Lafayette County

Land and Water Resource Management Plan

2016 - 2025

PLANNING ASSISTANCE PROVIDED BY

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Arleigh Bondele	Lafayette Co. Sportsman Alliance	Member
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Keith Wilson	Organic Valley	Farmer
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Leon Wolfe	Land Conservation Committee	Chairman
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Abbreviations/Acronyms

AEA	Agricultural Enterprise Area
AIS	Aquatic Invasive Species
BMP	Best Management Practice
CAC	Citizen Advisory Committee
CREP	Conservation Reserve Enhancement Program
CRP	Conservation Reserve Program
CSP	Conservation Stewardship Program
DALC	Driftless Area Land Conservancy
DATCP	Department of Agriculture, Trade, and Consumer Protection
DNR	Wisconsin Department of Natural Resources
EPA	Environmental Protection Agency
EQIP	Environmental Quality Incentives Program
ERW	Exceptional Resource Waters
EWP	Emergency Watershed Protection Program
FPP	Farmland Preservation Plan
FSA	Farm Service Agency
FWS	Fish and Wildlife Service
GIS	Geographic Information Systems
GRP	Grassland Reserve Program
IBI	Index of Biological Integrity
LCD	Lafayette County Land Conservation Department
LWCB	Land and Water Conservation Board
LWRM	Land and Water Resource Management Plan
MFL	Managed Forest Law
NMP	Nutrient Management Plan
NOD	Notice of Discharge
NOI	Notice of Intent to Issue a Notice of Discharge
NRCS	Natural Resource Conservation Service
SW Badger RC&D	Southwest Badger Resource Conservation & Development
TMDL	Total Maximum Daily Limits
USDA	United States Department of Agriculture
UWEX	University of Wisconsin Extension
Wis. Adm. Code	Wisconsin Administrative Code
WisCALM	Wisconsin Consolidated Assessment and Listing Methodology
WLI	Working Lands Initiative
WPDES	Wisconsin Pollutant Discharge Elimination System
WRP	Wetland Reserve Program

Executive Summary

The Lafayette County Land and Water Resource Management (LWRM) Plan addresses soil and water quality concerns using local, state, and federal programs. It is a 10 year (2016 – 2025) action and implementation plan that emphasizes cooperation with partners in Lafayette County with a five year workplan. The Lafayette County LWRM Plan was written with the assistance of partner agencies, including the Department of Agriculture, Trade and Consumer Protection; Wisconsin Department of Natural Resources; Farm Service Agency; Natural Resources Conservation Service; and University of Wisconsin Cooperative Extension. Input on the plan came from a citizen advisory committee, comprised of individuals who represent a wide array of interests, include the Lafayette County Farm Bureau, local farmers and landowners, and Lafayette County Board.

The Land Conservation Department staff and a citizen advisory committee (CAC) reviewed past LWRM plans and evaluated their effectiveness at enhancing conservation and documenting results. Using the resource assessment and information from existing water quality plans along with supplementary data presented through a series of maps as a starting point.

The objectives of the plan are to provide:

- An assessment of the current conditions of land and water resources in Lafayette County.
- An overview of and status report on various land and water conservation implementation programs.
- Regulatory requirements related to land conservation and water quality, including state mandated NR 151 performance standards.
- Monitoring and evaluation methods administered by the Land Conservation Division and other agencies for the purpose of determining conservation needs and documenting responses in natural resources.
- Information and education initiatives that will be used to raise awareness of the importance of maintaining and enhancing natural resources
- An implementation strategy to guide LCD in carrying out the recommendations of the plan.

In summary, the LWRM Plan outlines a comprehensive strategy for the implementation of soil and water conservation in Lafayette County from 2016 through 2025. It identifies nine critical goals for carrying out natural resource protection in Lafayette County.

- Reduce soil erosion
- Develop urban and agriculture stakeholder interest
- Ensure effective nutrient and manure management
- Ensure safe drinking water supply
- Address water and soil quality issues in Farmland Preservation Plan and Land Use Plans
- Promote sustainable agriculture and plan for climate change
- Promote restoration and protection of surface water
- Address invasive species
- Promote sustainable forest management

Additionally, a public hearing on the plan was held December 2, 2014. Thus a wide array of voices and perspectives contributed to the development of the Lafayette County LWRM Plan. The LCD will evaluate the five year workplan on an annual basis to ensure that needs are being adequately addressed. In the year 2020, the work plan will be reviewed, and modified to reflect past activities and accomplishments, and new priorities for another five year workplan. Implementing the goals identified in this plan will help insure the continued protection and enhancement of the natural resources in Lafayette County. This can only be accomplished through ongoing partnerships with agencies, landowners, conservation groups, citizens of Lafayette County, and new partners identified through the planning process.

Section 1: Introduction

Through Wisconsin Act 27 (1997-1999 Biennial Budget Bill), Chapter 92.10 of the Wisconsin Statutes was amended, creating a county land and water resource management planning program. The impetus behind the program is to develop a locally led process that protects Wisconsin's land and water resources by streamlining administrative and delivery mechanisms, improving decision-making, and making better use of local, state, and federal funds. This plan revises prior plans that were written and approved in 2003 and 2008. It reflects an overall effort to tie together conservation programs, available funding, and other resources to effectively address the land and water resource management issues facing Lafayette County from 2016 through 2026.

Lafayette County's LWRM Plan is intended to complement and coordinate with existing plans rather than replace them. It is an action and implementation plan that emphasizes cooperation among conservation partners. The successful implementation of this plan depends upon many local agencies, landowners, and organizations working together. Moreover, success can only be achieved with continued levels of current staffing and financial resources. Through continued cooperation between the Land Conservation Department (LCD) and its partners and stable funding, citizens will be able to enjoy Lafayette County's soil and water resources today and well into the future.

The goals and objectives outlined in the workplan clearly reflect the existing resources in Lafayette County and were developed to specifically meet conservation needs. Previous resource management plans and current LCD responsibilities factored into the final development of the workplan.

Lafayette County Land

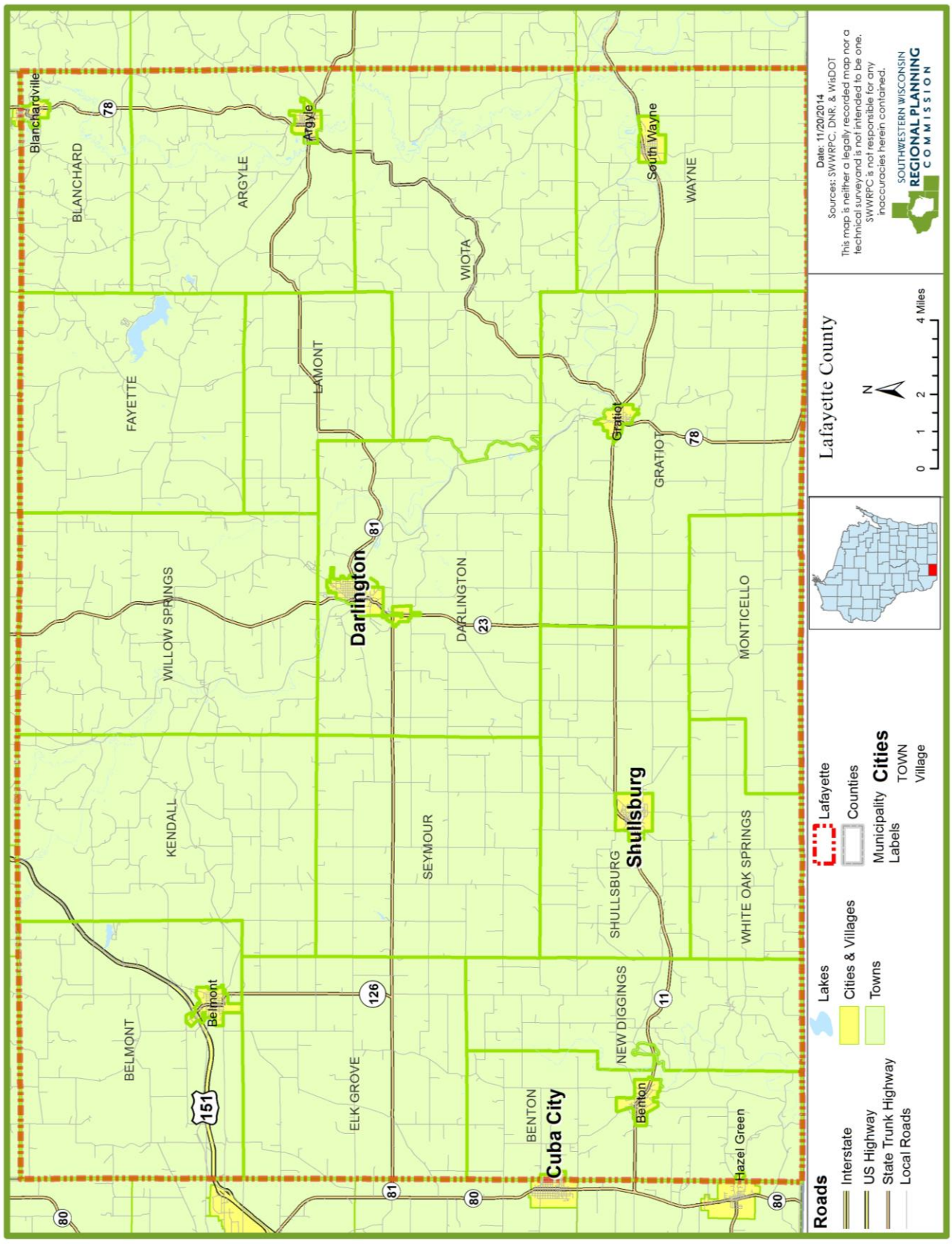


Figure 1: Lafayette County

Section 2: Lafayette County Overview and Existing Conditions

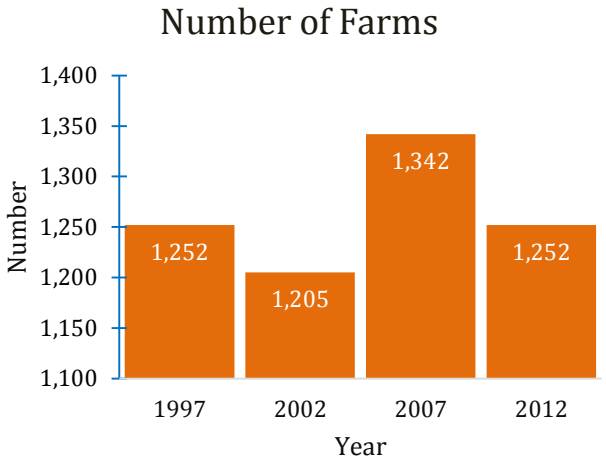
History

The first settlements developed by permanent occupation in Lafayette County were made during the year 1824, and were due to the existence of the lead mines. Miners were attracted to the area for its rich deposits of lead in the southwest corner of the county, however poor records render it impossible to determine who first sojourned in the lead regions of what was known as Michigan Territory. Native Americans were believed to have mined lead in the county long before any settlers arrived. The area had abundant wildlife and streams were full of fish, therefore very little farming was done by the miners in the beginning. However, immigrant farmers began to move into the area following the opening of the Erie Canal and the end of the Blackhawk War, around 1832.

In 1835, the Territorial Governor designated the village of Belmont as the place for the first session of the Legislature of the Wisconsin Territory. However, the Legislature selected Madison, WI as the permanent capital in 1836. In 1846, Lafayette County split from Iowa County and was named after Marie Joseph Paul Yver Rock Gilbert du Motier, Marquis de Lafayette, a French nobleman and general in the Continental Army during the Revolutionary War.

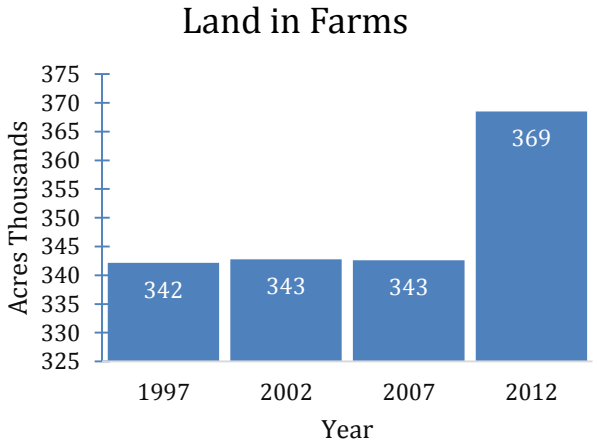
The first railroad came through Lafayette County in 1857 and provided a much needed means for shipping agricultural products from the area. Wheat, small grains, corn, and flax were the main crops at the time. Gradually, the raising of beef and hogs for market took over. By the year 1900, however, dairy farming became the main source of income and the acres in corn, oats, hay, and pasture increased. Farming is a major part of Lafayette County's history and future. The available data from the Census of Agriculture shows that the number of farms in Lafayette County has hovered around 1,252 since 1997, while land in farms and average farm size increased (Figures 2 – 4).

Figure 2: Number of Farms, 1997 - 2012



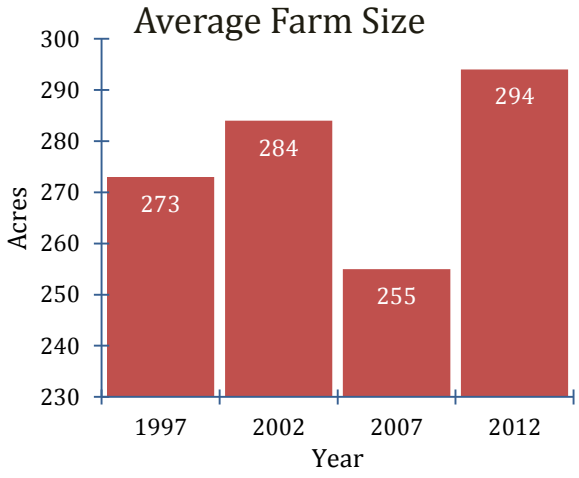
Source: USDA Census of Agriculture

Figure 3: Land in Farms, 1997 - 2012



Source: USDA Census of Agriculture

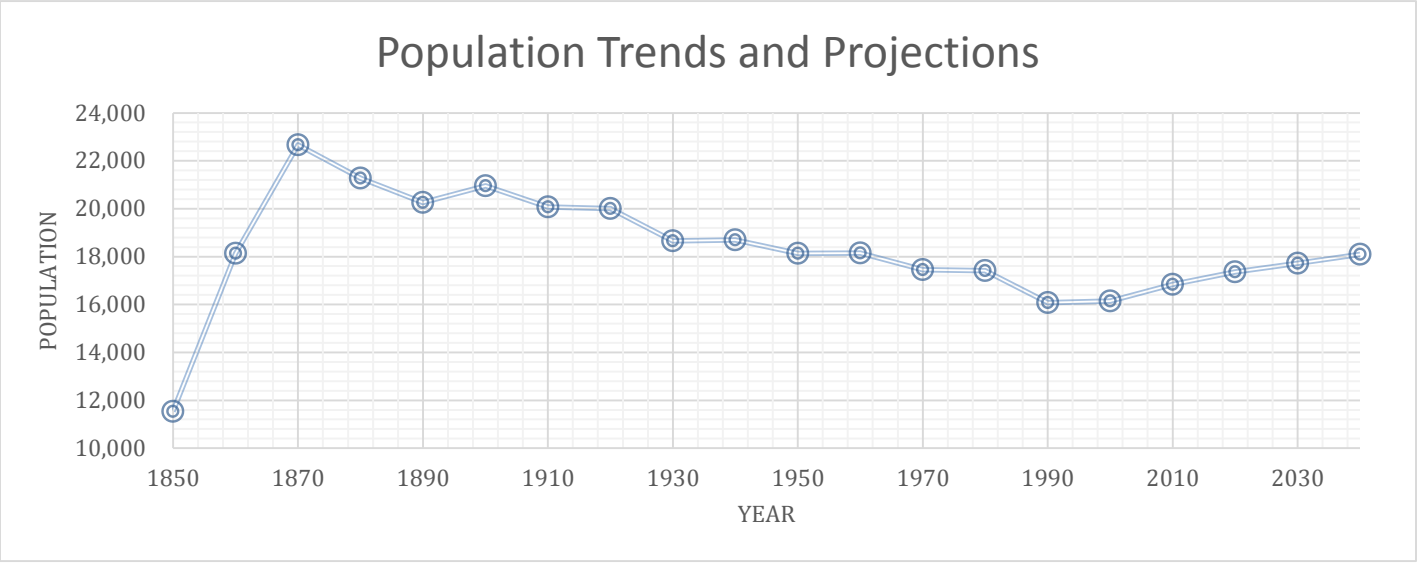
Figure 4: Average Farm Size, 1997 - 2012



Source: USDA Census of Agriculture

In 1870, 22,659 people lived in Lafayette County, but with discovery of valuable minerals in other regions the population waned to 21,330 in 1880. Lafayette County's population has slowly diminished since 1870 to 16,836 in 2010. Darlington is the county seat with a population of 2,451 (2010 Census). Cuba City (mostly in Grant County) and Shullsburg are two additional cities in Lafayette County. The population has been slowly rising since 1990 and according to Wisconsin Department of Administration the population is expected to keep increasing (Figure 5).

Figure 5: Population Trends and Projections



Source: U.S. Census Bureau, 1850 – 2010 data, and Deparment of Administration, 2020 - 2040 data

Geography and Topography

Lafayette County is located in southwestern Wisconsin and surrounded by Grant, Green, and Iowa Counties in Wisconsin, and Stephenson and Jo Daviess County in Illinois. Lafayette County has 18 civil townships and covers a surface area of approximately 635 square miles, or 406,400 acres (Figure 6).

Lafayette County lies within the unglaciated region of Wisconsin, in the Driftless area characterized by rolling ridges and steep-sided valleys. The Driftless Area geology is characterized by both sandstone and dolomite outcrops that create a complex scenic landscape. Most of the land is in agriculture, with woodlots on the steeper slopes and cropland in the valley floors and on ridge tops. The Platte Mounds in the northwestern part of Lafayette County are the most prominent topographical feature in the county. These mounds rise 180 to 300 feet above the ground and are 1,200 to 1,500 feet above sea level. The valley of the Pecatonica River, in contrast, is about 800 to 860 feet above sea level. The bottom of this valley seldom exceeds one-half mile in width, and it is widest where the river leaves the County in Wayne Township.

Topography in Lafayette County

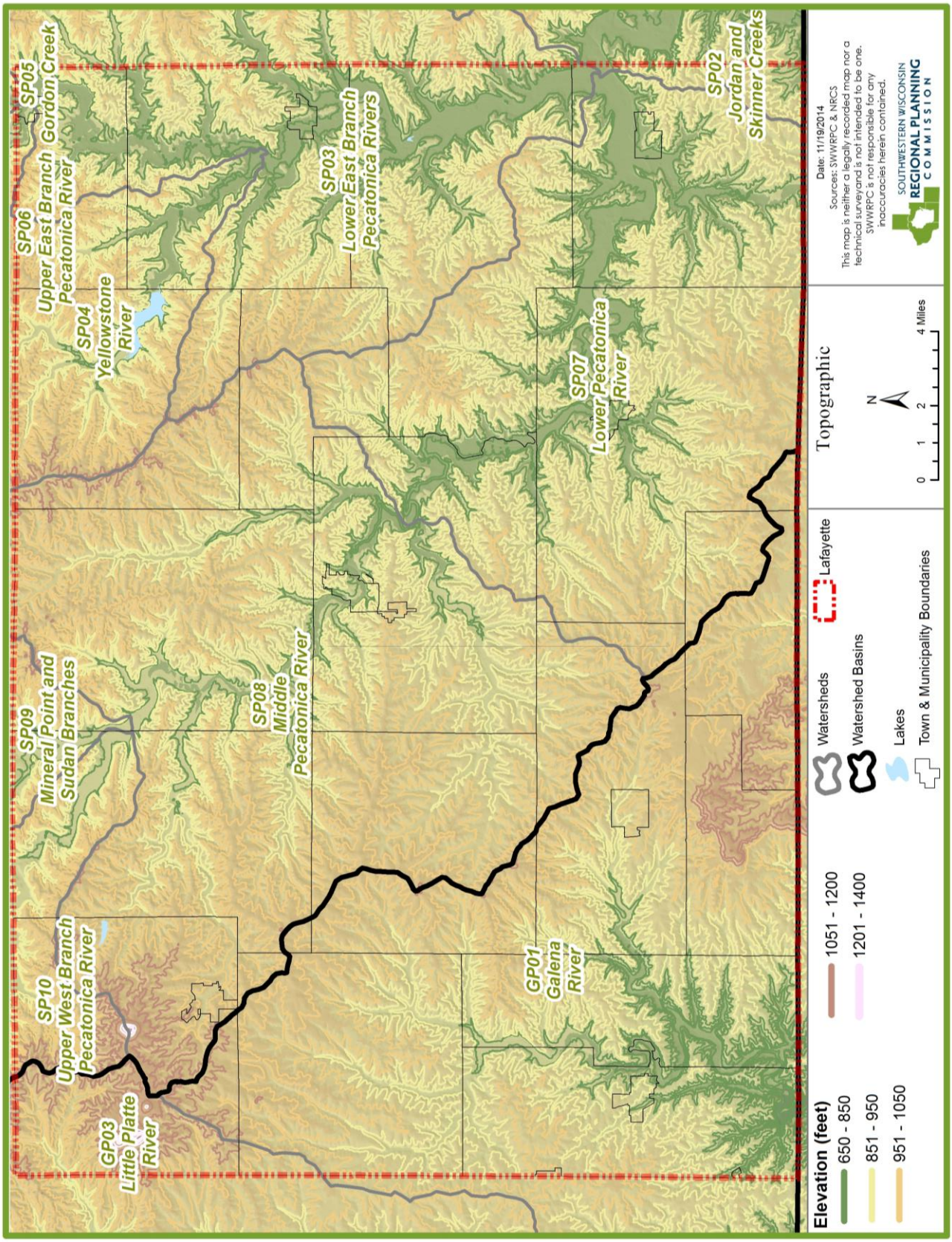
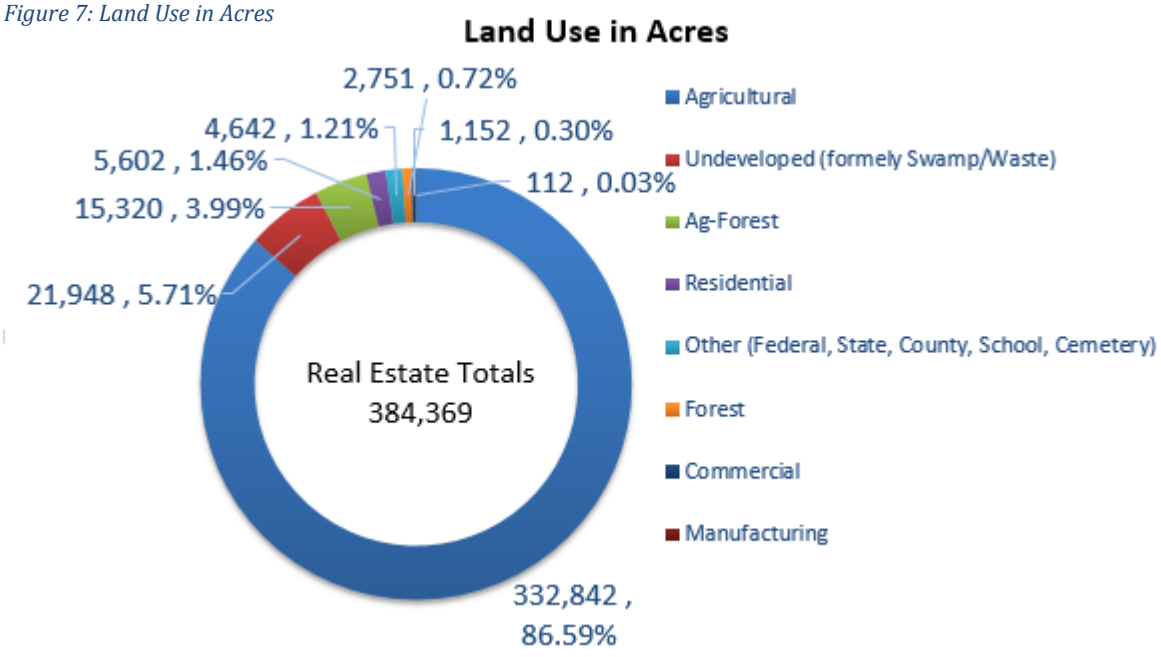


Figure 6: Topographic Map

Existing Land Use and Agriculture Trends

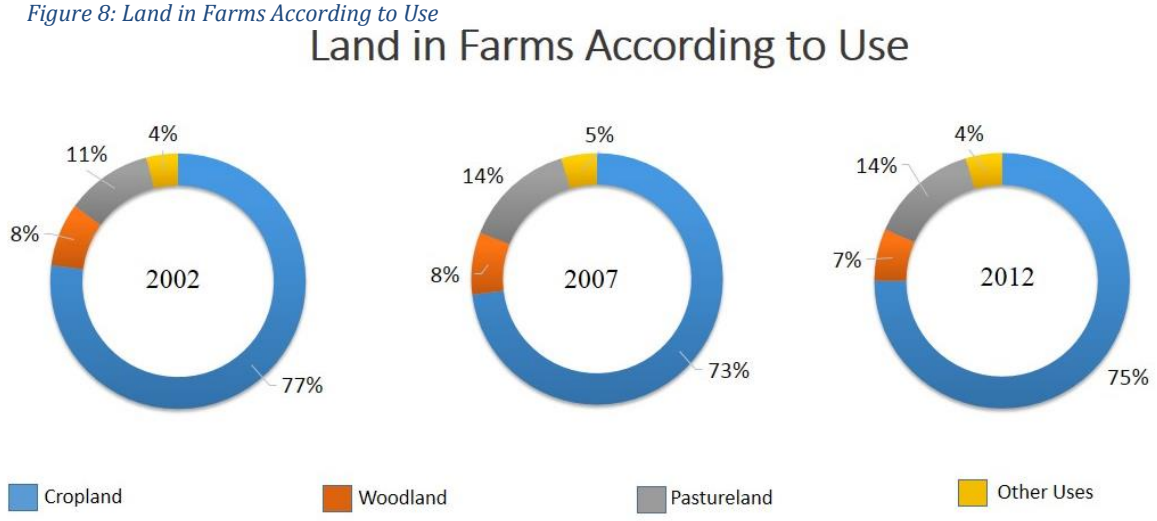
Lafayette County is the most agriculture-dependent county in the state as a portion of the overall county economy.[1] Dairy production and cheese processing form the twin pillars of the county's economy. The county is ideal for dairies because of its large pastures, access to cheese-processing plants, and good soil and climate. Lafayette County farmers own and manage 332,842 acres, or 87%, of the county's land, which includes cropland, pasture, tree farms, farm forests, and wetlands. Considering the amount of farmland and topography, conservation practices, such as crop rotation, nutrient management, and integrated pest management are necessary to maintain the land and water resources.

Figure 7: Land Use in Acres



Source: Department of Revenue, 2013 Statement of Assessments

Figure 8: Land in Farms According to Use



Source: USDA Census of Agriculture

[1] "Lafayette County Agriculture: Value & Economic Impact." Wisconsin Agriculture. January 1, 2011. Accessed June 1, 2014. http://www.uwex.edu/ces/ag/wisag/documents/agimpactbrochLafayetteCoFINAL.pdf.

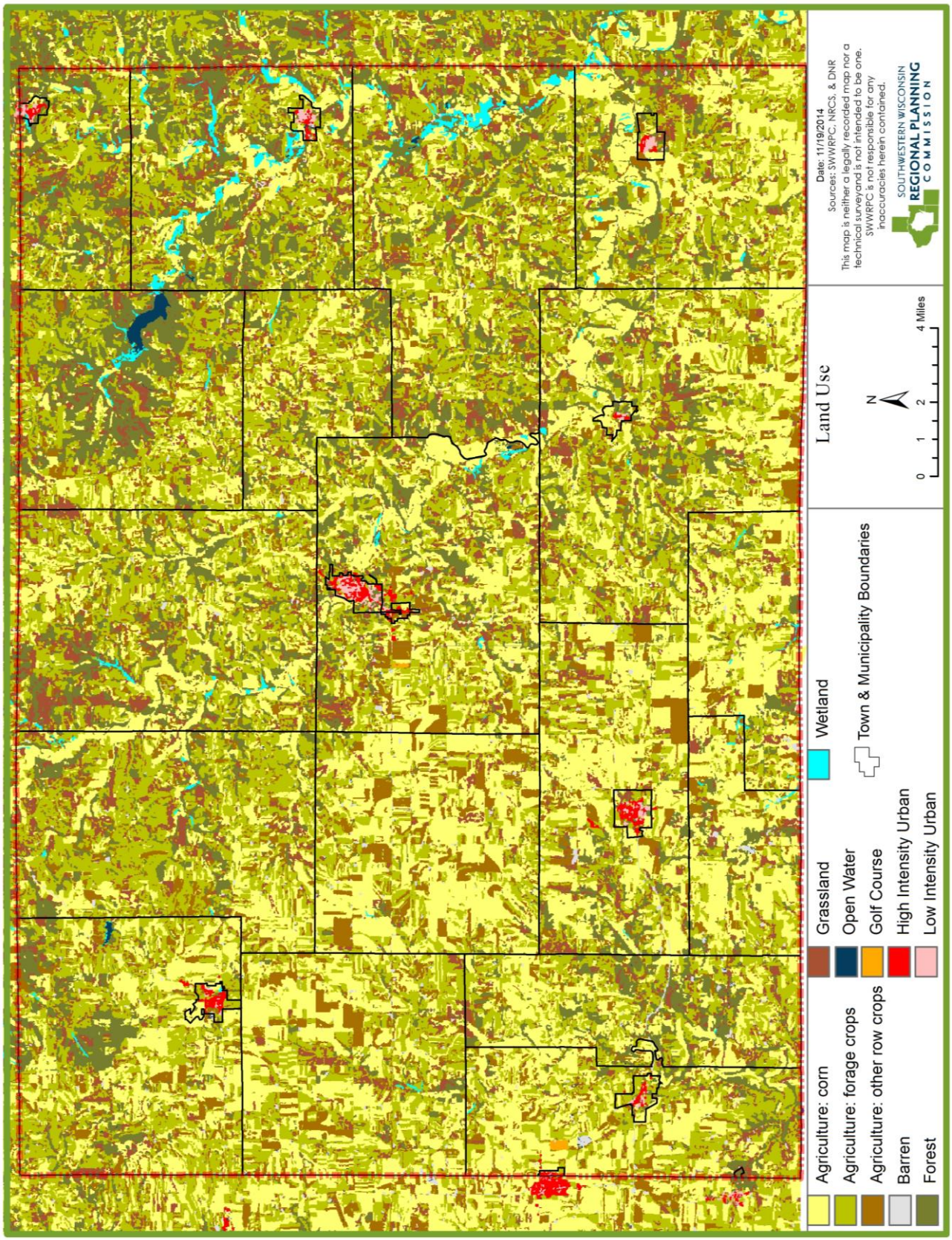
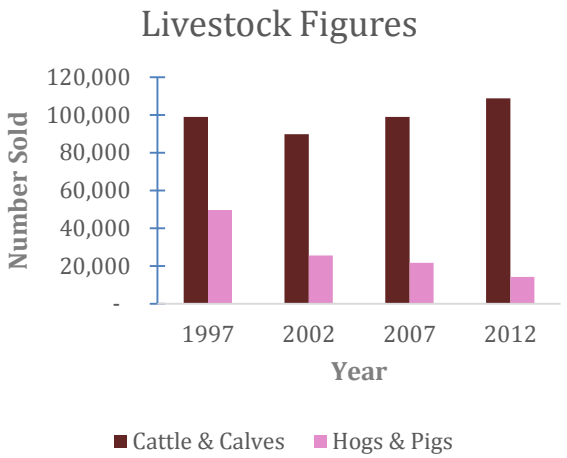


Figure 9: Land Use Map

According to the 2012 Census of Agriculture, Lafayette County is ranked high in categories of "value of sales by commodity," "top crop items," and "top livestock inventory." Figure 10 shows the growth of cattle & calves in the county since 2002, while number of hogs & pigs declined. Figure 11 displays the six high ranked items in Lafayette County among other Wisconsin Counties.

