
HICKORY GROVE
CASTLE ROCK
WOODMAN
MILLVILLE
MOUNT HOPE
MOUNT IDA
FENNIMORE
WINGVILLE
WYALUSING
PATCH GROVE
LITTLE GRANT
NORTH LANCASTER
LIBERTY
CLIFTON
BLOOMINGTON
BEETOWN
SOUTH LANCASTER
ELLENBORO
LIMA
GLEN HAVEN
CASSVILLE
WATERLOO
POTOSI
HARRISON
PLATTEVILLE
PARIS
SMELSER
JAMESTOWN
HAZEL GREEN
Millville Creek
Mississippi River
Upper Grant River
Middle Grant River
Lower Grant River
Platte River
Blue River
Little Platte River
Galena River
Note: The flooding frequencies shown were developed by NRCS. FEMA maps should be reviewed to confirm flooding potential at specific locations. (fema.gov)
Legend
Municipalities
Rivers/Streams
Watershed Basins
Watershed Regions
Soils Of Grant County
Flooding Frequency
Frequent
Occasional
Rare
Gravel Pit
Quarry
Sand Pit
Water
1 inch equals 5.5 miles
Southwestern Wisconsin Regional Planning Commission
719 Pioneer Tower
1 University Plaza
Platteville, WI 53818
608-342-1214
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August 17, 2010
N
W
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S
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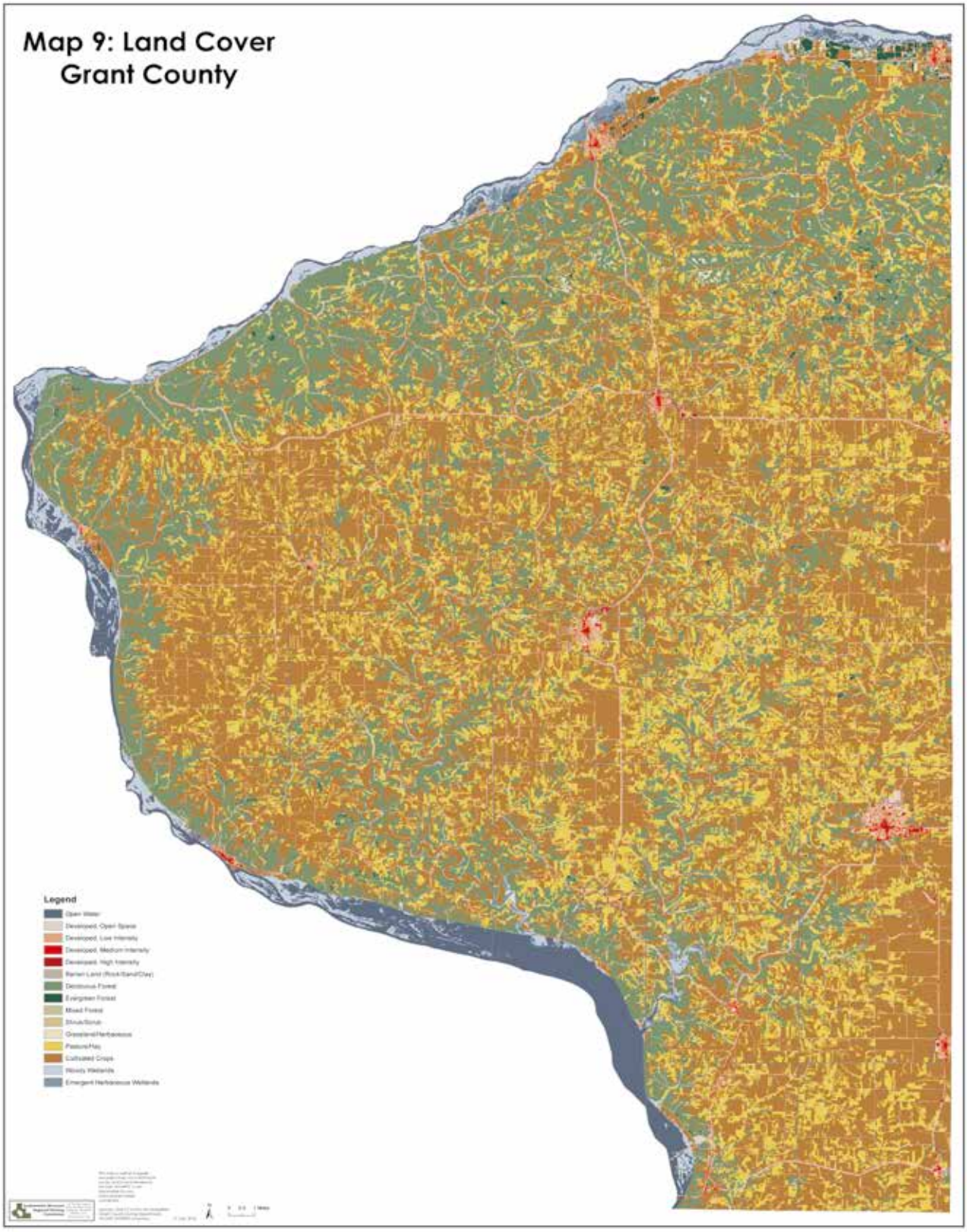
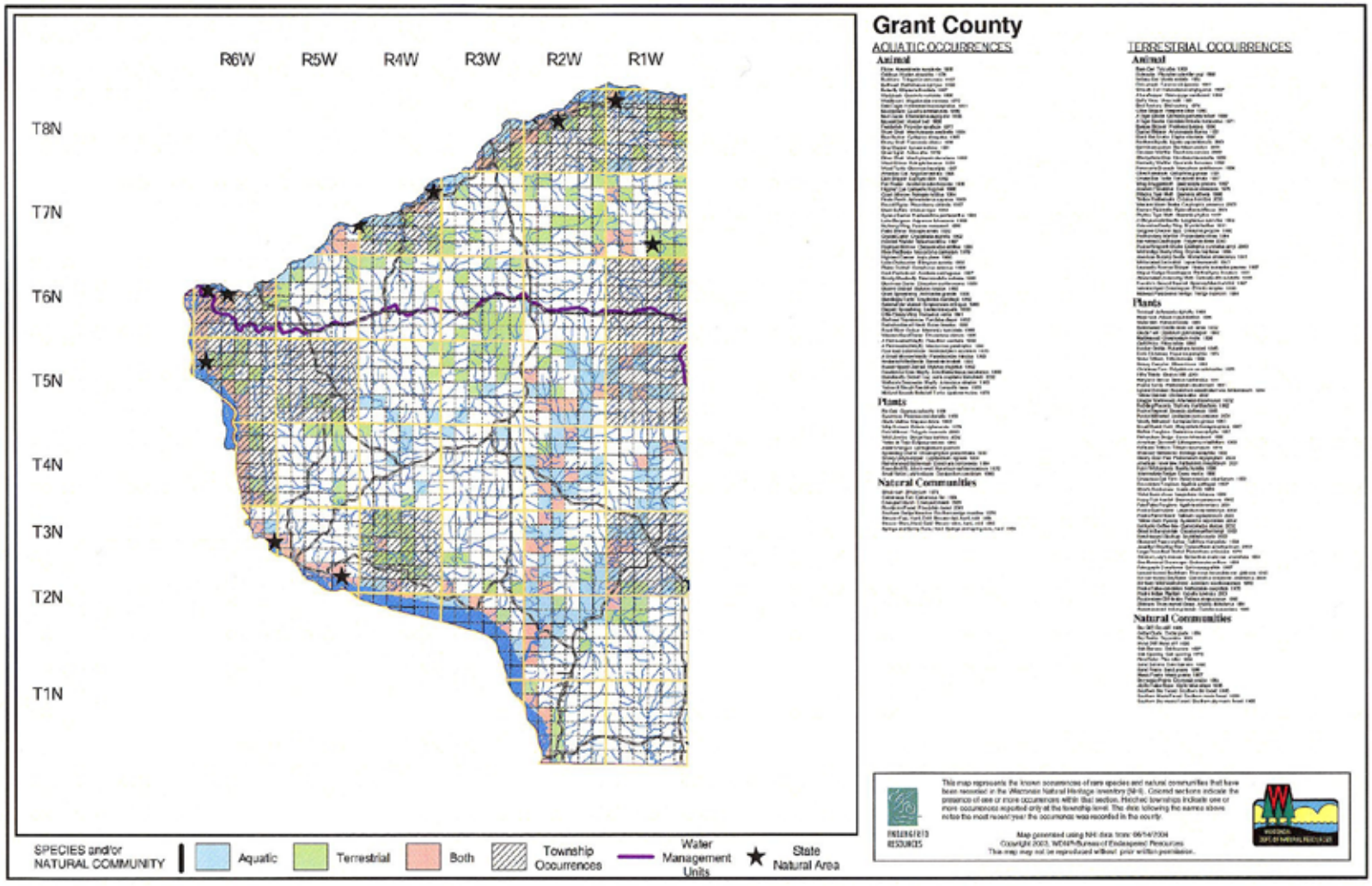

Map 9: Land Cover
Grant County
Legend
Open Water
Developed, Open Space
Developed, Low Intensity
Developed, Medium Intensity
Developed, High Intensity
Barren Land (Rock/Sand/Clay)
Deciduous Forest
Evergreen Forest
Mixed Forest
Shrub/Scrub
Grassland/Herbaceous
Pasture/Hay
Cultivated Crops
Woody Wetlands
Emergent Herbaceous Wetlands



MAP 10: THREATENED AND ENDANGERED SPECIES

Source: Wisconsin Department of Natural Resources
Website: www.dnr.state.wi.us/org/land/er/workinglists/countymaps/grant

MAP 11:
NATURAL CORRIDORS AND RECREATIONAL RESOURCES

- GRANT COUNTY, WISCONSIN -

Legend
Municipalities
Roads - Federal
Roads - State
Roads - County
Great River Road
Rustic Roads
Camp Grounds
Golf Courses
Parks - Local
Parks - DNR
Parks - State Park
Rivers/Streams
Vehicle Ferry
LANDCOVER
Class
Agriculture
Forests
Urban
Wetlands

Car Ferry
To Millville, Iowa

Southwestern Wisconsin Regional Planning Commission

719 Pioneer Tower
One University Plaza
Platteville, WI 53818
608-342-1214
www.swwrpc.org

August 17, 2010

1 inch equals 5.46 miles

N
W E
S

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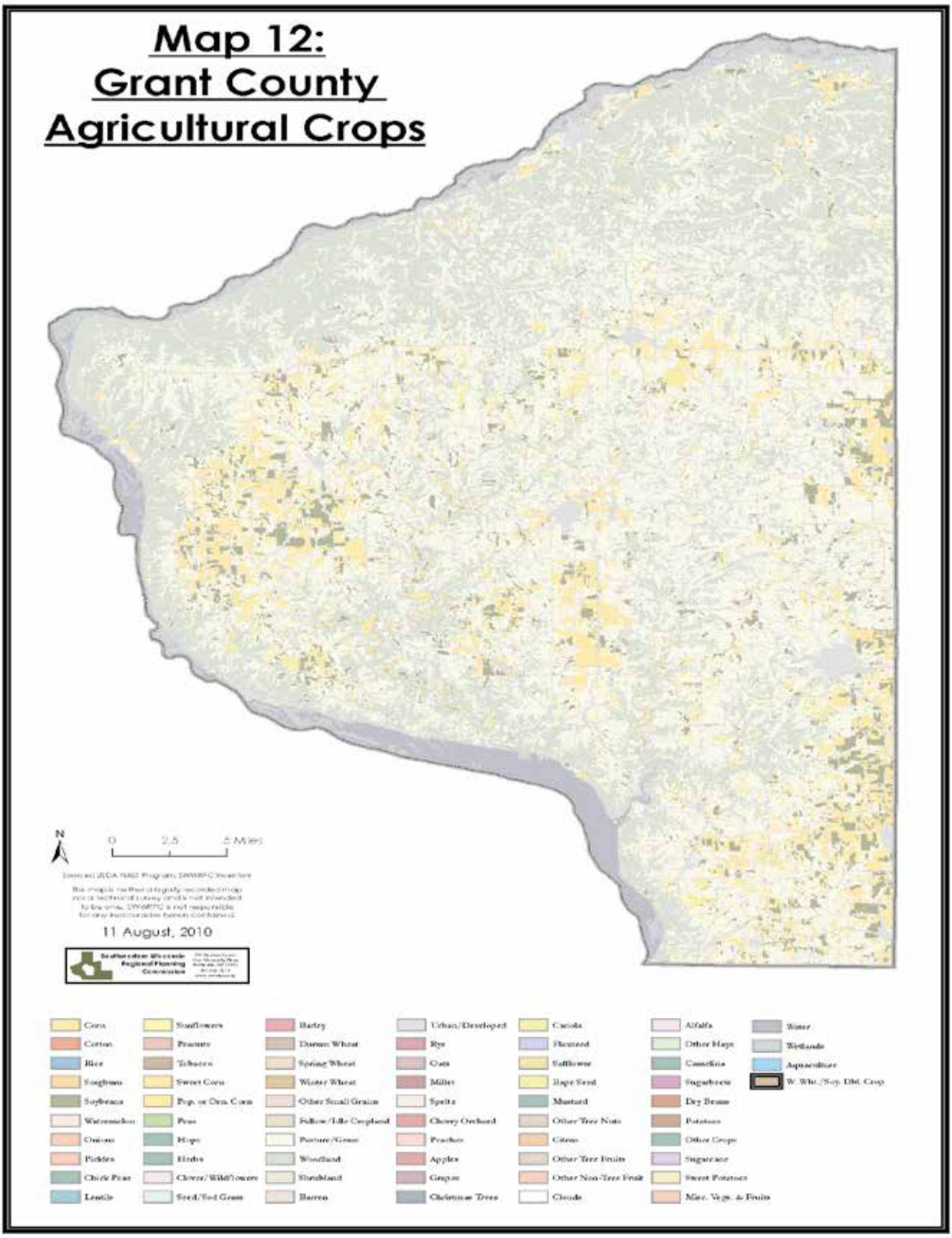
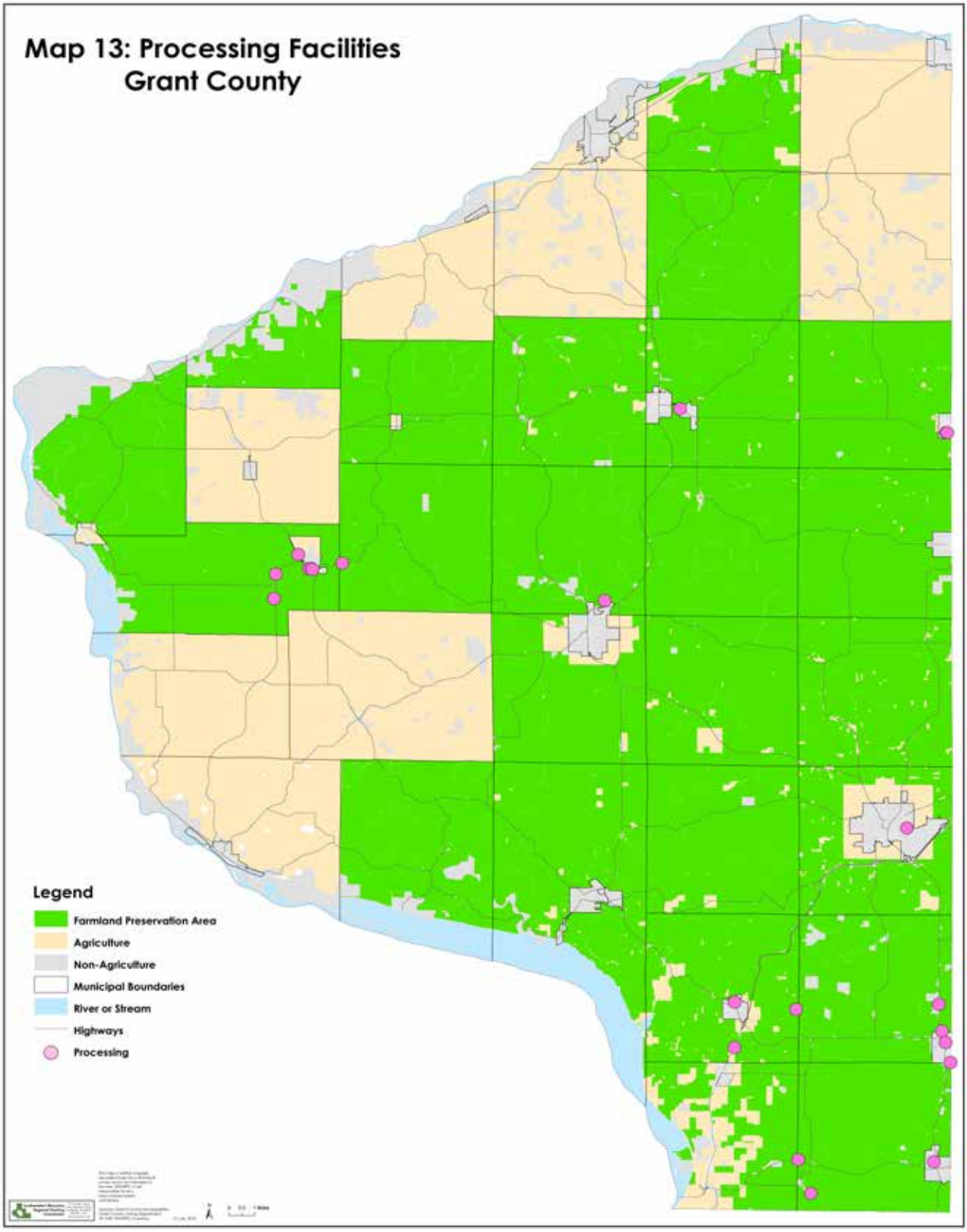
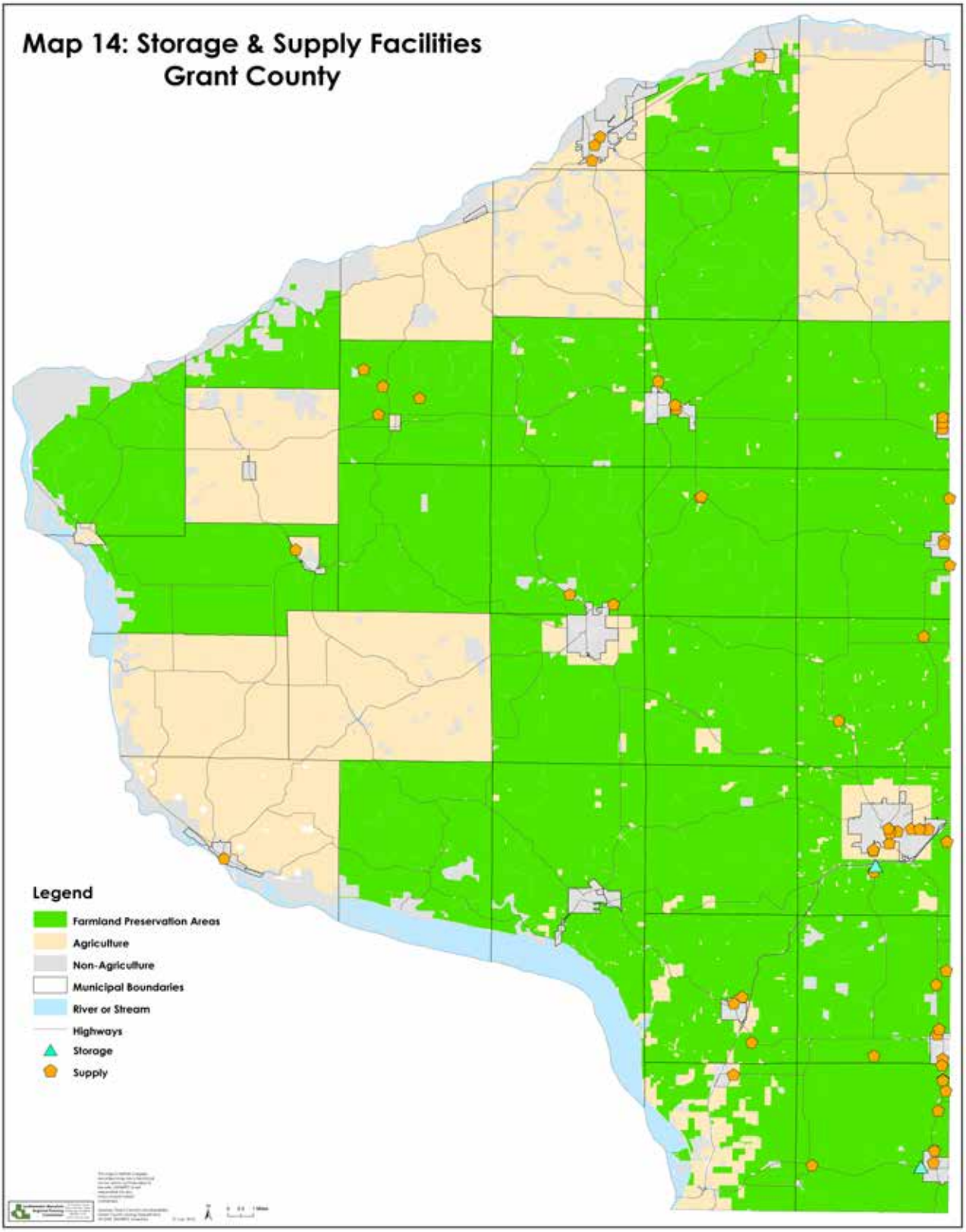
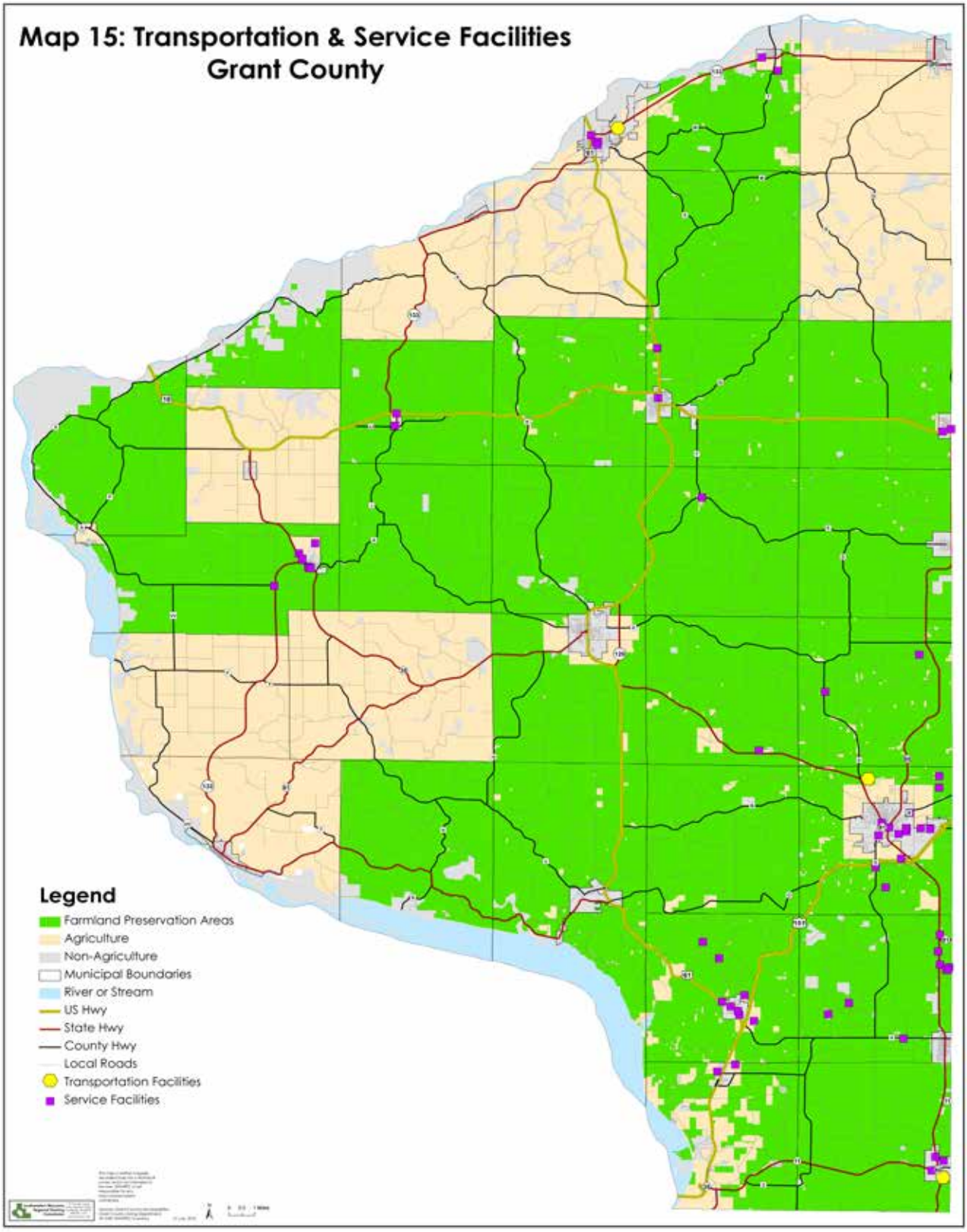
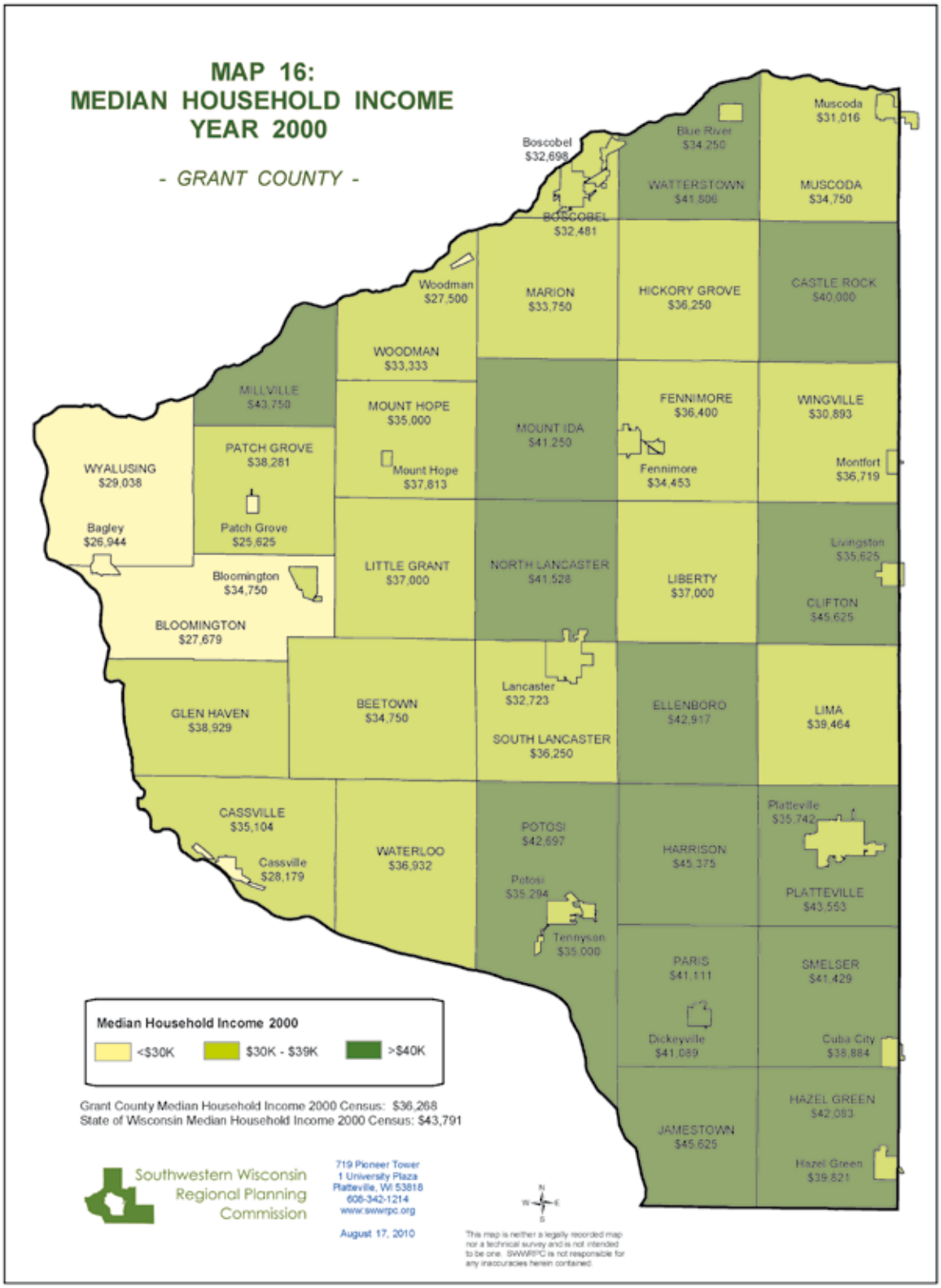
Map 12: Grant County Agricultural Crops