Lafayette's rank in tobacco production moved to second place from forth in 2007, from just nine farms in 2007 to 34 farms in 2012. Tobacco production impacts the environment because tobacco is a sensitive plant to grow, and therefore multiple pesticides, fungicides, and herbicides are added to the crop throughout the growing season. Tobacco pesticides harm birds and other small animals, and/or cause soil depletion. The increasing tobacco acres means either more programs and/or training classes on caring for crops, in particular tobacco crops, should be added to the County's available classes or additional policies that encourage crop rotation.

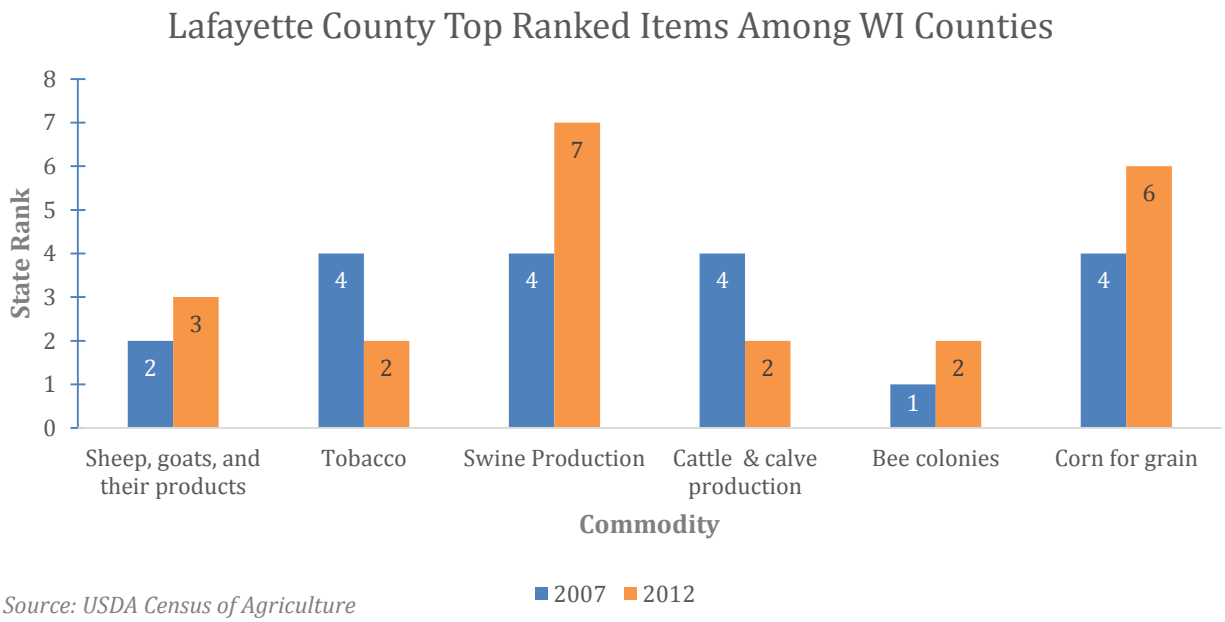
Figure 10: Livestock Figures, 1997 - 2012



Source: USDA Census of Agriculture

Tobacco Farm

Figure 11: Lafayette County Top Ranked Items Among WI Counties



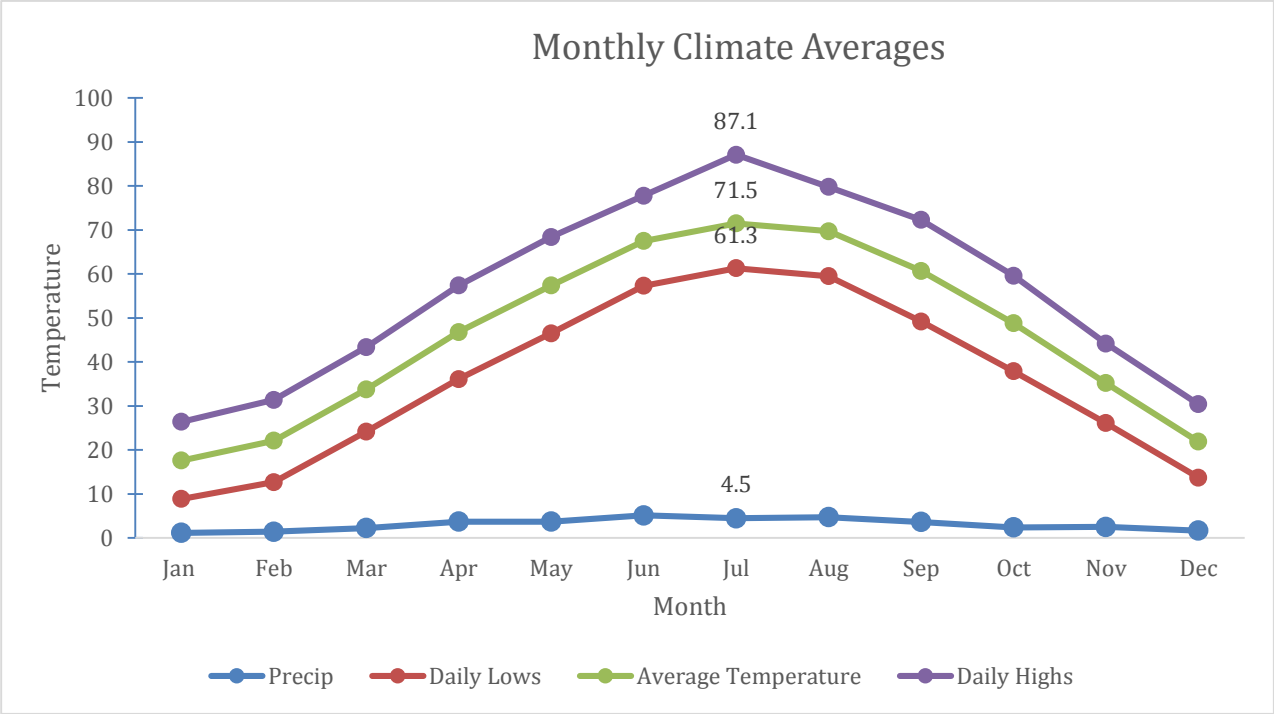
Source: USDA Census of Agriculture

CLIMATE

The 1966 Soil Survey of Lafayette County states that the county has a continental climate. Winters are long, cold, and snowy. The summers are warm and have periods of hot, humid weather. Spring and fall are generally short and are marked by sharp changes in temperature. The area is in the path of pressure systems that move across the country from west to east and sometimes cause storms of cyclonic intensity.

Temperatures vary considerably from season to season and from year to year. The median date of the last frost in the spring is May 11, and on or after May 28 in 10% of the years. The median date for the first frost in the fall is October 3, and on or before September 19 in 10% of the years. The median growing season is 144 days, with a range of 129 to 155 days. Average daily highs range from 25.9 ° in January to 83.0 ° in July and average daily lows from 6.2 ° in January to 60.1 ° in July. Precipitation is generally adequate for the crops grown in the county. About 60% of the annual rainfall comes during the months of May through September. Average precipitation for the county varies from 1.18" in January to 4.5" June.

Figure 12: Lafayette County Monthly Climate Averages



According to Wisconsin Initiative on Climate Change Impacts, A wealth of temperature and precipitation data, along with records from a variety of other periods and sources, show Wisconsin becoming generally warmer and wetter. The decades ahead are likely to bring changes much more profound than those seen so far, according to climate models.

In Wisconsin, the average annual temperature rose about 1.1° from 1950 to 2006, according to analysis by scientists at the University of Wisconsin-Madison of daily measurements gathered from an extensive statewide network of weather stations. The one-degree increase combined with the shorter length of time that our lakes remain frozen, the change in timing of some bird migrations, and the emergence and flowering of certain plants indicate milder winters and earlier springs.

The state's climate scientists suggest that Wisconsin's warming trend will not only continue, it will increase considerably by the middle of this century. Wisconsin climatologists say the state is likely to continue its trend toward more precipitation overall, with the most probable increases in winter, spring, and fall. Changes in temperature and precipitation could affect Wisconsin's growing seasons, crop yields, weed and pest infestations, and dairy productivity. The impacts of climate change on Wisconsin agriculture will be both direct and indirect. Direct impacts will generally occur as changes in temperature and precipitation impact crop productivity, and the timing of those changes within agricultural cycles will determine the nature and severity of each impact. Table 1 lists the negative direct impacts of climate change and their respective impacts on agricultural production. Indirect impacts for example include increasing numbers of weed and pest species due to changing conditions that become more advantageous to them. Increased weeds and pests can lead to additional indirect impacts such as the need to use more herbicides and pesticides, followed by environmental impacts of these increased applications, which may lead to legal or policy responses.[2]

Table 1: Climate Change Impact on Agriculture Production

Aspects of Climate Change	Impact on Agricultural Production
More spring precipitation causes waterlogging of soils	Delayed planting, reduced yields, compaction, change to lower-yielding genetics
Higher humidity promotes disease and fungus	Yield loss, increased remediation costs
Higher nighttime temperatures in summer	Plant stress and yield loss
More intense rain events at beginning of crop cycle	Replanting and field maintenance costs; loss of soil productivity and soil carbon
More droughts	Yield loss, stress on livestock, increase in irrigation costs, increased costs to bring feed and water to livestock
More floods	Replanting costs, loss of soil productivity and soil carbon; damage to transportation infrastructure may reduce delivery to milk processing plants
More over-wintering of pests due to warmer winter low temperatures	Yield loss, increased remediation costs
More vigorous weed growth due to temperature, precipitation, and CO2 Changes	Yield loss, increased remediation costs
Summertime heat stress on livestock	Productivity loss, increase in miscarriages, may restrict cows on pasture
Temperature and precipitation effects on pollinators	Losses to cropping (forage, fruits, vegetables) systems
New diseases or the re-emergence of diseases that had been eradicated or under control	Enlarged spread pattern, diffusion range, and amplification of animal diseases

Source: Wisconsin Initiative on Climate Change Impacts

[2] *Wisconsin's Changing Climate: Impacts and Adaptation. 2011. Wisconsin Initiative on Climate Change Impacts. Nelson Institute for Environmental Studies, University of Wisconsin-Madison and the Wisconsin Department of Natural Resources, Madison, Wisconsin.*

Watersheds

Lafayette County is divided into two river basins. These are the Grant and Platte River Basin, which flows directly into the Mississippi, and the Sugar-Pecatonica Basin, the two rivers joining together in Illinois and flowing into the Rock River. Lafayette County contains 11 total watersheds within the two watershed basins (Figure 13).

The watershed information contained in this plan consists of the most recent information available from the DNR either through the DNR Watershed webpages, the 2011 Water Quality Management Plan updates or full watershed reports which were last completed in 2006.

Table 2 lists each watershed and its corresponding area, stream miles, length of trout streams, percentage of watershed within the county, percentage of the county comprised of the watershed, and the available nonpoint source rank from DNR. The majority of Lafayette County is comprised of the Galena River, Middle Pecatonica River, and Lower Pecatonica River, which together account for 74% of the County. All watersheds have a watershed identification number (ID) numbered 01 through 10 with a watershed basin prefix. For example, the Galena River watershed ID is GP01 because the watershed is within the Grant-Platte River Watershed Basin. This ID is used throughout this plan to locate the watersheds on the map and cross-reference them with tables.

Table 2: Watershed Summary

Basin	Watershed	Stream miles	Watershed area	Class II trout (miles)	% of watershed in County	% of county comprised of watershed	Non-point source rank
Grant - Platte River	Galena River (GP01)	260	241.84 mi²	0	66.31%	25.29%	No information
	Little Platte River (GP03)	20.81	154.94 mi²	4.35	9.88%	2.41%	High
Sugar-Pecatonica River	Jordan and Skinner Creeks (SP02)	4.85	94.06 mi²	0	4.58%	0.68%	No information
	Lower East Branch Pecatonica (SP03)	131.5	144.80 mi²	57.87	56.16%	12.82%	No information
	Yellowstone River (SP04)	52.17	57.46 mi²	12.41	62.75%	5.69%	High
	Gordon Creek (SP05)	0	76.90 mi²	0	0.17%	0.02%	High
	Upper East Branch Pecatonica River (SP06)	2	140.18 mi²	5.07	0.58%	0.13%	No information
	Lower Pecatonica River (SP07)	217.96	134.23 mi²	47.85	93%	21.17%	Not yet accessed
	Middle Pecatonica River (SP08)	324.16	186.42 mi²	6.74	94.47%	27.78%	High
	Mineral Point and Sudan Branches (SP09)	15.53	108.26 mi²	0	6.40%	1.09%	No information
	Upper West Branch Pecatonica River (SP10)	30.41	77.75 mi²	5.19	23.56%	2.89%	High

Source: Department of Natural Resources, Watersheds & Basins

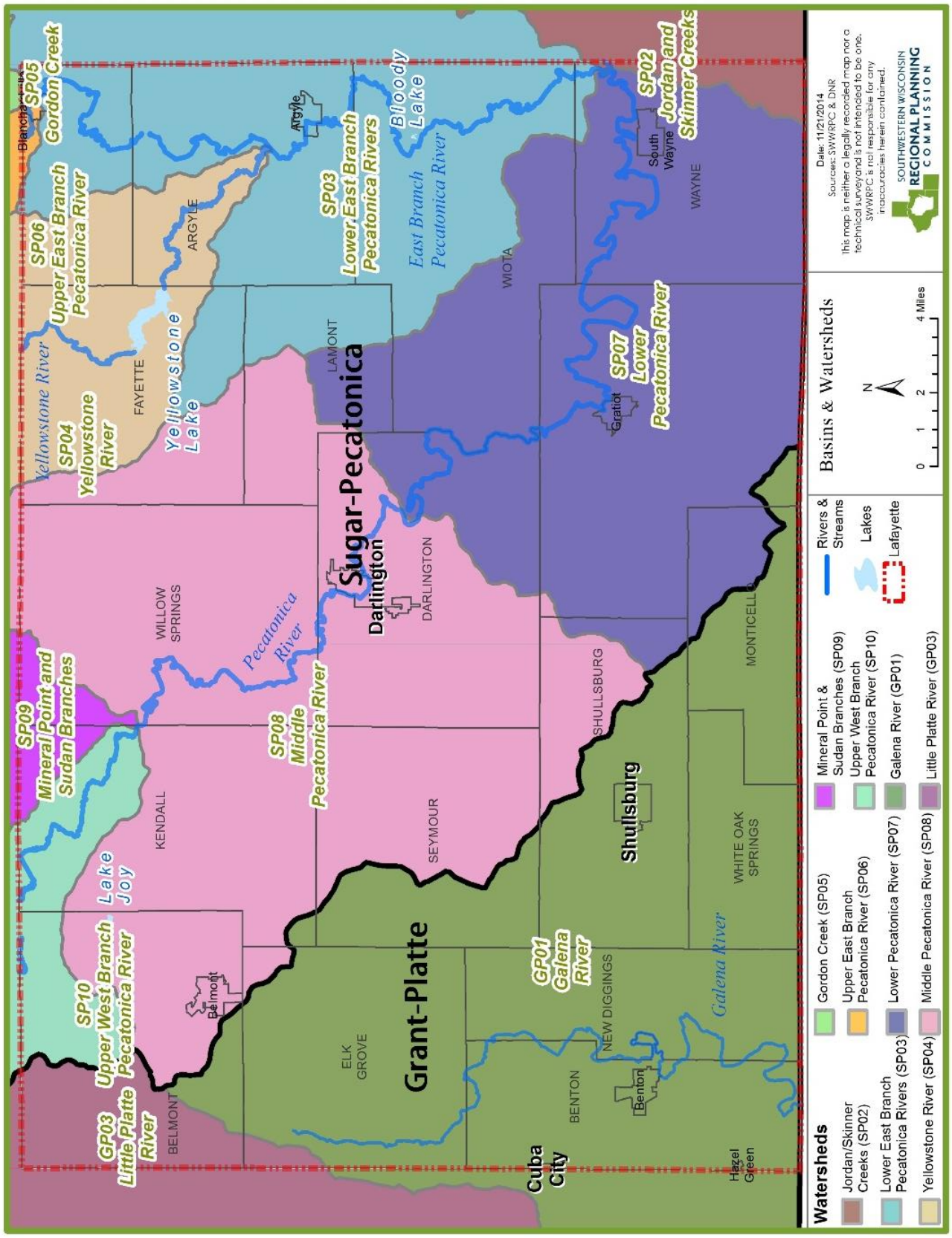
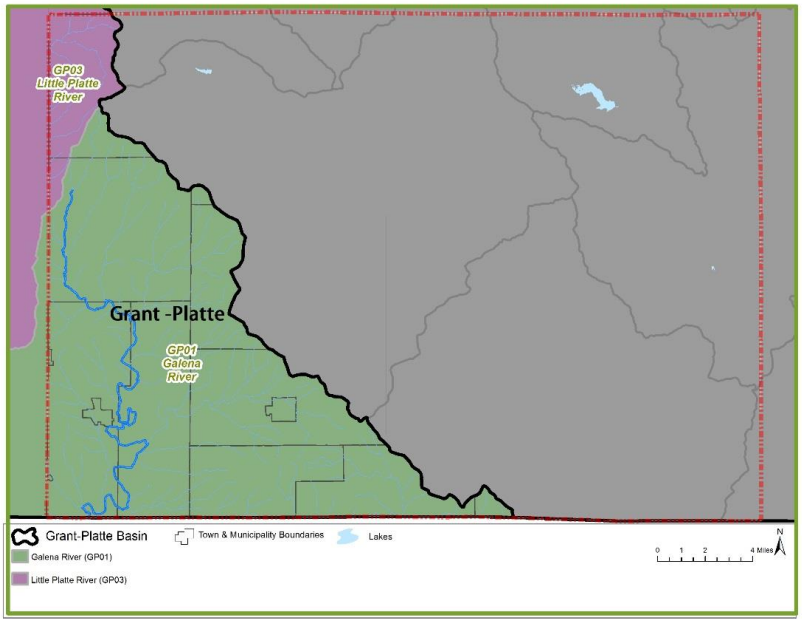


Figure 13: Basins and Watersheds Map

Grant-Platte River Watershed Basin

Figure 14: Grant-Platte Basin Watersheds



WATERSHEDS

Galena River (GP01)
Little Platte River (GP03)

General Concerns for All Watersheds:

- Streams have been ranked as a high priority because the stream habitats are impacted by agricultural nonpoint pollution.
- Increases in farm size has the potential for causing more animals grazing adjacent to streams.

Specific Concerns

- Runoff from agricultural fields and barnyards are considered to be the major sources of nonpoint pollution.
- Over-grazing of stream banks, which results in trampled banks, exposed eroding banks, streams becoming wider and shallower, and stream warming.
- Direct Drainage from barnyards is a major source of nutrient loading to surface waters.
- Drainage from cropland to streams carries eroded sediments, which affects in-stream habitat and fish spawning areas. Nutrients, fertilizers and pesticides attach to soil particles and can further pollute streams.

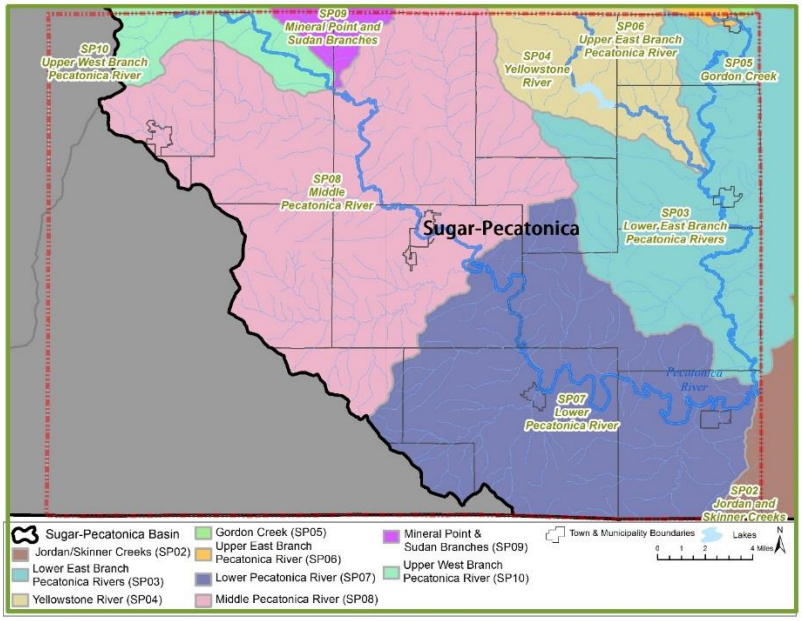
Galena River (GP01) – The center of historic lead and zinc mining in Wisconsin is in the west and southwest portion of the county. It is estimated that about 35 abandoned mine sites and 125 mine waste piles are located throughout the watershed. Most of these mine waste piles are located adjacent to streams or drainage ways that lead to perennial streams. Runoff from abandoned mine waste piles has resulted in fish kills in the past.

Little Platte River (GP03) – There are least 17 abandoned mines and at least that many known mining waste piles in the watershed.[3] Mine waste piles in other parts of southwest Wisconsin have been documented as sources of pollution and degradation to some streams. There are also an unknown number of mine airshafts in the watershed. It is not known what effect, if any, these mines and airshafts are having on groundwater or surface water quality.[4]

[3] A waste pile is an open, uncontained pile used for treating or storing waste. Hazardous waste piles must be placed on top of a double liner system to ensure leachate from the waste does not contaminate surface or ground water supplies.
[4] "2010 Water Quality Management Plan Update." DNR Wisconsin Watersheds. August 1, 2010. Accessed June 1, 2014. http://dnr.wi.gov/water/basin/gpsp/wtplans/gp01/GP01_WTPLAN.pdf.

Sugar-Pecatonica *Watershed Basin*

Figure 15: Sugar - Pecatonica Basin Watersheds



Watersheds

Jordan and Skinner Creeks (SP02)
Lower East Branch Pecatonica River (SP03)
Yellowstone River (SP04)
Gordon Creek (SP05)
Lower Pecatonica River (SP07)
Middle Pecatonica River (SP08)
Mineral Point and Sudan Branches (SP09)
Upper West Branch Pecatonica River (SP10)

General Concerns for All Watersheds:

- The principal land use in the watersheds is agriculture, dominated by row crop cultivation with some areas of woodlots and grasslands.
- Streams have been ranked as a high priority because the stream habitats are impacted by agricultural nonpoint pollution.
- Erosion from cropland, runoff from barnyards, and stream bank pasturing result in degradation of habitat, increased sedimentation, turbidity, and nutrient load.
- Increases in farm size has the potential for causing more animals grazing adjacent to streams.

Specific Concerns

- Runoff from agricultural fields and barnyards are considered to be the major sources of nonpoint pollution.
- Direct Drainage from barnyards is a major source of nutrient loading to surface waters.

Jordan and Skinner Creeks (SP02) – The Jordan and Skinner Creeks watershed is mainly located in southwest Green County. The watershed is dominated by agriculture, although it does have some areas of woodlots and grasslands. The habitat in all of the streams is impacted by agricultural nonpoint source pollution.[5]

Lower East Branch Pecatonica River (SP03) – The dominant land use in the watershed is agriculture (76%) followed by forest (16%). The trends in agriculture toward fewer dairy farms with reduced need for alfalfa and pasture means many of those acres are being replaced with corn and soybeans. In steeply sloping areas of the state, this inevitably means higher rates of runoff of soil and nutrients. Broadleaf deciduous woods and grasslands make up the balance of the land cover.[6]

Yellowstone River (SP04) – The Yellowstone River Watershed is located in southeastern Iowa county and northeastern Lafayette County and is 36,772 acres in size. The watershed contains 159 miles of streams and rivers, nine acres of lakes and 636 acres of wetlands. The watershed is dominated by agriculture (60%), forest (26%) and grassland (11%) and is ranked high for nonpoint source issues affecting streams and groundwater and medium for nonpoint source issues affecting lakes.[7] Yellowstone Lake is identified as a Land Legacy Place considering the southwestern part of the state has

[5] "Watershed - Jordan and Skinner Creeks (SP02)." DNR Wisconsin Watersheds. January 1, 2010. Accessed June 1, 2014. http://dnr.wi.gov/water/watershedDetail.aspx?key=924844.
[6] "Watershed - Lower East Branch Pecatonica Rivers (SP03)." DNR Wisconsin Watersheds. January 1, 2010. Accessed June 1, 2014. http://dnr.wi.gov/water/watershedDetail.aspx?key=924717.
[7] "Watershed - Yellowstone River (SP04)." DNR Wisconsin Watersheds. January 1, 2010. Accessed June 1, 2014. http://dnr.wi.gov/water/watershedDetail.aspx?key=924718.

few large waterbodies and Yellowstone Lake, as the largest impoundment in the area, is a very popular recreation destination.[8]

Gordon Creek (SP05) – The Gordon Creek Watershed lies in southwestern Dane, northwestern Green and southeastern Iowa counties, with a small percentage in Lafayette County. The watershed is impacted by agricultural nonpoint source pollutions and ranks high in priority for nonpoint source pollution abatement.[9]

Middle Pecatonica River (SP08) – The Middle Pecatonica Watershed lies in the central portion of Lafayette County with a small portion extending into southern Iowa County. The landscape is dominated by agriculture with scattered woodlots and grasslands making up most of the remaining portion. The major known water quality problems in the watershed are from nonpoint source pollution validating the groundwater protection high priority ranking.[10]

Lower Pecatonica River (SP07) – The Lower Pecatonica River Watershed lies in the southeast portion of Lafayette County. The landscape is dominated by agriculture with scattered woodlots and grasslands making up most of the remaining portion. The major water quality problems in the watershed are from nonpoint source pollution. Erosion from cropland, runoff from barnyards, and stream bank pasturing result in degradation of habitat through increased sedimentation, turbidity, and nutrient load.[11]

Mineral Point and Sudan Branches (SP09) – The Mineral Point and Sudan Branches Watershed lies in southwestern Iowa County and dips into extreme northern Lafayette County. The watershed is dominated by agriculture with scattered woodlots and grasslands. Mining was a major industry in the Mineral Point area. Waste piles that remain from lead, zinc, and copper mining as well as runoff from mines has degraded water quality, especially for Brewery Creek.[12]

Upper West Branch Pecatonica River (SP10) – The Upper West Branch Pecatonica River watershed is in southwestern Iowa and northwestern Lafayette counties. Two small municipalities discharge to surface water in the watershed. The population is not expected to grow significantly over the next 20 years in this predominantly rural area. The principal land use in the watershed is agricultural, dominated by row crop cultivation.[13]

Pecatonica River

[8] The purpose of the Wisconsin Land Legacy Report is to identify the places considered most important to meet Wisconsin's conservation and recreation needs over the next 50 years.
[9] "Watershed - Gordon Creek (SP05)." DNR Wisconsin Watersheds. January 1, 2010. Accessed June 1, 2014. http://dnr.wi.gov/water/watershedDetail.aspx?key=924845.
[10] "Watershed - Middle Pecatonica River (SP08)." DNR Wisconsin Watersheds. January 1, 2010. Accessed June 1, 2014. http://dnr.wi.gov/water/watershedDetail.aspx?key=924846.
[11] "Watershed - Lower Pecatonica River (SP07)." DNR Wisconsin Watersheds. January 1, 2010. Accessed June 1, 2014. http://dnr.wi.gov/water/watershedDetail.aspx?key=924892.
[12] "Watershed - Mineral Point and Sudan Branches (SP09)." DNR Wisconsin Watersheds. January 1, 2010. Accessed June 1, 2014. http://dnr.wi.gov/water/watershedDetail.aspx?key=924901.
[13] "Watershed - Upper West Branch Pecatonica River (SP10)." DNR Wisconsin Watersheds. January 1, 2010. Accessed June 1, 2014. http://dnr.wi.gov/water/watershedDetail.aspx?key=924720.

Soils Resources

The soils for Lafayette County are grouped into general soil associations (Figure 16). An association is a landscape that has a distinctive pattern of soils. As a rule, each association contains a few major and several minor soils. Each is named for the major soil series in it. The following is a list of the nine associations found in Lafayette County:

Dubuque – Sogn – Light-colored, and moderately deep to shallow over limestone. These soils are mostly on ridges in the northern and eastern parts of the county. A small acreage is on narrow bottom lands of streams. The ridgetops in this association are narrower than those in the Fayette-Palsgrove association, and the slopes are steeper. Originally, the vegetation consisted of various kinds of hardwoods.

Arenzille – Huntsville – Nearly level soils on bottom lands of gently sloping soils on terraces. These soils are along the Pecatonica and Galena Rivers and their tributaries.

Tama – Ashdale – Dark-colored, deep, and silty soils underlain by limestone. These soils are mostly on broad ridgetops and adjoining side slopes in the uplands, but some areas are on narrow bottom lands

Tama – Muscating – Sable – Dark-colored, deep, nearly level to sloping soils underlain by limestone or shale. These soils are on broad ridgetops southeast of Shullsburg and near the Platte Mounds. They formed under prairie grasses in four feet or more of wind-laid silt. Depth to bed-rock ranges from 4-to-10 feet.

Hixton – Northfield – This association consists mainly of light-colored, moderately deep to shallow soils and of Stony and rocky land. The areas are mostly on steep side slopes along the Pecatonica River between Blanchardville and South Wayne.