Map 13: Processing Facilities
Grant County
Legend
Farmland Preservation Area
Agriculture
Non-Agriculture
Municipal Boundaries
River or Stream
Highways
Processing


Map 14: Storage & Supply Facilities
Grant County
Legend
Farmland Preservation Areas
Agriculture
Non-Agriculture
Municipal Boundaries
River or Stream
Highways
Storage
Supply


Map 15: Transportation & Service Facilities
Grant County
Legend
Farmland Preservation Areas
Agriculture
Non-Agriculture
Municipal Boundaries
River or Stream
US Hwy
State Hwy
County Hwy
Local Roads
Transportation Facilities
Service Facilities


MAP 16:
MEDIAN HOUSEHOLD INCOME
YEAR 2000
- GRANT COUNTY -
Boscobel
$32,698
Blue River
$34,250
Muscoda
$31,016
WATTERSTOWN
$41,806
MUSCODA
$34,750
BOSCOBEL
$32,481
Woodman
$27,500
MARION
$33,750
HICKORY GROVE
$36,250
CASTLE ROCK
$40,000
WOODMAN
$33,333
MILLVILLE
$43,750
MOUNT HOPE
$35,000
MOUNT IDA
$41,250
FENNIMORE
$36,400
WINGVILLE
$30,893
WYALUSING
$29,038
PATCH GROVE
$38,281
Mount Hope
$37,813
Fennimore
$34,453
Montfort
$36,719
Bagley
$26,944
Patch Grove
$25,625
LITTLE GRANT
$37,000
NORTH LANCASTER
$41,528
LIBERTY
$37,000
Livingston
$35,625
Bloomington
$34,750
CLIFTON
$45,625
BLOOMINGTON
$27,679
GLEN HAVEN
$38,929
BEETOWN
$34,750
Lancaster
$32,723
SOUTH LANCASTER
$36,250
ELLENBORO
$42,917
LIMA
$39,464
CASSVILLE
$35,104
Cassville
$28,179
WATERLOO
$36,932
POTOSI
$42,697
Potosi
$35,294
Tennyson
$35,000
HARRISON
$45,375
Platteville
$35,742
PLATTEVILLE
$43,553
PARIS
$41,111
Dickeyville
$41,089
SMELSER
$41,429
Cuba City
$38,884
JAMESTOWN
$45,625
HAZEL GREEN
$42,083
Hazel Green
$39,821
Median Household Income 2000
<$30K
$30K - $39K
>$40K
Grant County Median Household Income 2000 Census: $36,268
State of Wisconsin Median Household Income 2000 Census: $43,791
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1 University Plaza
Platteville, WI 53818
608-342-1214
www.swwrpc.org
August 17, 2010
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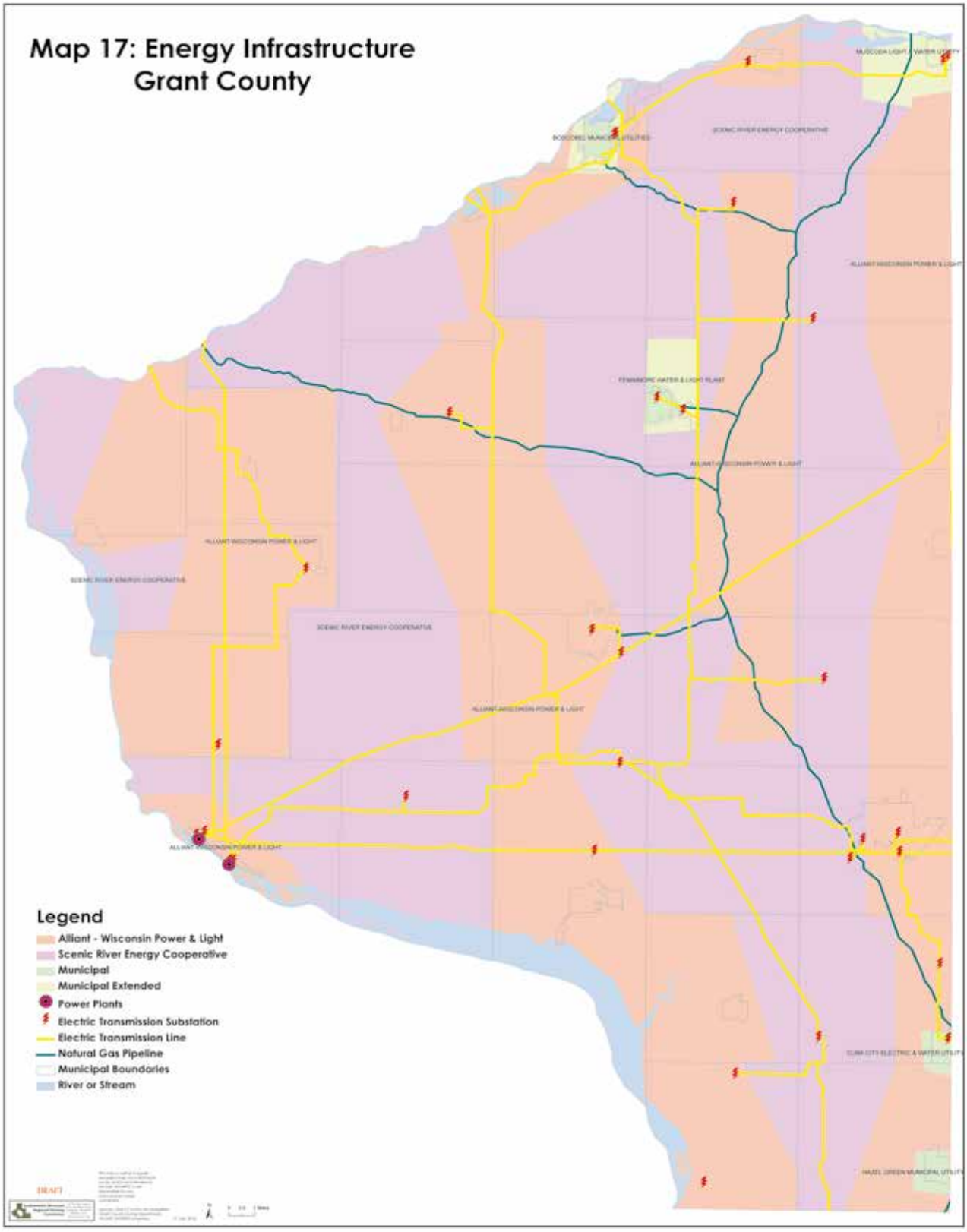
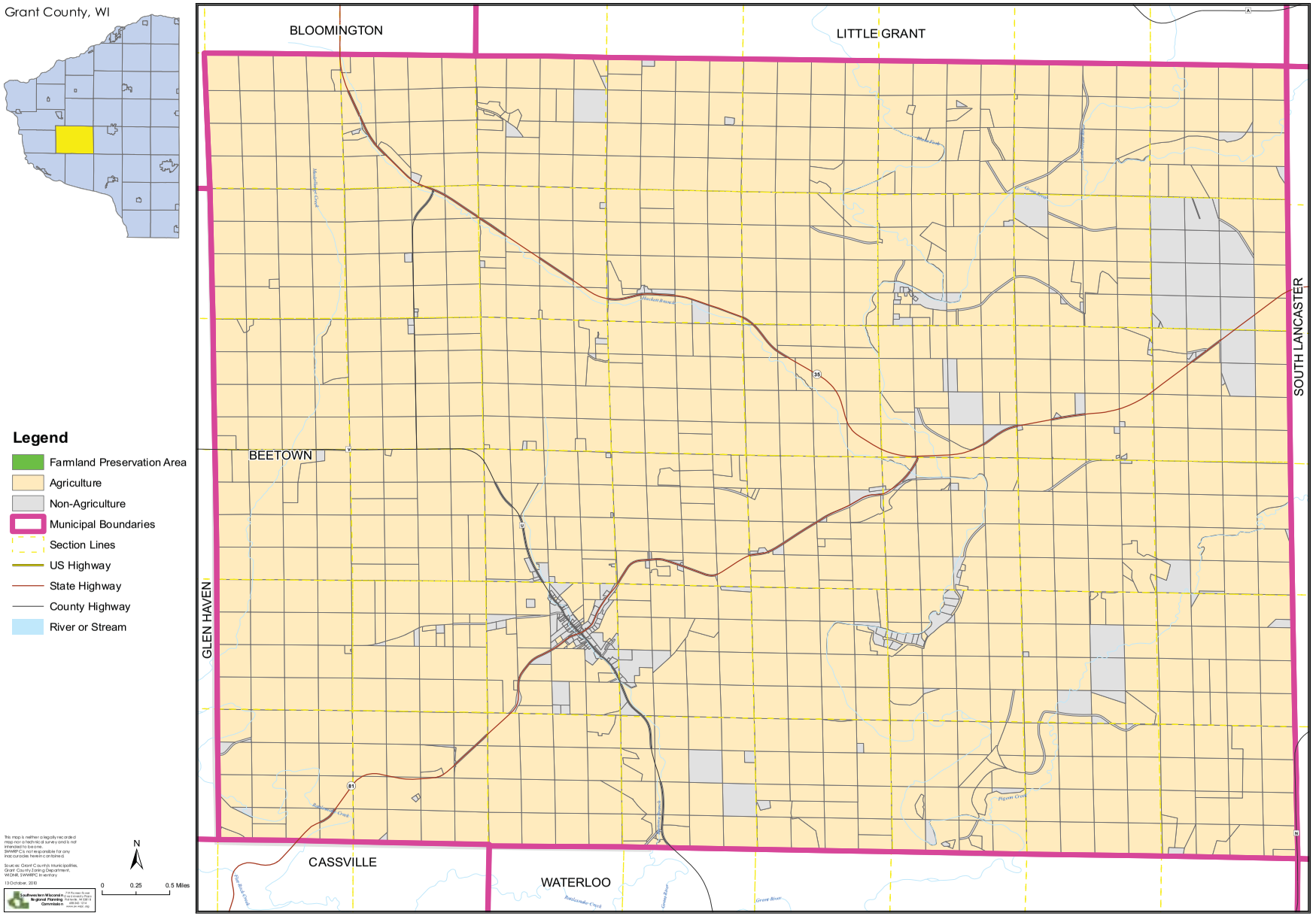
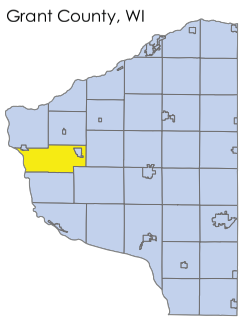
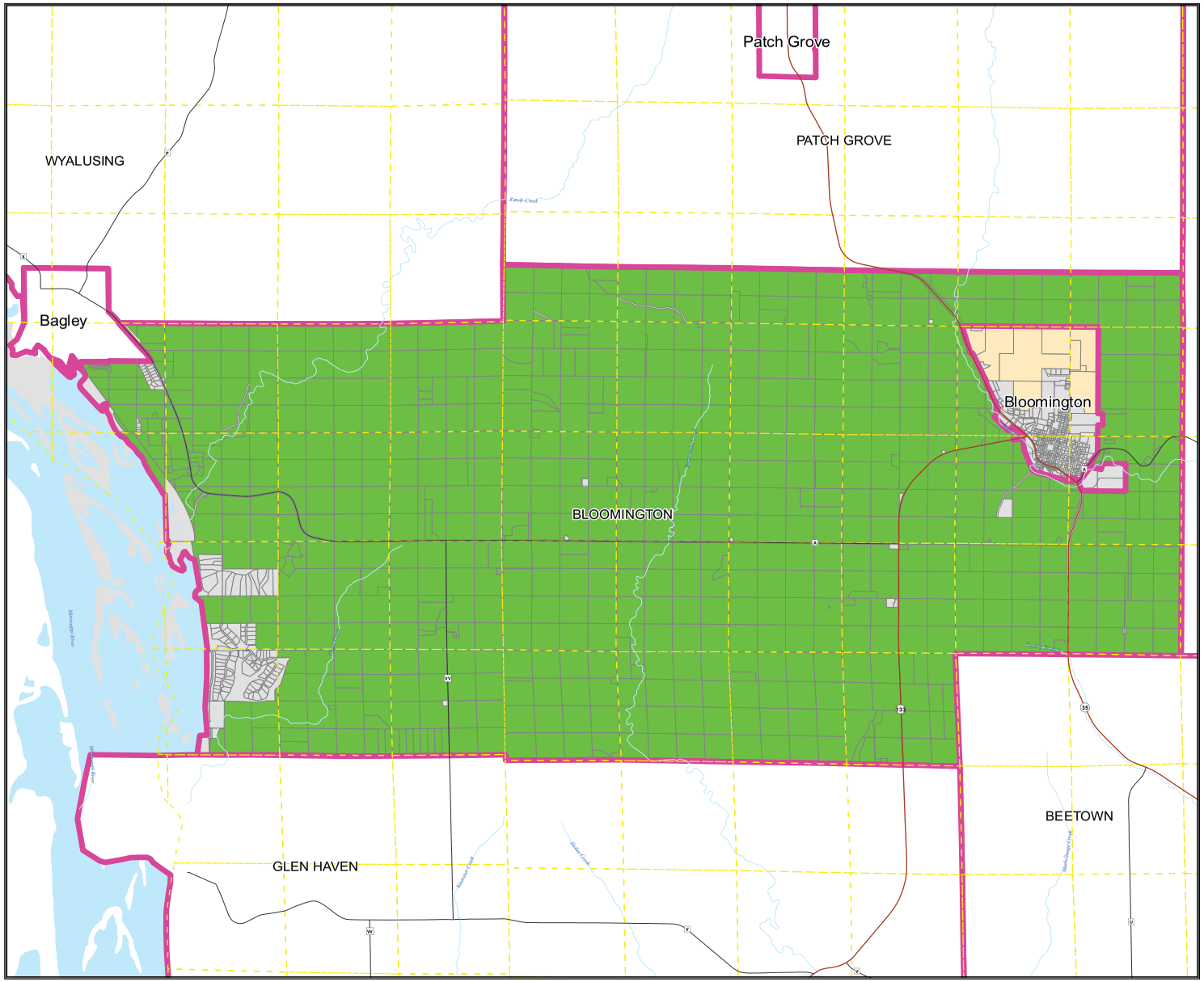