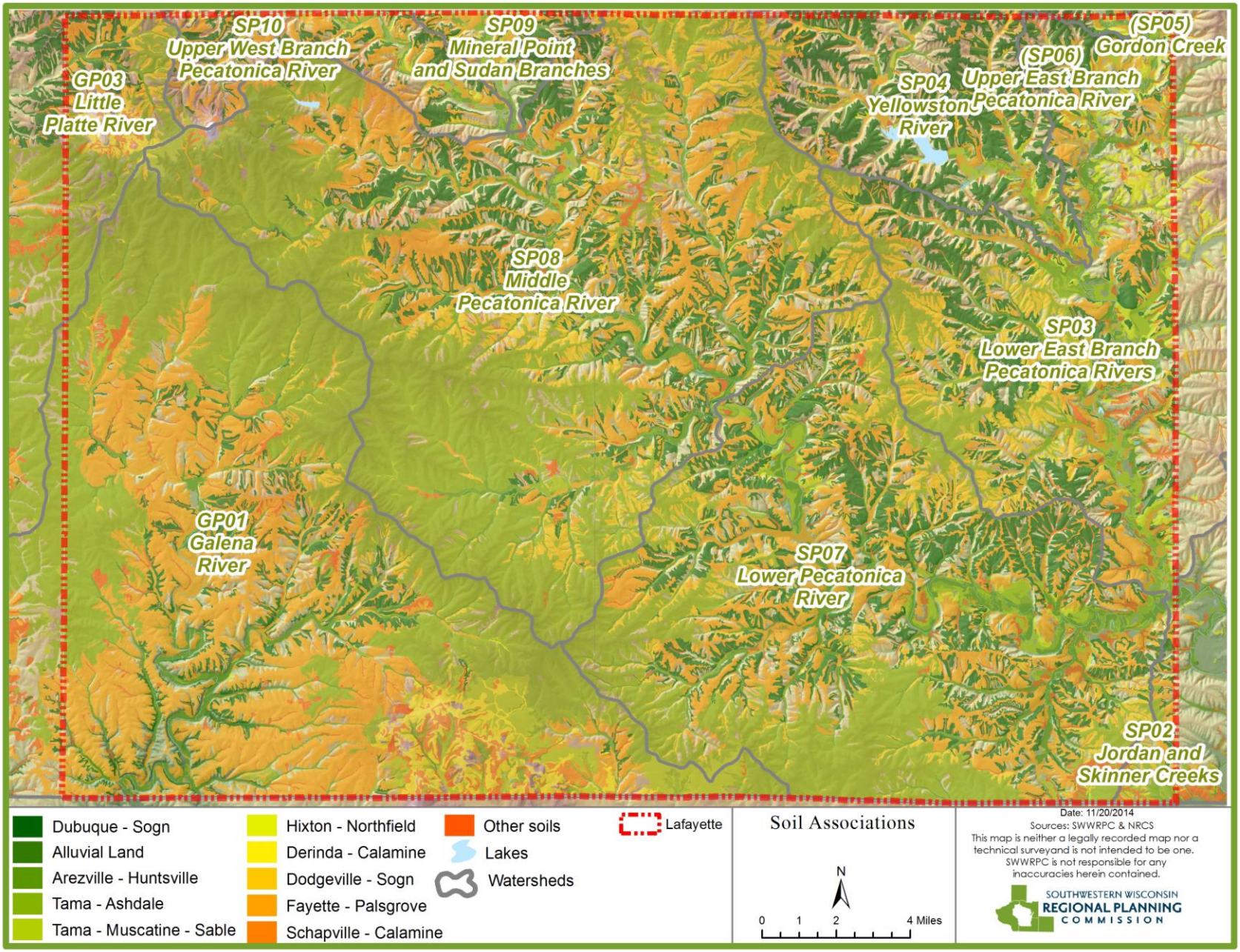
Derinda – Calamine – Light-colored, moderately deep to shallow soils underlain by shale. Soils are on ridgetops and steep slopes or are on level to gently sloping low areas. The areas are south of Shullsburg and near the Platte Mounds. The soils formed under various kinds of hardwoods in wind-laid silt 15 to 50 inches thick over shale bedrock. All of the soils have yellowish clay, weathered from the shale, in the lower part of the sub-soil.

Dodgeville – Sogn – Dark-colored, moderately deep to shallow, gently sloping to steep soils underlain by limestone. The areas are on ridges and side slopes in the eastern part of the county. These soils formed under prairie grasses in wind-laid silt that is underlain by limestone or red clay.

Fayette – Palsgrove – Light-colored, deep soils. These soils are mostly on gently sloping, broad to narrow ridgetops and moderately steep to steep side slopes, but some are on narrow bottom lands. Mainly in the southwestern part of county. The piles consist of gravelly and stony material and range from 2 to 20 aces in size.

Schapville – Calamine – Dark-colored, moderately deep to shallow soils underlain by shale. These soils are on ridgetops and steep slopes and in flat or depressed areas south of Shullsburg and in the Platte Mound area. Formed under prairie grasses in wind-laid silt 15 to 50 inches think over shale bedrock. The soils all have yellowish clay, weathered from the shale, in the lower part of the subsoil.

Figure 16: Soil Associations Map

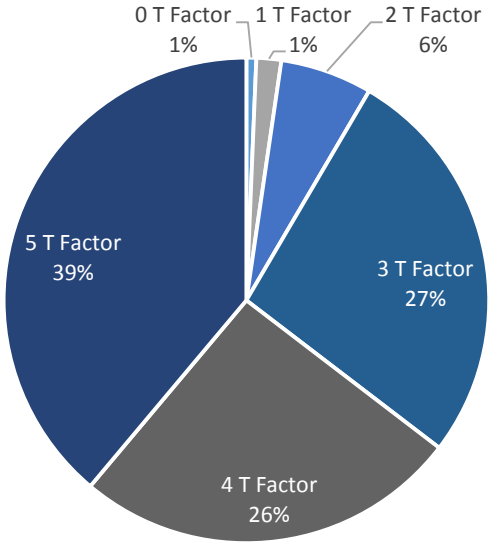


Soil Erosion

Soil erosion in the county typically occurs on cropland in valleys and slopes leading to lakeshores and stream banks. Cropland comprises the vast majority of Lafayette County's landscape. The critical component of soil erosion and sediment delivery in the county, though, are slopes and hills throughout the county combined with cropland cultivation practices.

Soil erosion is ideally mapped through a transect survey, which measures tillage methods, crop residue information, and soil loss. Unfortunately, the Lafayette County transect survey data was lost due to a technical error. All transect survey data was lost through 2010, and no new data has been added because the LCD stopped conducting the transect survey in recent years.

Figure 17: Percent of acres in the county for each T-Factor category

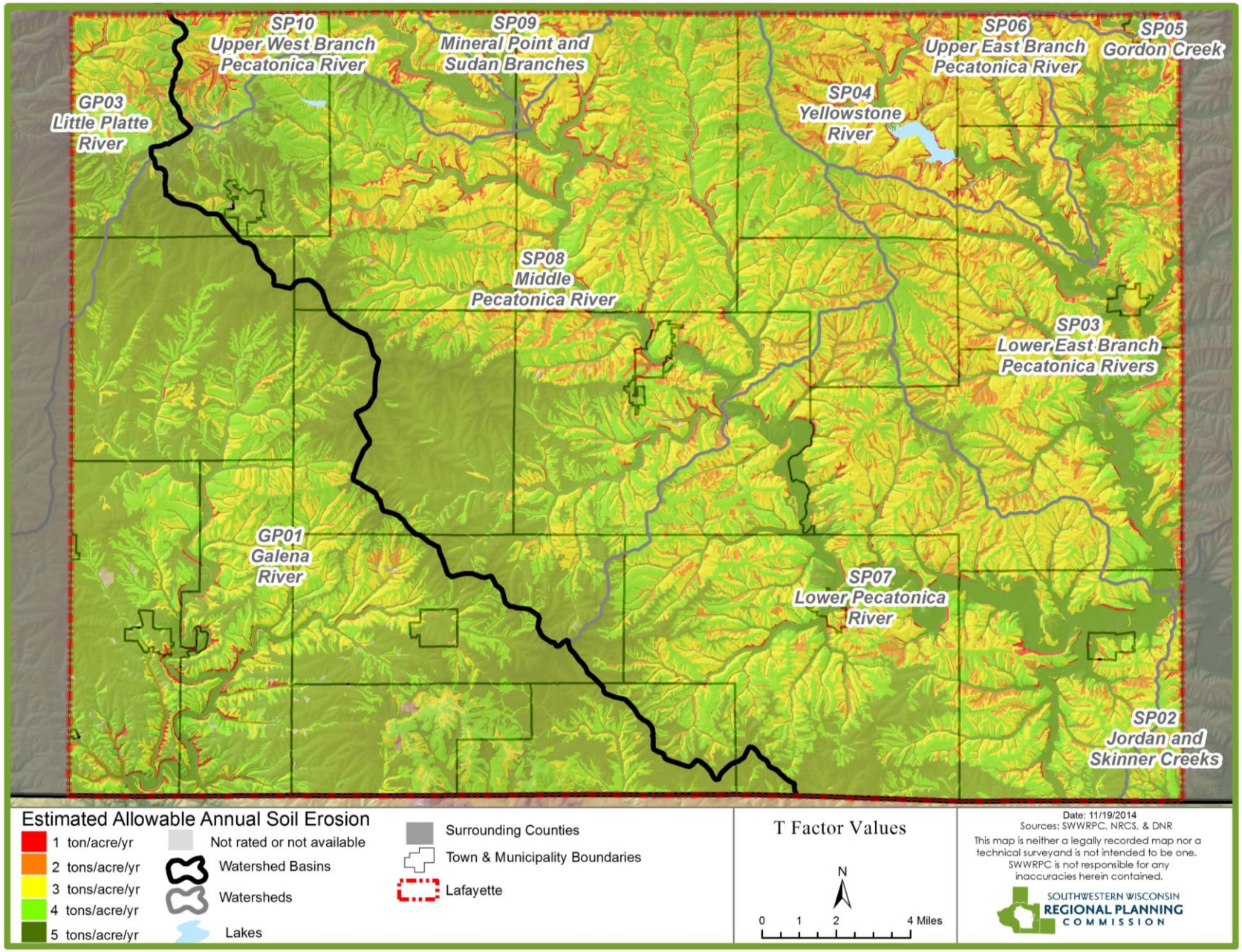


Therefore this report utilized an estimated soil erosion data set provided by Natural Resources Conservation Service (NRCS), and a new soil erosion tool provided by DNR. The estimated soil erosion provided NRCS measures the maximum average annual rate of soil erosion by wind or water that could possibly occur. The dataset measures the rate of erosion in tons per acre per year, called a T-Factor. The T Factor is the maximum amount of annual sheet and rill erosion that permits the fertility and productive capacity of the soil to be maintained indefinitely. The T Factor values range from one ton per acre per year for the most fragile soils, to five tons per acre per year for soils that can sustain more erosion without losing significant productive potential.

CREP Land in Lafayette County

Figure 17 displays the percent of acres under each allowable T factor value within Lafayette County. Figure 18 displays the T factor values mapped spatially across Lafayette County. The soils with highest estimated soil loss potential are within Yellowstone River Watershed, and Lower East Branch Pecatonica Rivers.

Figure 18: T-Factor Values Map



Department of Natural Resources (DNR) released the Erosion Vulnerability Analysis for Agricultural Lands (EVAAL) toolset version 1.0 in September 2014. EVAAL is a Geographic Information System (GIS)-based analysis tool that was developed to support the prioritization and implementation of agricultural best management practices (BMP) for improving surface water quality, and can be used to help strategize adaptive management and water quality trading potential in a watershed. It evaluates locations of relative vulnerability to sheet, rill, and gully erosion using readily available information about topography, soils, rainfall, and land cover. This tool enables persons to prioritize and focus field-scale data collection efforts, and increases the probability of locating fields with high sediment and nutrient export for implementation of best management practices.

The tool uses 10 steps with an area limit of sub-watershed area because of the amount of processing and type of specific data such as precipitation, internally draining areas, soil types, stream power index and additional data. The final output utilizes all of the combined data to produce an erosion vulnerability index that can be aggregated to areas such as parcels. This tool estimates vulnerability by separately assessing the risk for sheet and rill erosion (using the Universal Soil Loss Equation, USLE), and gully erosion (using the Stream Power index, SPI), while de-prioritizing those areas that are not hydrologically connected to surface waters (also known as internally drained areas, IDA). These three pieces are combined to produce an erosion vulnerability index value. Areas with high soil loss and stream power index will have high erosion vulnerability. The erosion vulnerability index is a relative index; the index value for each grid cell is calculated relative to all the other grid cells within the study area.

The toolset allows the GIS user to select best-case scenarios and worst-case scenarios. This plan used the worst-case scenario for soil loss and erosion vulnerability index, which presumes management practices occurring in the area of interest are increasing or contributing to erosion. The erosion vulnerability index can be used to identify the most vulnerable areas, and then check to see whether those areas are indeed without conservation measures.

Figure 19 displays the erosion vulnerability index using the worst-case scenario for Lafayette County with five categories of soil erosion areas green, light green, and yellow are areas of least concern while areas that are orange and red are areas of concern and should be field-checked.

Lafayette County Cows

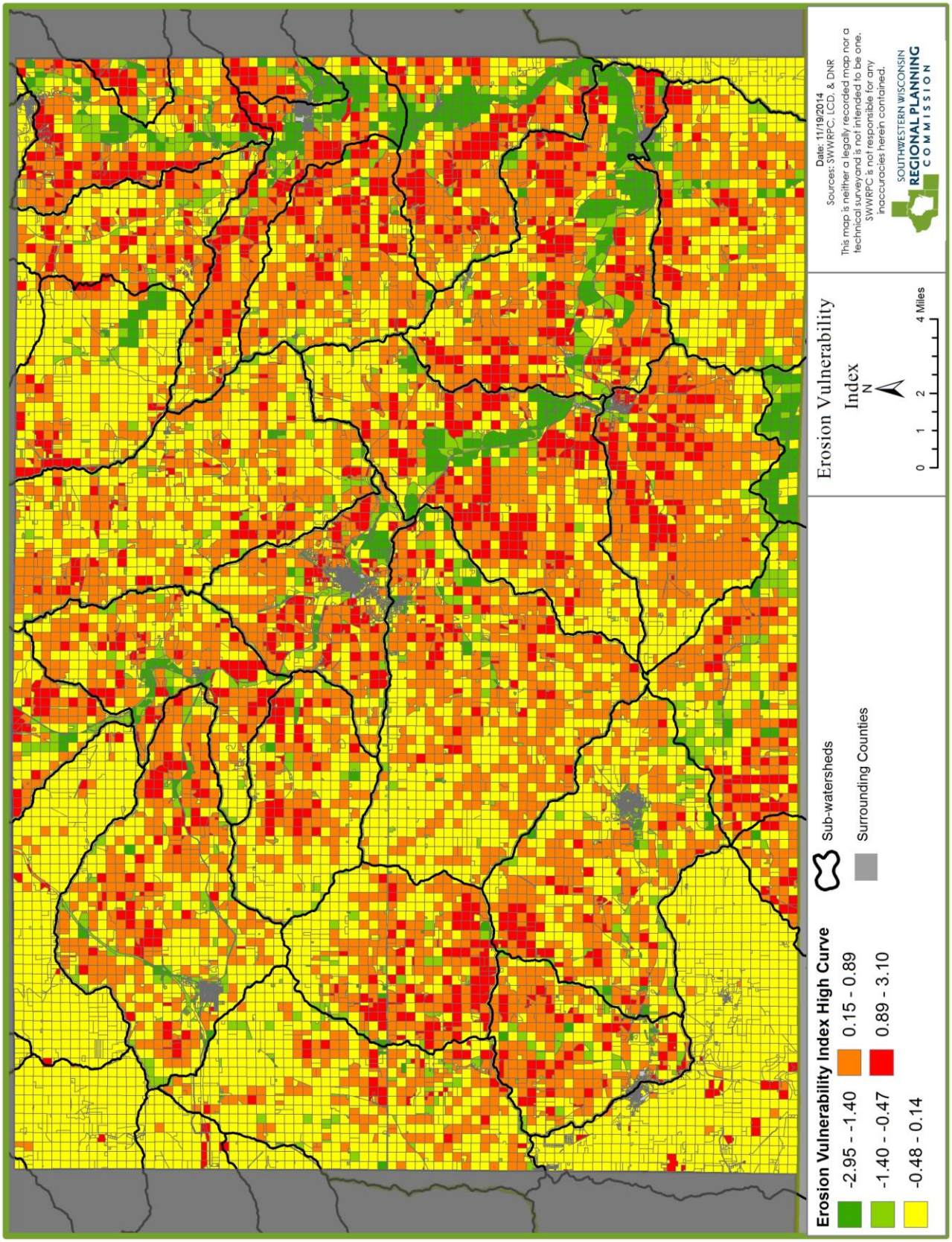


Figure 19: Soil Erosion Vulnerability Index Map

Using GIS, Table 3 was generated to calculate the number of parcels and amount of acres with soil erosion amount greater than .15, which are indicated by orange and red parcels within each watershed. The table lists the watersheds in order of highest percent of parcels with a soil erosion index greater than .15.

Table 3: Watersheds with Percent of Parcels & Acres with Estimated Erosion Greater Than .15

Watershed	Total Parcels	Total Acres	Number Parcels > .15	Number Acres > .15	Percent of Parcels > .15	Percent of Acres > .15
Galena River (GP01)	7214	102,575.88	1521	39650	21.08	38.65
Little Platte River (GP03)	449	9827.79	35	495	7.80	5.04
Jordan and Skinner Creeks (SP02)	109	2786.75	0	0	0.00	0.00
Lower East Branch Pecatonica (SP03)	3615	52255.17	1415	31386.9	39.14	60.06
Yellowstone River (SP04)	1043	22804.74	407	9764.21	39.02	42.82
Gordon Creek (SP05)	41	85.1	0	0	0.00	0.00
Upper East Branch Pecatonica River (SP06)	673	535.15	77	260	11.44	48.58
Lower Pecatonica River (SP07)	4431	85,593.00	2105	49641	47.51	58.00
Middle Pecatonica River (SP08)	8692	112745.05	2392	56530.17	27.52	50.14
Mineral Point and Sudan Branches (SP09)	166	4338.58	86	2631	51.81	60.64
Upper West Branch Pecatonica River (SP10)	480	11743.66	45	895	9.38	7.62

Surface Water Resources and Quality

There are 52 streams, creeks, and rivers that account for 1,005 miles of water flowing through Lafayette County. The Pecatonica and Galena rivers provide the major waterways and drainage areas, which drain to the Mississippi River. In addition, there are five lakes, which include: Yellowstone Lake, Horseshoe Lake, Lake Joy, Hidden Valley Lake, and Bloody Lake. Figure 20 provides an overall view of Lafayette County's surface waters, and highlights the major surface water features.

River in Lafayette County

Surface water quality in Lafayette County is impacted by both nonpoint and point sources of pollution. Pollutants such as sediments, phosphorus, nitrogen, and bacterial pathogens find their way into surface and ground waters, often times degrading fish and wildlife habitat, and also posing threats to human health and safety. Because of the rural nature of Lafayette County, and the fact that agriculture is the dominant land use, it has long been presumed that the majority of nonpoint pollutants can be attributed to agricultural land use activities.

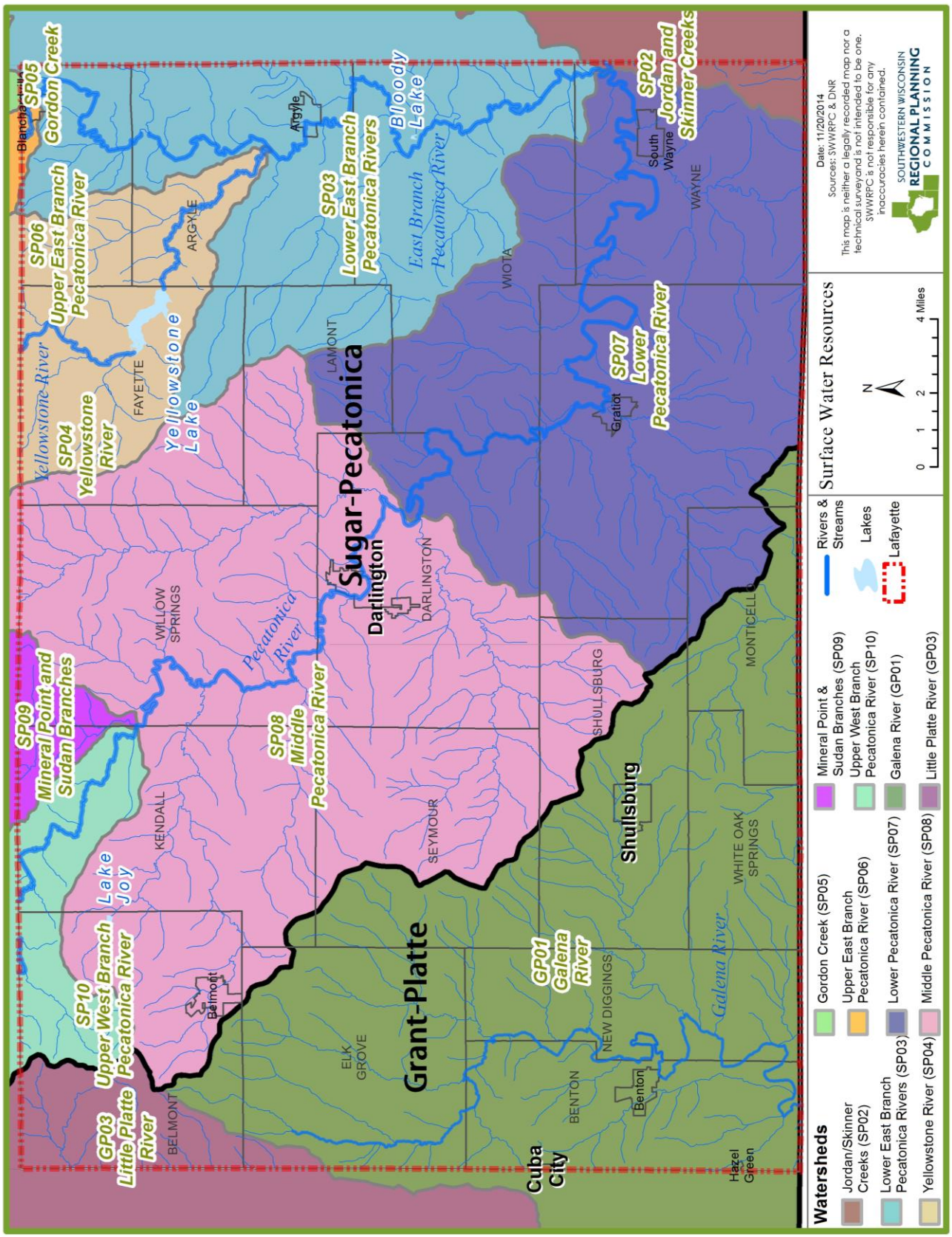


Figure 20: Surface Water Resources

Fishery Resources

The fishery resources of Lafayette County consist primarily of streams. There are 70 miles of classified trout streams encompassed in 17 streams. Brown trout and brook trout are the only two species of trout actively managed in Lafayette County. Brown trout are present in all of the trout streams while brook trout are found only in the Steiner Branch. All Lafayette County trout streams are a class 2 classification, which require stocking to maintain a fishable population because the streams may have some natural reproduction, but not enough to utilize available food and space. The DNR stock each stream annually with small fingerling brown and brook trout.

Warm water sport fisheries can be found in 10 streams totaling just over 156 miles. Smallmouth bass, channel catfish, walleye, and northern pike are the primary species found in Lafayette County's warm water streams. The Pecatonica and East Branch of the Pecatonica Rivers support fishable populations of walleye, channel catfish, and northern pike. The channel catfish and northern pike populations are sustained naturally while the walleye populations are sustained through supplemental stockings. Walleye are stocked annually by the DNR.

Smallmouth bass streams are a unique fishery located in the southwest Wisconsin and were once nationally recognized. These small, but productive streams are still a primary destination for many anglers looking to catch smallmouth bass. Popular smallmouth bass streams in Lafayette County include the Galena, Shullsburg Branch, Ames Branch, and the Yellowstone River above Yellowstone Lake. The most notable of these is the Galena. Thirty-five miles of the Galena River are considered an Exceptional Resource Water (ERW) under state administrative rules. The Galena River supports one of the best wadable stream smallmouth bass fisheries in the state. There are just over 15 miles of public fishing easement located on the Galena River allowing public access to utilize this resource.

Yellowstone Lake, Horseshoe Lake, and Bloody Lake are three lakes which offer public access and support fishable populations of gamefish or panfish. Located in Blackhawk Memorial Park in Woodford, Horseshoe and Bloody Lake are not actively managed and the fisheries are a result of flood waters from the East Branch of the Pecatonica River. During long winters with deep ice and snow cover it is not uncommon for Horseshoe or Bloody Lake to experience a winterkill of the fishery. Each lake supports a small fishery of black bullheads, black crappie, bluegill sunfish, and the occasional largemouth bass or channel catfish.

Horseshoe Lake

Yellowstone Lake is the most popular fishery of Lafayette County. Anglers from all parts of southern Wisconsin and northern Illinois travel to fish Yellowstone Lake. Yellowstone Lake is 450 acres and was created in 1954 as an impoundment of the Yellowstone River. The north shore is bordered by Yellowstone Lake State Park and the south shore by the Yellowstone Lake Wildlife Management Area. Because of its high use, Yellowstone Lake is considered a high priority water by the DNR and is sampled annually to monitor fishery trends. Yellowstone Lake supports fishable populations of largemouth bass, smallmouth bass, walleye, bluegill, black crappie, channel catfish, and musky.

Figure 21: Fishery Resources

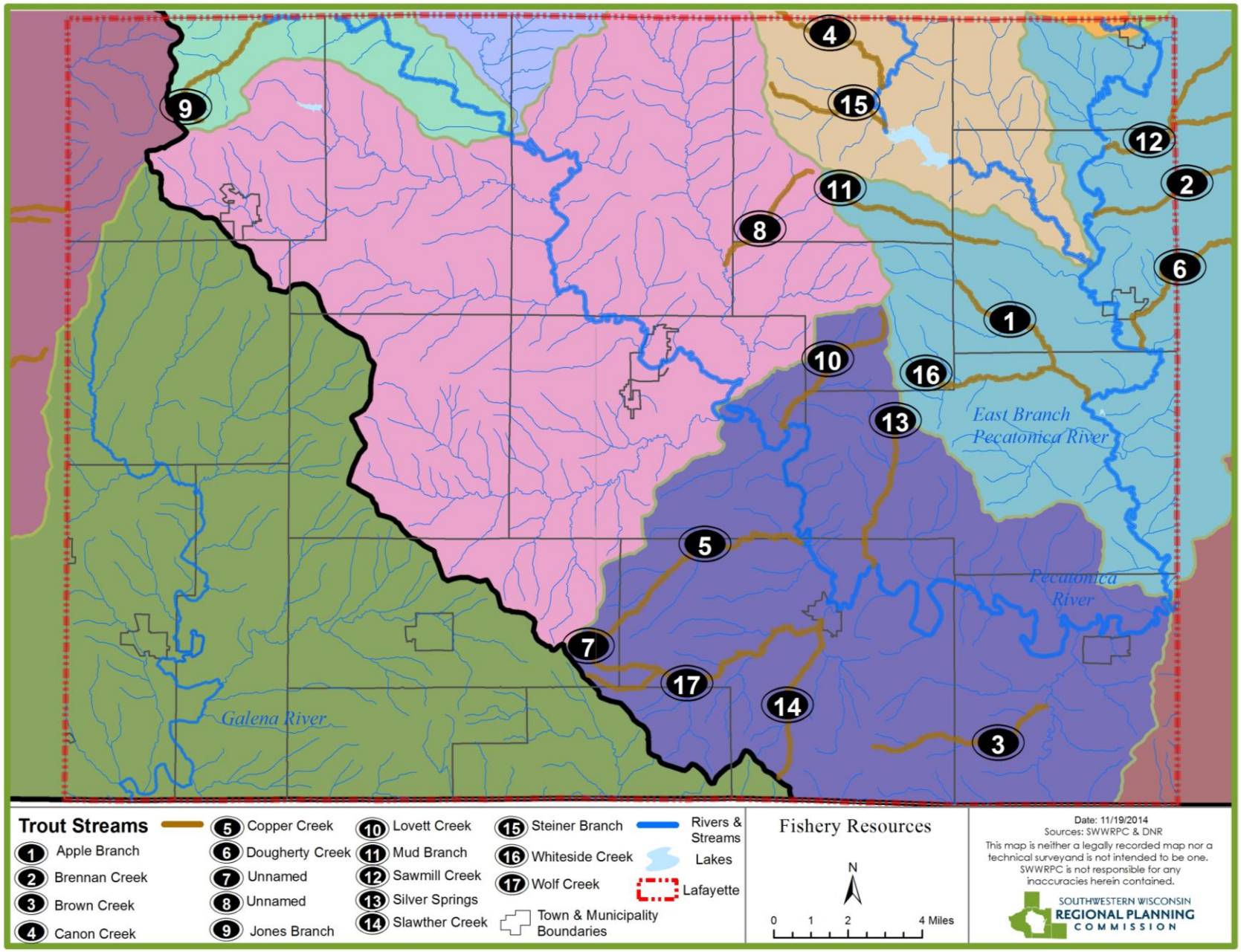


Table 4: Trout Streams

Stream name (map ID)	Miles of trout water	Species Present	Public access
Apple Branch (1)	4	Brown trout	None
Brennan Creek (2)	2.3	Brown trout	None
Brown Creek (3)	4.3	Brown trout	None
Canon Creek (4)	4.3	Brown trout	Yes
Copper Creek (5)	5.6	Brown trout	None
Dougherty Creek (6)	6.2	Brown trout	None
Unnamed (7)	*3.26*	*Brown trout*	*None*
Unnamed (8)	3.7	Brown trout	None
Jones Branch (9)	3.2	Brown trout	None
Lovett Creek (10)	4.3	Brown trout	Yes
Mud Branch (11)	4	Brown trout	None
Sawmill Creek (12)	2.7	Brown trout	None
Silver Springs Creek (13)	3.9	Brown trout	None
Slawther Creek (14)(Trout Brook)	4.6	Brown trout	None
Steiner Branch (15)	2.3	Brook Trout	Yes
Whiteside Creek (16)	6	Brown trout	None
Wolf Creek(17)	9.7	Brown trout	None

Impaired Waters

Section 303(d) of the Federal Clean Water Act (CWA) as amended by the Water Quality Act of 1987, Public Law 100-4 requires the Environmental Protection Agency (EPA) to develop Total Maximum Daily Loads (TMDLs) for all pollutants violating or causing violation of applicable water quality standards for each impaired water body. A TMDL determines the maximum amount of pollutants that a water body is capable of assimilating while continuing to meet the existing federal water quality standards. For all the sources of pollution that cause impairment, such loads are established at levels necessary to meet the applicable standards with consideration given to seasonal variations and margin of safety.

Every two years, DNR is required to assess and report to the federal government on water quality, and what the state is doing to protect, monitor, and restore it. DNR's most recent impaired waters list identifies six water bodies in Lafayette County that are impaired. The 2014 proposed impaired list adds three more rivers and the Yellowstone Lake. Figure 22 displays the current and proposed 303(d) impaired waters, and the waters with TMDLs. Each stream contains a map ID that matches Table 5, which lists the source category, pollutant, and impairment indicator.

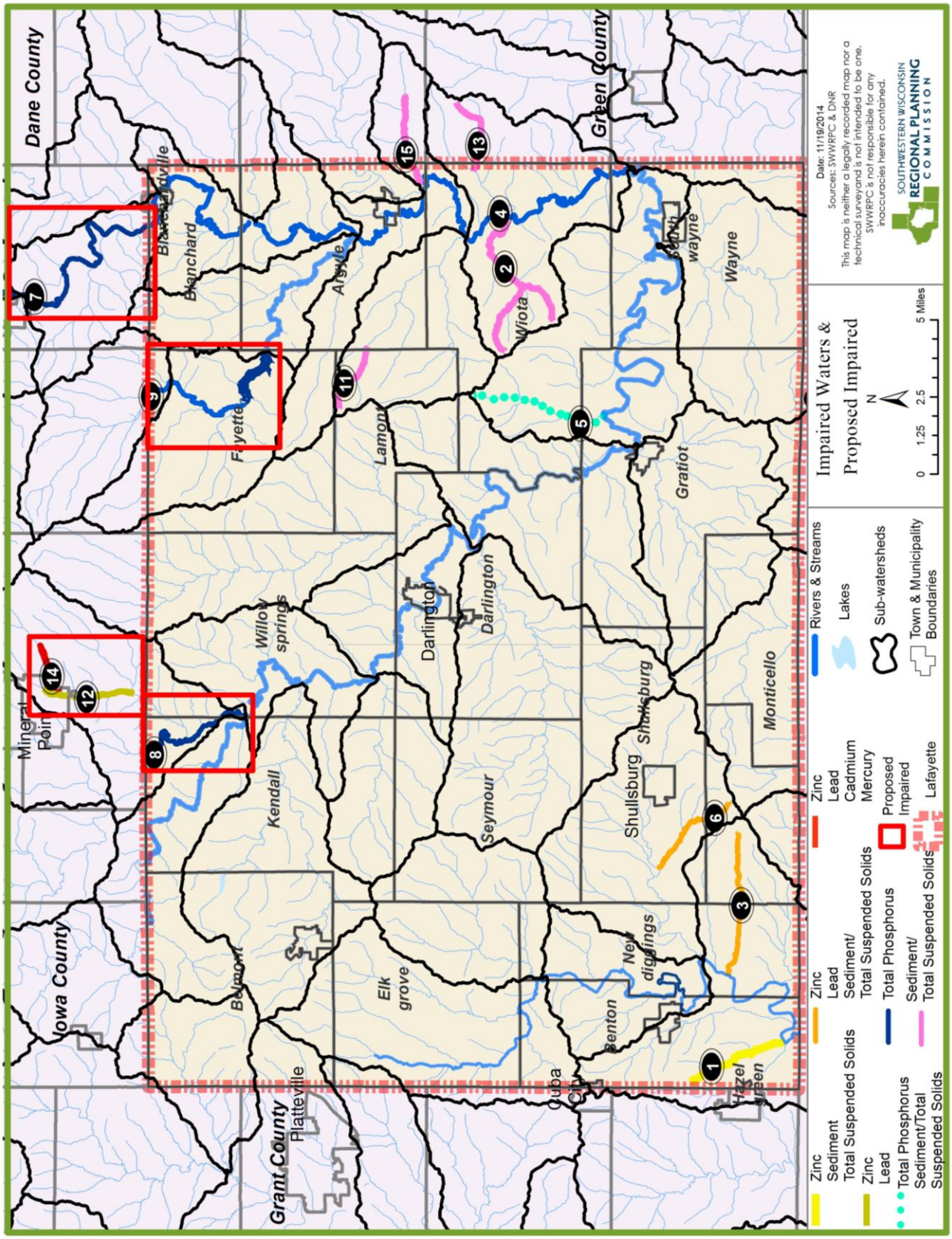


Figure 22: Impaired Waters & Proposed Impaired Waters

Table 5: Impaired Waters, Proposed Impaired Waters, and TMDL Waters

Status	Waterbody name (map ID)	Length/size	Watershed	Source category	Pollutant	Impairment indicator	Priority rank
303(d) Impaired Waters	Bull Branch (1)	3.75 miles	Galena River	NPS	Sediment/Total Suspended Solids	Degraded Habitat	Low
				Other	Zinc	Chronic Aquatic Toxicity	
	Cherry Branch (2)	2.1 miles	Lower Pecatonica	NPS	Sediment/Total Suspended Solids	Degraded Habitat	Low
	Diggings Creek (3)	5.43 miles	Galena River	NPS	Lead	Chronic Aquatic Toxicity	Low
					Zinc	Chronic Aquatic Toxicity	
					Sediment/Total Suspended Solids	Degraded Habitat	
	East Branch Pecatonica River (4)	33.5 miles	Lower E. Branch Pecatonica	PS/NPS	Total Phosphorus	Impairment Unknown	Low
	Silver Spring Creek (5)	5.9 miles	Lower Pecatonica	Unknown	Total Phosphorus	Degraded Biological Community	Low
	Unnamed Trib to Shullsburg Br (6)	4.3 miles	Galena River	NPS	Lead	Chronic Aquatic Toxicity	Low
					Zinc	Chronic Aquatic Toxicity	
					Sediment/Total Suspended Solids	Degraded Habitat	
Proposed 303(d) Impaired Waters	Yellowstone River (9)	4 miles	Yellowstone River	PS/NPS	Unknown	Degraded Biologiical Community	Low
	Yellowstone Lake (10)	453.34 Acres	Yellowstone River	PS/NPS	Total Phosphorus	Excess Algal Growth	Low
Total Maximum Daily Limits Approved	Braezels Branch (15)	4.06 miles	Lower E. Branch Pecatonica	PS/NPS	Sediment/Total Suspended Solids	Degraded Habitat	Not Applicable
	Apple Branch (11)	2.77 miles	Lwr E. Branch Pecatonica	PS/NPS	Sediment/Total Suspended Solids	Elevated Water Temperature	Not Applicable
	Cherry Branch (2)	7.11 miles	Lower Pecatonica	PS/NPS	Sediment/Total Suspended Solids	Degraded Habitat	Not Applicable
	Silver Spring Creek (5)	5.9 miles	Lower Pecatonica	PS/NPS	Sediment/Total Suspended Solids	Degraded Habitat	Not Applicable
	NPS - Non-point Source PS - Point Source						

The following describes each impaired water with the most recent information and notes available from the DNR's impaired waters resource webpage. The Index of Biological Integrity (IBI), a tool used to identify and classify water pollution problems, is referenced within this section. An IBI associates anthropogenic influences on a water body with biological activity in the water body, and impairment is formulated using data developed from biosurveys.

Apple Branch – A 2007 survey showed low numbers of trout and the presence of fish that are able to tolerate a wide range of temperatures. These fisheries assemblages indicate that Apple Branch is likely a cool water transitional stream. High water from August 2007 to July 2008 inundated the lower 1/3 of the stream. As a result, numbers of northern pike made their way upstream for spawning. Many yearling pike were found in these lower reaches in September, 2008 and may have impacted the trout and forage community. Although Apple Branch shows promise as a cool-cold water fishery,

overall environmental quality in the upper 1/3 of the stream has not changed and this segment of the stream will remain on the state's list of impaired waters.

Bull Branch – Bull Branch is a three mile long tributary to the Galena River. It derives much of its flow from mine discharges in the area. The stream is listed as an impaired water due to sedimentation caused by nonpoint source pollution. While this may have been a cause for impairment in the past, current data (2010) and an observation caused by land use practices suggest that the stream impairment may now be more related to high concentrations of heavy metals that are leaching from the historic mining in the area. Water chemistry data shows zinc concentrations near levels shown to cause toxicity in aquatic organisms. Biological assessments show the waters of Bull Branch inhibit growth and reproduction of test organisms at the base of the food chain.

Bull Branch may be able to sustain some level of cold water fishery if water quality is improved and physical impairments such as perched culverts are removed. However, the same groundwater that lends itself as a source of cool water to the system also contains the metals that limit its use.

Cherry Branch – The Cherry Branch water is impaired due to one or more pollutants and associated quality impacts. The water was approved as TMDL in 2005. Fisheries surveys conducted in 2007 showed the stream to be a very poor coldwater fishery and only a fair warm water fish. The fishery assemblage was dominated by habitat and/or oxygen tolerant species. Sampling conducted at Miller Road and Philippines Road in 2008 - after a year of record rains and river levels - showed the presence of young-of-the-year northern pike, and almost nothing else. It is surmised that adult pike took advantage of high water levels to migrate up from the East Branch Pecatonica River in the spring of 2008 to spawn.

Biologists noted the stream being impacted by agriculture: stream channel entrenchment, row crops with little buffer, banks trampled due to pasturing, and high rates of sedimentation. Macroinvertebrates indicate good water quality and marginal habitat. The environmental quality of Cherry Branch, as indicated by biological measures, appears to have changed little over the past 2 decades and should remain on the 303(d) list.

Diggings Creek –Water quality, in-stream habitat, and the stream's fishery have been impaired in this Galena River tributary due to mine waste, specifically roaster piles, adjacent to the stream. In the late 1990's, the DNR undertook a remediation project to remove mine waste material from the stream site. The most recent macroinvertebrate survey showed the insect community to be good, although lacking in diversity and dominated by crane flies. A fisheries survey should be conducted to determine the contemporary status of the stream

East Branch Pecatonica River – Water is impaired due to one or more pollutants and associated quality impacts. This water was assessed during the 2012 listing cycle, and total phosphorus sample data exceed 2012 Wisconsin Consolidated Assessment and Listing Methodology (WisCALM) criteria for the fish and aquatic life use; however, available biological data do not indicate impairment on the IBI. During the 2014 listing cycle, the water was assessed with a total phosphorus sample data exceeding the 2014 WisCALM listing criteria for the Fish and Aquatic Life use, and biological impairment was observed.

Mineral Point Branch – This water was assessed during the 2014 listing cycle. Total phosphorus sample data exceed 2014 WisCALM listing criteria for the Fish and Aquatic Life use, however available biological data do not indicate impairment on the IBI.

Silver Spring Creek – Silver Spring Creek is located in southeastern Lafayette County and is part of the Lower Pecatonica River watershed. All five miles of Silver Spring Creek are currently listed on the 303(d) list due to degraded habitat resulting from sedimentation from nonpoint source pollution. A 2001 fish survey from the Silver Spring Creek Road crossing found seven brown trout (3.0 - 14.5 inches) and eight other minnow and forage species, including the presence of brook stickleback, a cool-water indicator. Silver Spring Creek's current use is as a warm water forage fishery, but the lower 3.9 miles are classified as a Class II trout fishery.

Yellowstone River – Water is impaired due to one or more pollutants and associated quality impacts. This water was assessed during the 2014 listing cycle, at which time biological impairment was observed.

Yellowstone Lake – Water is impaired due to one or more pollutants and associated quality impacts. This water was assessed during the 2014 listing cycle; total phosphorus and chlorophyll sample data exceed 2014 WisCALM listing thresholds for the recreation use. Total phosphorus and chlorophyll data do not exceed Fish and Aquatic Life thresholds.

DNR photo of Yellowstone Lake

Municipal Wastewater Treatment

DNR regulates the discharge of pollutants to waters of the state through the Wisconsin Pollutant Discharge Elimination System (WPDES) program. NR 102 establishes the water quality criteria and NR 217 establishes the procedures for translating those criteria into standards and incorporating those standards into WPDES Permits. WPDES permits are issued for five year terms and, upon reissuance, DNR incorporates newly-applicable standards or requirements into the reissued WPDES permit. A number of WPDES permits held by municipalities and industrial operations are expiring and due for reissuance.

Under NR 217, DNR will establish water quality based effluent limitations (WQBEL) for phosphorus to replace the current technology-based phosphorus limitations where the quality of the receiving water requires that level of protection. These may be based on the numerical criteria in NR 102, or on a TMDL analysis which takes into account all of the sources of phosphorus discharge into a receiving water and apportions the contribution and reduction required of each point and non-point source.

Wastewater treatment plants treat residential and industrial wastewater to remove biological or chemical waste products from water, including phosphorus and nitrogen. Many facilities will be required to optimize their wastewater treatment plant to increase the removal of total phosphorus. Figure 23 shows the wastewater locations within the county and locations within close proximity of the county along with the impaired waters.

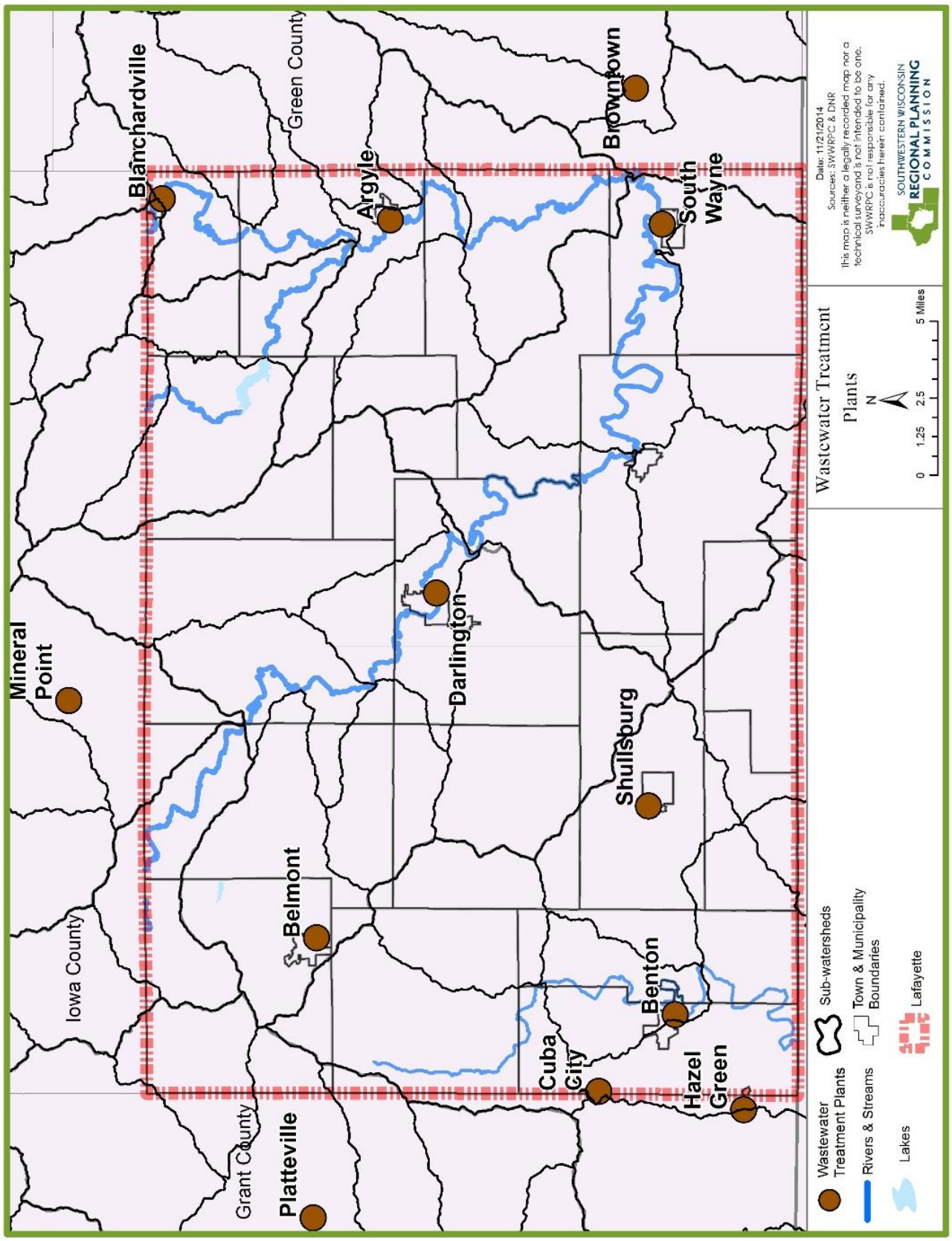


Figure 23: Wastewater Treatment Plants Map

Ground Water Resources and Quality

Wisconsin has an abundance of groundwater resources, which is present because of the state's geologic history and climate. Lafayette County has nine municipal water systems. The source of all groundwater is precipitation, which percolates down through the soil until it reaches the saturated zone called an aquifer, where it is then contained. Water in an aquifer travels from its source to a discharge point such as a well, wetland, spring, or lake. Poor land use decisions can introduce contaminants into groundwater reservoirs, especially in areas where soils are shallow to bedrock.

Figure 24: How Karst Works

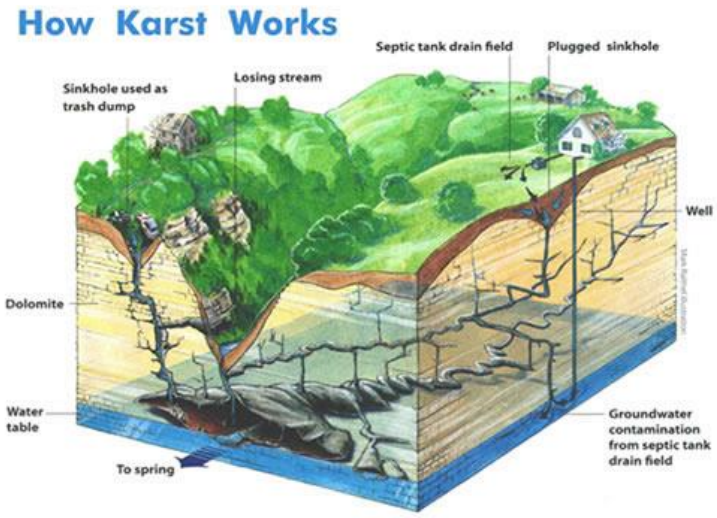
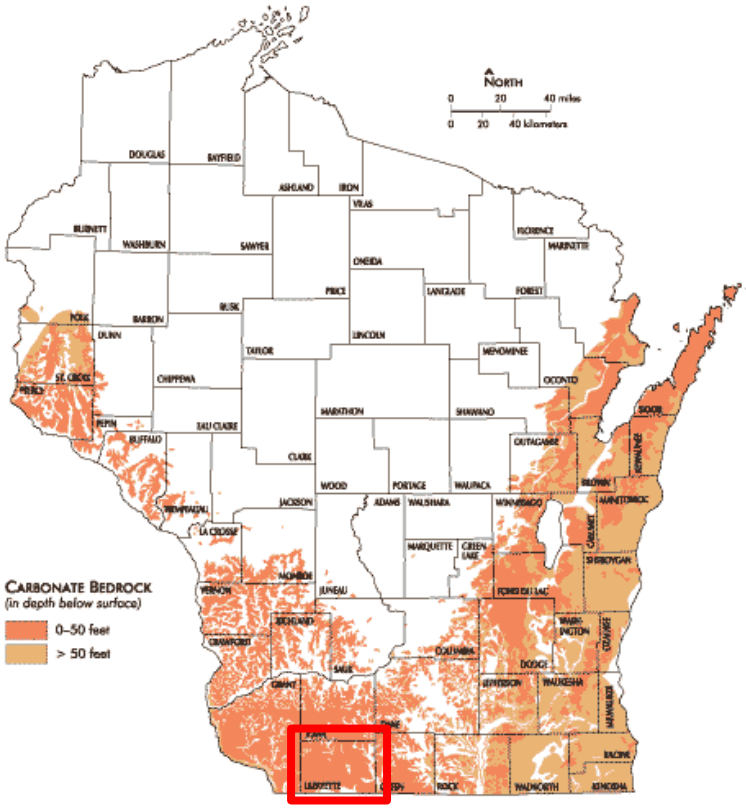


Figure 25: Karst Potential in Wisconsin



A dominant landscape feature in Lafayette County is karst (Figure 24) which is created when water dissolves rock such as dolomite and limestone.[14] The rock is dissolved mostly along fractures and create caves and other conduits that act as underground streams. Water moves readily through these openings, carrying sediment and pollutants directly into our groundwater.

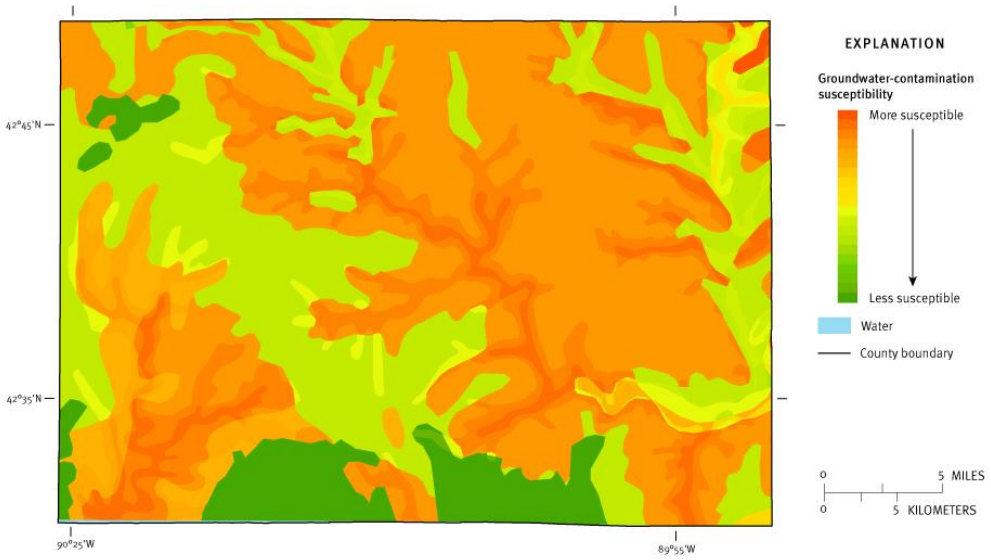
Karst landscapes may have deep bedrock fractures, caves, disappearing streams, springs, or sinkholes (Figure 25). These features can be isolated or occur in clusters, and may be open, covered, buried, or partially filled with soil, field stones, vegetation, water or other miscellaneous debris.

Depending on the type of underlying bedrock, sinkholes can range in size from tiny depressions in the surface to gaping building-eaters that are hundreds of feet wide. Sinkholes in Wisconsin tend to be smaller than 10 feet across. The depth of sinkholes can be highly variable, although most are about as deep as they are wide. The cracks and crevasses in karst act as direct conduits for pollutants to enter groundwater, wells, springs, and streams. If there is a sinkhole, then there is karst. Agricultural communities need to protect their groundwater and wells by being careful about what is spread in these areas.

[14] "What Is Karst?" Wisconsin Geological & Natural History Survey. Accessed August 1, 2014. http://wgnhs.uwex.edu/water-environment/karst-sinkholes/.

The groundwater contamination susceptibility map below (Figure 26) is a composite map of five resource characteristic maps: depth to bedrock, bedrock type, soil characteristics, depth to water table, and surficial deposits. This map highlights areas sensitive to contamination.[15]

Figure 26: Groundwater Contamination Susceptibility Map



Susceptibility of groundwater to pollutants is the ease with which a contaminant can be transported from the land surface to the top of the groundwater called the water table. The amount of protection offered by the overlying material varies depending on the materials. In some areas, the overlying soil and bedrock materials allow contaminants to reach the groundwater more easily than in other areas.

The Lafayette County groundwater protection policies include four of nine water systems that have a wellhead protection plan. These include Argyle, Benton, Darlington and Shullsburg. Benton is the only municipal water systems in Lafayette County with a wellhead protection ordinance. Blanchardville is currently drafting an ordinance. Wellhead protection plans are developed to achieve groundwater pollution prevention measures within public water supply wellhead areas. All municipal wells built after May 1992 are required to have a wellhead protection plan, which consists of several components:

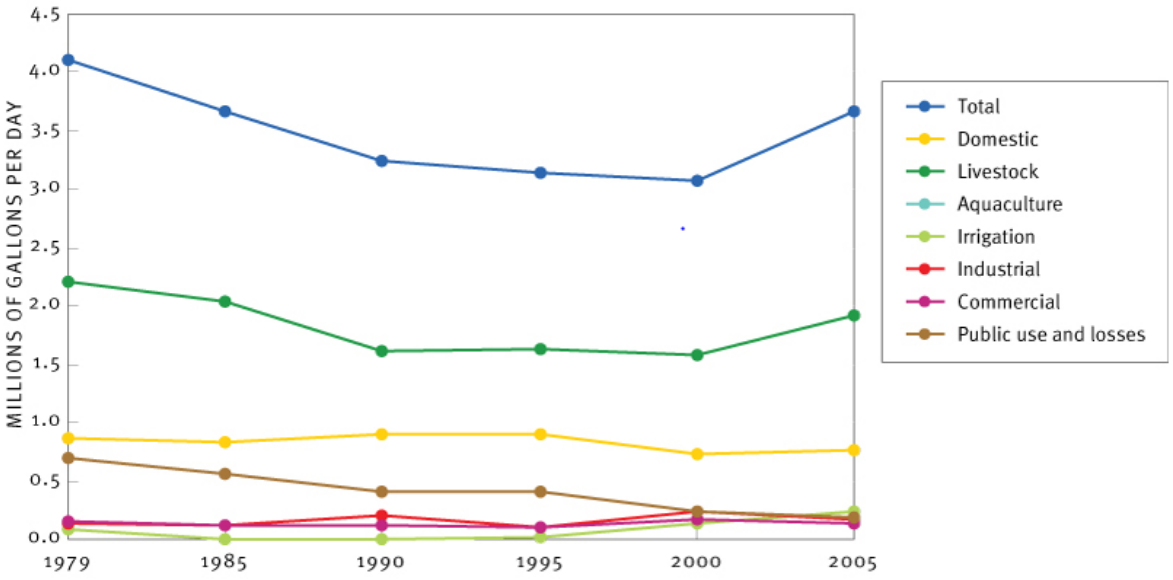
- Identification of the recharge area, zone of influence, and the groundwater flow direction.
- Existing potential contamination sources must be inventoried.
- A protection area must be established.
- A contingency plan for providing safe water in the event of any contamination accident, management plan that describes local ordinances, zoning requirements, monitoring programs and other local initiatives.

An ordinance implements the wellhead protection plan by controlling land uses in the wellhead protection area. Over $7 million has been spent on cleanup from leaking underground petroleum storage tanks, which equates to $434 per Lafayette County resident. However, no municipal water systems in Lafayette County have spent money to reduce nitrate levels.[16]

[15] Lynn, Markham, Mechenich Christine, Miskowski Raquel, Charles Dunning, James Rauman, Elizabeth Woodcock, Cheryl Buchwald, Jennifer Bruce, and Ann Moser. "Protecting Wisconsin's Groundwater Through Comprehensive Planning." *Protecting Wisconsin's Groundwater Through Comprehensive Planning*. USGS, 14 Jan. 2007. Web. 12 June 2014.

[16] Lynn, Markham, Mechenich Christine, Miskowski Raquel, Charles Dunning, James Rauman, Elizabeth Woodcock, Cheryl Buchwald, Jennifer Bruce, and Ann Moser. "Protecting Wisconsin's Groundwater Through Comprehensive Planning." *Protecting Wisconsin's Groundwater Through Comprehensive Planning*. USGS, 14 Jan. 2007. Web. 12 June 2014.

Figure 27: Lafayette County Water Use by Category



Nitrate is the most common contaminant in groundwater aquifers worldwide. Nitrates are nitrogen-oxygen chemical units which can combine with various organic and inorganic compounds. They do not evaporate, do not bind to soils, are very soluble in water, and can easily migrate to ground water. Because they do not evaporate, nitrates are likely to remain in water until consumed by plants or other organisms.

Nitrate gets into drinking water from nitrate-containing fertilizers, sewage and septic tanks, and decaying natural material such as animal waste. As a result of human activities and population growth, nitrates are increasing in water resources. The greatest use of nitrates is in fertilizers. Studies have demonstrated long term exposure to high levels of nitrate pose a potential health risk. The Environmental Protection Agency (EPA) set levels of 10 mg/L for total nitrate in drinking water.

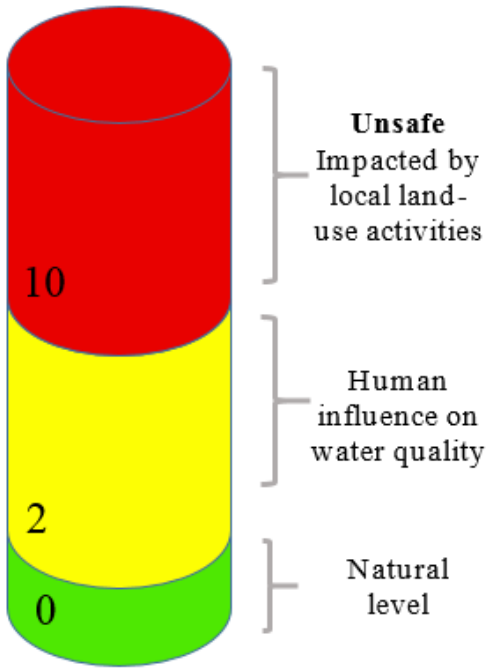
Although nitrogen is abundant naturally in the environment, it is also introduced through sewage and fertilizers. Chemical fertilizers or animal manure is commonly applied to crops to add nutrients. It may be difficult or expensive to retain on site all nitrogen brought on to farms for feed or fertilizer and generated by animal manure. Unless specialized structures have been built on the farms, heavy rains can generate runoff containing these materials into nearby streams and lakes. Wastewater-treatment facilities that do not specifically remove nitrogen can also lead to excess levels of nitrogen in surface or groundwater. Figure 28 shows the three nitrate levels: natural levels, human influence on water quality, and unsafe levels,

Lafayette County Stream

which are impacted by local land-use activities. Wisconsin's groundwater overall is less than 0.2 mg/L.[17]

DNR recommends residents test drinking water nitrate levels once to several times a year depending on proximity to farms or fertilizer manufacturers. Lafayette County provides residents with free test kits, which are then submitted to the county to record the nitrate levels. Between 1992 and 2013, Lafayette County residents provided 759 nitrate level samples from drinking water wells across the county. The amount of samples exceeding the health standard for nitrates (10mg/l) was 21%, or 157 samples for those years.

Figure 28: Nitrate mg/L Safety Levels



Lafayette County LCD Ground Water Testing

Figures 29 displays the results of private well water samples provided by residents and the percent of samples of nitrate levels greater than 10 mg/L in each watershed, weighted by the percentage of samples greater than 10 mg/L. Figure 30 displays the well locations and the percent of samples greater than 10 mg/L per household in each township. This data is not comprehensive, and not scientifically collected. Rather, residents voluntarily bring water samples to the County Fair where they are tested and recorded. Lafayette County has collected and recorded this data, however they have not recorded whether there were multiple tests for one residents. Therefore, there could be both a high and low nitrate test for the same resident. This data should not directly inform ground water protection activities, however it may be used as a guide if supplemented by other data such as well tests performed by the University of Wisconsin-Extension (UWEX) and locations of failed septic systems.