Map 17: Energy Infrastructure
Grant County
Legend
Alliant - Wisconsin Power & Light
Scenic River Energy Cooperative
Municipal
Municipal Extended
Power Plants
Electric Transmission Substation
Electric Transmission Line
Natural Gas Pipeline
Municipal Boundaries
River or Stream
DRAFT

Map 18.2: Beetown Farmland Preservation Areas



Map 18.3: Bloomington Farmland Preservation Areas





Legend

- Farmland Preservation Area
- Agriculture
- Non-Agriculture
- Municipal Boundaries
- Section Lines
- US Highway
- State Highway
- County Highway
- River or Stream

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Sources: Grant County Municipalities, Grant County Zoning Department, WCRAS, SWWRPC Inventory

2 December, 2010

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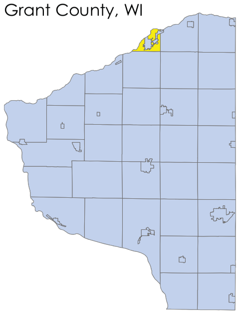
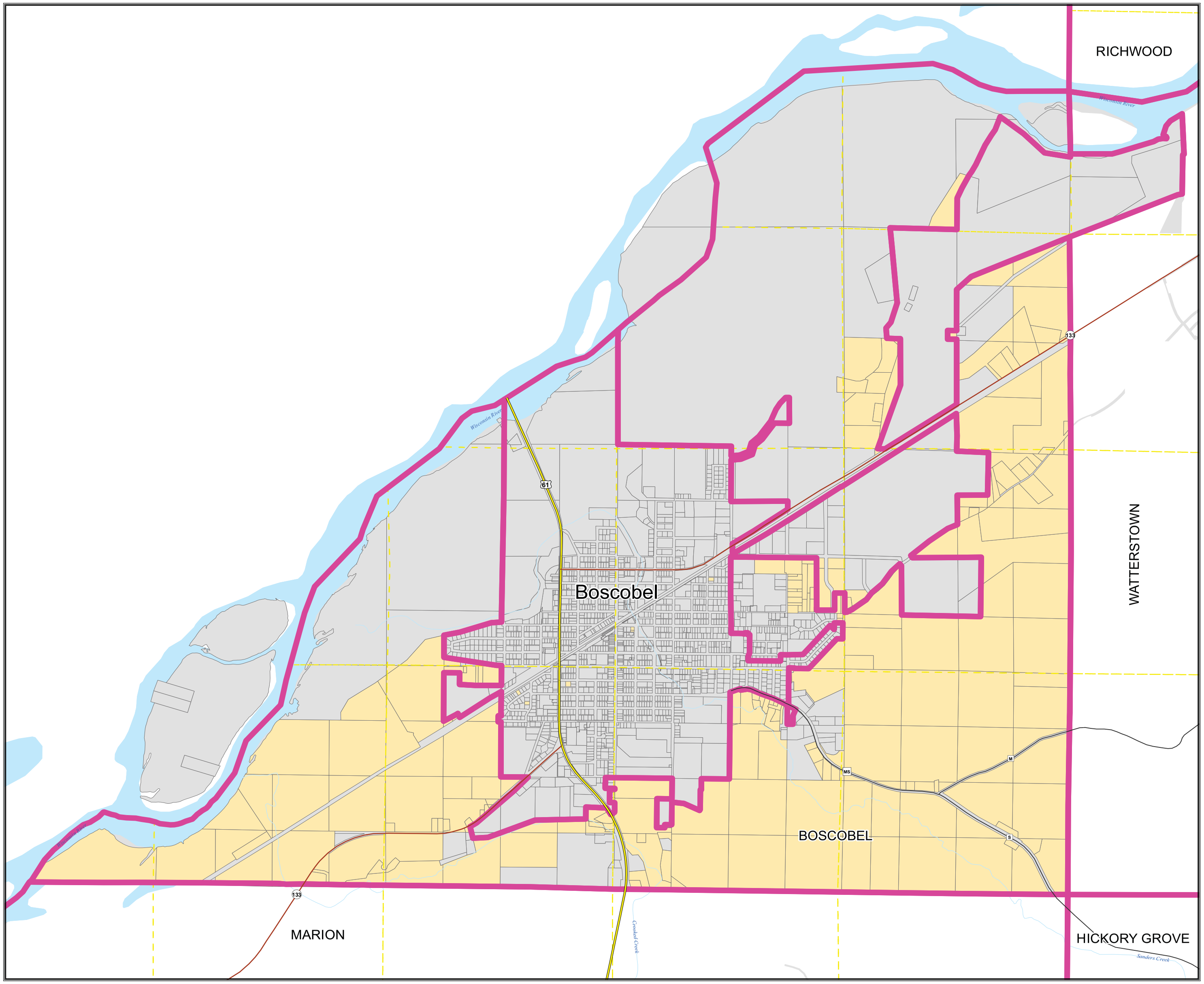
N

0 0.25 0.5 Miles

Map 18.4: Boscobel Farmland Preservation Areas

Grant County, WI





Legend

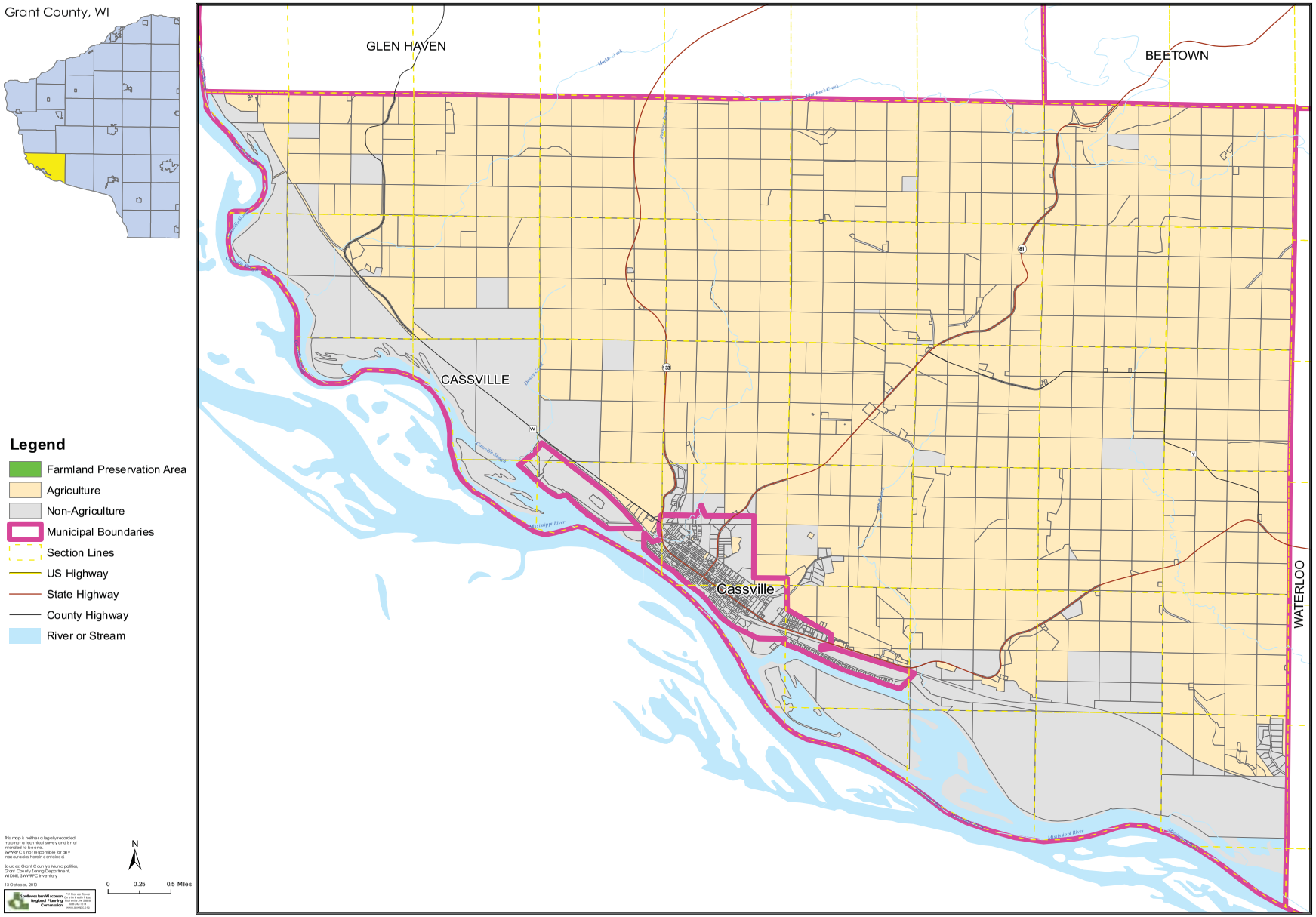
- Farmland Preservation Area
- Agriculture
- Non-Agriculture
- Municipal Boundaries
- Section Lines
- US Highway
- State Highway
- County Highway
- River or Stream

N

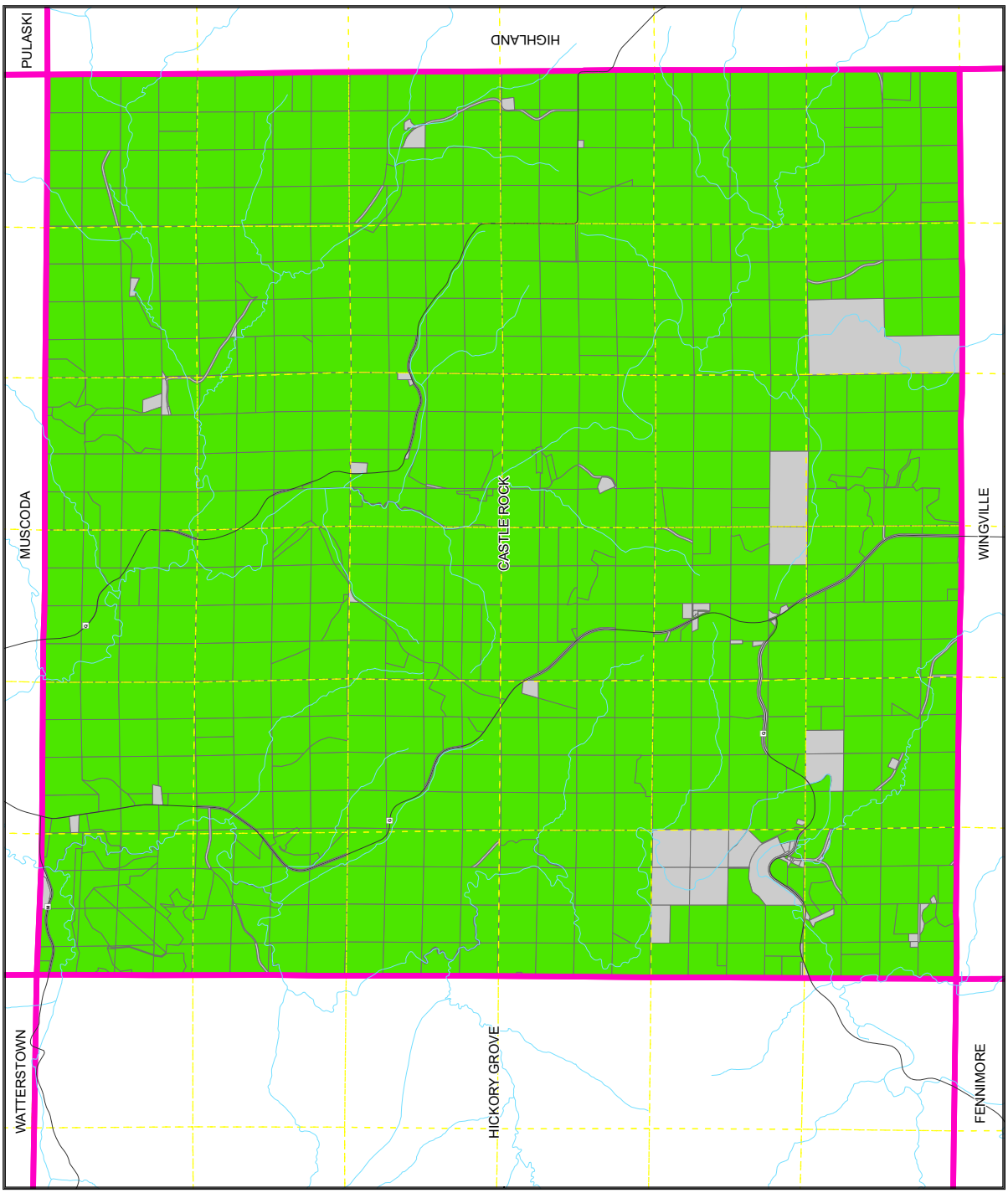
0 0.125 0.25 Miles

13 October, 2010

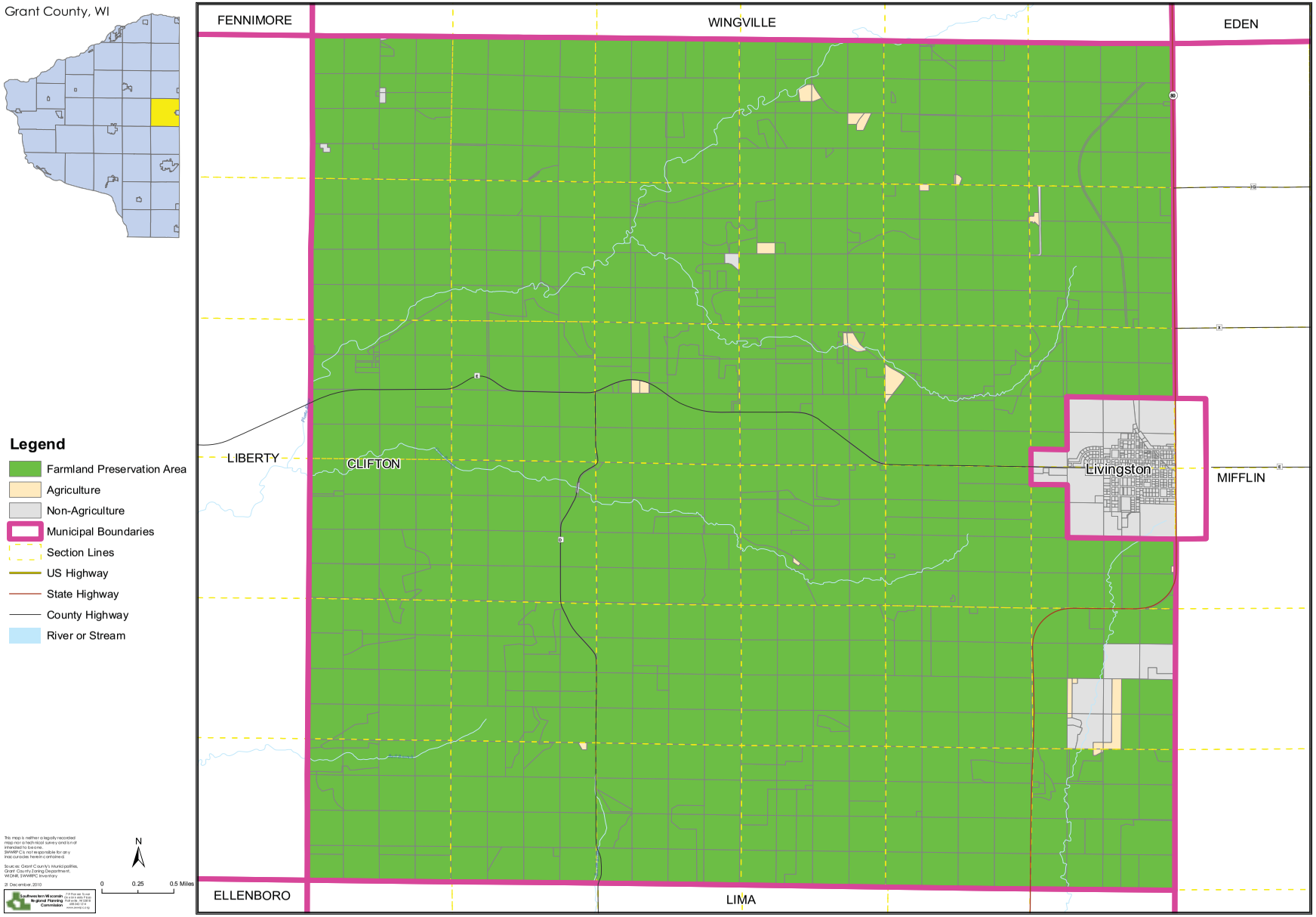
Map 18.5: Cassville Farmland Preservation Areas



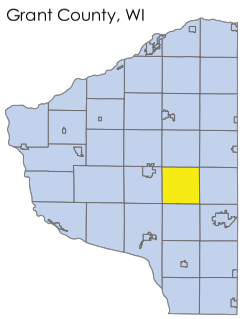
Map 18.6: Castle Rock Farmland Preservation Areas

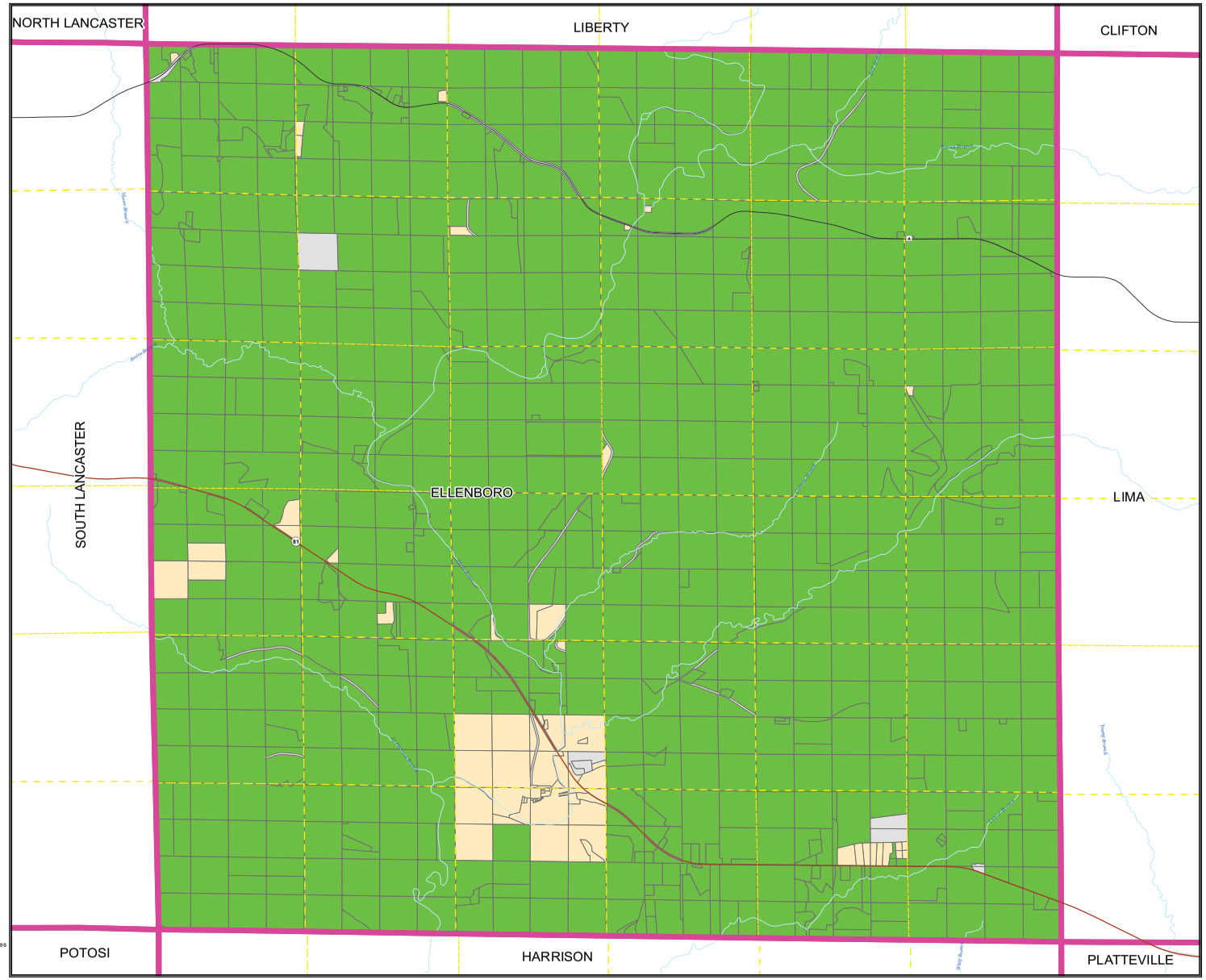


Map 18.7: Clifton Farmland Preservation Areas



Map 18.8: Ellenboro Farmland Preservation Areas





Legend

- Farmland Preservation Area
- Agriculture
- Non-Agriculture
- Municipal Boundaries
- Section Lines
- US Highway
- State Highway
- County Highway
- River or Stream

Sources: Grant County's, Municipalities, Grant County Zoning Department, WCRAP, SWWRPC Inventory

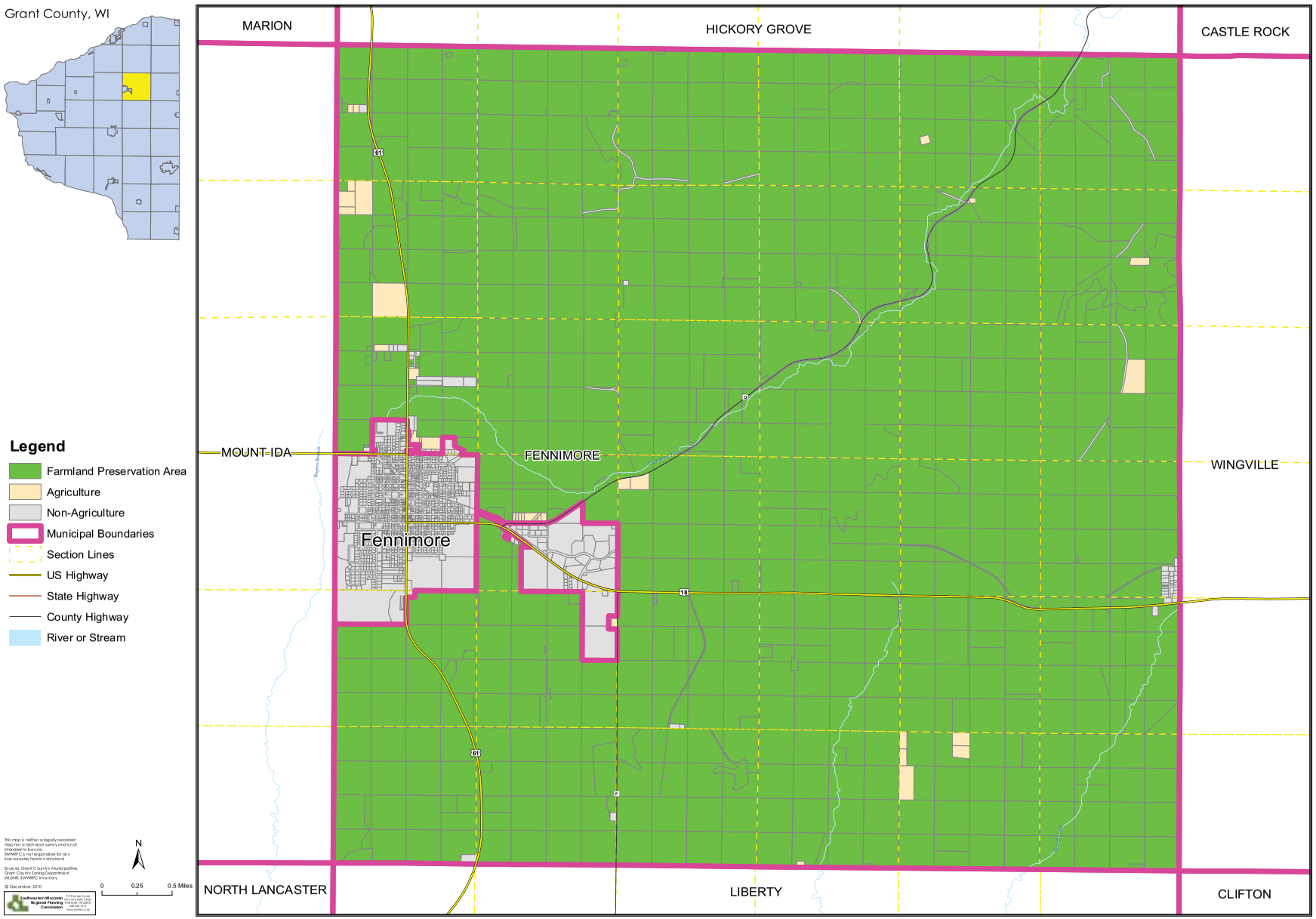
21 December, 2010

Southwestern Wisconsin Regional Planning Commission
2 Fir Point Plaza, Suite 1 and 2, Fennimore, WI 53809
608.822.3276
www.swwrpc.org

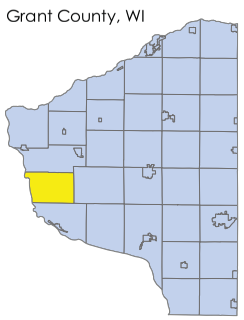
N

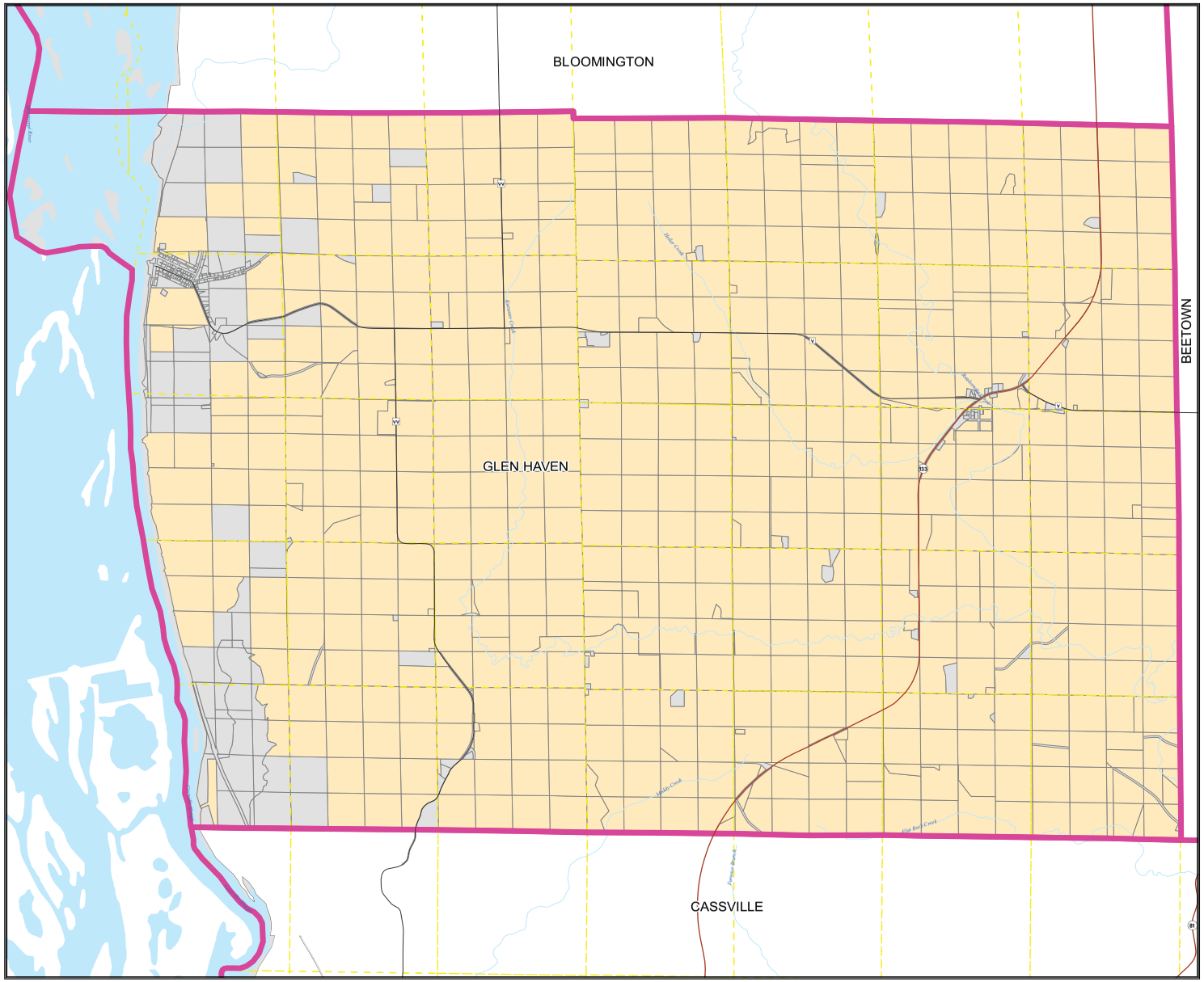
0 0.25 0.5 Miles

Map 18.9: Fennimore Farmland Preservation Areas



Map 18.10: Glen Haven Farmland Preservation Areas





Legend

- Farmland Preservation Area
- Agriculture
- Non-Agriculture
- Municipal Boundaries
- Section Lines
- US Highway
- State Highway
- County Highway
- River or Stream

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Sources: Grant County Municipalities, Grant County Zoning Department, WCRAS, SWWRPC Inventory

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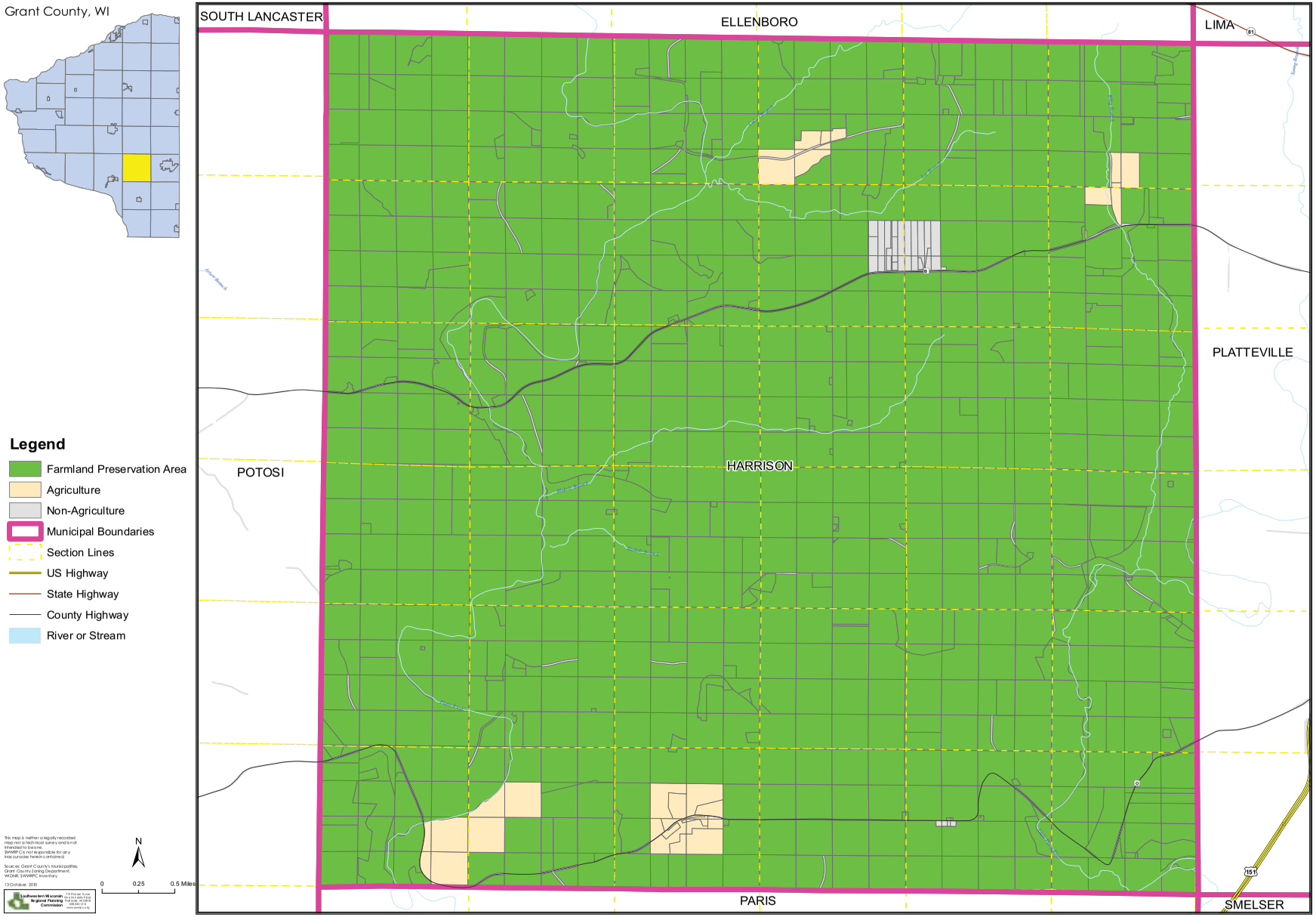
N

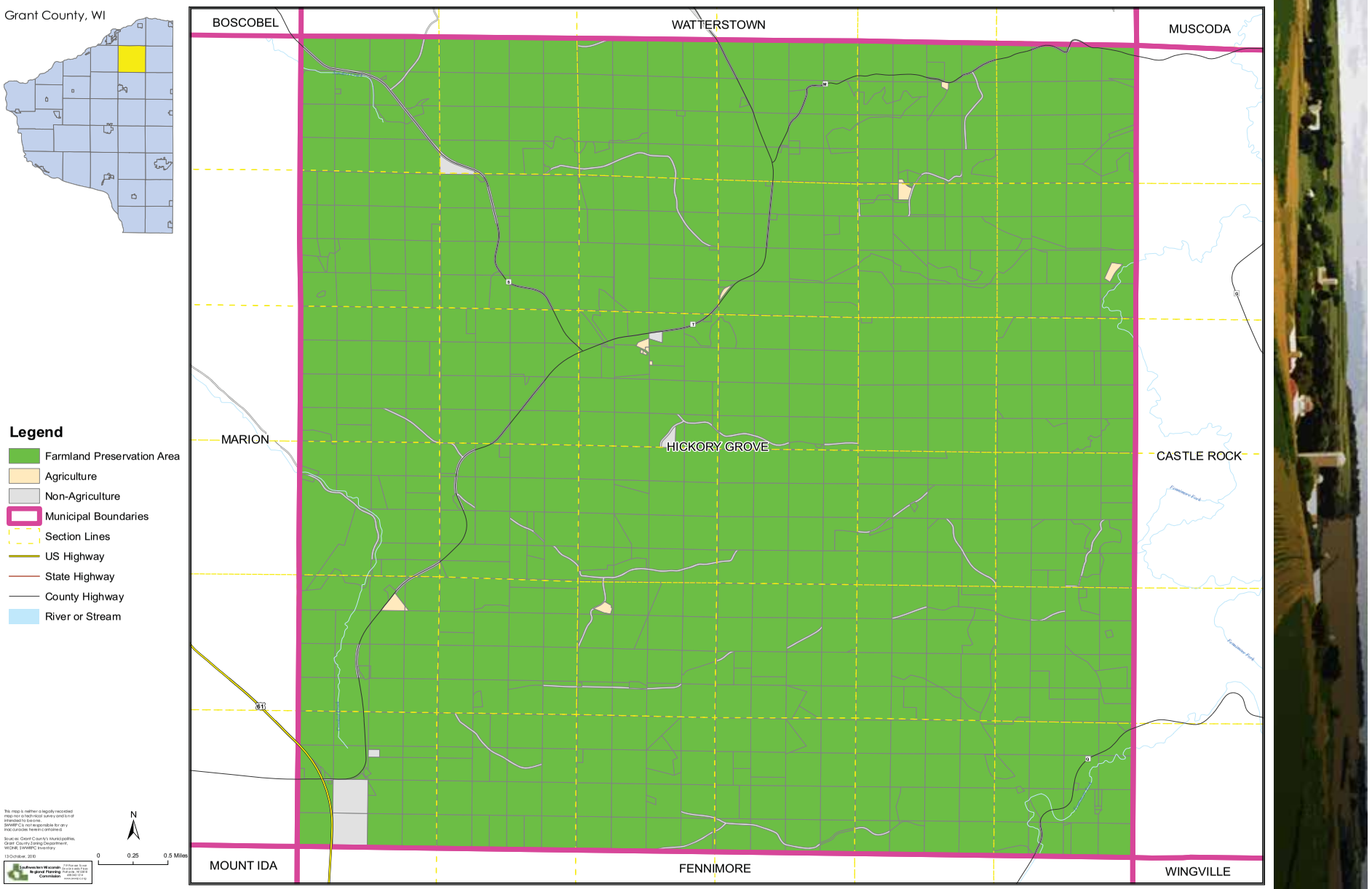
0 0.25 0.5 Miles

Map 18.11: Harrison Farmland Preservation Areas

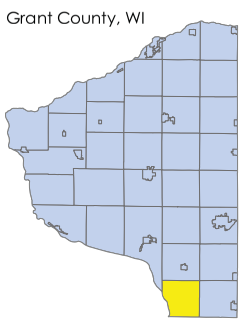


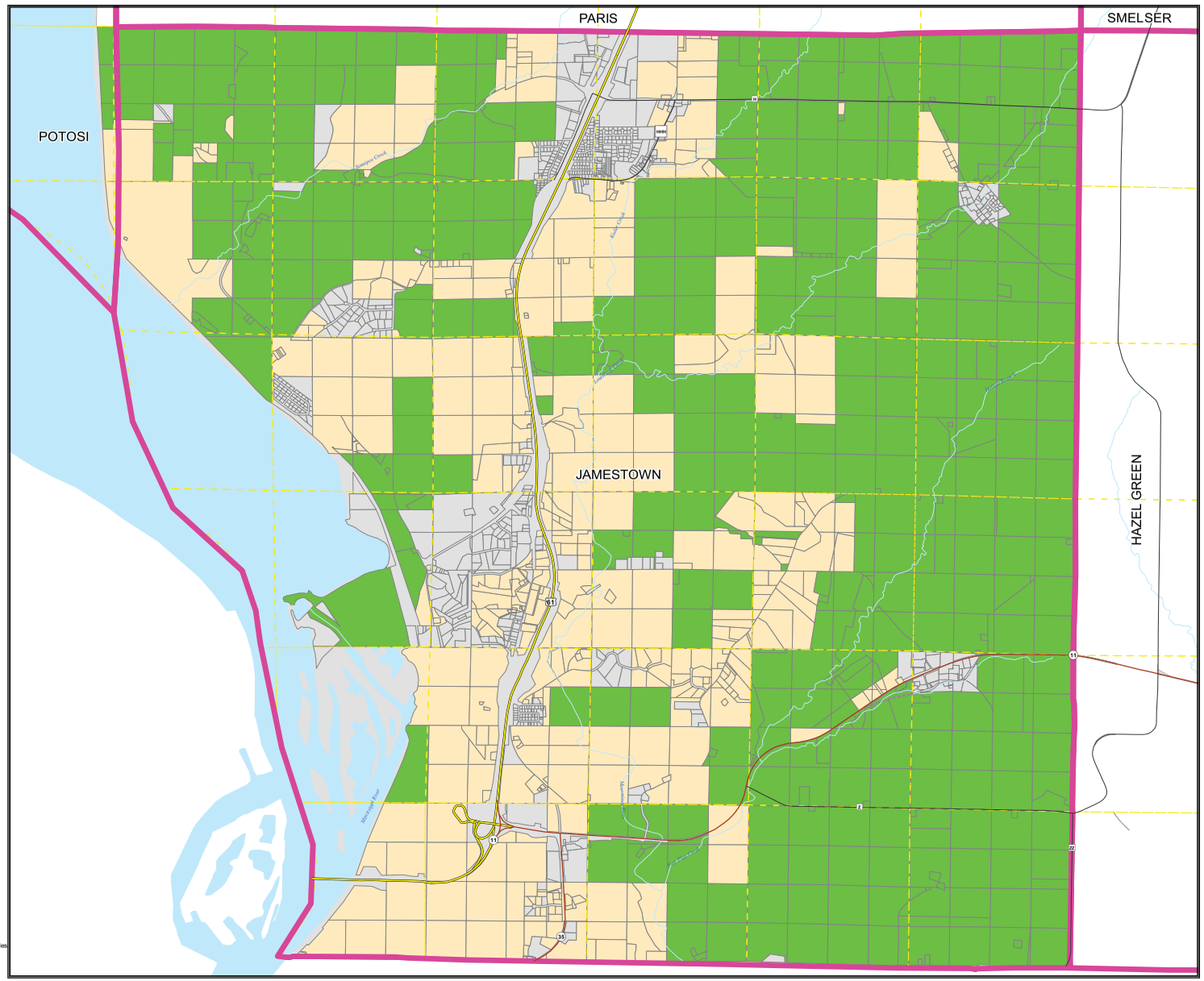
Map 18.12: Hazel Green Farmland Preservation Areas