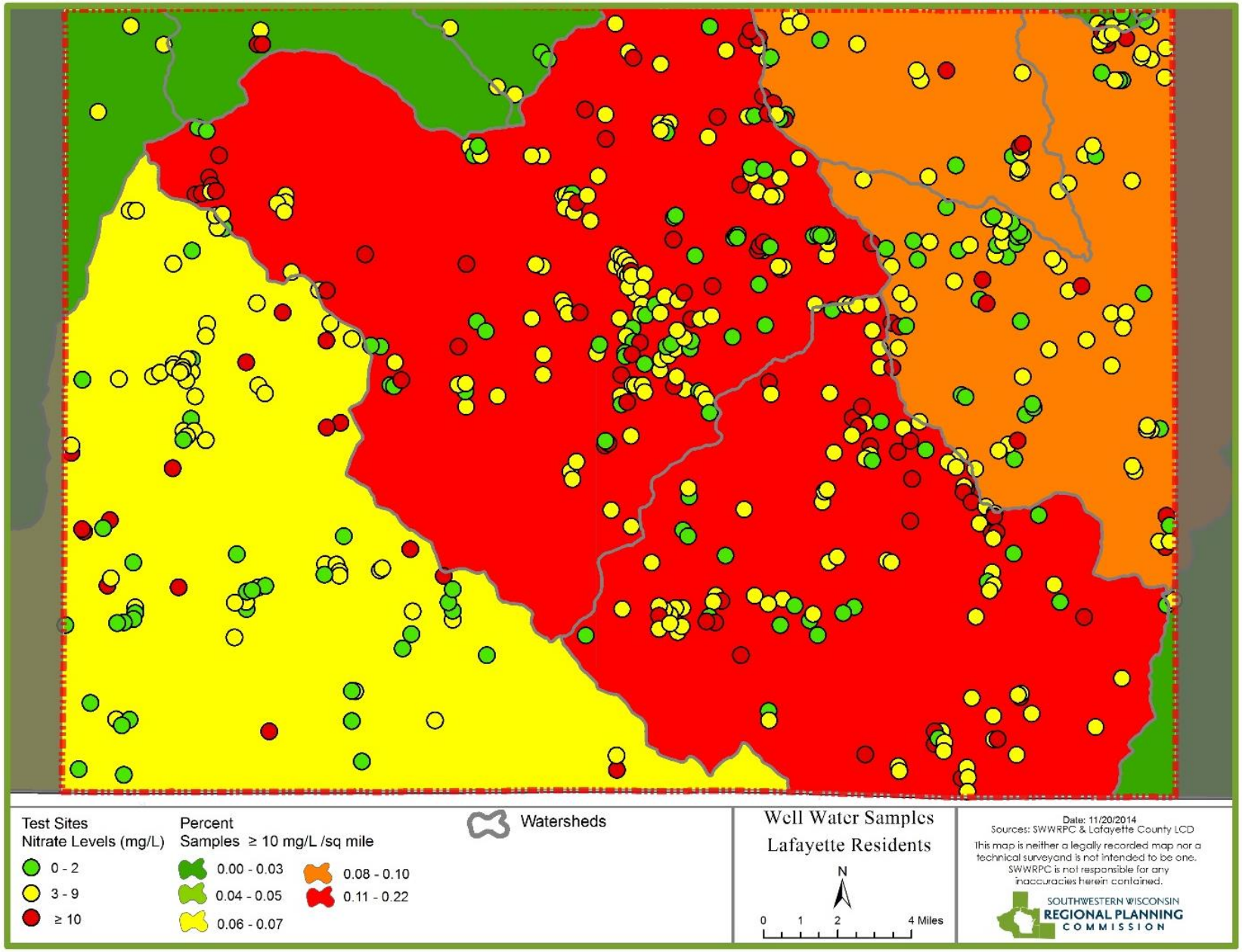
University of Wisconsin-Extension Ground Water Testing

UWEX-Center for Watershed Science Education (CWSE) provides test kits to homeowners with private wells for nitrate and bacteria testing. Samples collected from 1990 to 2013 were sent to a certified laboratory and recorded by CWSE. Figure 31 displays the results of private well water samples provided by residents and the percent of samples of nitrate levels greater than 10 mg/L in each watershed, weighted by the percentage of samples greater than 10 mg/L. Figure 32 displays the well locations and the percent of samples greater than 10 mg/L per household in each township.

This information, however, isn't complete and therefore not representative of all wells within the county. However, from the LCD and CWSE data already collected, the county could safely identify the townships of Fayette, Lamont, and Wiota as priority townships in need of closer inspection, and targeted testing and education efforts.

[17] "Interpreting Drinking Water Results." UW-EX Learning Store. January 1, 2004. Accessed August 1, 2014. http://learningstore.uwex.edu/assets/pdfs/G3558-4.pdf.

Figure 29: Percent of Well Water Samples by Watershed per Square Mile Provided by Lafayette County LCD



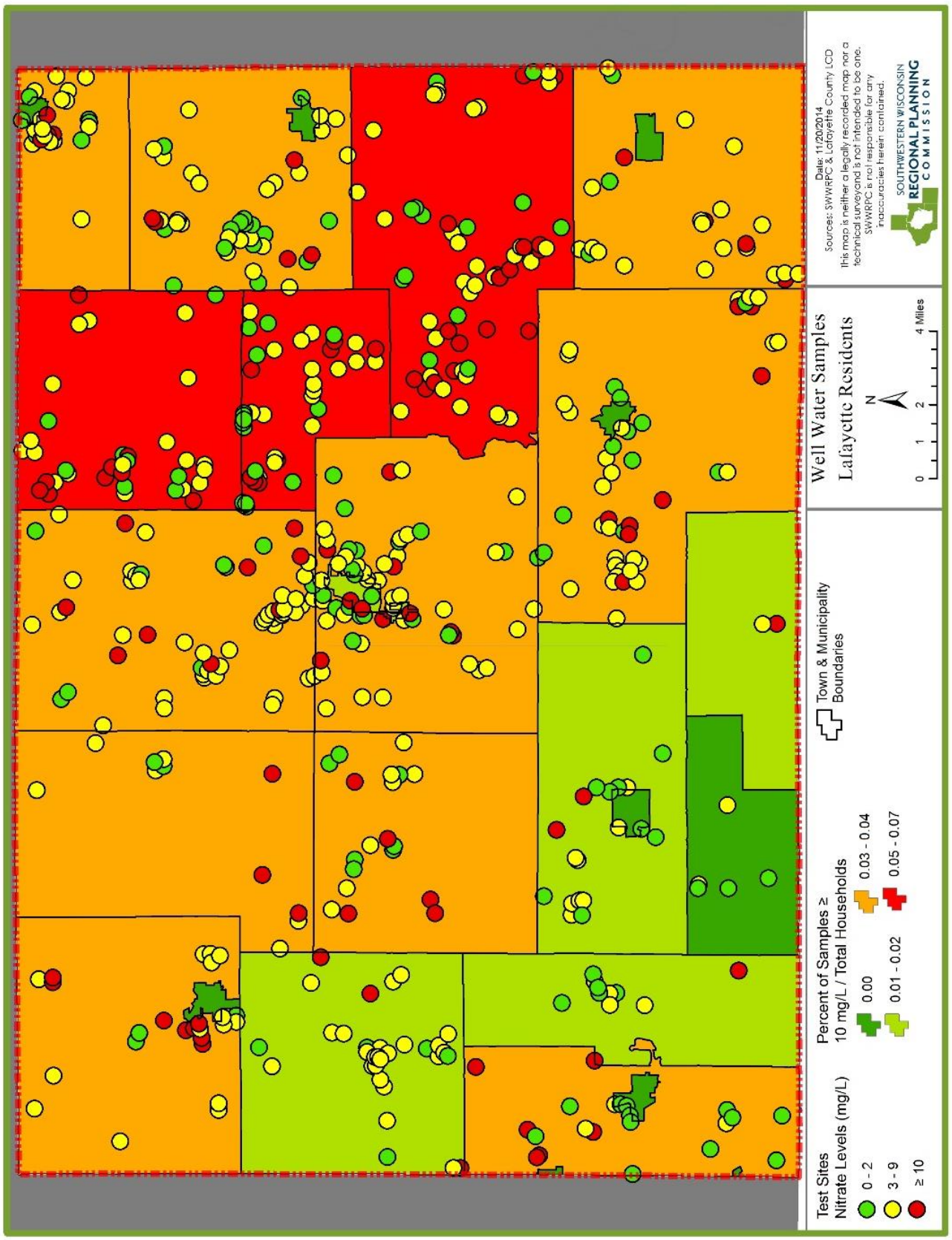


Figure 30: Well Water Samples by Township per Capita Provided by Lafayette County LCD

Figure 31: Well Water Samples by Watershed per Square Mile Provided by UW-Center for Watershed Science

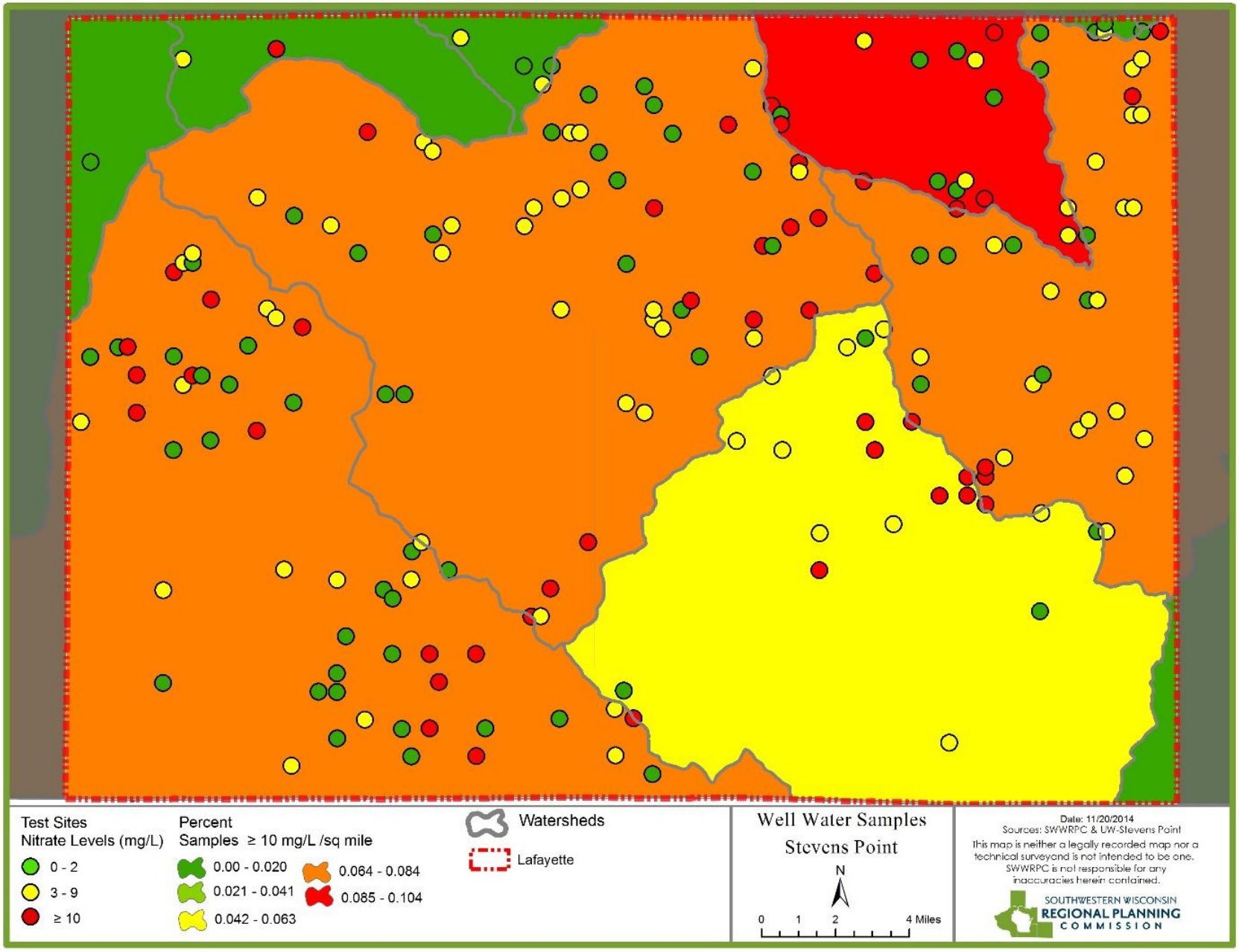
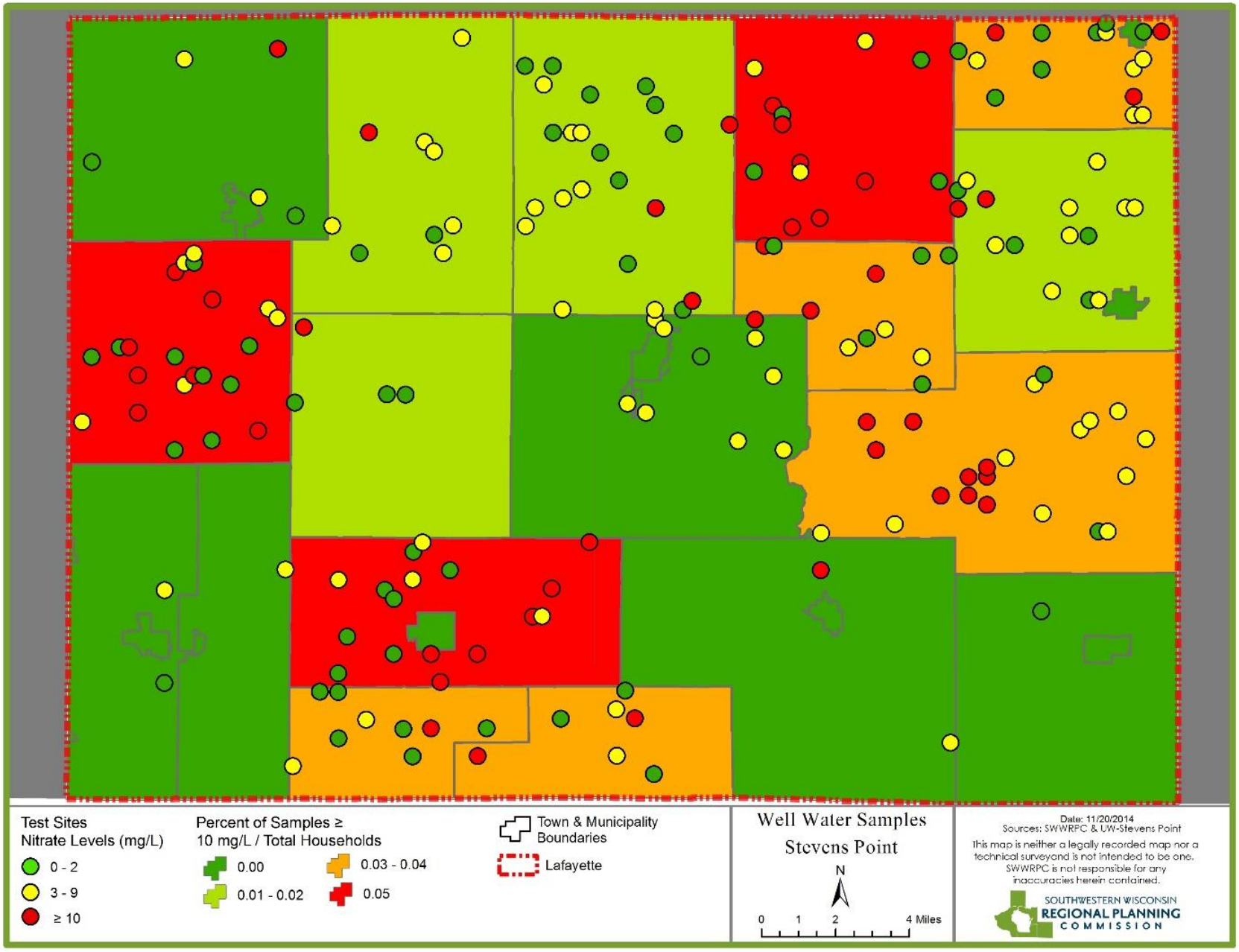


Figure 32: Well Water Samples by Township per Capita Provided by UW-Center for Watershed Science



Private On-Site Wastewater Treatment Systems

Private On-Site Wastewater Treatment Systems (POWTS), commonly referred to as septic systems, are a concern because their failure can introduce raw, untreated effluent into drinking water, thereby causing a human health hazard. All new POWTS are required to be designed and installed only after they receive a county permit. State law requires that all POWTS be inspected, and pumped if needed, a minimum of every three years to ensure they are working properly and to identify any unpermitted or failing systems. The most important reason to complete POWTS maintenance is to keep families and the environment safe by preventing harmful pathogens and bacteria from entering the water table or discharging to a ditch or other surface. The life expectancy of POWTS will be enhanced with knowledgeable soil testing, site specific design, quality installation, and regular maintenance.

Lafayette County maintains a database that includes all permitted and failing POWTS in the county. This database was used to create Table 6, and Figures 33 and 34 below, which identify the location of unpermitted or failing POWTS and their prevalence per square mile (by watershed) and per household (by township). POWTS are considered failing and unpermitted if they are (1) discharging to the surface, (2) backing up into a residence, or (3) consisting of an old dry well or other type of structure that doesn't meet the current design criteria.

This information, however, isn't complete and therefore representative of all POWTS within the county. The data on failing or unpermitted systems are collected by POWTS pumping contractors and therefore are subject to the recording practices and thoroughness of each pumper. However, from the data already collected, the county could safely identify the townships of Seymour, South Wayne, and Wiota as priority townships in need of closer inspection and enforcement efforts.

Table 6: Confirmed Non-permitted or Failing Septic Systems

Township	Number of Non-permitted or failed septic systems	Township	Number of Non-permitted or failed septic systems
Argyle	6	Monticello	0
Belmont	2	New Diggings	3
Benton	2	Seymour	11
Blanchard	0	Shullsburg	4
Darlington	9	Wayne	8
Elk Grove	7	White Oak Springs	4
Fayette	7	Willow Springs	5
Gratiot	10	Wiota	23
Lamont	2	**Total Number**	**103**

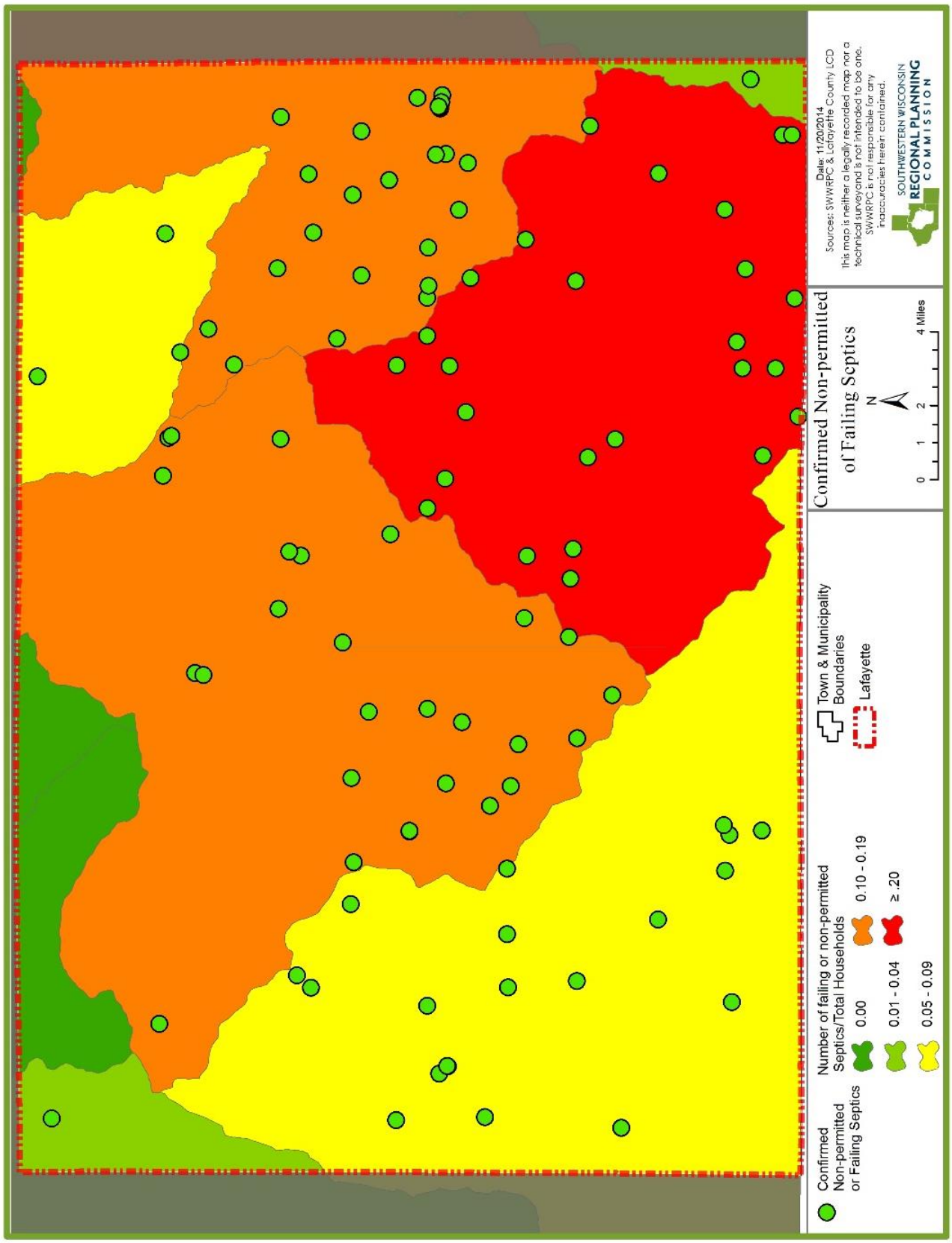
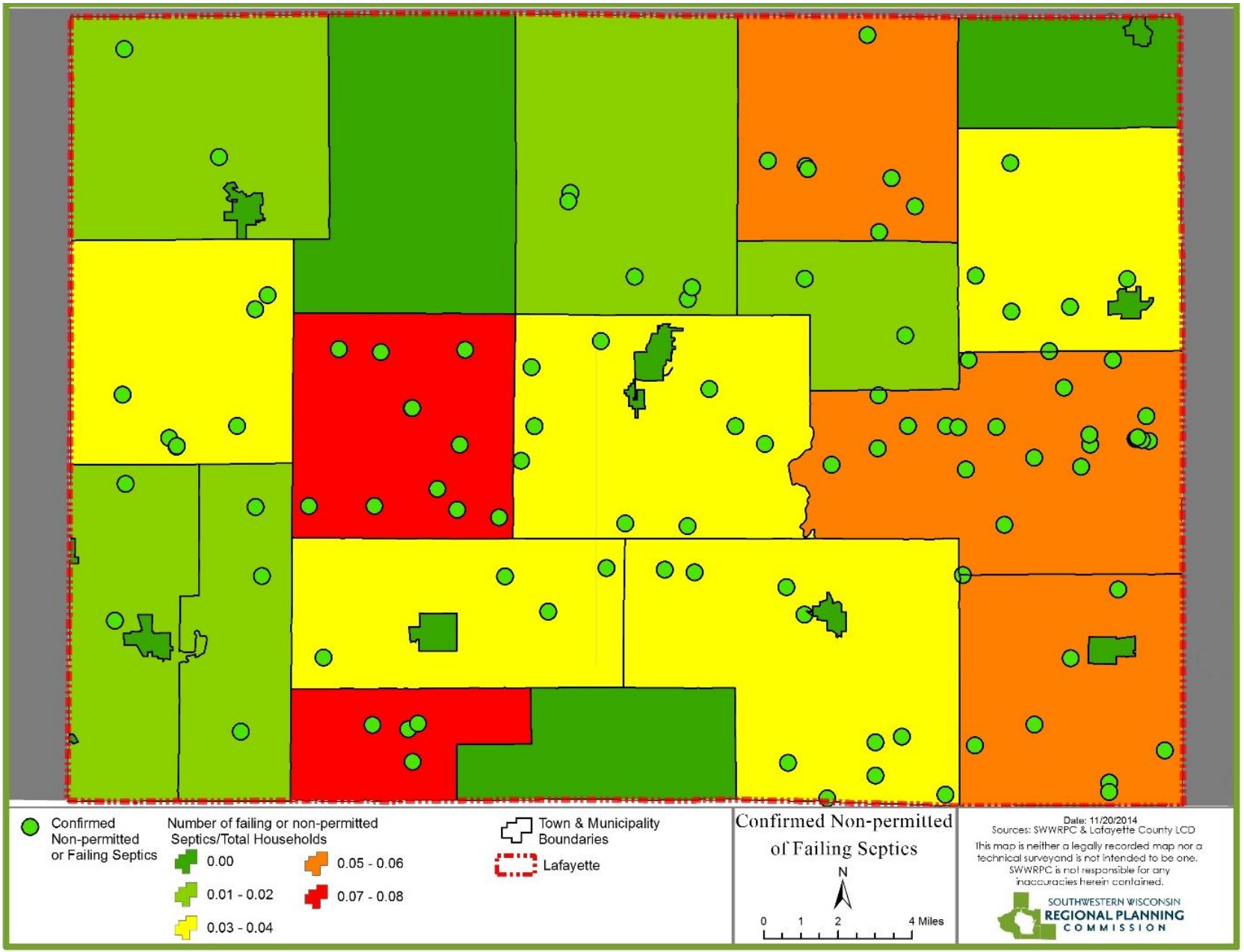


Figure 33: Confirmed Non-permitted or Failing Septic Systems per Square Mile

Figure 34: Confirmed Non-permitted or Failing Septic Systems per square mile



Woodland Resources

Forests play an integral role in the physical and economic development of the state, and thus play an integral role within the County. Today, forests contribute by providing financial, recreational, aesthetic, ecological, and other benefits to the community. Counties should develop local land use strategies that will enhance conservation and management of the state's forest resources. Significant technical, financial and educational support is needed as current and future generations of landowners deal with rising land prices, difficulty obtaining financing options, and mounting development pressure.

According to U.S. Forest Service Inventory and Analysis data from 2013, Lafayette County has an estimated 54,956 acres of forested lands, approximately 13% of its total area. The dominant timber type is over-mature, degraded oak woodlands which are in the process of converting to more shade tolerant central hardwoods for various reasons. The larger, older oak trees are a mix of bur oak, white oak, black oak and red oak. In many woodlots low quality, unhealthy, over-mature oaks are what is left from decades of "selective" harvesting.

Many of the woodlands throughout the county have been degraded by decades of pasturing and the introduction of exotic invasive species, the most common of which are honeysuckle, buckthorn, and garlic mustard. Currently, black walnut is being "mined" from many woodlots, without much thought given to total forest management as a whole, because a single black walnut is worth at least five times as much as other trees of similar size and quality. Figure 35 displays managed forest law (MFL) locations.

Wetland Resources

Wetlands are vital to the health of waterways and communities that are downstream. Wetlands feed downstream waters, trap floodwaters, recharge groundwater supplies, remove pollution, play an important role in stormwater management, and flood control and provide fish and wildlife habitat. Wetlands are also economic drivers because of their key role in fishing, hunting, and recreation.

Wetlands are often found alongside waterways and in flood plains. However, some wetlands have no apparent connection to surface water like rivers or lakes, but have critical groundwater connections. Wetlands include all marshes, swamps, fens, bogs, and those areas excluded from cultivation or other uses because they are intermittently wet and vary widely because of differences in soils, topography, climate, hydrology, water chemistry, vegetation, and other factors.

Lafayette County is in 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 only cover 0.8% of Lafayette County (Figure 35). Lafayette County has few wetlands not only due to being in the Driftless Area, but also because the area has experienced wetland draining for agricultural purposes. Due to the small number of wetlands in the County, most towns have no management strategies protecting wetlands, although some natural resource policies address general wetland protection. The Lafayette County Shoreland and Wetland Ordinance is described in Section four under county and local programs.