Map 18.13: Hickory Grove Farmland Preservation Areas

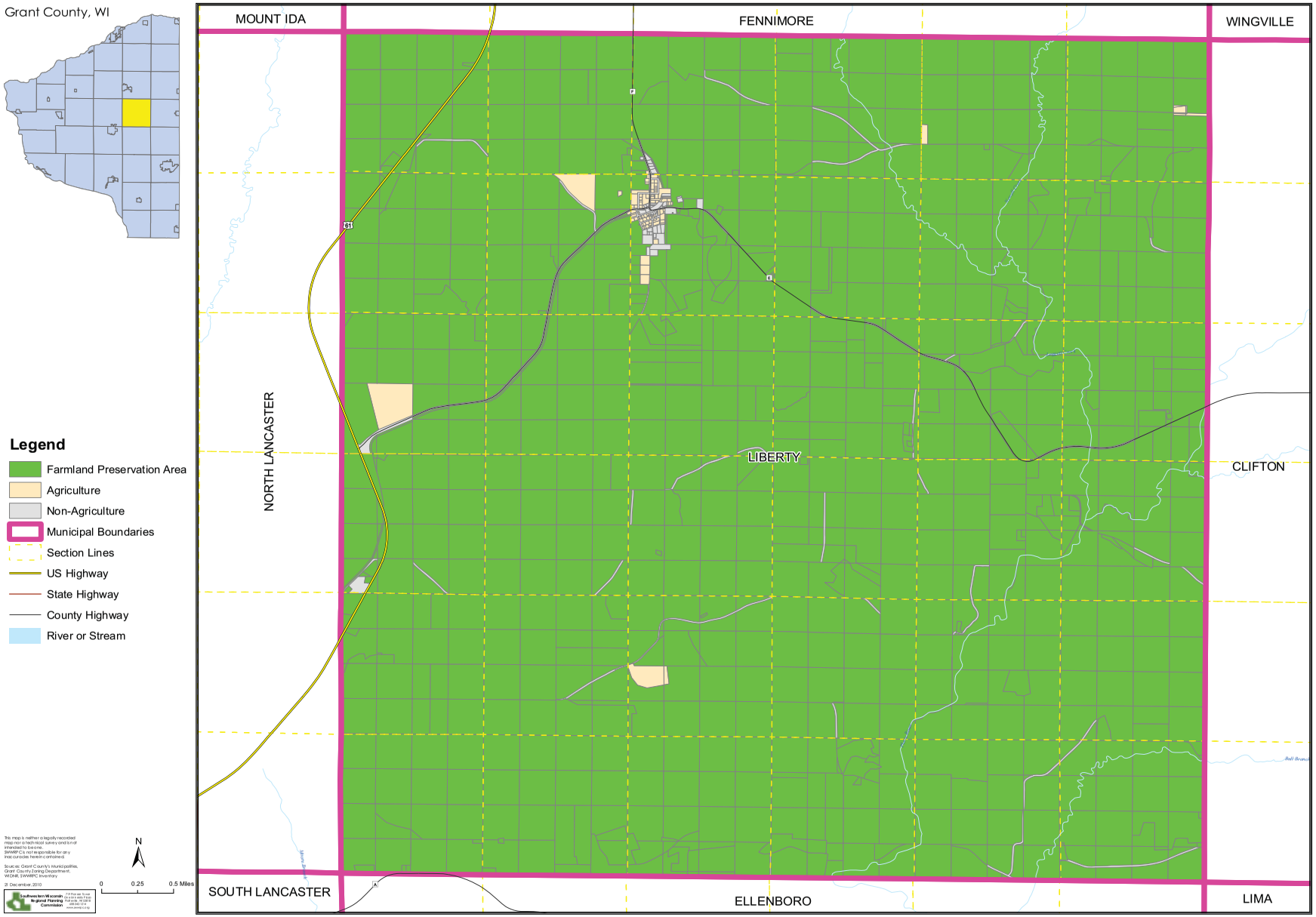


Map 18.14: Jamestown Farmland Preservation Areas

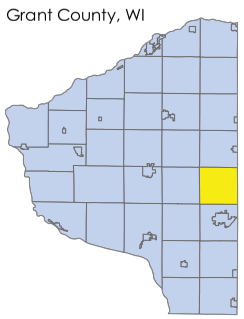


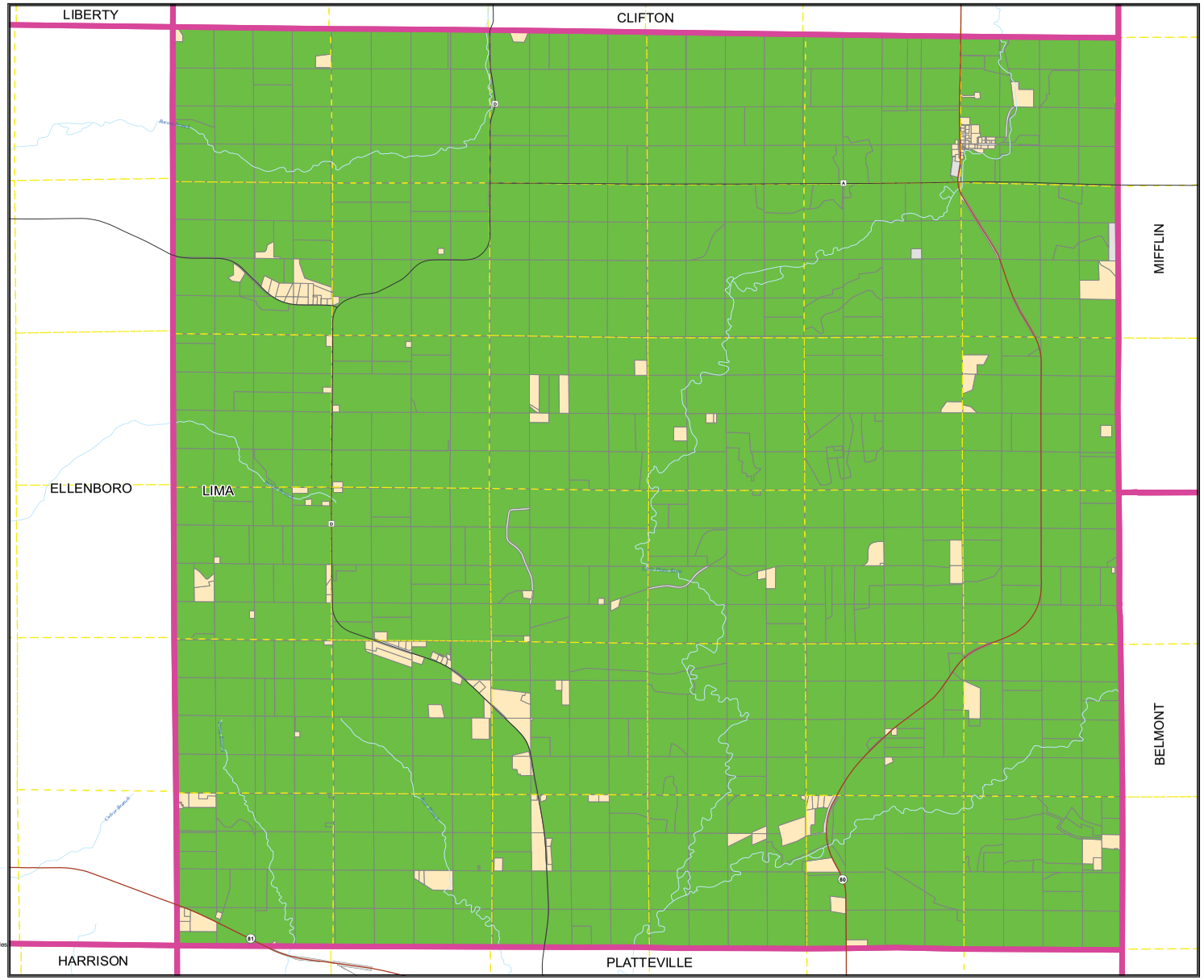


Map 18.15: Liberty Farmland Preservation Areas

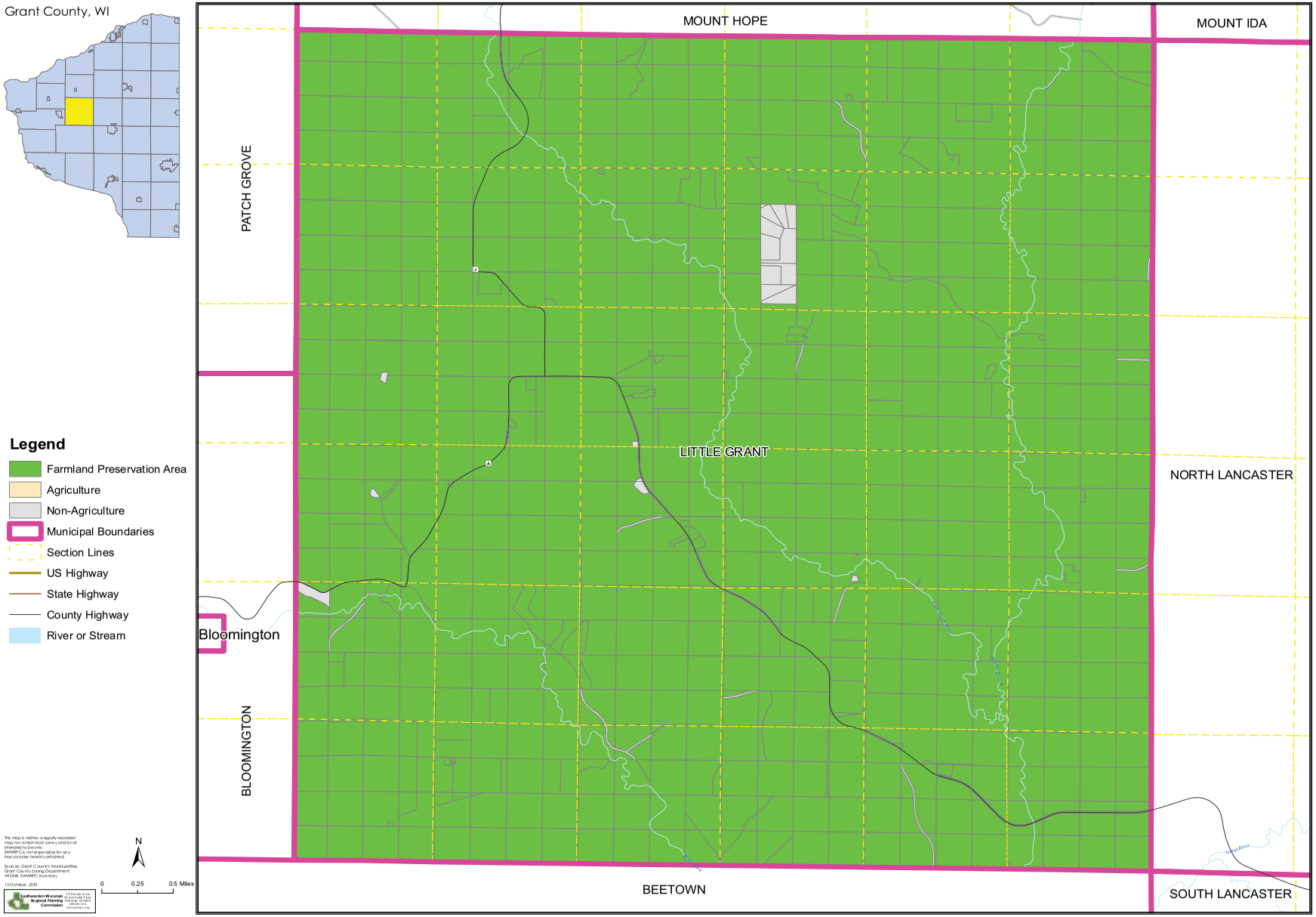


Map 18.16: Lima Farmland Preservation Areas

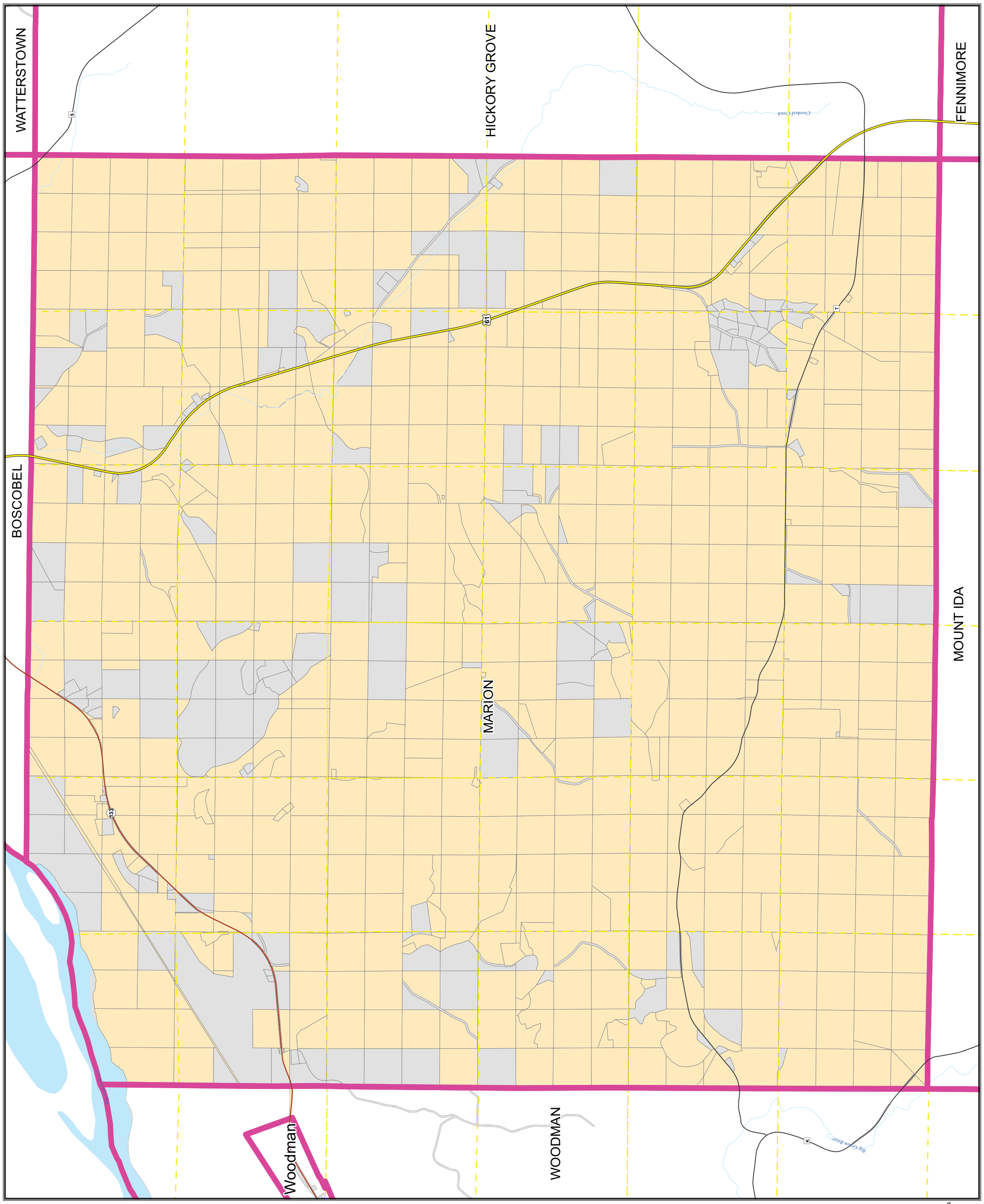




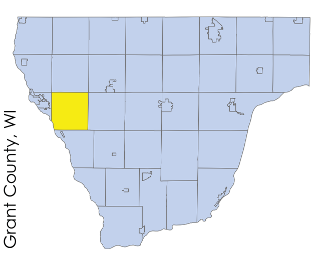
Map 18.17: Little Grant Farmland Preservation Areas



Map 18.18: Marion Farmland Preservation Areas



Grant County, WI



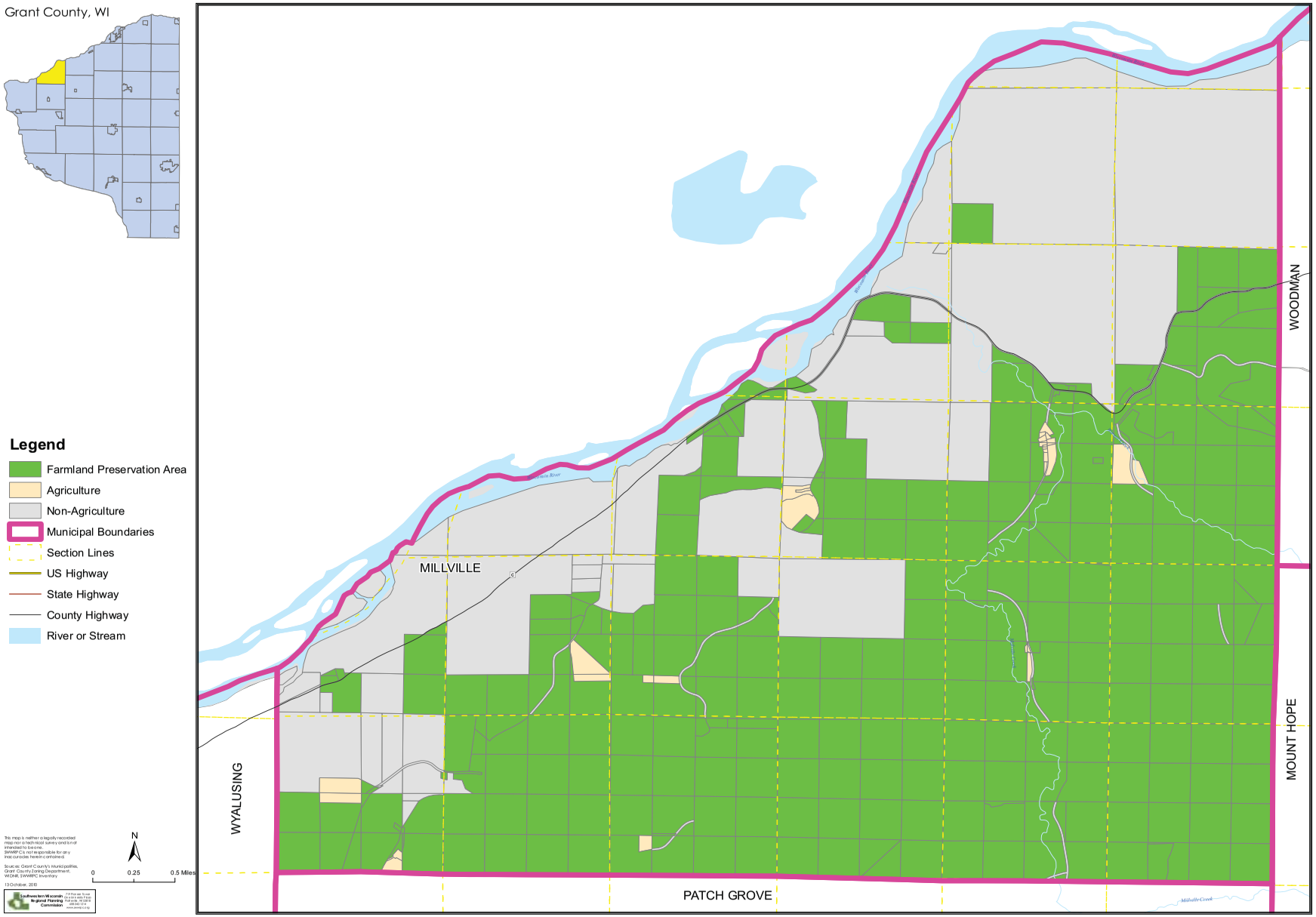
Legend

- Farmland Preservation Area
- Agriculture
- Non-Agriculture
- Municipal Boundaries
- Section Lines
- US Highway
- State Highway
- County Highway
- River or Stream

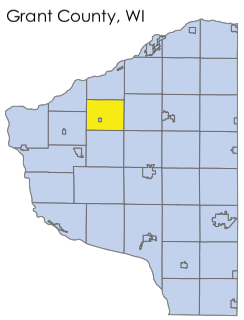
N

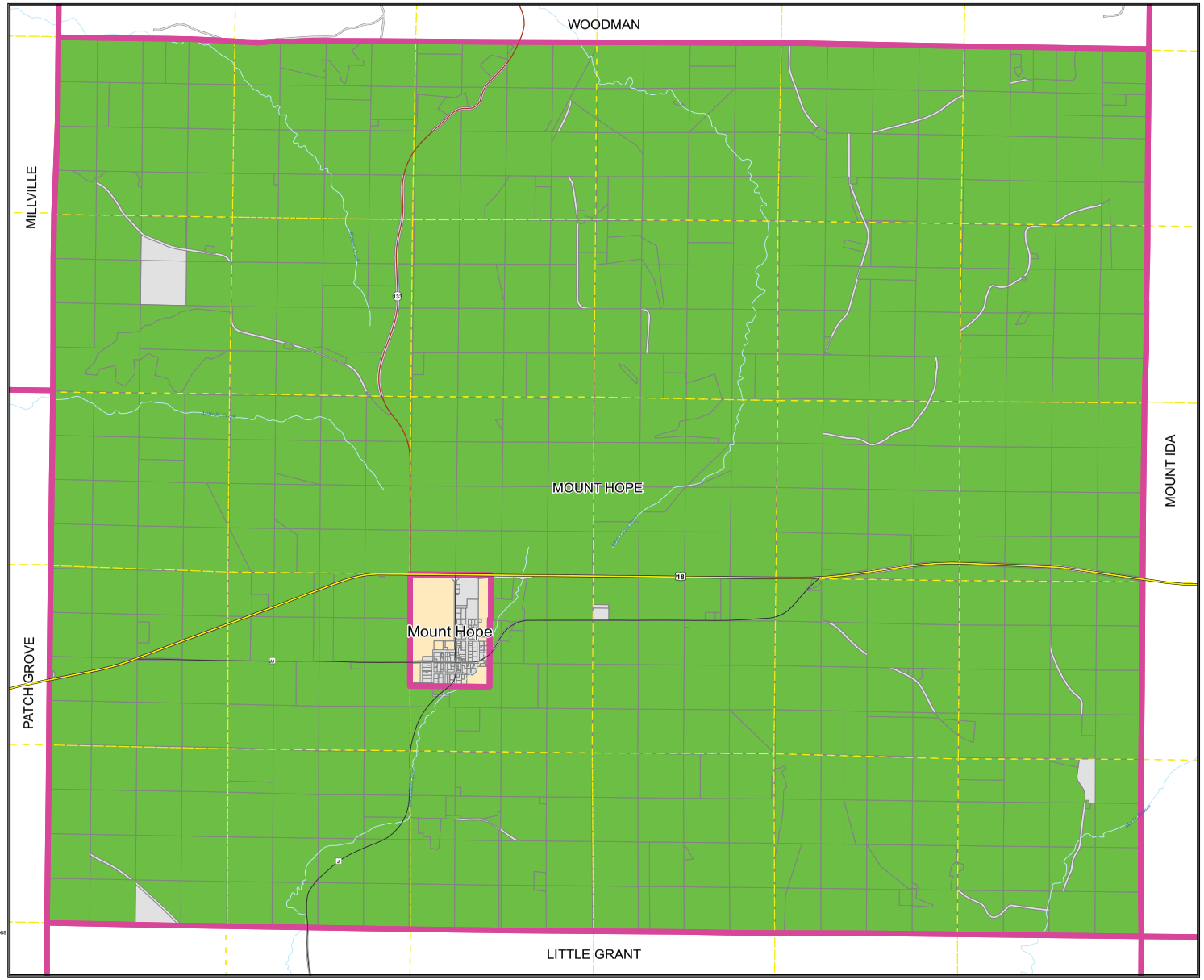
0 0.25 0.5 Miles

Map 18.19: Millville Farmland Preservation Areas



Map 18.20: Mount Hope Farmland Preservation Areas





Legend

- Farmland Preservation Area
- Agriculture
- Non-Agriculture
- Municipal Boundaries
- Section Lines
- US Highway
- State Highway
- County Highway
- River or Stream

This map is neither a legally recorded map nor a field-level survey and is not intended to be one. SWWRPC is not responsible for any inaccuracies herein contained.

Sources: Grant County Municipalities, Grant County Zoning Department, WCRAS, SWWRPC Inventory

19 October, 2010

N

0 0.25 0.5 Miles

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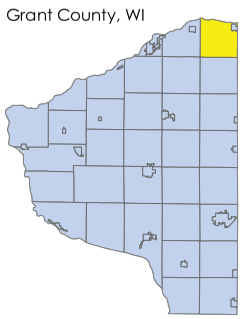
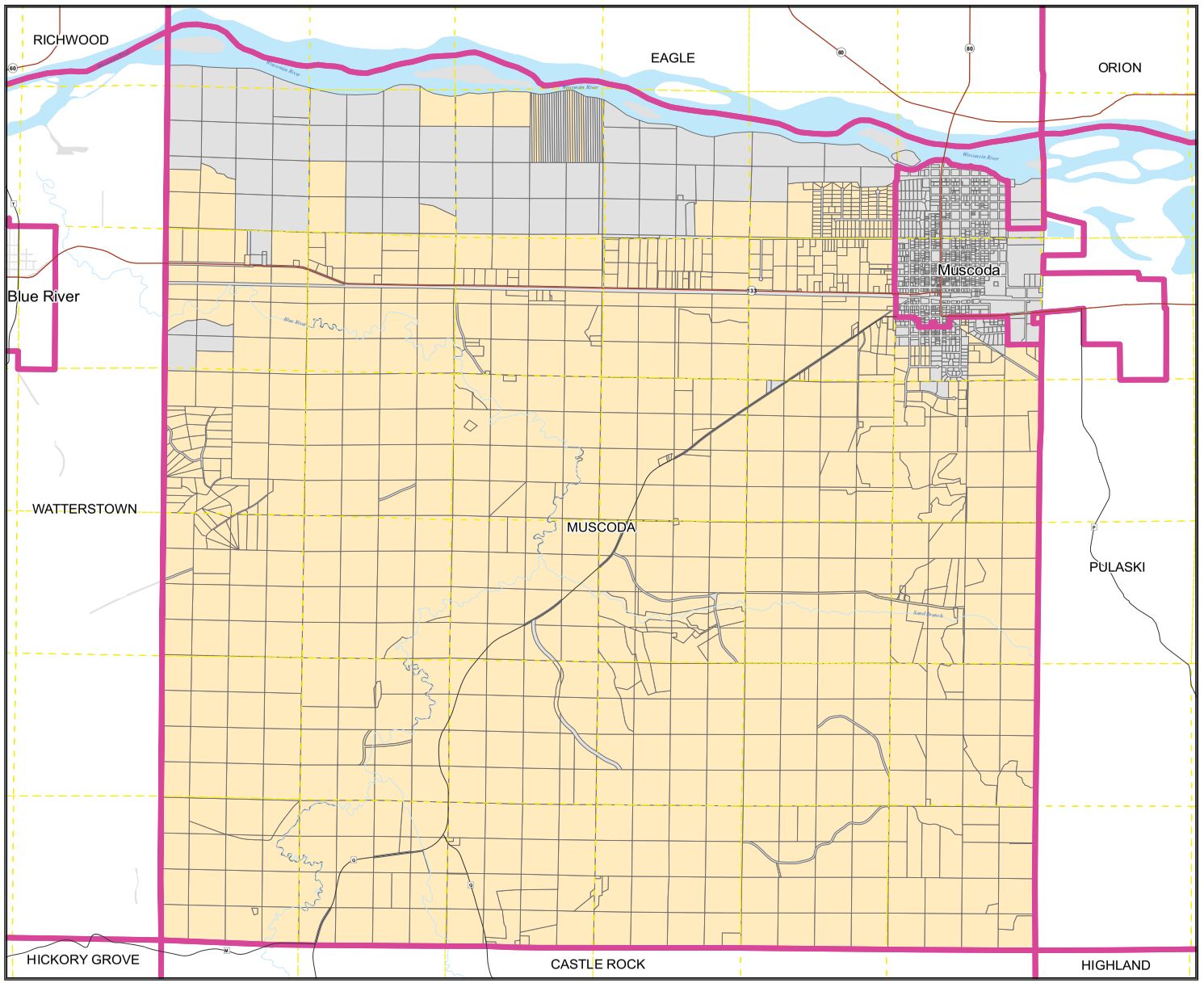
Map 18.21: Mount Ida Farmland Preservation Areas

Map 18.22: Muscoda Farmland Preservation Areas





Legend

- Farmland Preservation Area
- Agriculture
- Non-Agriculture
- Municipal Boundaries
- Section Lines
- US Highway
- State Highway
- County Highway
- River or Stream

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Sources: Grant County's Municipalities, Grant County Zoning Department, WDNR, SWWRPC Inventory

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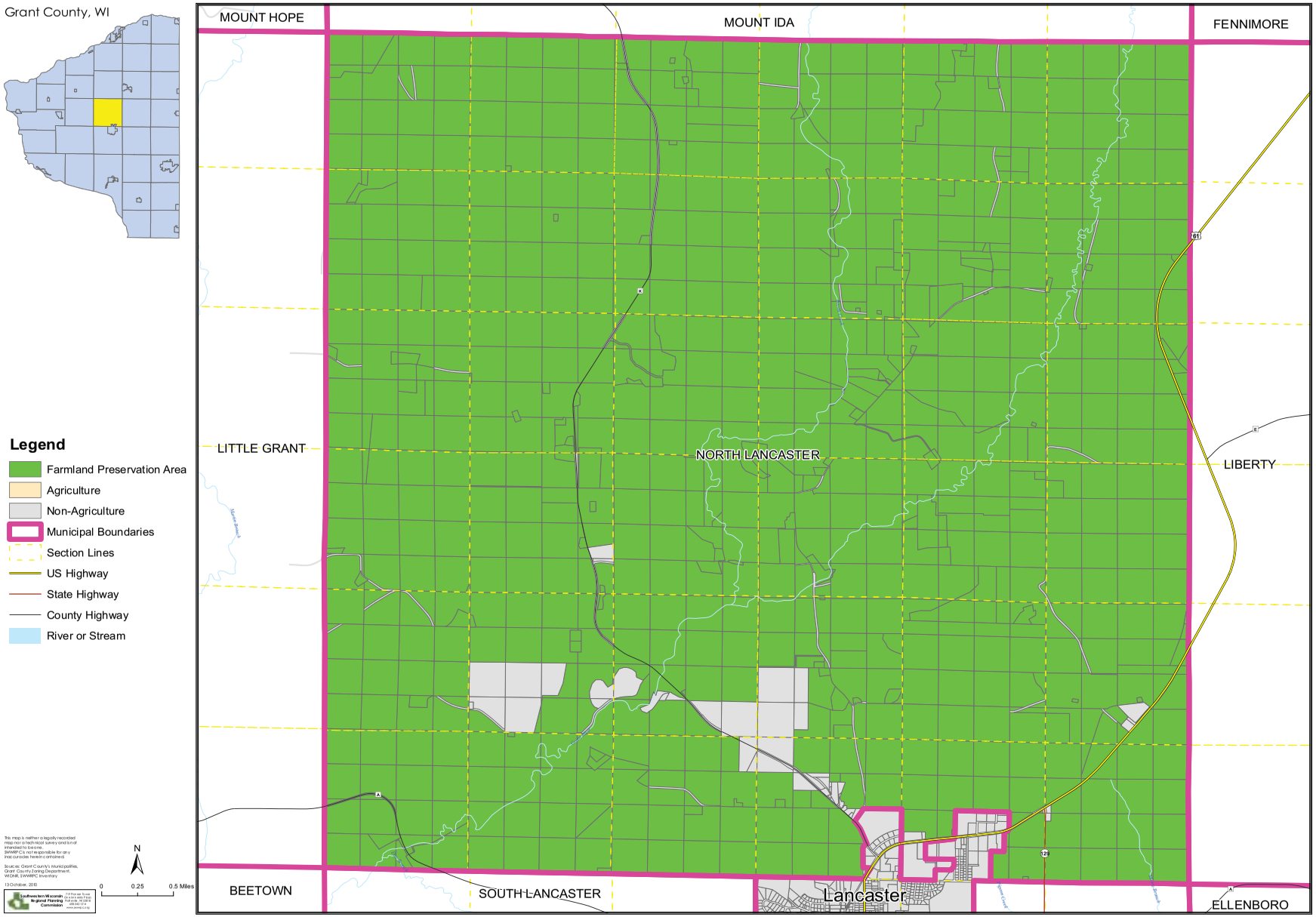
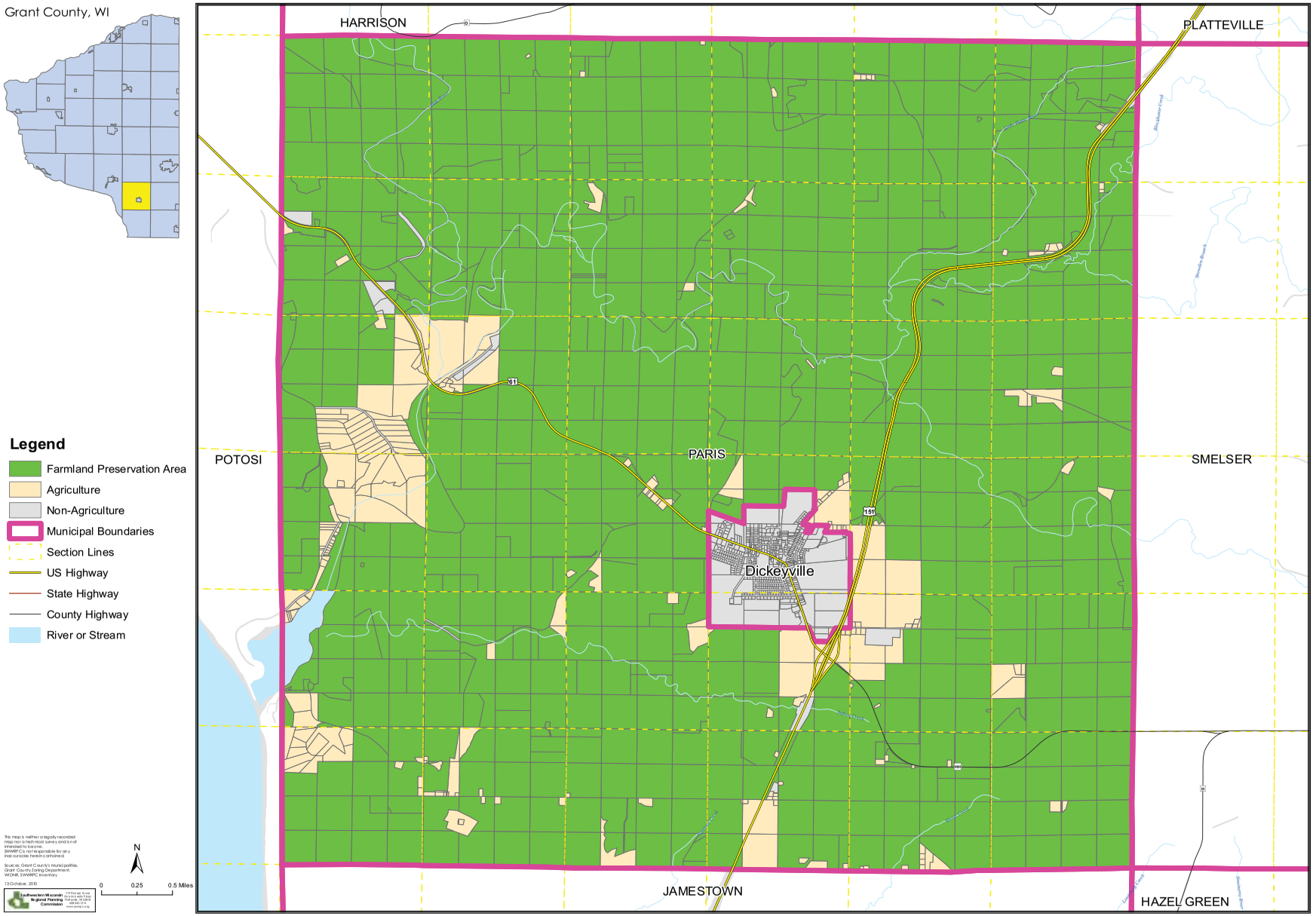
N

0 0.25 0.5 Miles

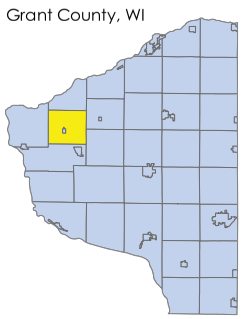
Map 18.23: North Lancaster Farmland Preservation Areas