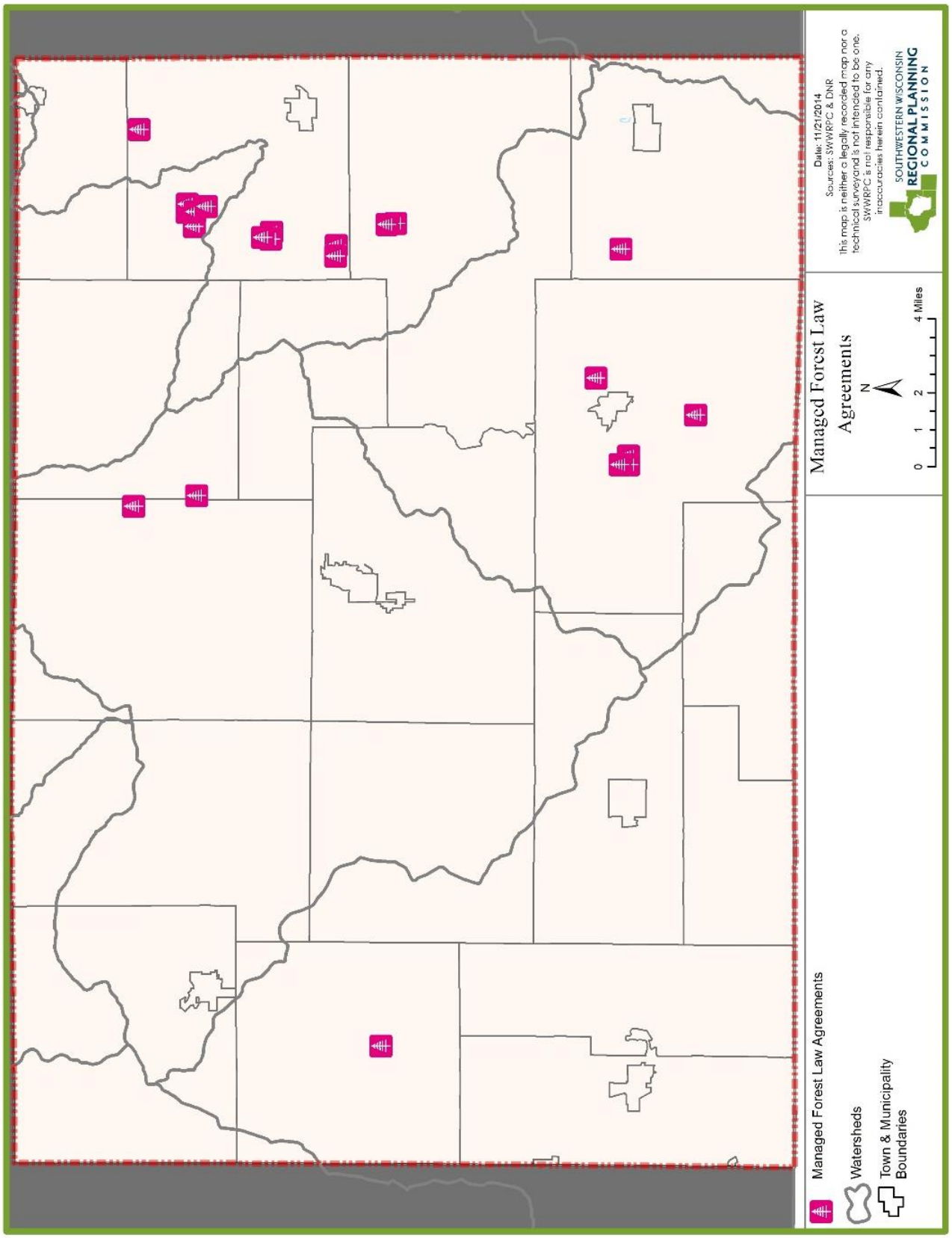


Figure 35: Managed Forest Law Agreements

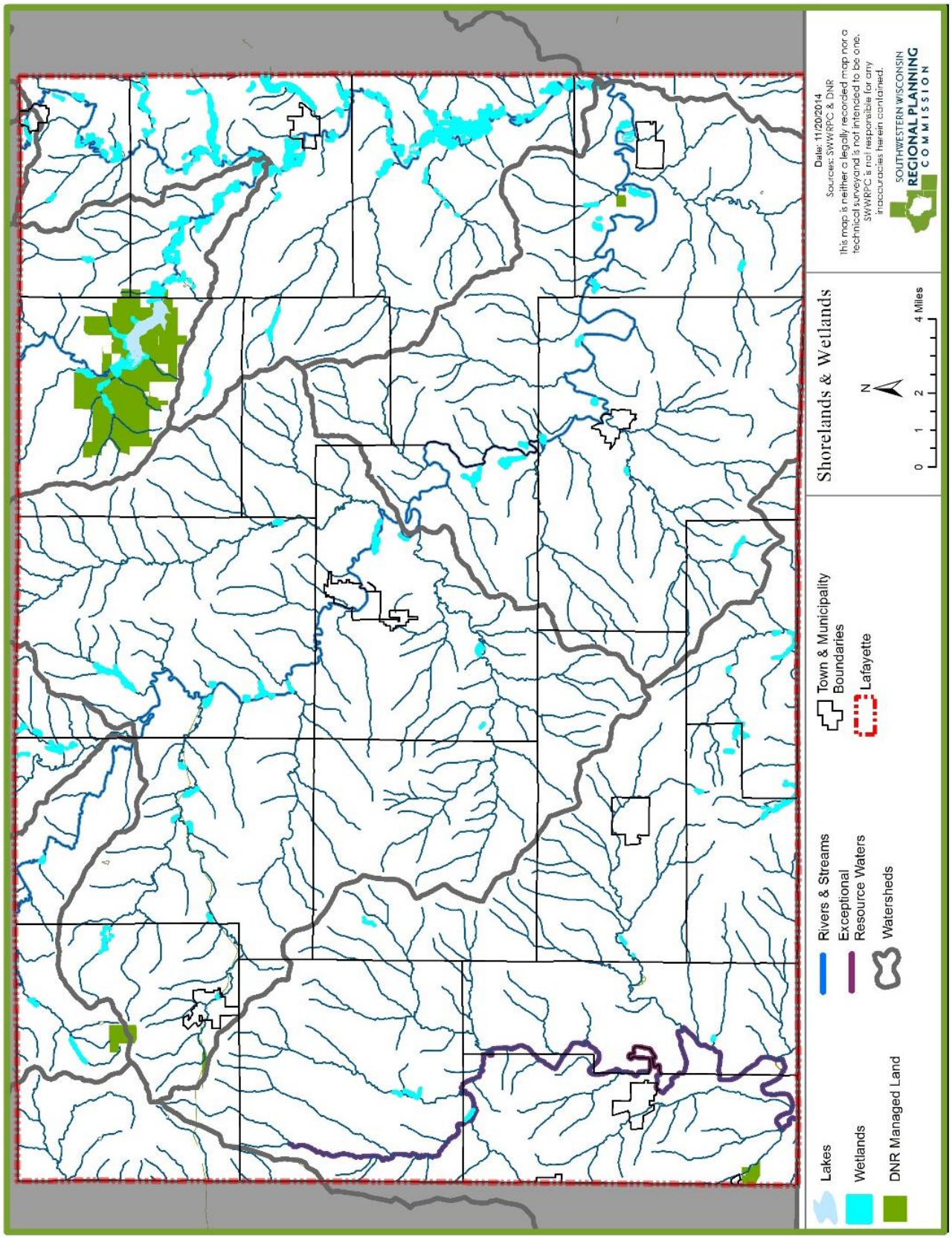


Figure 36: Wetlands Map

Existing Conditions Summary

In summary, the soil and water resource assessment identified a water quality objective framework, which highlights the priority water quality issues within each watershed (Table 7). Priority water quality issues are ranked as high, medium, or low. High priority identifies the water issues as top priority and must be addressed in the five-year workplan. Medium priority identifies there is a water issue, but with limited resources and staff the water issue is secondary to the top priority and should be addressed as resources and staff time allows. Low priority identifies there is not a specific water quality issue within the watershed or the watersheds are mainly contained in surrounding counties, which are Upper East Branch Pecatonica River, Jordan and Skinner Creeks, and Gordon Creek.

Table 7: Priority Water Quality Objective Framework

Watershed	Reduce Nonpoint Source Pollutants	Reduce Soil Erosion	Protect Trout Streams	Ensure safe drinking water supply
Galena River (GP01)	**High**	Low	n/a	Medium
Little Platte River (GP03)	**High**	Low	n/a	Low
Jordan and Skinner Creeks (SP02)	Low	Low	n/a	Low
Lower East Branch Pecatonica (SP03)	**High**	**High**	**High**	**High**
Yellowstone River (SP04)	**High**	**High**	**High**	**High**
Gordon Creek (SP05)	Low	Low	n/a	Low
Upper East Branch Pecatonica River (SP06)	Low	Medium	n/a	Low
Lower Pecatonica River (SP07)	Medium	**High**	**High**	**High**
Middle Pecatonica River (SP08)	Low	**High**	**n/a**	**High**
Mineral Point and Sudan Branches (SP09)	**High**	Low	n/a	Low
Upper West Branch Pecatonica River (SP10)	**High**	Medium	Low	Low

Section 3: Plan Development Process

Plan Development – Data and Information

The Lafayette County Land and Water Resource Management Plan was developed based on data and local input obtained from various county, state, federal, and private organization documents and reports, and from the input of various local, county, state, federal, and private organization staff and county citizens.

Key documents and reports from which data and information were extracted and considered in the identification and prioritization of resource concerns include the following:

- 2007 Lafayette County Comprehensive Plan
- 2008 Lafayette County Land and Water Resource Management Plan
- Wisconsin's Land Legacy Report
- DNR Water Quality Management Plan Update Reports
- USDA Census of Agriculture: 1997, 2002, 2007, & 2012
- USGS Wisconsin Groundwater Comprehensive Plan
- TMDL for Sediment Impaired Streams in the Sugar-Pecatonica River Basin Report, June 2005
- Department of Revenue, 2013 Statement of Assessment

Other data, information and observations were provided by representatives from various technical agencies, conservation organizations, and private individuals including the following:

- Department of Natural Resources
- Department of Agriculture, Trade and Consumer Protection
- Natural Resource Conservation Service
- Farm Service Agency
- University of Wisconsin – Extension
- Lafayette County Farmers and Citizens

All data and information was summarized, compiled, and forwarded for consideration by members of the Citizens Advisory Committee convened by the Southwestern Wisconsin Regional Planning Commission (SWWRPC) and Lafayette County LCD to assist with identifying and prioritizing resource concerns within the county.

Plan Development – Citizen/Public Involvement

A list of potential citizen advisory committee members (CAC) was compiled by the LCD and SWWRPC in February, 2014. Invitations were sent via regular mail and e-mail. As a secondary measure, phone calls were made to all potential participants who had not responded a week before the meeting.

The CAC met on March 26, 2014 to gain an understanding of the Land and Water Resource Management planning process and review the Lafayette County resource issues and concerns. The CAC met again on June 26, 2014 to identify, group, and prioritize resource concerns and offer implementation strategies. The CAC reviewed the data and a series of maps, most of which are contained within this plan, and prioritized the goals the Lafayette County LCD should address using a dot voting process. Several topics suggested by the CAC were written on poster paper, and then the CAC voted using a very high (red dot), high (yellow dot), moderate (green dot) and low (blue) priority ranking. The colored dots were assigned a value to determine the highest priority. Red dots were assigned four points, yellow dots were assigned three points, green dots were assigned two points, and blue dots were assigned one point. Results of the priority voting are below in Table 8.

Priority Ranking Activity at June CAC Meeting

Table 8: CAC Priority Goals

Goals	Red dots #	Yellow dots #	Green dots #	Blue dots #	Total points
Soil erosion reduction	4	4	0	0	28
Develop urban and agriculture stakeholder interest	1	2	3	2	18
Ensure effective nutrient and manure management	1	1	2	1	12
Ensure safe drinking water supply	1	2	0	0	10
Address water & soil quality issues in FPP & Land Use Plans	0	0	3	3	9
Promote sustainable agriculture and plan for climate change	0	2	0	0	6
Promote restoration & protection of surface water	1	0	0	1	5
Address invasive species	0	0	1	1	3
Promote sustainable forest management	0	1	0	0	3

Priority Goals and Objectives

1. **Reduce soil erosion**
    a. Reduce sediment delivery from cropland to surface waters.
    b. Reduce nonpoint runoff pollution.
    c. Work with land owners to encourage more conservation practice implementation on farms.
2. **Develop urban and agriculture stakeholder interest**
    a. Create working relationships between agriculture interests and lake interests.
    b. Cultivate general public awareness about land and water conservation issues.
    c. Hold workshops with urban and agricultural stakeholders.
3. **Ensure effective nutrient and manure management**
    a. Inform more farmers about nutrient management practices.
    b. Achieve proper management and spreading of manure.
    c. Reduce land spreading of industrial wastes.
    d. Encourage nutrient management plans for non-permitted farms.
    e. Effective execution of the state phosphorus-free lawn fertilizer law.
4. **Ensure safe drinking water supply**
    a. Increase protection from bacterial contamination.
    b. Increase monitoring of groundwater quality.
5. **Address water and soil quality issues in Farmland Preservation Plan and Land Use Plans**
    a. Inform farmers about polluted runoff from applied lawn fertilizer.
    b. Monitor FPP compliance.
    c. Encourage CRP/CREP enrollment.
6. **Promote sustainable agriculture and plan for climate change**
    a. Progress towards long-term adaptation of agricultural technologies & agronomic practices.
    b. Inform more farmers about cropping and tillage practices.
    c. Target buildup of crop residues from new corn hybrids making no-till planting a challenge.
7. **Promote restoration & protection of surface water**
    a. Work with landowners and agencies to minimize soil erosion/protect water quality.
8. **Address invasive species**
    a. Protect aquatic ecosystems from non-native invasive species.
9. **Promote sustainable forest management**
    a. Promote Managed Forest Law.

Priority Geographic Areas

In addition, the CAC used the same priority ranking for selecting priority geographic areas. Watersheds and townships were ranked using a dot-based ranking system described above. The Lower East Branch Pecatonica River and Yellowstone River were ranked as highest priority watersheds (Table 9). The top three townships selected were Wiota, Argyle, and Fayette, in that order (Table 10).

Table 9: CAC Priority Watersheds

Watershed	Red dots #	Yellow dots #	Green dots #	Blue dots #	Total points
Lower East Branch Pecatonica River (SP03)	2	3	2	1	22
Yellowstone River (SP04)	3	0	1	0	14
Lower Pecatonica River (SP07)	1	1	0	1	8
Middle Pecatonica River (SP08)	0	0	2	2	6
Little Platte River (GP03)	1	0	0	0	4
Galena River (GP01)	0	0	0	2	2

Table 10: CAC Priority Townships

Town	Red dots #	Yellow dots #	Green dots #	Blue dots #	Total points
Wiota	2	2	1	1	17
Argyle	0	3	0	0	9
Fayette	2	0	0	1	9
Darlington	1	0	0	0	4
Seymour	0	0	1	2	4
Blanchard	1	0	0	0	4
Belmont	1	0	0	0	4
Benton	0	0	1	1	3
Shullsburg	0	0	1	0	2
Wayne	0	0	0	1	1
Monticello	0	0	0	1	1

A draft of the proposed plan was distributed on November 24th. The general public was given opportunities to review and comment on the proposed plan via a news release distributed to local new media outlets for general circulation on November 20th and 26th, 2014. A public hearing was held for the Lafayette County Land and Water Resource Management Plan on December 2nd, 2014. See the Appendices for supporting documentation from these meetings.

Section 4: Land and Water Conservation Programs

Accomplishing land and water resource management is a significant undertaking and is most effective when approached through partnerships. The Lafayette County LCD collaborates with various federal, state, and local conservation programs. Coordination and cooperation among agencies and with private land owners is critical for achieving the goals and objectives proposed in this plan. This plan details the current inter-agency coordination and cooperation among partnering agencies, and identifies efforts to foster new collaborations among other agencies.

Figure 37 represents the available data of practice locations within the county, which includes 2013 working lands initiative spot checks, CREP agreements, AEA agreements, Farmland Preservation agreements, managed forest law agreements. This data represents where current practices are located and thus, represents areas that do not have any conservation practice in place. Using GIS, parcels without a conservation practice can be selected by specific watersheds or townships that are prioritized in order to create a list of land owners to contact about possible conservation practices.

Lafayette County Contour Stripping

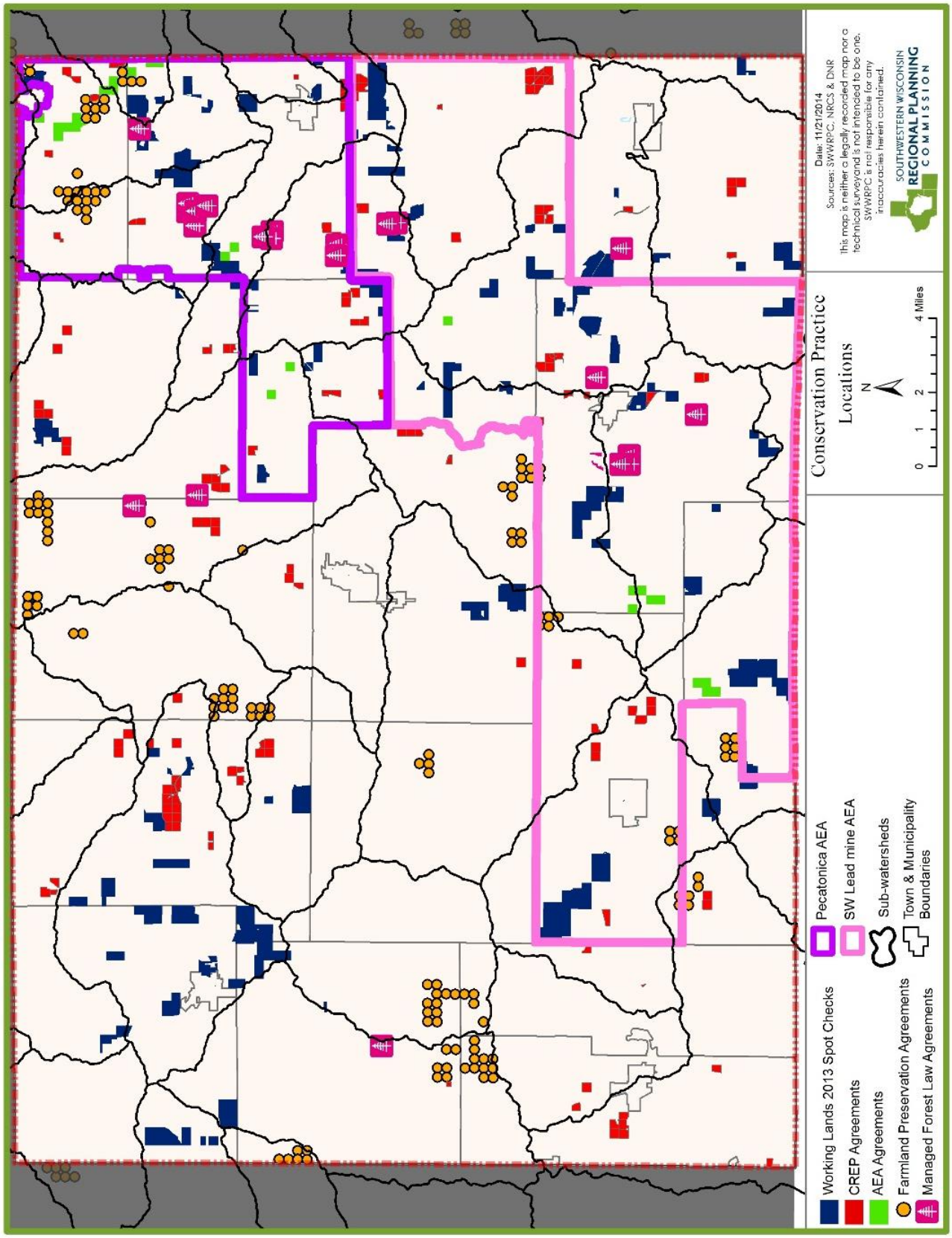
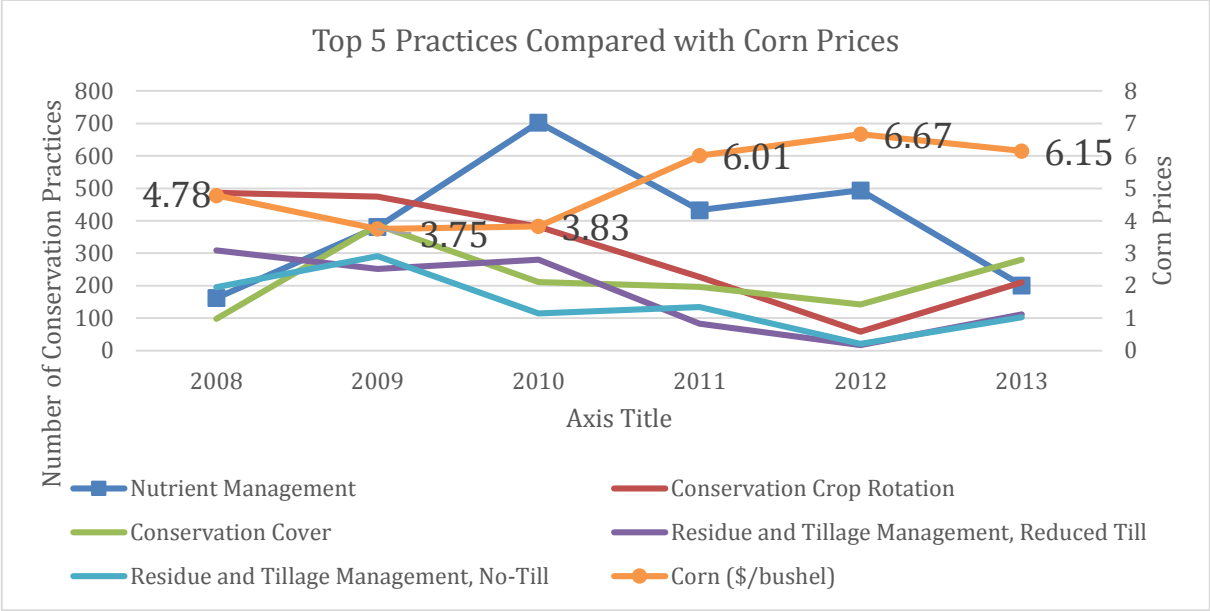


Figure 37: Conservation Practice Locations

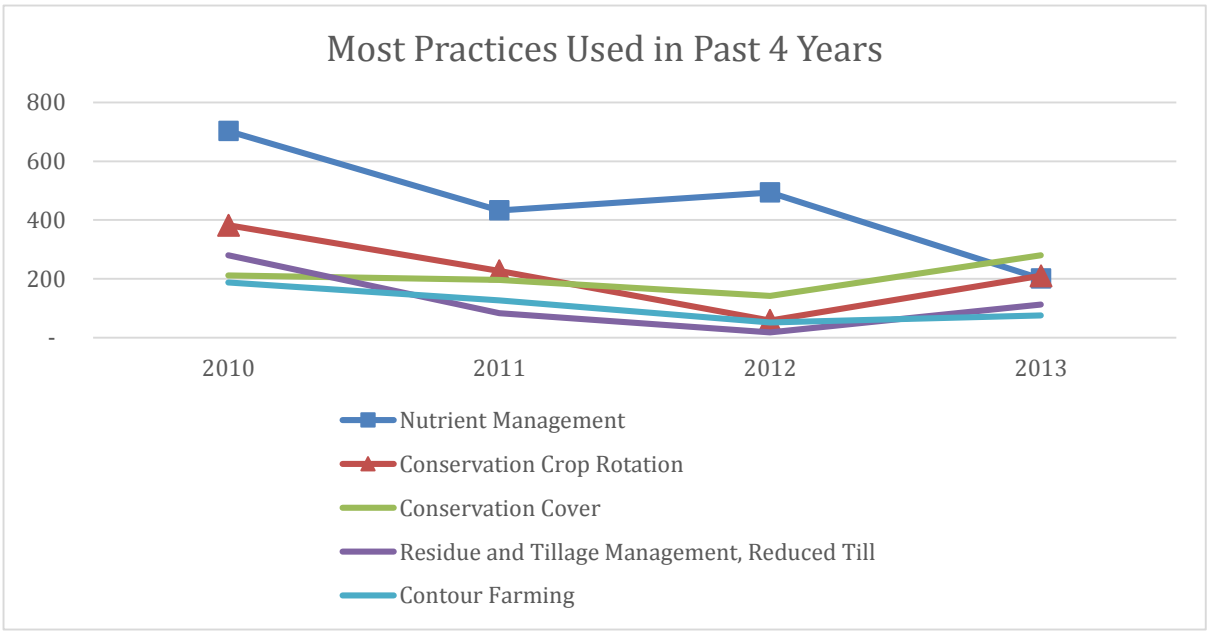
Additionally, NRCS provided a list of practices used since 2008 and number of contracts for each year within Lafayette County. County staff can use this data to identify which programs are the most popular, and therefore may be most easily replicated, and also new practices being used. New practices may provide insight into new technologies that farmers may want to use, but of which they are unaware. Figure 38 charts the top 5 practices compared with corn prices from 2008 – 2013 to see if there is a correlation between corn prices and practices installed. From this figure, it appears that as corn prices increase, Nutrient Management decreases. However in recent years, Conservation Cover, Conservation Crop Rotation, and No-till Farming have increased despite high corn prices. Figure 39 shows the most used practices from 2010 to 2013. Figure 40 identifies six new practices started in 2013 and the number of contracts for each.

Figure 38: Figure 38: Top 5 Practices Compared with Corn Prices, 2008 - 2013



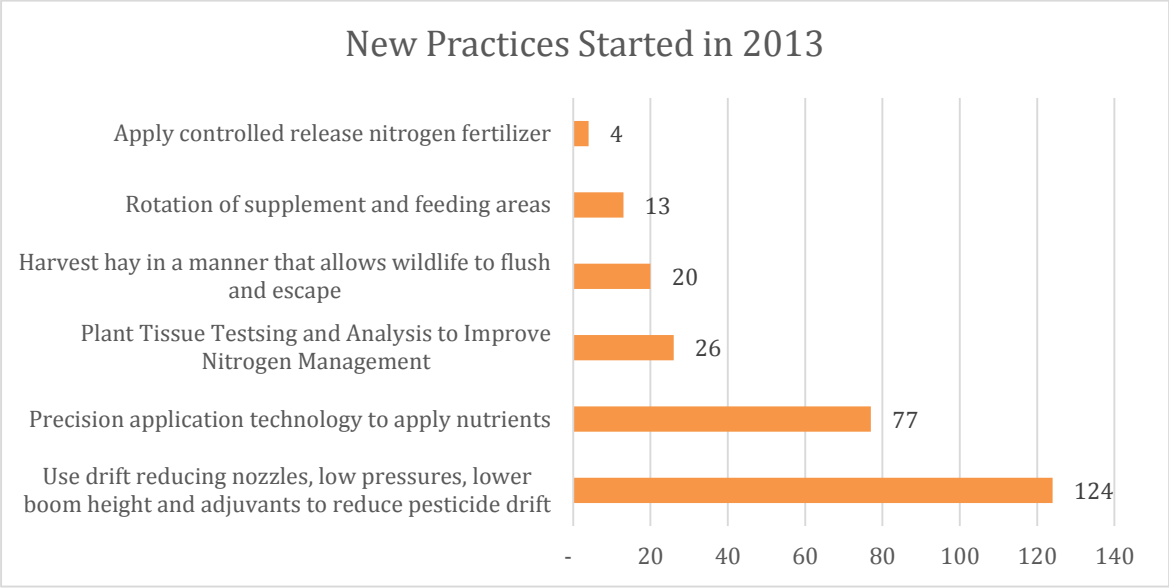
Source: NRCS

Figure 39: Most Used Practices from 2010 - 2013



Source: NRCS

Figure 40: New Practices Started in 2013



Source: NRCS

Lafayette County LCD expects to employ the following programs, as appropriate, to assist county landowners in meeting the conservation needs on their land, and in meeting the goals and objectives of the plan. Table 11 lists the programs and who manages each program.

Table 11: Program Administration Identification

NRCS Programs	DNR Prorgams	DATCP Programs
Environmental Quality Incentives Program	Managed Forest Law	Soil and Water Resource Management
Wetland Reserve Program	NR 151 Nonpoint Runoff Rules	Agricultural Clean Sweep
Conservation Stewardship Program	Wisconsin Forest Landowners Grant Program	Conservation Reserve Enhancement Program
Emergency Watershed Protection Program		
Targeted Runoff Management Program		
Grassland Reserve Program		

Federal Programs

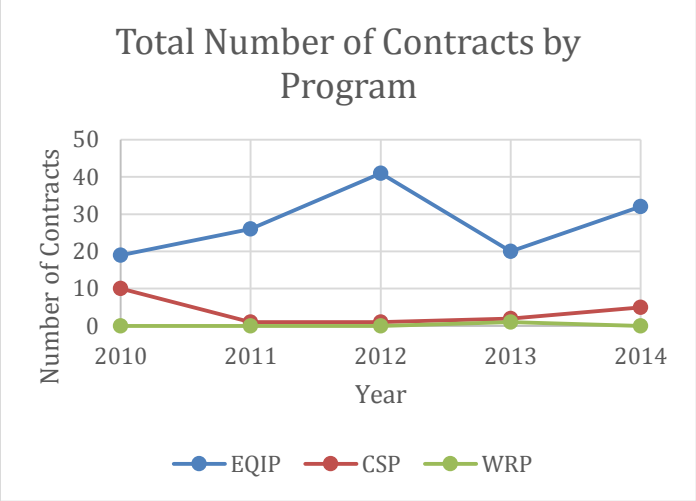
Environmental Quality Incentives Program (EQIP) – Provides cost-share assistance for the installation of locally selected best management practices that reduce erosion and animal waste concerns. Program administered by Natural Resources Conservation Service (NRCS).

Wetland Reserve Program (WRP) – A voluntary program offering landowners the opportunity to protect, restore, and enhance wetlands previously altered for agricultural use. Eligible land is land which has been owned for one year and can be restored to wetland conditions. Landowners may restore with permanent or 30-year easements or 10 year contracts. Permanent easements pay 100% of agricultural value of the land and 100% cost-sharing; 30-year easements pay 75% of the agricultural value and 75% cost-sharing; 10 year contract pays 75% cost sharing only

Conservation Stewardship Program (CSP) – A voluntary conservation program that encourages landowners to improve their conservation performance by installing and adopting additional activities, and improving, maintaining, and managing existing activities on agricultural land and nonindustrial private forest land. Persons, entities, corporations, and Indian Tribes may be eligible for the program. In 2013, Lafayette County received $9,881 (.59%) of $1,665,770 allocated to Wisconsin.

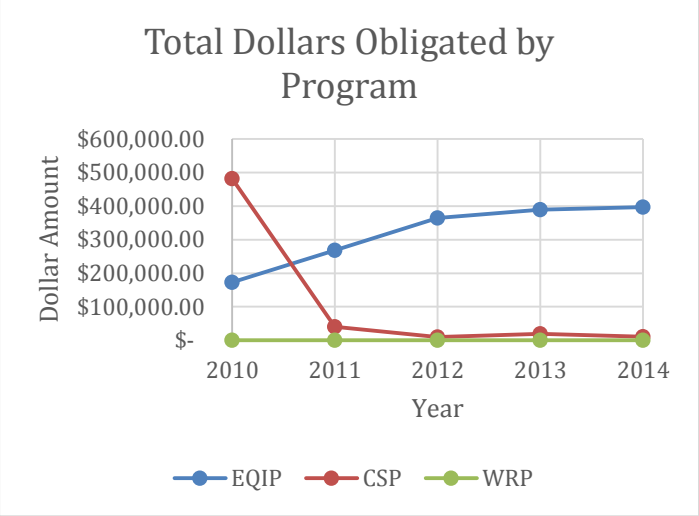
Emergency Watershed Protection Program (EWP) – A program to assist with up to 75% of the construction costs of emergency measures created by natural disasters. A total of 90% may be paid for projects within limited-resource areas as identified by U.S. Census data. The remaining costs must come from local resources and can be made in cash or in-kind services. All EWP projects reduce threats to lives and property, must be economically, environmentally, and socially defensible, be designed and implemented according to sound technical standards and conserve natural resources.

Figure 41: Total Number of Contracts by Program, 2010 - 2014



Source: NRCS

Figure 42: Total Dollars Obligated by Program, 2010 - 2014



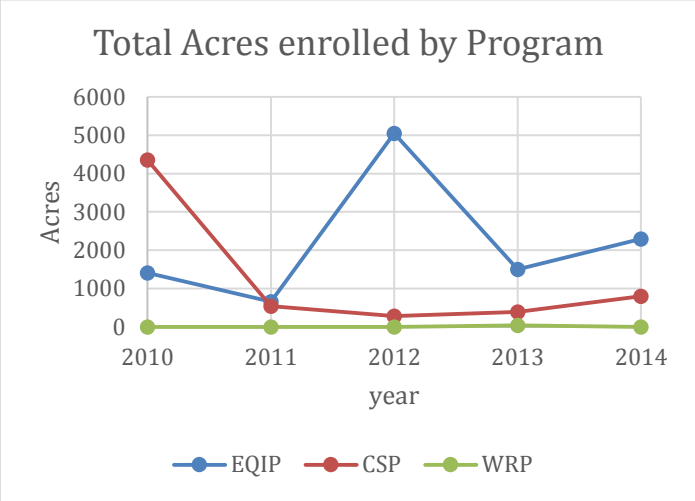
Source: NRCS

Grassland Reserve Program (GRP) – The Grassland Reserve Program is a voluntary conservation program that emphasizes support for working grazing operations, enhancement of plant and animal biodiversity, and protection of grassland under threat of conversion to other uses. Participants voluntarily limit future development and cropping uses of land while retaining the right to conduct common grazing practices. Enrollment options include 10 - 20 year rental agreements, permanent easements, or restoration agreements. A grazing management plan is required for participants.

Conservation Reserve Enhancement Program (CREP) – CREP targets high-priority conservation issues identified by local, state, or tribal governments or non-governmental organizations. In exchange for removing environmentally sensitive land from production and introducing conservation practices, farmers, ranchers, and agricultural land owners are paid an annual rental rate. Participation is voluntary, and the contract period is typically 10–15 years, along with other federal and state incentives as applicable per each CREP agreement.

Lafayette County started the program in fall of 2001, and is one of 52 Wisconsin counties that participate. As of 2013, Lafayette County has the most acres enrolled with 7,400 acres, and over $1.9 million has been paid out in State cost share and incentive payments on over 500 contracts. A total of 111 miles of stream banks protected along with keeping unwanted material out of surface waters. Since 2001, 18,000 lbs. phosphorus, 9,500 lbs. of nitrogen, and 8,700 tons of soil have been kept out of Lafayette County surface waters.

Figure 43: Total Acres enrolled by Program, 2010 - 2014



Source: NRCS

CREP Land in Lafayette County

State Programs

Targeted Runoff Management Program (TRM) – The Program offers competitive grants for local governments for controlling nonpoint source pollution. Grants reimburse costs for agriculture or urban runoff management practices in targeted, critical geographic areas with surface water or groundwater quality concerns.

Soil and Water Resource Management (SWRM) – DATCP administers the program that supports locally-led conservation efforts. Each year DATCP awards grants primarily to counties to pay for conservation staff and provide landowner cost-sharing to implement LWRM plans.

Runoff Issues in Lafayette County

Agricultural Clean Sweep – Wisconsin Clean Sweep assists communities in improving and sustaining public health, the environment, and animal safety by reducing risk of exposure to hazardous chemicals, pesticides, and unwanted prescription drugs in homes, on farms and at businesses. The program provides financial assistance to Wisconsin counties, regional planning commissions, cities, villages, and other municipalities to collect unwanted pesticides, household hazardous wastes, and unwanted prescription drugs such as controlled substances, analgesics, anti-inflammatory drugs, antibiotics, gastrointestinal drugs, and antihistamines.

Runoff Issues in Lafayette County

Managed Forest Law (MFL) – Woodland owners in Lafayette County have agreements with the State of Wisconsin under the Managed Forest Law (MFL). There are 178 MFL agreements conserving 6,903 acres. Agreements are for either 25 or 50 years. Landowners agree to follow a forest management plan which addresses watershed and soil erosion issues wherever applicable. The MFL's Forest Stewardship Plans can include mandatory installation of soil control practices. The average size of an agreement is 39 acres in Lafayette County.

NR 151 Nonpoint Runoff Rules – Wisconsin has adopted rules to control polluted runoff from both rural and urban areas. These rules, found in DNR Administrative Rule NR 151, became effective October 1, 2002. The State legislature adopted these performance standards and prohibitions to help protect Wisconsin's lakes, streams, and groundwater. Revisions that inserted additional performance standards into NR 151 went into effect on January 1, 2011. The Lafayette County LCD has a long history of working with landowners on a voluntary basis. The new NR 151 rules moves the county from a "voluntary" mode. It is the landowner's responsibility to meet the standards and to maintain that compliance.

Landowners continue to be encouraged to voluntarily implement conservation practices that comply with Wisconsin's nonpoint runoff rules. However, it is now possible to compel landowners to comply if voluntary efforts are not completely successful. One critical element needed to compel landowners to comply with the prohibitions and performance standards is the provision of 70% cost sharing. A summary of the NR 151 Prohibitions and Performance Standards are in Appendix F.

Wisconsin Forest Landowners Grant Program (WFLGP) – The WFLPG was created to encourage private forest landowners to manage their lands in a manner that benefits the state's forest resources and the people of the state. WFLGP provides technical assistance and cost sharing to private landowners to protect and enhance their forested lands, and to protect the water resources. The program allows qualified landowners to be reimbursed up to 50% of the cost of eligible practices. Two major emphases include the removal of unwanted small trees and brush in woodlots, and subsequent planting of desirable tree seedlings such as oak.

County and Local Programs

Lafayette County Manure Storage Ordinance – Administered by the Lafayette LCD to regulate the location, design, construction, and operation of animal manure storage facilities. All manure storage facilities installed in Lafayette County must work with the LCD. All storage structures that are not being used must be properly abandoned. This ordinance was amended in June 2014 to include requirements calling for the preparation and annual updating of a nutrient management plan for manure stored in all storage facilities permitted under the amended ordinance, and also requiring the proper closure of idled/unused manure storage facilities Since 2005, LCD has worked with over 100 landowners. As of 2012, 23 facilities have been permitted.

Lafayette County Nonmetallic Mining Reclamation Ordinance – Administered by the Lafayette County LCD reviews and approves reclamation plans for compliance with state laws.

Lafayette County Sanitary Code – The Sanitary code applies to all unincorporated areas of Lafayette County whether or not any Town Board has approved or disapproved them. The installation and maintenance of water supply and private sewage systems shall be in full compliance with ordinance. Private water supply and private sewage systems shall each require a permit. Public water supply plumbing fixtures shall be served by public water supply system where available. Where such public water system is not available, a private water supply system may be used. Private water supply for construction, materials, location and permits for private water supply shall be as governed by DNR. In addition, the ordinance covers waste disposal, industrial waste treatment, rubbish in navigable waters, solid waste disposal, sewage disposal, public sewer, private sewage system

Lafayette County Shoreland and Wetland Zoning Ordinance – Administered by Lafayette County LCD, the ordinance regulates the amount of development that takes place near shore and wetland areas. Areas within 1,000 feet of the ordinary highwater mark of navigable lakes, ponds, or flowages and areas within 300 feet of the ordinary highwater mark of navigable rivers or streams, or to the landward side of the floodplain, whichever is greater are regulated areas. In addition, removal of shore cover is regulated. The purpose of tree and shrubbery cutting regulations are to protect scenic beauty, control erosion, and reduce effluent and nutrient flow from the shoreland. The LCD set limits to the amount of tree and shrubbery cutting in an area parallel to the ordinary highwater mark, and extending 35 feet inland from all points along the ordinary highwater mark.

Lafayette County Farmland Preservation Plan – Administered by the Lafayette County LCD. The plan allows farmers to be eligible to receive tax credits under the Wisconsin Farmland Preservation Program (FPP). There are 11 of 18 townships in Lafayette County that participate in exclusive agriculture zoning. FPP in Lafayette County has over 100 participants that bring in about $600,000 in FPP tax credits each year on almost 100,000 acres. To participate in this program the county must monitor compliance with the FPP standards once every four years. It should be noted that there are 300 farms in the Farmland Preservation Program. Approximately 18% of farms are in compliance with all Agriculture Performance Standards and 60% have a written performance schedule.

Working Lands Initiative (WLI) – WLI works to preserve farmland for future generations. Adopted in June 2009, the WLI's main components are to expand and modernize the state's existing farmland preservation program, establish agricultural enterprise areas (AEAs), and develop a purchase of agricultural conservation easement matching grant program (PACE). The goal of the WLI is to achieve preservation of areas significant for current and future agricultural uses though successful implementation of these components. For the year 2012, 382 Lafayette landowners received $573,725 on 85,874 acres. The average credit under the old law was $894.43 and under the new version the credit is $1,686.41.

Tree Program – For the 2014 distribution, there were 59 participants who ordered over 190 trees. In 2012, Argyle Land Ethics Academy worked with LCD on prairie plant sales, growing and distributing the trees, and helping with tree sorting. Working in cooperation with the DNR Forester, 17,725 trees were planted using two LCD planters.

Nutrient Management Education – Lafayette County has provided Nutrient Management Plan (NMP) classes since 2008 for landowners to write their plans. Participating landowners were required to attend four separate classes and complete their own NMP. The "Taking Soil Samples" class, was attended by four landowners. The "Nutrient Crediting" class, was attended by five landowners. The two "Snap+" classes were attended by 11 landowners. Six new NMP's for a total of 705.7 acres and three plan updates totaling 924.8 acres were completed thus far.

A Nutrient Management Farmer Education Grant was received for 2012 and 2013, which was used to offset landowner expenses. Upon completion of the course and development of a NMP, six landowners will received a stipend of $866.66.

LCD has assisted farmers with developing their own NMP plans since 2002. In the last three years alone, the county has assisted 35 farms with writing their own plans on approximately 10,000 acres.

Agricultural Enterprise Areas (AEA) - Lafayette County has two AEAs covering 46,000 acres, with 93 petitioners. Landowners in an AEA can enter into a voluntary farmland preservation agreement, which requires the landowner to meet the state standards (ATCP 50, Wis. Adm. Code) such as control of soil erosion, nutrient management planning, and additional measures. The AEA allows participants to claim tax credits to meet the performance standards for conservation compliance

Partners and Collaborations to Pursue

Iowa and Green Counties – There is a need to collaborate with surrounding counties because natural resources do not recognize geopolitical boundaries. LCD should discuss the shared impaired waters of Iowa and Green County with respective agencies. The Lafayette County and Iowa County should coordinate efforts addressing the impaired waters of the Yellowstone River and Yellowstone Lake located in the Yellowstone River watershed. Lafayette and Iowa Counties have jurisdiction over wetlands five or more acres in size through the shoreland protection ordinance. Lafayette and Green County share the Braezels Branch and Jockey Hollow Creek impaired waters, which are mainly in Green County. In addition, a three county coordinated effort for the East Branch Pecatonica River, which is shared by Lafayette, Iowa, and Green should be pursued.

Driftless Area Land Conservancy (DALC) – A non-profit land trust that has been working diligently to create a voluntary conservation organization that serves the communities of southwest Wisconsin. The DALC collaborates with local experts from the local community to guide their land protection efforts. The DALC has capacity to address complex conservation and environmental needs of concerned citizens and private landowners who seek expertise in matters associated with land preservation and conservation. The DALC could be partners that assists with information and education programs.

University of Wisconsin-Platteville – The University potentially has internship partnership opportunities in several departments that align with LCD activities, such as Agricultural Business, soil and crop science, and environmental science to list a few. A full list of departments and contact information is listed in Appendix E.

Current Conservation Partners

Community Partners Supporting Agriculture – This partner is housed by Grant County UW-Extension and provides two programs: Crops & Farm Management, and Dairy & Livestock.

Lafayette County Sportsmen's Clubs – The club makes presentations to 5th and 6th grades for the annual Earth Day Celebration at Woodford Park.

Local units of Government – Cities, Villages, Townships, and private landowners.

Southwest Badger Resource Conservation and Development Council – Southwest Badger RC&D is a community development organization serving Crawford, Grant, Green, Iowa, La Crosse, Lafayette, Richland, Sauk, and Vernon Counties. Their mission is to implement natural resource conservation, managed growth, and sustainable rural economic development in the area. Their vision is to be an incubator for innovative, economic, and sustainable use of local resources in the Southwest Badger RC&D area.

Southwestern Wisconsin Regional Planning Commission – SWWPRC is an extension of local government in Southwestern Wisconsin. They provide low-cost expert planning, economic development services, and GIS services to the county, city, village, and town governments of their five-county jurisdiction (Grant, Green, Iowa, Lafayette, and Richland counties). They assist local communities to save both time and money while planning for the future.

Section 5: Plan Implementation

The following section describes the priority farm identification strategy, priority geographic areas, information and education strategy, regulatory administration, administrative recommendations, and the 2016 – 2021 workplan that the LCD plans to execute. The workplan will be reviewed annually, but the LCD will update another five year plan in 2021 to complete the 10 year planning period.

Priority Farm Identification

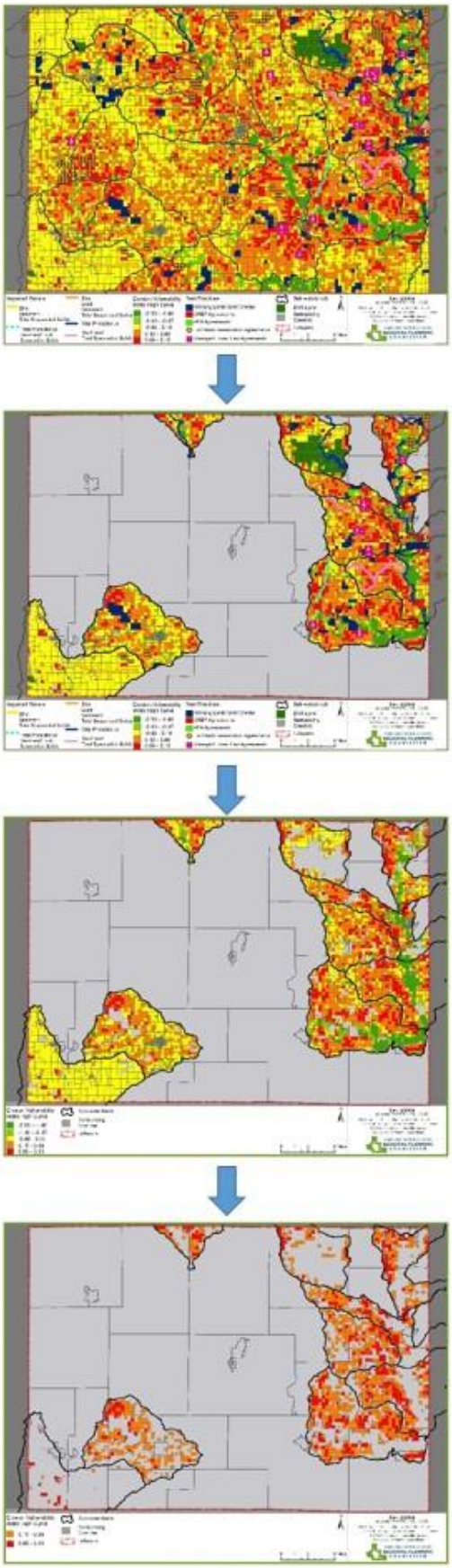
There are over 1,200 farms in Lafayette County covering 368,501 acres. Contacting each farm, preparing plans, and designing and installing all the conservation practices to ensure compliance with the NR 151 nonpoint runoff rules would take several years or many more staff that currently reside with Lafayette County. Therefore, a strategy to identify, contact and work with priority farms is necessary. This would ideally be done by locating the farms that contribute the most to sediment or phosphorus loading into waterways, data collected on annual transect surveys. Lafayette County, like a growing number of counties in the state, has stopped conducting these surveys. As a result, the county is now challenged with finding a new way to identify priority farms for plan implementation.

To facilitate this, SWWRPC created a framework for LCD to identify priority farms. The framework used GIS to select priority farms using the following data: sub-watersheds, parcels, locations of current practices (CREP, MFL, FPP etc.) and soil erosion tool results. This process, summarized below, allows Lafayette County to identify those farms on land that is highly erodible due to natural conditions, and which is located in priority watersheds as defined by those that are impaired or proposed to be impaired. Figures 44 - 45 illustrate this process.

Priority Farm Identification Process:

1. Issue and asset identification: Start with all impaired waters, parcels with soil erosion index, best practice locations, sub-watersheds, and DNR managed land.
2. Target priority watersheds: Remove all sub-watersheds that do not contain impaired or proposed impaired waters (Figure 22).
3. Best practices: Remove all parcels that have been previously identified as having best practices (Figure 37), and DNR managed land.
4. Erosion potential: Remove all parcels that have low erosion potential per the EVAAL tool (Figure 19)
5. "Dissolve" all parcels by farm owner so that implementation can occur at the farm scale, not the parcel scale. The results from this work will be exported into an Excel worksheet for use by the LCD department in their implementation strategy.

Figure 44: Priority Farm Identification Steps 1 - 4



Step 1 – Issue & Asset Identification
Impaired waters
Parcels with soil erosion index
Best practice locations
Sub-watersheds
DNR managed land

Step 2 – Target Priority Watersheds
Remove all sub-watersheds that do not contain impaired or proposed impaired waters (Figure 22)

Step 3 – Best Practices
Remove all parcels that have previously been identified as having best practices (Figure 37), and DNR managed land

Step 4 – Erosion Potential
Remove all parcels that have low erosion potential per the EVAAL tool (Figure 19)

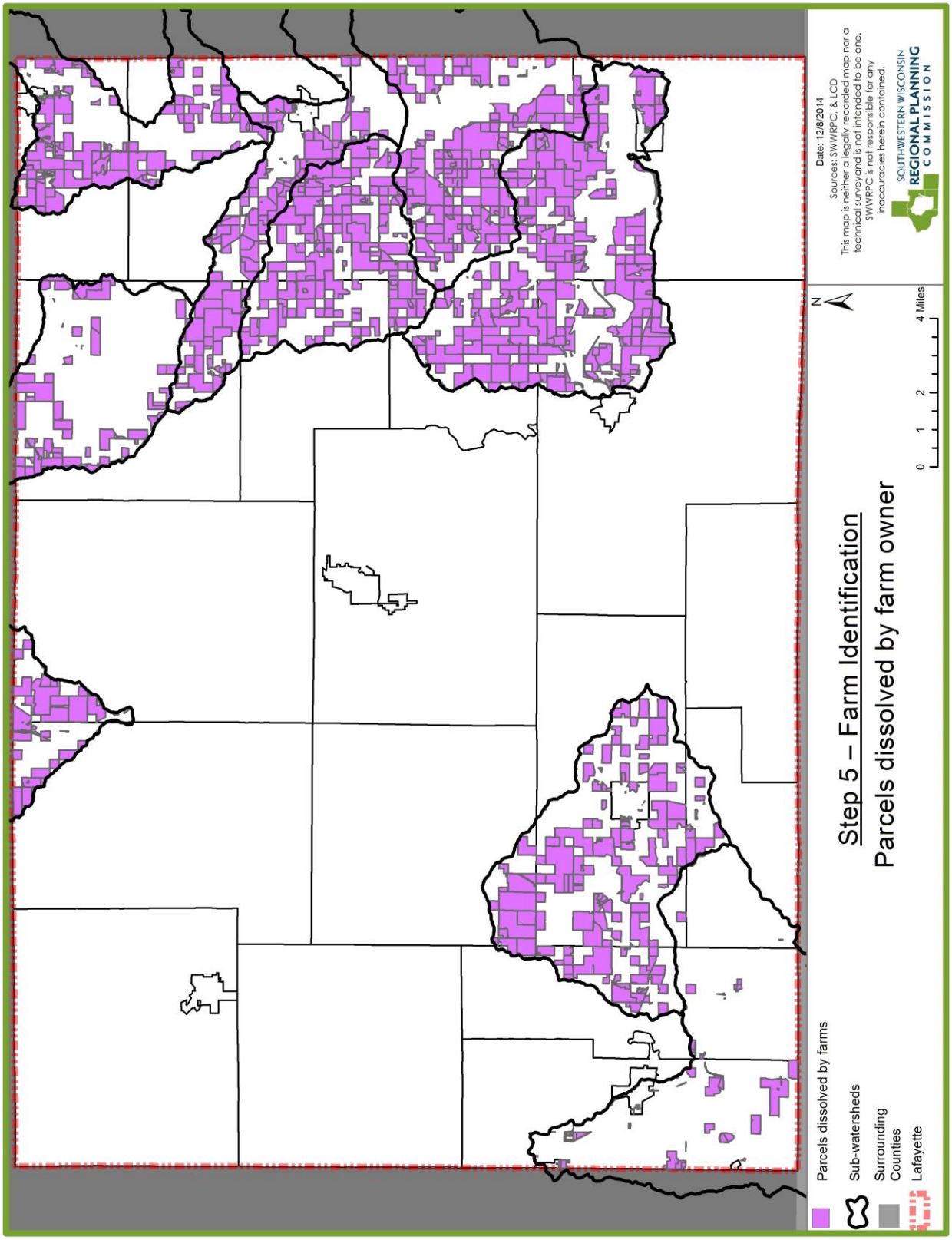


Figure 45: Step 5 - Farm Identification

The following process describes the priority geographic areas for the LCD to place their focus identified throughout the plan development process. The geographic areas are listed in order of importance with clarifying details for the priority area.

1. Yellowstone River and Lake - This watershed has relatively few parcels that are highly erodible, privately held, and without previously identified conservation practices already implemented. This watershed was identified as a priority by the CAC due to its role as "Lafayette County's Gem," and the recognition of the economic and recreational impact it has on the region.
2. Lower East Branch of the Pecatonica River - The CAC also identified this as a priority target area. While this watershed is much too large for a staff of three to manage, specific sub-watersheds within this watershed can be identified as priority areas. Sub-watersheds to focus on are:
    i. Apple Branch Creek - Recognition of this stream's importance as a Trout Stream leads it to being a priority waterway. Trout fishing has a large regional economic impact around the state, a fact that was taken into account when naming it as a priority. Relatively small in geography, outreach to these landowners should be manageable across a period of two years. This stream also has an approved TMDL, meaning that metrics for successful implementation are already in existence.
    ii. Braezels Branch - The benefit of prioritizing this waterways is that metrics for evaluation have already been created. Total allowable loading is identified for sediment and total suspended solids and this information provides not only a good means of measuring success, but also potential funding sources as well. One challenge for managing this waterway is that it reaches into both Lafayette and Green Counties, meaning that inter-county collaboration will need to occur.
    iii. Other impaired waterways as time and resources allow. Some of the prioritization here may be informed as implementation occurs and willing landowners are identified as potential partners in conservation.
3. Tributaries with established TMDLs - TMDLs are identified for:
    i. Cherry Branch, Lower Pecatonica
    ii. Silver Springs Creek, Lower Pecatonica (also a trout stream)
4. Other Trout Streams in the County - Recognition of the importance of these resources for recreational purposes and its economic impact make preservation of good trout fisheries a priority. See Table 4 on page 31 for a list of Trout Streams in Lafayette County.
5. Streams that require collaboration with neighboring counties could provide a united front in addressing impaired waterways, allowing minimal resources to be leveraged for greater benefit. This partnership could also make the counties more competitive for grants. Inter-county impaired waters are:
    i. Brewery Creek (Iowa County)
    ii. Unnamed Tributary to Brewery Creek (Iowa County)
    iii. East Branch of the Pecatonica River (Iowa County)
    iv. Unnamed Tributary to Jockey Hollow Creek (Green County)
6. Waterways with heavy metals in them are the lowest priority. As recognized by the CAC, making these streams a lower priority isn't a statement of their lack of importance. Rather, it's a practical recognition that the LCD has lots to do with minimal resources. Even if the agricultural-related impairments were removed from these waterways, the heavy metals left over from the mining era require massive amounts of funding and many years to address. Given these constraints, the CAC has identified these waterways as low priorities.

Furthermore, Table 12 identifies the conservation practices to achieve compliance and address key water quality and erosion problems revealed by the resource and conservation program assessments. The first six conservation practices in the table are established conservation practices to protect land and water. Through this LWRM Plan process, additional conservation practices were identified as newer conservation practices that should be utilized such as using precision application technology to apply nutrients, and plant tissue testing and analysis to improve nitrogen. The conservation practices are given a priority rank of high, medium, or low, which recognizes the number of land owners that should utilize the conservation practice. The newer conservation practices are given a medium priority because introducing new

conservation practices to land owners is more difficult than encouraging use of recognized conservation practices.

Table 12: Conservation Practices to Achieve Compliance/Address Key Water Quality and Erosion Problems

Watershed	Increase Nutrient Management Plans	Control tillage setbacks	Increase conservation crop rotation	Increase contour farming	Increase grassed waterways	Increase cover crop	Increase use of drift reducing nozzles, low pressures, lower boom height and adjuvants to reduce pesticide drift	Increase precision application technology to apply nutrients	Increase plant tissue testsing & analysis to improve nitrogen management
Yellowstone River (SP04)	High	High	High	Medium	Medium	Medium	Medium	Medium	Medium
Lower East Branch Pecatonica (SP03)	High	High	High	Medium	Medium	Medium	Medium	Medium	Medium
Lower Pecatonica River (SP07)	High	High	High	Medium	Medium	Medium	Medium	Medium	Medium
Middle Pecatonica River (SP08)	High	High	High	Medium	Medium	Medium	Medium	Medium	Medium
Upper West Branch Pecatonica River (SP10)	Low	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium
Little Platte River (GP03)	Low	Low	Medium	Low	Low	Low	Low	Low	Low
Galena River (GP01)	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium
Mineral Point and Sudan Branches (SP09)	Medium	Low	Medium	Medium	Medium	Low	Low	Low	Low
Upper East Branch Pecatonica River (SP06)	Medium	Low	Medium	Medium	Medium	Medium	Medium	Medium	Medium
Jordan and Skinner Creeks (SP02)	Low	Low	Low	Low	Low	Low	Low	Low	Low
Gordon Creek (SP05)	Low	Low	Low	Low	Low	Low	Low	Low	Low

Newly Enrolled Farmland Preservation Program Lands

In addition to the priority outreach identified above, Lafayette County LCD staff will continue to evaluate land that is proposed for new enrollment in the Farmland Preservation Program, either under long-term agreements or under farmland preservation zoning, for compliance with NR 151 nonpoint runoff rules. Owners of land proposed for enrollment under a long-term agreement will be contacted to make them aware of the conservation compliance requirements of the program, and to offer the services of LCD staff to assist them in achieving full compliance with the conservation standards prior to signing the long-term agreement. If landowners do request assistance, LCD staff will evaluate their compliance status, and help them become compliant in any areas where they are determined to be not yet compliant. Owners of land proposed for enrollment under zoning will be assisted on a first-come, first-served basis. Lafayette County LCD staff will monitor landowner compliance with the NR 151 runoff rules under the program.

Information and Education

Since 2008 the Lafayette County LCD, along with the UWEX, and DNR, initiated an information and education (I&E) effort to inform all Lafayette County farmers of the requirements of NR 151. Education and training on specific conservation practices are provided through field days and workshops. LCD uses local newspapers, newsletters, direct mailings, public meetings and workshops, and on-site farm visits to distribute the educational materials produced by DNR, DATCP, NRCS, and the FSA. The materials are designed to:

- Educate landowners about the performance standards and prohibitions, county ordinances, conservation practices, and funding opportunities.
- Promote voluntary implementation of practices necessary to comply with the standards and prohibitions.
- Inform landowners of requirements and compliance procedures and the role LCD will have within those procedures.
- Make landowners aware of expectations for compliance and consequences of non-compliance.
- Act as a liaison between landowners/land users and decision makers/appropriate government agencies to ensure that current ordinance information is available. Provide planning and technical assistance to ensure ordinances related to soil and water resources are followed in the County.

Working with staff of the Lafayette County Farm Service Agency (FSA), UWEX, NRCS, DNR, and others, the Lafayette County LCD will carry out various information and education activities designed to achieve the goals and objectives established in this plan. It is intended that these activities will raise awareness of land and water resource issues among rural landowners and land operators, among local and state legislators, and among the general public. Information and education programs are crucial to the success of any plan. The Lafayette County LCD has several well-established programs in place. Lafayette County LCD will continue to use these to inform the landowners of the need to protect and enhance the county's natural resources. See Appendix E for the 2012 Annual Report for Lafayette County LCD Activities & March 2014 Newsletter

Specific work activities proposed to raise awareness and to help achieve plan goals and objectives include, but are not limited to the following:

- Engaging in educational outreach on a one-on-one basis twice a month for 24 annually.
- Annually prepare and distribute 20 – 25 general circulation news releases.
- Annually prepare and distribute news articles in 5 – 6 issues of a multi-agency electronic newsletter.
- Work cooperatively with other partner conservation agencies to organize 2-4 half day field days on county farms to highlight the environmental and economic benefits of various conservation practices.
- Work cooperatively with other partner conservation agencies to organize 1-2 tours for Lafayette County farmers to view conservation success stories.
- Work cooperatively with other partner conservation agencies to sponsor 1-2 annual workshops for farmer manure and nutrient management planner training, for farmer nutrient management planner recertification, and for intensive rotational grazing.
- Advertise eligible conservation programs to county farmers and rural landowners as they become available.
- Pursue speaking engagements at farmer and rural landowner meetings, at schools, at civic functions, and on local radio programs where land and water conservation information can be presented.
- Increase participation in the Tree Program.

FOR LAND'S SAKE

Volume 5, Issue 1
September 19, 2014

TREE ORDERS COMING IN OCTOBER

Due to the length and severity of last year's winter, the nursery has recommended that we place our orders early. The LCD Tree Order forms will be available in October, and will be due back in November. We will send them out to this e-mail list and also to our mailing list (previous orders & requests). If you know someone who would like to be added to the list, please have them contact our office at (608) 776-3836 or e-mail nikkilarson96@yahoo.com

- Delivery will be in late April or Early May
- Please Do Not send payment with your orders. Payment will be at the time of delivery.

IMPLEMENTS OF HUSBANDRY (IOH)

From UWEX: Implement of Husbandry
What is an Implement of Husbandry (IOH)?
Wisconsin Statute 340.01 (24)(a) – Provides the general definition of an Implement of Husbandry. This means a vehicle or piece of equipment or machinery designed for agricultural purposes used **exclusively** in conduct of agricultural operations & used principally off the highway or a trailer-mounted bulk-liquid fertilizer container. Truck mounted TMR mixers, manure tankers, forage boxes or other CMV conversions are not considered implements of husbandry. These trucks need to be registered, have an annual inspection, & licensed operators.

When would a farm tractor not be considered an IOH?
A farm tractor being used in place of a motor vehicle is a situation when the tractor would not be considered an IOH. A youth driving a tractor to school or an individual not possessing a valid driver's license using a farm tractor in place of the motor vehicle are examples of this situation.
. Does the operator need a valid WI drivers license?
The IOH operator does not need a valid WI drivers license. However, when operating on public roads it is recommended for the operator to possess a valid driver's license. There are many rules of the road to know and the increased volume of good defensive driving skills important.

DATCP, WI DOT, and UWEX have also worked on some videos to help understand the new rules. There is a series of nine from DATCP at www.youtube.com/user/widatcp/videos which include the new definitions, weight limits, lighting & markers, rules of the road, and local options. At the UWEX website http://fyi.uwex.edu/ioh/ is a video supplement for in-person trainings from around the state. At the WI DOT website is http://www.dot.wi.gov/business/ag/ioh.htm where you can find more details on IoH/AG CMV definitions & weight limits. Until Jan. 15, 2015 State Patrol will issue warnings only, operators are still subject to county and local ordinances and enforcement.

"Love the trees until their leaves fall off, then encourage them to try again next year."

Inside This Edition:

Special points of interest:
- Implements of Husbandry Rules
- Soil Health
- Conservation Award Winners
- Family Fun
- Harvest Safety
- Who We Are & How To Reach Us

LCD Newsletter

Regulatory Administration

The first step in implementation is good administration. If existing ordinances and laws are not effectively administered, new programs and initiatives cannot expect to be successful. The Lafayette County LCD will collaborate with local, state, and federal agencies along with many private organizations to implement the goals of this plan. The following actions are proposed as a multi-faceted approach to soil and water resource management in the county, and are informed by the data collection and analysis and public outreach that occurred during the planning process.