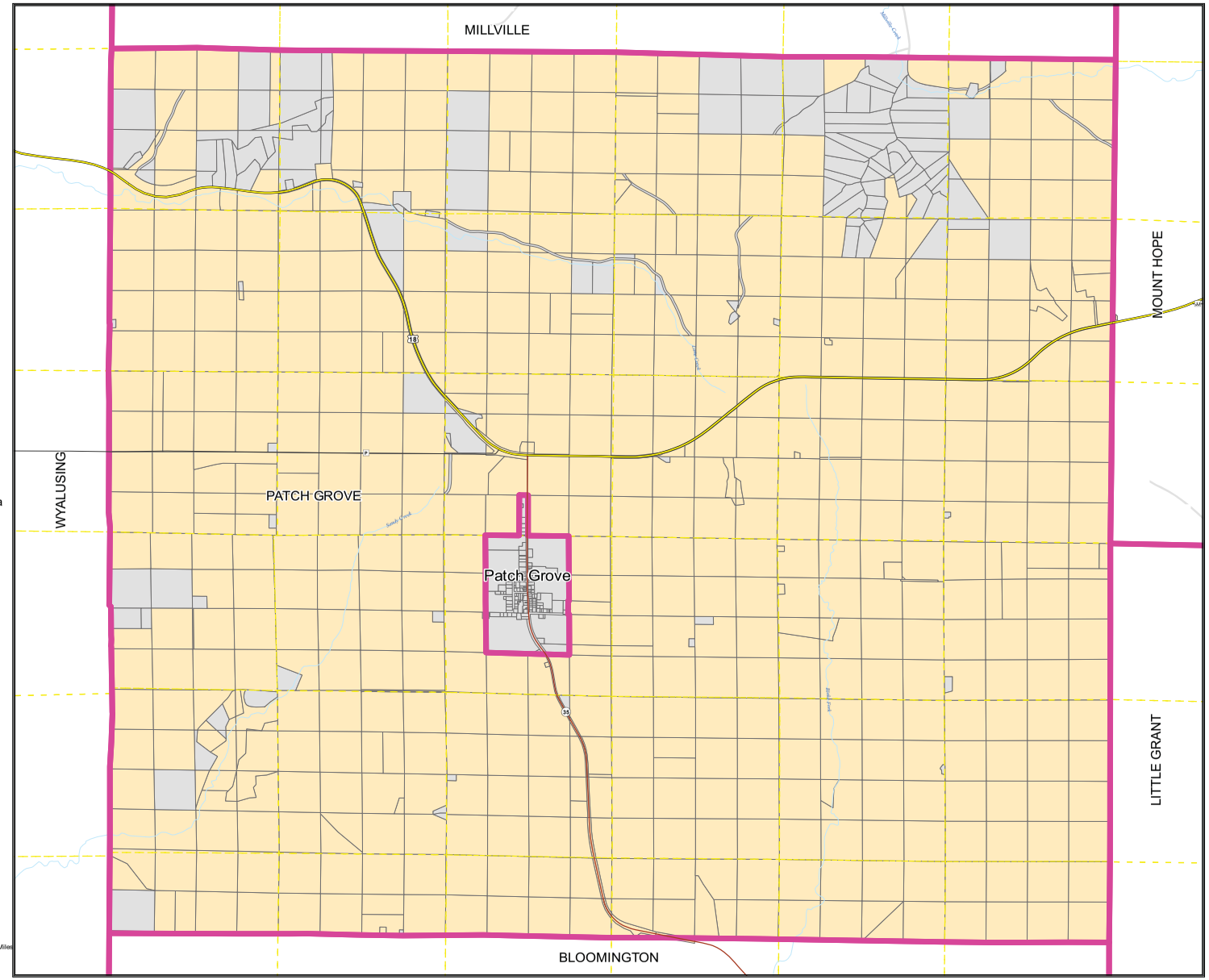


Map 18.24: Paris Farmland Preservation Areas



Map 18.25: Patch Grove Farmland Preservation Areas





Legend

- Farmland Preservation Area
- Agriculture
- Non-Agriculture
- Municipal Boundaries
- Section Lines
- US Highway
- State Highway
- County Highway
- River or Stream

Sources: Grant County Municipalities, Grant County Zoning Department, WDNR, SWWRPC Inventory

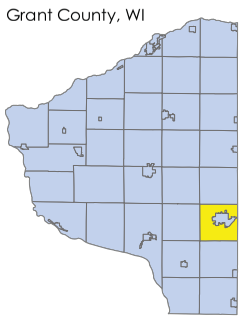
13 October, 2010

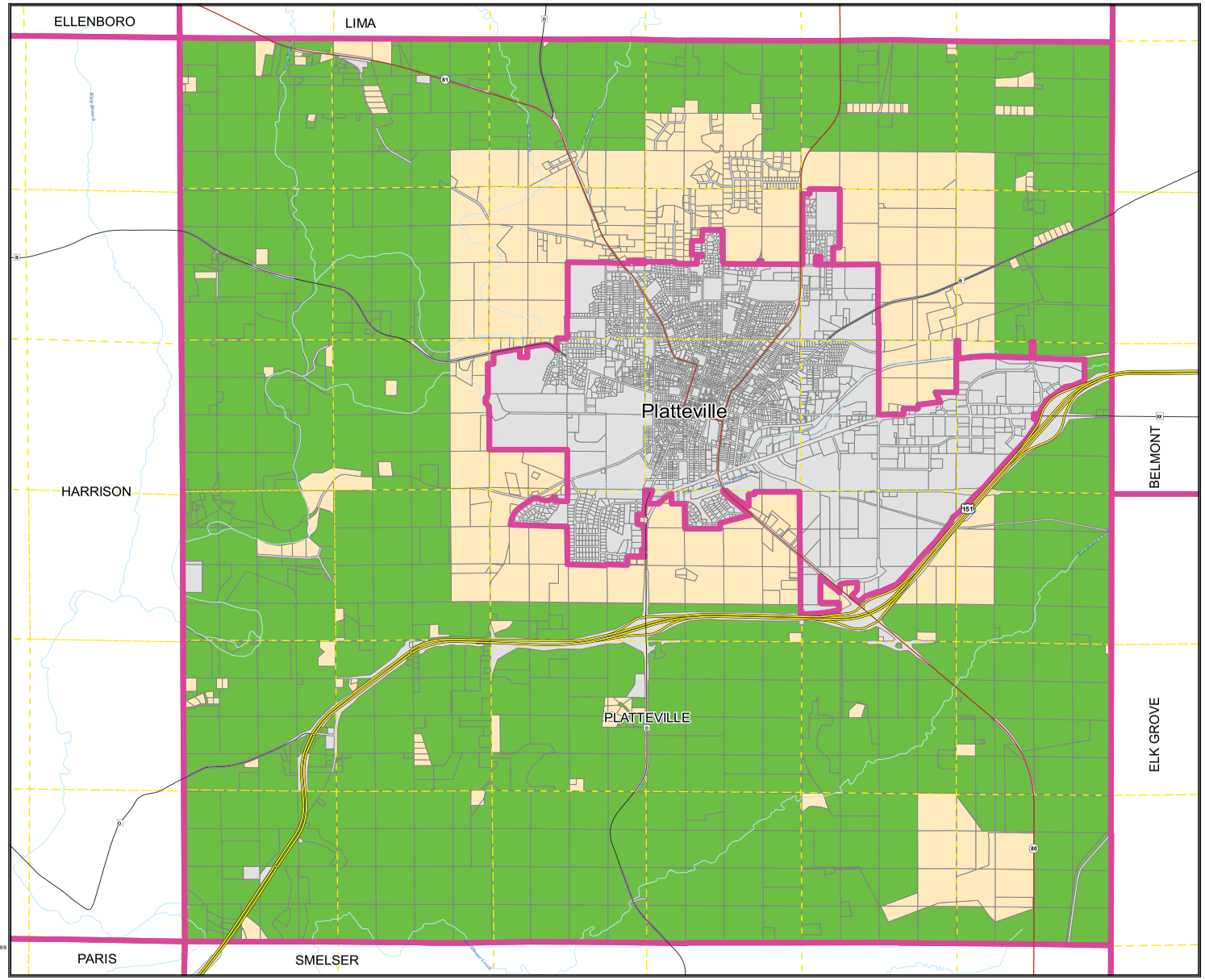
Southwestern Wisconsin Regional Planning Commission

N

0 0.25 0.5 Miles

Map 18.26: Platteville Farmland Preservation Areas





Legend

- Farmland Preservation Area
- Agriculture
- Non-Agriculture
- Municipal Boundaries
- Section Lines
- US Highway
- State Highway
- County Highway
- River or Stream

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Sources: Grant County's, Municipalities, Grant County Zoning Department, WCRAP, SWWRPC Inventory

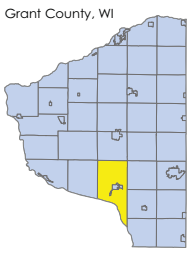
13 October, 2010

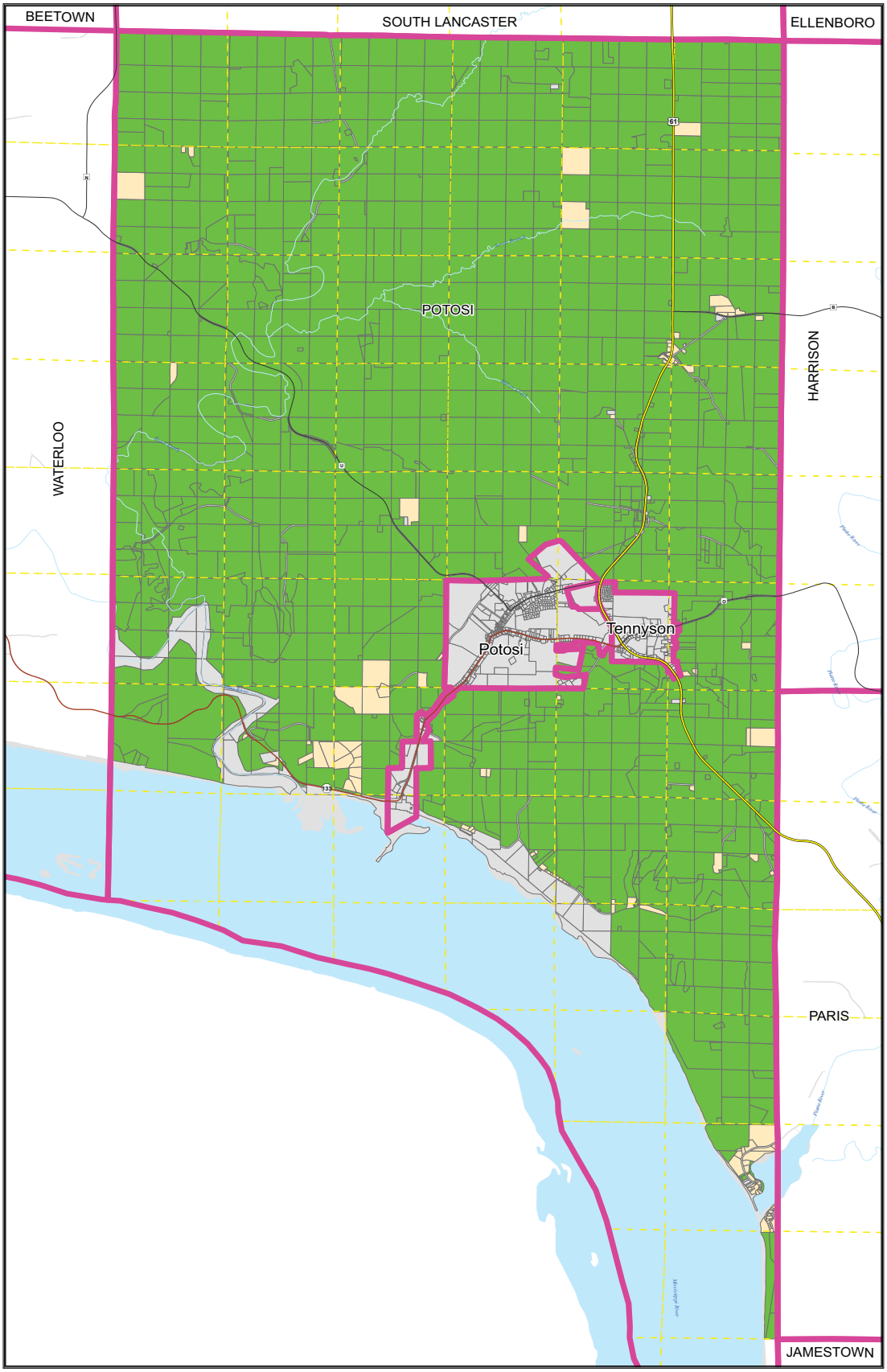
Southwestern Wisconsin Regional Planning Commission

N

0 0.25 0.5 Miles

Map 18.27: Potosi Farmland Preservation Areas

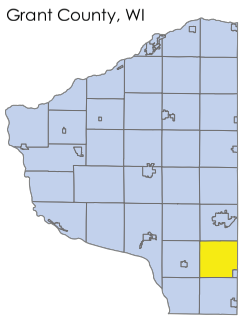


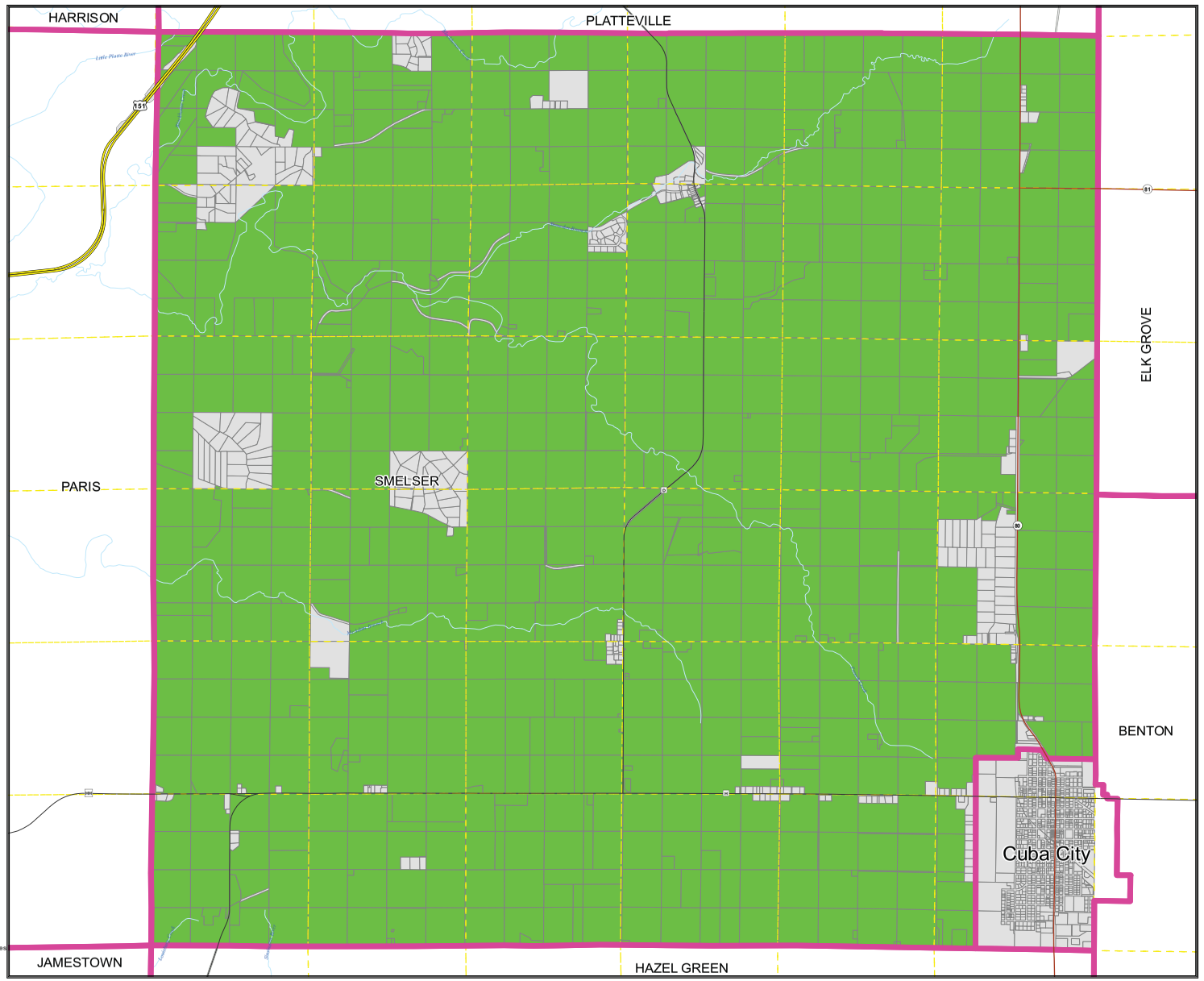


Legend

- Farmland Preservation Area
- Agriculture
- Non-Agriculture
- Municipal Boundaries
- Section Lines
- US Highway
- State Highway
- County Highway
- River or Stream

Map 18.28: Smelser Farmland Preservation Areas





Legend

- Farmland Preservation Area
- Agriculture
- Non-Agriculture
- Municipal Boundaries
- Section Lines
- US Highway
- State Highway
- County Highway
- River or Stream

This map is neither a legally recorded map nor a field land survey and is not intended to be one. SWWRPC is not responsible for any inaccuracies herein contained.

Sources: Grant County Municipalities, Grant County Zoning Department, WCRAP, SWWRPC Inventory

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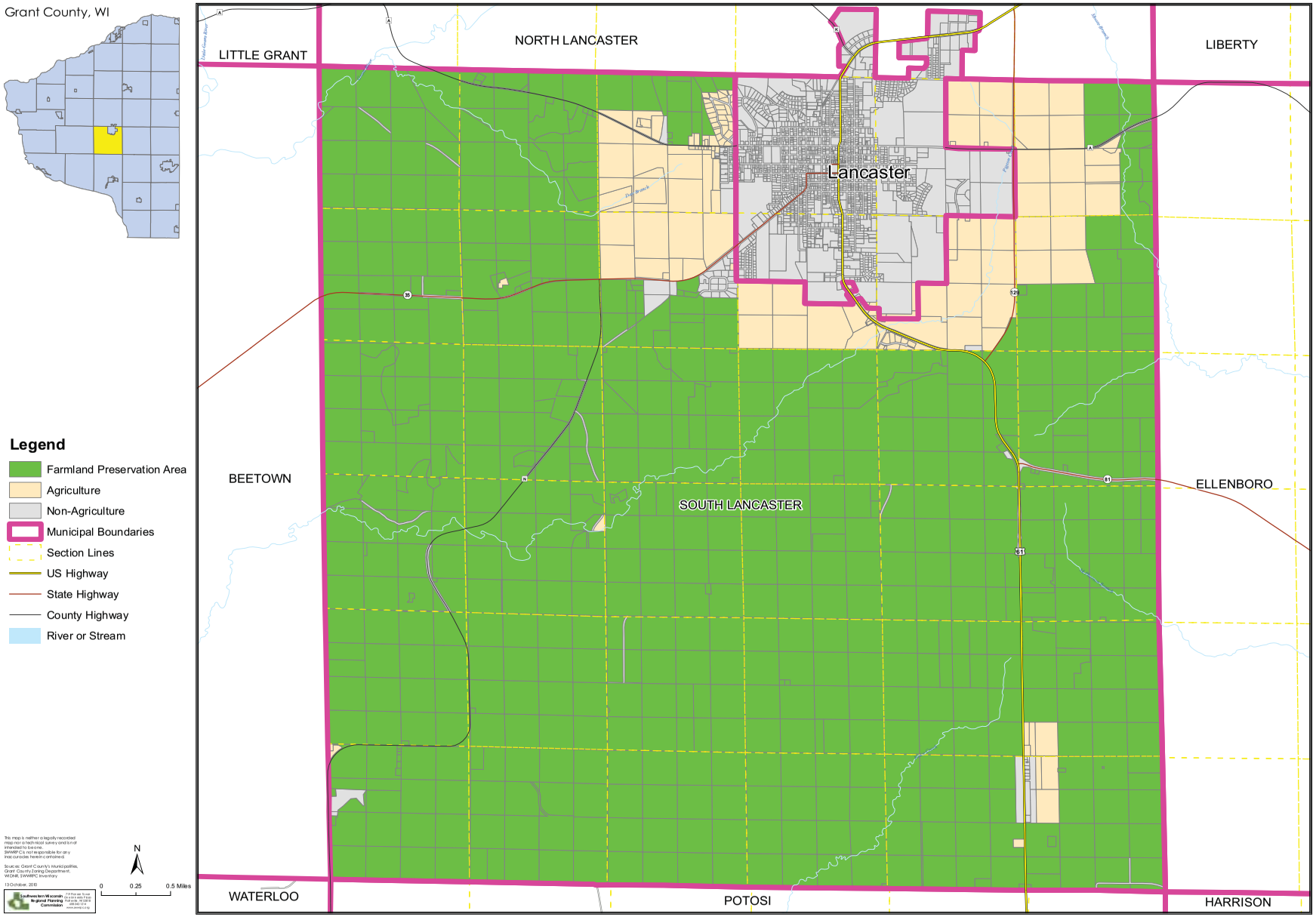
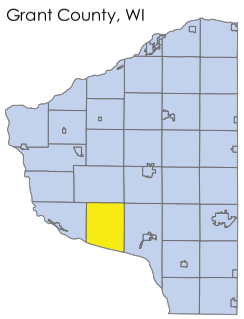
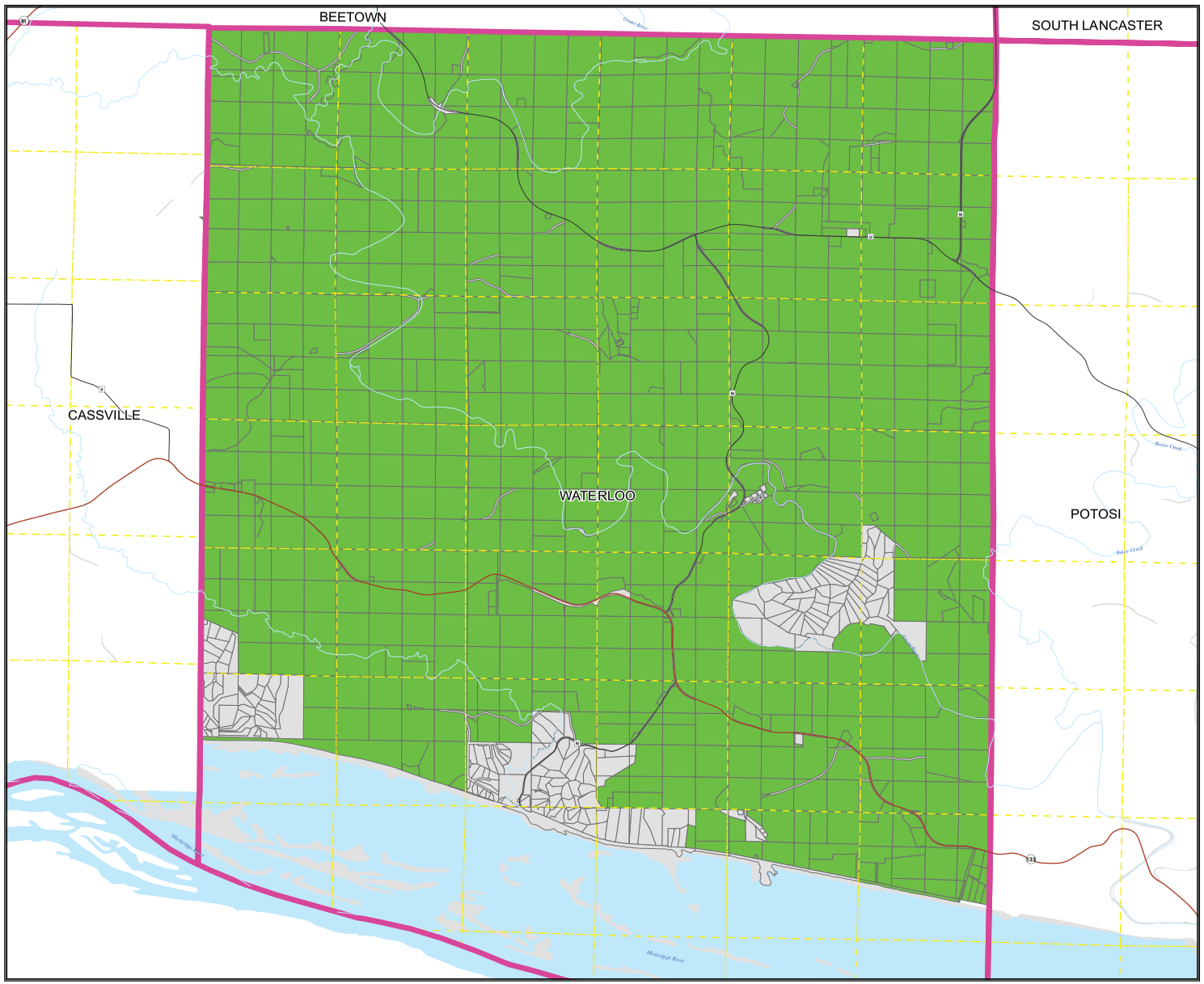
Map 18.29: South Lancaster Farmland Preservation Areas

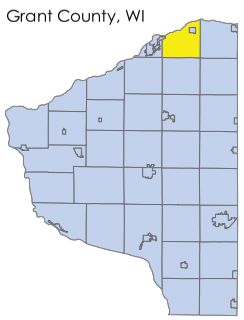


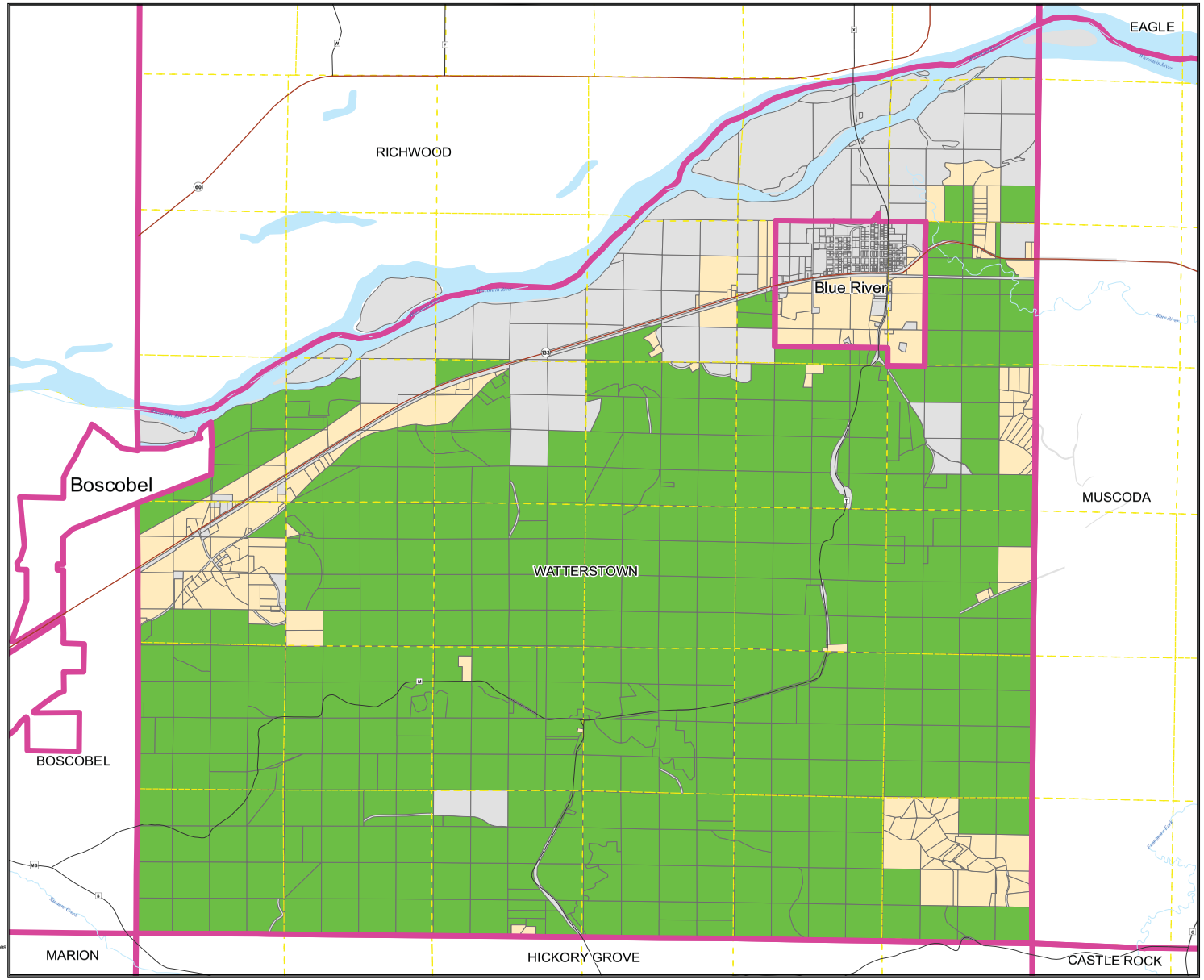
Map 18.30: Waterloo Farmland Preservation Areas





Map 18.31: Watterstown Farmland Preservation Areas





Legend

- Farmland Preservation Area
- Agriculture
- Non-Agriculture
- Municipal Boundaries
- Section Lines
- US Highway
- State Highway
- County Highway
- River or Stream

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Sources: Grant County Municipalities, Grant County Zoning Department, WCRAP, SWWRPC Inventory

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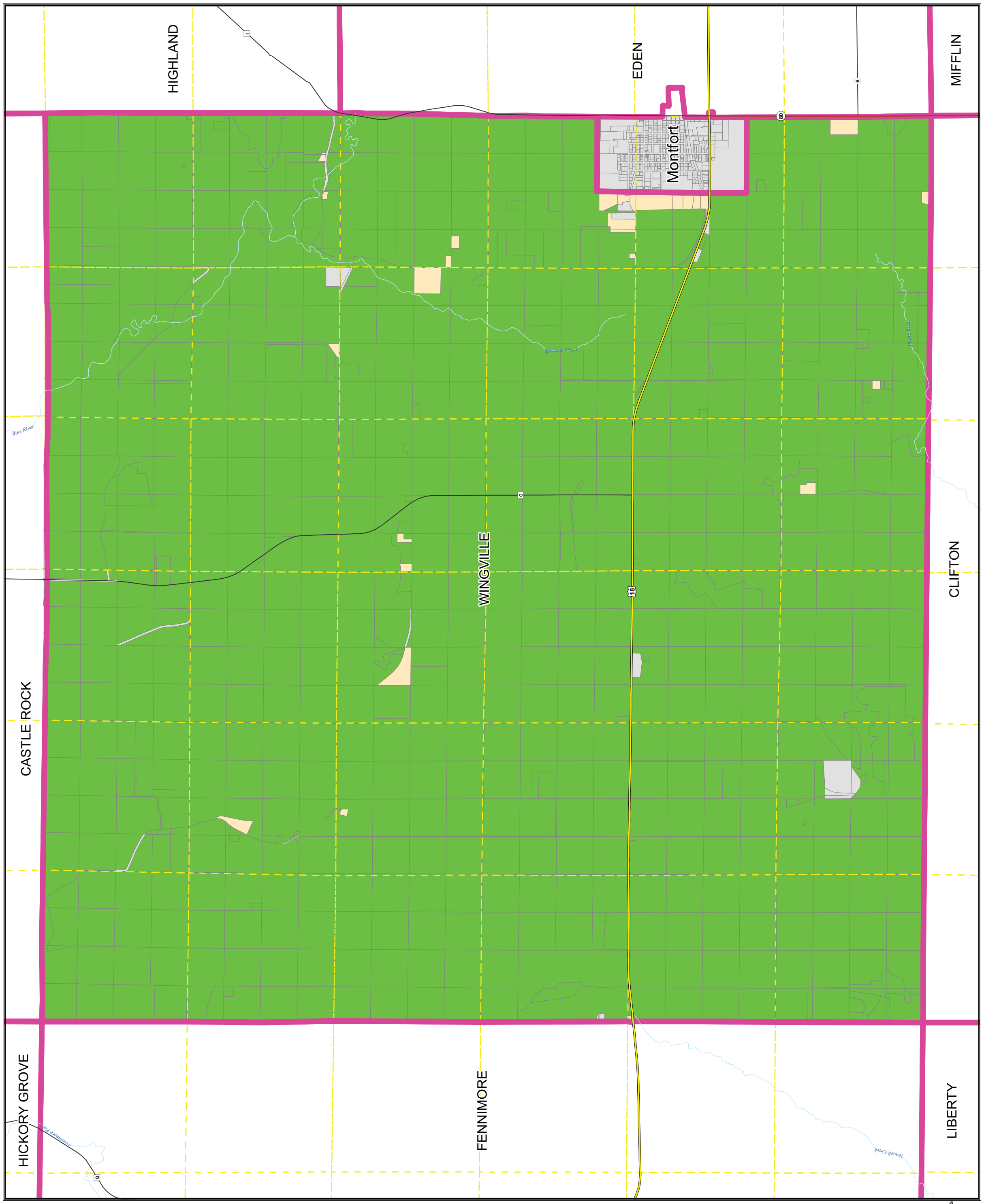
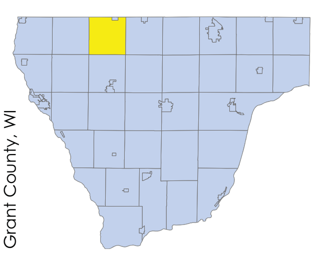
N

0 0.25 0.5 Miles

Map 18.32: Wingville Farmland Preservation Areas



Grant County, WI



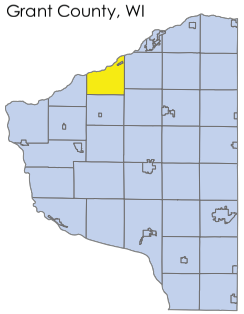
Legend

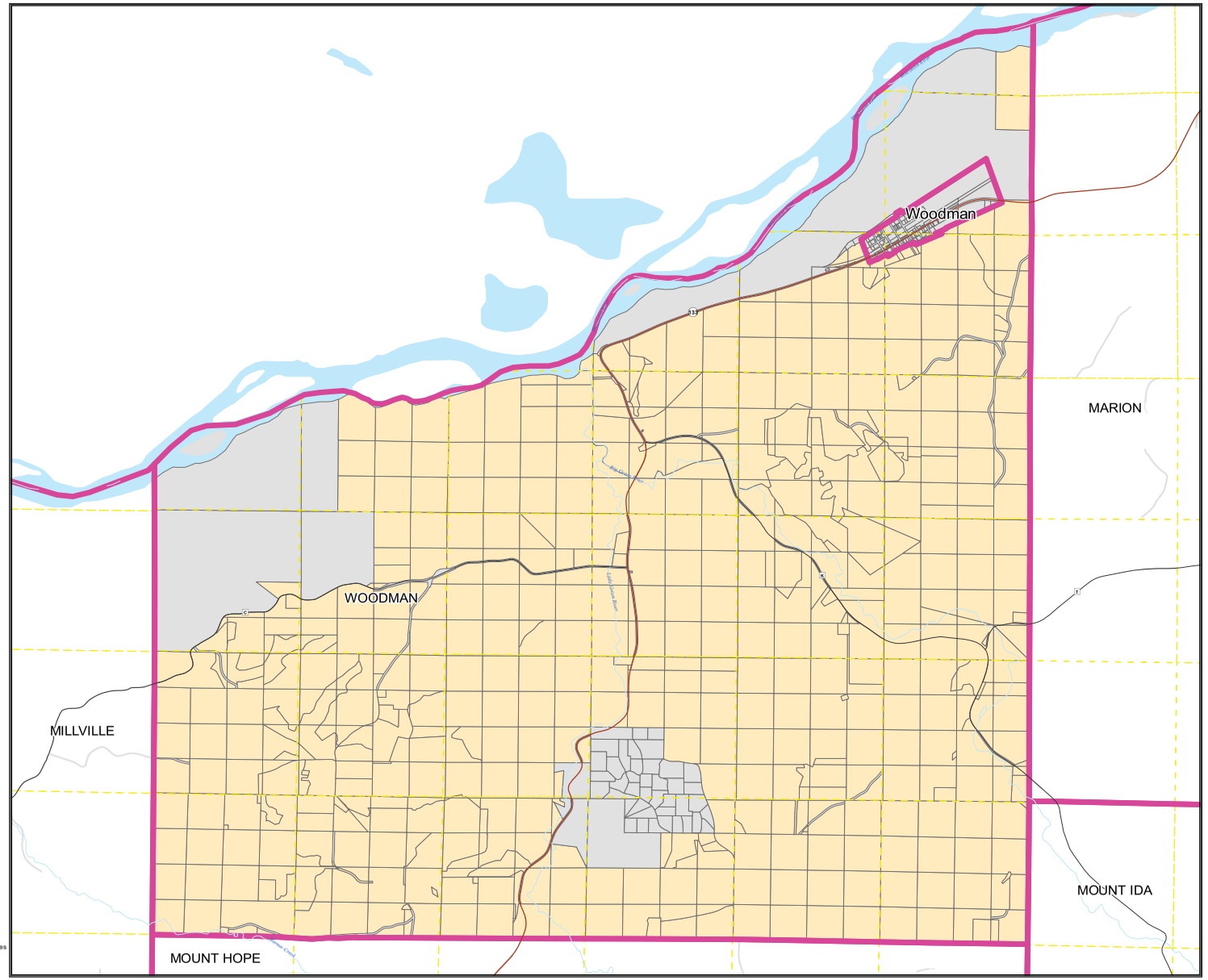
- Farmland Preservation Area
- Agriculture
- Non-Agriculture
- Municipal Boundaries
- Section Lines
- US Highway
- State Highway
- County Highway
- River or Stream

N

0 0.25 0.5 Miles

Map 18.33: Woodman Farmland Preservation Areas





Legend

- Farmland Preservation Area
- Agriculture
- Non-Agriculture
- Municipal Boundaries
- Section Lines
- US Highway
- State Highway
- County Highway
- River or Stream

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Sources: Grant County's, Municipalities, Grant County Zoning Department, WCRAS, SWWRPC Inventory

13 October, 2010

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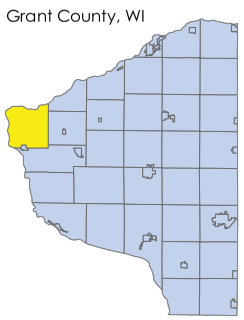
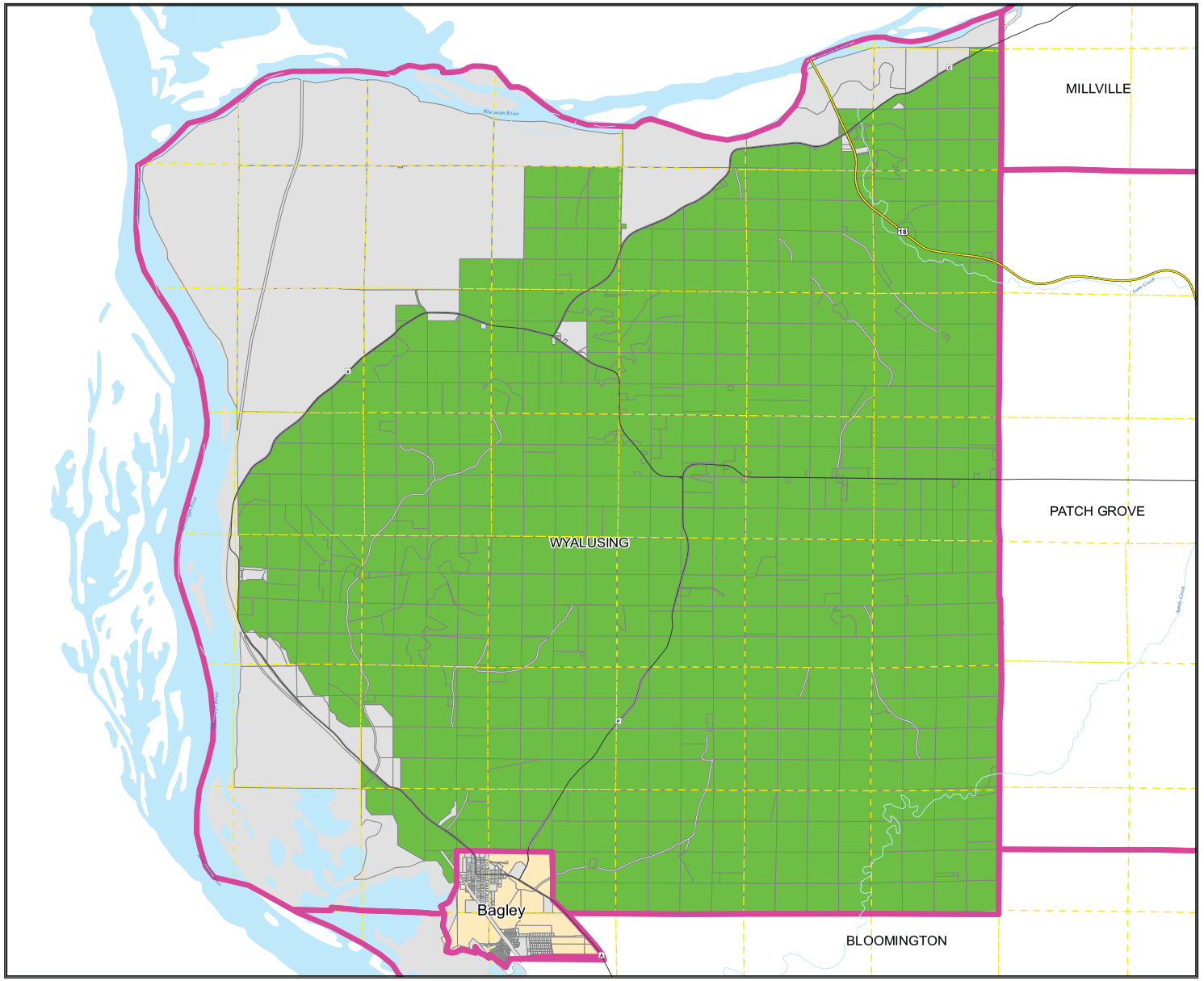
N

0 0.25 0.5 Miles

Map 18.34: Wyalusing Farmland Preservation Areas





Legend

- Farmland Preservation Area
- Agriculture
- Non-Agriculture
- Municipal Boundaries
- Section Lines
- US Highway
- State Highway
- County Highway
- River or Stream

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Sources: Grant County's, Municipalities, Grant County Zoning Department, WCMM, SWWRPC Inventory

21 December, 2010

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N

0 0.25 0.5 Miles

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One University Plaza
719 Pioneer Tower
Platteville, WI 53818

(608) 342-1214 office
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