The Workplan at the end of this section provides a summary of all actions to be taken to implement this plan, and includes an estimate of hours and finances required to implement the plan. It should be recognized that implementation of all strategies in the workplan is impossible given the manpower and fiscal constraints of the Lafayette County LCD. For instance, the total hours required to implement all strategies is 9,485, just 915 hours short of the entire departmental workforce's annual hours. Pursuing only the priority actions accounts for 4,778, just under half of the entire hours for the department. In light of this resource shortage, the implementation strategies below have been prioritized so that they will be undertaken in the most efficient manner practicable.

Compliance Determination

On-site evaluation will be the primary means of determining compliance with county ordinances and state regulations. After completion of the on-site evaluation, landowners will receive the following:

- A copy of a site evaluation report with a landowner signature page.
- A letter with instructions regarding appeal procedures if the landowner contests the evaluation.
- Recommendations for measures needed to achieve compliance.
- A schedule for achieving compliance.

A list of available sources of cost share funds to install the recommended practices.

Complaints

Lafayette County LCD staff have historically accompanied and assisted DNR staff on investigations of complaints regarding NR 151 violations. The Lafayette County Land Conservation Committee intends to continue providing that assistance by LCD. The determination as to whether a site is compliant with state runoff rules will be made by the DNR, without input provided by LCD staff. It will be the DNR's responsibility to generate and issue the various compliance letters associated with these farm contacts. Given adequate financial and human resources, it will continue to be the county's responsibility to provide technical planning, design and construction inspection services to correct non-compliant sites. The county, with the assistance of DNR staff, will also attempt to secure financial resources needed to make an official offer of cost sharing in order to correct non-compliant sites. Lafayette County LCD staff will record and track landowner/parcel compliance after it has been determined that specific land parcels have been found to be in compliance, or have been brought into compliance, with NR 151 runoff rules.

Enforcement

Enforcement of actions associated with NR 151 will be coordinated with the DNR. If a landowner continues to remain in non-compliance with the state performance standards, or should a landowner refuse technical and/or financial assistance from the LCD, the LCD will forward all necessary information to the DNR and will notify the landowner(s) by registered mail that they are subject to an enforcement action pursuant to NR 151. The landowners are cited and offered cost share assistance. If there is no landowner cooperation, then continually citations will be sent and no cost share is offered.

Appeals

Landowners wishing to appeal may do so by filing a written appeal with 30 days of the notification. A hearing on the appeal shall be commenced with 60 days of the date of the appeal.

Monitoring & Evaluation

The efforts required to restore and protect streams and rivers within Lafayette County will take time and involve many different people, organizations, and agencies. The LCD conducts annual reporting, assessing county-wide progress along the way will be critical for a number of reasons, including:

- Inform stakeholders and policymakers of progress.
- Understand the benefits of the efforts being made.
- Focusing resources where they can provide the biggest benefit.
- Adapting the implementation plan and efforts in response to knowledge gained.

Three key ingredients that are needed to make the most of lessons learned throughout implementation include:

- Water quality monitoring.
- Implementation tracking.
- Reevaluating the workplan annually for the next 10 years.

The information and education portion of the LWRM Plan will be reviewed annually to determine its effectiveness. In addition, the LCD will complete a self-evaluation of their efforts using this LWRM Plan implementation strategy and setting annual goals based on previous performance and future targeted implementation strategies. This self-evaluation includes a progress tracking method, which will utilize the excel worksheet produced from the EVAAL toolset. The Excel worksheet contains the parcel numbers of identified priority farms that need to checked for best management practices within priority watersheds.

The LCD should use the Excel worksheet to identify owners to contact by watershed. The worksheet will contain several columns such as parcel number to identify owner, a date an information letter and materials about available programs was sent, dates the owner was contacted, and programs the owner selected. LCD should keep in mind that several parcels could be owned by the same owner and should filter the table by watershed, and then by owner name to eliminate contacting an owner more than once. At the end of the year, the LCD can calculate the number of owners contacted, and number of BMPs implemented. This will be reflected in the annual accomplishment report with a summary of each activity. The LCD, along with NRCS and/or UWEX, will evaluate levels of success for each activity by reviewing:

- Citizen participation at meetings.
- Number of cost share agreements signed.
- Assistance requested.
- BMP's adopted.
- Site visits completed.

Funding Sources to Pursue

Grant Deadline

Targeted Runoff Management (TRM) Grant Program – This grant program offers competitive grants for local governments for controlling NPS pollution. Grants reimburse costs for agriculture or urban runoff management practices in targeted, critical geographic areas with surface water or groundwater quality concerns. Grant monies may fund the construction of BMPs to control NPS pollution. They can also fund DMP design as part of a construction project. The cost-share rate for TRM projects is up to 70% of eligible costs. Municipal employee force account work may be reimbursable up to 5% of the total project reimbursement.

Notice of Intent/Discharge Cost-Share Grants – The DNR and DATCP offer cost-share funding grants to governmental units working with owners and operators of livestock operations to meet pollution control requirements imposed by the DNR. Eligible projects are those designed to implement BMPs for improving water quality impaired by pollution discharges at an animal feeding operation satisfying the conditions of the NOD or NOI. Ineligible projects are those that address previously in-compliance, were included in a previous offer of cost-sharing, cover routine maintenance and operation of BMPS, or cover a significant expansion of the livestock operation.

Aquatic Invasive Species – Aquatic Invasive Species (AIS) Control Grants help prevent and control the spread of aquatic invasive species in the waters of the state. These grants can be used for education, prevention, planning, early detection, rapid response and established infestation control projects. Counties, cities, towns, villages, tribes, public inland lake protection and rehabilitation districts, and town sanitary districts and other local governmental units, qualified lake associations, qualified school districts, qualified nonprofit organizations, river management organizations, and land management agencies are eligible to apply for funding for an aquatic invasive species prevention and control grant for any waters of the state including lakes, rivers, streams, and wetlands.

River Protection Planning and River Protection Management Grants – River planning grants assist in the formation of a qualified river management organization or in strengthening an existing organization; protection or improvement of rivers and their ecosystems; river improvement education projects; assessments and plan development. River management grants are available for purchasing land or conservation easements, local ordinance development, installation of nonpoint source pollution control practices and river restoration activities. They may also be used for education, planning and design activities necessary for completion of a management project.

Lake Planning and Protection Grants – Counties may apply for planning and protection grants for eligible projects such as purchase of land or conservation easements, restoration of wetlands and shorelands that will protect a lakes water quality or its natural ecosystem, and development of local regulations or ordinances to protect lakes and the education activities necessary for them to be implemented. The grants may fund up to 75 % of project costs.

Administrative Recommendations

- Contact the UW-Platteville Departments identified as internship partners biannually to obtain an intern to assist with various LCD work. For example, a Social Media Studies intern can develop new social media strategies for workshops and training. A Geography intern could assist with GIS edits and maintenance while presenting new GIS technology.
- Use the LWRM Plan to identify workplan schedules and priorities for working with partner agencies and associated programs, with the end goal of ensuring that the highest level of natural resource conservation and protection services are provided to the people of Lafayette County.
- Support new ordinances and ordinance modernization. Incorporate ordinance revisions and standards into the LWRM Plan as they become available.
- Apply for grants identified on pages 72 and 73.
- Attend state and local training to keep up-to-date on the newest issues and practices in land and water resource management.
- Improve records keeping and data collection for all field visits, well tests, permits issued, and other work. Good data collection and recording can provide valuable tools to target future work at the parcel, farm, or watershed level.
- Use GIS as a tool to identify priority geographies and minimize inefficient implementation. For instance, conduct all spot checks in the priority watersheds identified in the Priority Farm Identification section above.
- As an additional measure the LCD should prepare a memorandum of understanding with DNR for NR 151 standards.

LCD Workplan

As a way to identify and plan for the next 10 years the Land and Water Conservation Board requests that the LCD prepare and follow a workplan with 10 requirements for benchmarking and priority farm strategies. While the plan considered a 10 year timeframe in the plan development process, the workplan reflects a five year workplan to be reviewed in five years and a new workplan produced taking into consideration past activities and accomplishments, and new priorities. The five year workplan took into consideration the established activities already in place, additional activities revealed throughout the LWRM Plan development process, and the CAC's perspective. The County's LWRM Plan goals are highlighted under each benchmark, and it contains educational initiatives that are aimed at achieving the goals outlined in the plan. Throughout the implementation of the LWRM Plan, the LCD will conduct annual reviews of its progress and will make any necessary adjustments. Similarly, the plan will be affected by changes in workloads and funding availability. Annual reports will be generated and forwarded to DATCP and other partnering agencies for further program review. The workplan begins on page 75.

2016 - 2020 Lafayette County Workplan

(1) Implementation of performance standards for farms						
Objectives	**Actions**	**Who (Lead Agency)**	**When**	**Staff & other costs**	**Anticipated annual outcomes**	**Informational & Educational Tools**
Reduce sediment delivery.	Inventory FPP Participant farms for conservation compliance	LCD	Annually	1,000 staff hours ($40,000)	50 farms certified in compliance	LCD UWEX
	Install agricultural BMPs to reduce soil erosion	LCD	Annually	1,000 staff hours ($40,000)	51 farms certified in compliance	LCD UWEX
	Conduct farmer training nutrient management workshops	LCD DATCP UWEX	Annually	1,000 staff hours ($40,000) $200,000 cost-share	100% of cost-share funding available is spent in the county	LCD - Brochures, Newsletters, factsheets, local newspaper, direct mailing NRCS standards
	Write nutrient management plans	LCD NRCS	Annually	100 staff hours ($4,000) $140,000 cost-share	NM plans written for 1,500 acres annually	LCD UWEX
	Encourage CRP/CREP enrollment of sensitive lands	LCD NRCS FSA UWEX	Annually	Staff costs included under Objective 1 and Action 3	100 acres enrolled in CRP	LCD Brochures, newsletters
	Promote conservation practices that reduce sediment delivery to surface waters	LCD NRCS	Annually	Staff costs & cost-share included under objective 1 action 4	2 farmers convert to no-till: 1,500 acres of residue management, 500 new acres under cover crop	LCD - Brochures, Newsletters, factsheets, local newspaper, direct mailing NRCS UWEX
LWRM Plan priority goal						

2016 - 2020 Lafayette County Workplan

(2) Implementation of stormwater management and related urban standards						
Objectives	**Actions**	**Who (Lead Agency)**	**When**	**Staff & other costs**	**Anticipated annual outcomes**	**Informational & Educational Tools**
Ensure erosion control and stormwater management standards are met	Educate landowner/business on proper use of fertilizer in non-ag situations	LCD	Annually	40 staff hours ($1,200)	Hold 1 workshop annually with landowners/business on proper use	Provide factsheets to local governments
	Integrate GIS tracking of permitted sites	LCD Land Records	Annually	300 staff hours ($12,000)	600 erosion control permits are geolocated to facilitate inspection	Land Records GIS website
Encourage practices that treat stormwater as an asset	Encrourage rain gardens, native plantings, and constructed wetlands into site landscaping plans	LCD UWEX DNR	Annually	10 hours ($400)	Hold 2 workshops annually with gardeners, landscaping companies, and others on rain barrels, rain gardens, and constructed wetlands	LCD - Brochures, Newsletters, factsheets, local newspaper
LWRM Plan priority goal						

2016 - 2020 Lafayette County Workplan

(3) Farmland Preservation conservation compliance						
Objectives	**Actions**	**Who (Lead Agency)**	**When**	**Staff & other costs**	**Anticipated annual outcomes**	**Informational & Educational Tools**
Preserve productive farmland	Update Lafayette County Farmland Preservation	SWWRPC LCD	2015	20 LCD staff hours ($600) 740 SWWRPC staff hours	FPP plan updated	LCD newsletter, local paper, SWWRPC website UWEX website DATCP website
	Monitor compliance on FPP participants	LCD NRCS UWEX	Annually	400 staff hours ($16,000)	compliance monitoring on 10 FPP participants	LCD newsletter, local paper, UWEX website DATCP website
Enroll highly erodable lands into CRP/CREP	Encourage CRP/CREP enrollment of sensitive lands	LCD NRCS FSA UWEX	Annually	Staff costs & cost-share included under Objective 1, Action 4	100 acres enrolled in CRP	LCD newsletter, local paper
LWRM Plan priority goal						

2016 - 2020 Lafayette County Workplan

(4) Groundwater Protection: Quality and Quantity						
Objectives	**Actions**	**Who (Lead Agency)**	**When**	**Staff & other costs**	**Anticipated annual outcomes**	**Informational & Educational Tools**
Seal/protect direct conduits to groundwater to prevent contamination	Conduct well decommissiong field day	UWEX LCD NRCS	Annually	10 staff hours ($400)	field day attended by 30 landowners	LCD website newsletter, local paper, flyers, field day
	decommission wells as identified	LCD NRCS		40 staff hours ($1,600) $1,000 cost-share	5 wells decommissioned	LCD website newsletter, local paper, flyers, field day
Identify and protect springs in Lafayette County	Inform landowners about detrimental effects of grazing, tiling, cropping, drainage, spraying, and building ponds on springs and groundwater	LCD, USGS	Annually	10 staff hours ($400)	Springs are identified and voluntarily protected	LCD newsletter, local paper, flyers, USGS
	encourage preservation of spring recharge areas during the plan review process			included in plan review process		
	encourage use of buffers to protect springs			included in plan review process		
LWRM Plan priority goal						

2016 - 2020 Lafayette County Workplan

(4) Groundwater Protection: Quality and Quantity						
Objectives	**Actions**	**Who (Lead Agency)**	**When**	**Staff & other costs**	**Anticipated annual outcomes**	**Informational & Educational Tools**
Inform, educate, assist residents	Water testing at fair	LCD UWEX	Annually	200 hours ($6,000)	50-75 water tests per year	LCD - county fair
	Earth Day Celebration	LCD UWEX NRCS	Annually	300 hours ($9,000)	educate 250 students about our natural resources	LCD - flyer
	Information and education fair	LCD UWEX	Annually	350 hours ($10,500)	educate 100 people each year	LCD newsletter, local paper, flyers,
	Offer cost-share and Bentonite screen for well abadonment	LCD UWEX	Annually	165 hours ($4,950) $22,000 cost-share	10 -12 wells per year	LCD news article, flyers, direct mailings UWEX website
	Work with DNR to educate/assist landowners on need to reclaim old mine sites	LCD DNR	Annually	200 staff hours ($6,000)	reclamation of old mine sites	LCD news article, flyers, direct mailings DNR website
LWRM Plan priority goal						

2016 - 2020 Lafayette County Workplan

(5) Permit and ordinance administration						
Objectives	**Actions**	**Who (Lead Agency)**	**When**	**Staff & other costs**	**Anticipated annual outcomes**	**Informational & Educational Tools**
Administer the county manure storage ordinance	Educate landowners about the Animal Waste Prohibitions	LCD UWEX NRCS	Annually	10 staff hours ($400)	Host 1 permitee annual meeting and no violations	LCD newletter, local paper, flyers, NRCS DNR website UWEX website
	Conduct spot checks of nutrient management plans	LCD		208 staff hours ($8,320)	52 nutrient management plans inspected	LCD NRCS DNR website, handouts UWEX website
	Issue manure storage permits	LCD		20 staff hours ($800)	5 new storage facilities; 1 facility properly abandoned	LCD newletter, local paper, flyers
Administer non-metallic mining ordinance	Issue non-metallic mining permits as required Verify mine reclamation plan is compliant	LCD	Annually	52 staff hours ($2,080)	Permit application meets requirements of non-metallic mining ordinance	LCD annual meeting to permit holders
Administer livestock facility siting ordinance	Ensure permit application complies with technical requirements of	LCD DATCP	Annually	800 staff hours ($24,000) and cost -share under Item (1) objective 1 action 4	5 new facilities	LCD DATCP
LWRM Plan priority goal						

2016 - 2020 Lafayette County Workplan

(6) Lake and stream protection (e.g. shoreline protected, invasive species management)						
Objectives	**Actions**	**Who (Lead Agency)**	**When**	**Staff & other costs**	**Anticipated annual outcomes**	**Informational & Educational Tools**
Work with landowners and agencies to minimize soil erosion and protect water quality	Maintain and evaluate shoreland buffers and shoreland restoration contracts	LCD DNR	Annually	40 staff hours ($1,600)	Monitor 5 restoration sites each year for compliance to county operation and maintanence contracts, effectiveness in erosion protection, and recovery of	LCD newsletter, flyers
	assistance and cost-sharing funding for shoreland restoration, erosion control, and near shore habitat recovery	LCD DNR	Annually	200 staff hours ($8,000)	Install 5 shoreline protection BMPs to reduce erosion and improve near-shore habitat recovery	LCD newsletter, flyers
	Improve navigability, and clean up of the Pecatonica River	Alliance DNR LCD	Annually	40 staff hours ($1,200)	5-10 snags per year	LCD newsletter
	Prioritize project sites with significant erosion impacts	LCD DNR	Annually	30 staff hours ($1,200)	Partner with individuals, municipalities, and organizations to investigate/identify 3 culverts or ditches annually that may allow sediment to travel to adjacent waterways	LCD
LWRM Plan priority goal						

2016 - 2020 Lafayette County Workplan

(6) Lake and stream protection (e.g. shoreline protected, invasive species management)						
Objectives	**Actions**	**Who (Lead Agency)**	**When**	**Staff & other costs**	**Anticipated annual outcomes**	**Informational & Educational Tools**
Work with landowners and agencies to minimize soil erosion and protect water quality	Installation of rip/rap Lunkers, grassed waterways, promoting rotational grazing	LCD NRCS	Annually	640 staff hours ($19,200)	rip/rap lunkers - 2 projects/year, grassed waterways - 1 each year	LCD Distribute brochures, news articles, workshops
	Write TRM grant for projects	LCD	Annually	200 staff hours ($8,000)	Approved TRM grant	LCD newsletter
Protect aquatic ecosystems from non-native invasive species	Disseminate information about terrestrial invasive species ID, prevention, management, and control	LCD DNR UWEX	Annually	200 staff hours ($8,000)	host 5 annual presentations and 2 annual workshops about aquatic invasive species ID, prevention, management, and control	LCD UWEX DNR
	Train citizens and volunteer groups to identify aquatic and terrestrial invasive species	LCD DNR UWEX	Annually	10 staff hours ($400)	coordinate 2 annual programs to train individuals	LCD newsletter, flyer, UWEX DNR
	Apply for AIS Grants	LCD	Annually	5 staff hours ($200)	Write and apply for AIS grants made available	LCD newsletter
LWRM Plan priority goal						

2016 - 2020 Lafayette County Workplan

(7) Watershed protection (e.g. Phosphorus reduction/trading, TMDL, Nitrogen management						
Objectives	**Actions**	**Who (Lead Agency)**	**When**	**Staff & other costs**	**Anticipated annual outcomes**	**Informational & Educational Tools**
Establish local trading workgroup and begin pilot nutrient trading program	Host meetings among perspective trading partners	LCD, DNR, Farm Bureau	Annually	120 hours ($4,800)	6 meetings among potential trading partners. Potential win-win outcomes identified	LCD newsletter, flyers, local paper DNR
	potential trading partners and DNR/EPA to establish parameters for verifiable reductions	LCD DNR Farm Bureau	Annually	120 hours ($4,800)	Partner agencies determine how to verify pollutant reductions	LCD newsletter, flyers, local paper DNR
	Select pilot projects for nutrient trading	LCD DNR Farm Bureau	Annually	10 staff hours ($400)	Primary and backup sites selected for pilot project	LCD newsletter, flyers, local paper DNR Partners
	Install monitors and BMPs to verify pollutant reductions	LCD DNR Farm Bureau	Annually	100 staff hours ($4,000) $5,000 cost-share	Monitoring site installed and monitoring begun prior to BMP installaion	LCD newsletter, flyers, local paper DNR
	Review trading pilot and assess program continuation	LCD DNR Farm Bureau	Annually	120 staff hours ($4,800)	Final report completed, with proven or modeled pollutant reductions identified	LCD
Yellowstone Watershed	Peform status reviews	LCD	Annually	80 staff hours ($2,400)	Complete 2 per year	LCD Newsletter
LWRM Plan priority goal						

2016 - 2020 Lafayette County Workplan

(8) Program evaluation and monitoring						
Objectives	**Actions**	**Who (Lead Agency)**	**When**	**Staff & other costs**	**Anticipated annual outcomes**	**Informational & Educational Tools**
Assess water quality	Support citizen-based monitoring	LCD Local partner	Annually	20 staff hours ($800)	Better informed citizens	LCD semi-annual meetings, newspaper article
	Install county monitoring equipment on designated streams	LCD Local partner	Annually	100 staff hours ($4,000) $2,000 (monitoring equipment O & M	Continous water quality information on streams	LCD Local partner presentations
Inform County Board and citizens of progess	Report to County Board	LCD	Annually	10 staff hours ($400)	Support for departments programs	LCD newsletter, news paper article highlighting progress
Inform DATCP of progress	DATCP report	LCD	Annually	5 staff hours ($200)	Support for departments programs	LCD annual report
LWRM Plan priority goal						

2016 - 2020 Lafayette County Workplan

(9) Spending of state cost-share funds						
Objectives	**Actions**	**Who (Lead Agency)**	**When**	**Staff & other costs**	**Anticipated annual outcomes**	**Informational & Educational Tools**
Prioritize cost-share dollars for high-return practices	Calculate practice effectiveness prior to offering cost-share	LCD	Annually	100 staff hours ($4,000)	cost-share is spent to maximize water quality improvements	LCD newsletter
Use LWRM plan as tool to acquire additional cost-share and staffing dollars from other	Apply for additional grants based on LWRM plan priorities and proven accomplishments	LCD		500 staff hours ($20,000)	Grants worth $100,000 are awared to further attain the LCDs goal	LCD newsletter
Maintain appropriate records	Monitor contracts to ensure practices are maintained appropriately for the life of the contract	LCD NRCS		100 staff hours ($4,000)	Contracts requiring a practice be sustained for 20 years are still effectively sustained after 20 years	LCD newsletter DATCP NRCS
LWRM Plan priority goal						

2016 - 2020 Lafayette County Workplan

(10) Forestry management						
Objectives	**Actions**	**Who (Lead Agency)**	**When**	**Staff & other costs**	**Anticipated annual outcomes**	**Informational & Educational Tools**
Provide technical assistance for forestry BMPs	Evaluate & correct erosion stability, and location problems on existing forest roads, recreational trails, landings, and crossings with a focus in sub-watersheds	LCD NRCS	Annually	200 staff hours ($8,000)	5 forest roads located to reduce erosion; 1 landing re-sted to less environmentally sensitive area	LCD newsletter, flyers
Inform public of resources available for forest management	Educate farmers about forest management during farm vists	LCD County Forester NRCS	Annually	300 staff hours ($12,000)	2 additional landowners per yer	LCD factsheets, LCD newsletter, direct mailings
Provide tools for woodland management	Conduct tree & shrub sale	LCD DNR forester	Annually	Maintain planter & sprayers ($300)	rent planter to 10 people	LCD
	Provide tree planter, spuds, & sprayers to landowners	LCD DNR NRCS	Annually		sell 20,000 - 25,000 trees	LCD newsletter, flyers, FSA newsletter, DNR bulletin
LWRM Plan priority goal						

Appendix A: LWRM Plan Invitation

Lafayette County Conservation and Zoning Office

1900 Ervin Johnson Drive
Darlington, WI 53530-9271
Phone: (608) 776-3836

March 11, 2014

Dear Participant

In order for the Land Conservation Depeartment (LCD) to obtain funds from the Department of Agriculture, Trade, and Consumer Protection (DATCP) and Department of Natural Resources (DNR); we are required to develop LWRM plan. The plan is necessary for LCD to receive staff funding and cost-share grant monies. This plan shows how we intend to implement conservation in Lafayette County in the coming years. Our current plan was written for 2008-2012, then extended to 2015.

A vital part of the process is assembling a local advisory committee to assist in the development of the plan. Behind this idea is the thought that a diverse mix of interested groups and individuals such as landowners, local government officials and staff, educators, basin partner teams, interest groups, and citizens will have the best idea of the needs and concerns of the county in which they live. The main purpose of the local advisory committee is to:

- Help identify problem areas and conservation issues and concerns;
- Provide information and technical data for the plan;
- Assist with preparing the plan;
- Review and comment on the plan as it develops

The survey results, land and water data results, and community feedback will be reviewed at the committee meeting on March 26th, where lunch will be provided.

Our second local advisory committee meeting will be:

Wednesday, March 26th at 11:30 A.M.
Talmer Bank Community Meeting Room
15815 State Road 81
Darlington, WI 53530

Please RSVP to me no later March 17th by phone (608)-342-6005 or by email. If you have any questions regarding the planning process, please contact me at (608) 342-6005 or the Land Conservation Department (608) 776-3836 ext. 123.

Sincerely,

Katherine Burk, Assistant Planner
Southwestern Wisconsin Regional Planning Commission

p.p. Terry Loeffelholz
Lafayette County Conservation & Zoning Manager

Lafayette County Conservation and Zoning Office

1900 Ervin Johnson Drive
Darlington, WI 53530-9271
Phone: (608) 776-3836

June 20, 2014

Dear Participant

I am writing to request your participation on the local advisory committee for the Lafayette County Land and Water Resource Management (LWRM) Plan development process.

In order for the Land Conservation Depeartment (LCD) to obtain funds from the Department of Agriculture, Trade, and Consumer Protection (DATCP) and Department of Natural Resources (DNR); we are required to develop LWRM plan. The plan is necessary for the Land Conservation Dept. (LCD) to receive staff funding and cost-share grant monies. This plan shows how we intend to implement conservation in Lafayette County in the coming years. Our current plan was written for 2008-2012, then extended to 2015.

You were suggested as a great resource to help identify the resource concerns of Lafayette County. We are holding a local advisory committee meeting to discuss goals and objectives the Lafayette Conservation Department should focus their attention. The local advisory committee meeting will be held on June 26, where lunch will be provided.

This is where you come in; we are offering you an invitation to participate in our planning process to help develop our goals for the coming years. The local advisory committee meeting will be:

Thursday, June 26th at 11:30 A.M.
Talmer Bank Community Meeting Room
15815 State Road 81
Darlington, WI 53530

Please RSVP to me no later June 24th by phone (608)-342-6005. If you have any questions regarding the planning process, please contact me at (608) 342-6005 or the Land Conservation Department (608) 776-3836 ext. 123.

Sincerely,

Katherine Burk, Assistant Planner
Southwestern Wisconsin Regional Planning Commission

p.p. Terry Loeffelholz
Lafayette County Conservation & Zoning Manager

Appendix B: CAC Meeting Agendas

Lafayette County
Land and Water Resource Management Plan

Meeting Held: March 26th, 2014
11:30am – 1:00pm
Talmer Bank Community Meeting Room
15815 State Road 81
Darlington, WI 53530

Katherine Burk	SWWRPC	k.burk@swwrpc.org	(608) 342-6005
Troy Maggied	SWWRPC	t.maggied@swwrpc.org	(608) 342-1636
Terry Loeffelholz	Land Conservation/Planning and Zoning	terry.loeffelholz@lafayettecountywi.org	(608) 776-3836

AGENDA

1) Welcome/Introductions
2) Plan Process Review
    a. Timeline
3) Survey Results
    a. Statewide Agricultural Performance Standards
    b. Land Use
    c. Resource Concerns
4) Maps and Data findings
5) Questions and Comments
6) Discuss Next Steps
    a. Discussion of Objectives/Actions for Resource Concerns

Lafayette County
Land and Water Resource Management Plan

Meeting Held: June 26th, 2014
11:30am – 1:00pm
Talmer Bank Community Meeting Room
15815 State Road 81
Darlington, WI 53530

Katherine Burk	SWWRPC	k.burk@swwrpc.org	(608) 342-6005
Troy Maggied	SWWRPC	t.maggied@swwrpc.org	(608) 342-1636
Terry Loeffelholz	Land Conservation/Planning and Zoning	terry.loeffelholz@lafayettecountywi.org	(608) 776-3836

AGENDA

1) Meeting Outcomes

2) Maps & data

3) Goals & Objectives

    a. Activity

4) Geographic Prioritization

5) Project & Strategy Roundtable

6) Next Steps

    a. Andrew Craig

Appendix C: Meeting Participants

SIGN-IN SHEET

Lafayette County – Land and Water Resource Management

Kick-off Meeting
March 26th, 2014
11:30 am
Talmer Bank Community Meeting Room

NAME	COMMUNITY AFFILIATION (e.g. list agency or organization)	EMAIL/PHONE (Please enter best contact method if no email)	SIGNATURE
Bartels, John	LCC	pbartls@yahoo.com	
Bartz, Meissa	NRCS	melissa.bartz@wi.usda.gov	
Bay, Ted	UWEX	Ted.Bay@ces.uwex.edu	
Bondele, Arleigh	SW Leadmine Region AEA	bondelesbluff@gmail.com	
Burbach, Ron	Ducks Unlimited	burbach1741@yousq.net	
Carpenter, Steve	Farmer	stevecarp@redrockviewfarms.com	
Carper, Cara	SW Badger	cara.carper@swbadger.org	
Compton, Peggy	UWEX	peggy.compton@ces.uwex.edu	
Eastlick, Jeff	Ag Teacher		
Gerlich, Ryan	NRCS	ryan.gerlich@wi.usda.gov	
Gould, Mike	Conservation Groups		
Hammer, David	LCC	davidhammer@centurytel.com	
James, Ed	Conservation Groups/Farmer	Jamesej@huges.net	
Jeff Russell, Talmer Bank	Banker	jrussell@talmerbank.com	
Larson, Jack	Township Rep/Farmer	jacklarson1@gmail.com	
McDaniel, Carol	Bluebird Society		
Olthaffer, George W.	Grain/Cattle farmer		

Lafayette County LWRM Plan - Local Advisory Meeting March 26th, 2014

NAME	COMMUNITY AFFILIATION (e.g. list agency or organization)	EMAIL/PHONE	SIGNATURE
Parr, David	Produce Aggregator/Amish Liaison		
Place, Pat	Dairy/Cattle Farmer		
Roelli, Steve	Realtor		
Sauer, Jack	Co. Board Chair		
Shea, Patrick	LCC	Pjshea5656@gmail.com	
Singer, Matt	DNR Forester	matthew.singer@wisconsin.gov	
Stauffacher, Jay	Farmer		
Thomas, Ted	Realtor/Farmer	athomas@talmerbank.com	
Vosberg, Dan	Dairy Farmer/Grazer	drvosberg@wekz.net	
Wang, Alice	FSA Representative	Wangfarm@centurytel.net	
Webster, Nick	WDNR Warden	Nicholas.Webster@Wisconsin.gov	
Wiegel, Jack	LCC	ritawiegel@yahoo.com	
Wilson, Keith	Organic Dairy Farmer	organicwilly@gmail.com	
Winn, Jim	Dairy farmer	JWinn.Cottonwood@gmail.com	
Wolfe, Leon	LCC	leonnwolfe81@gmail.com	
Yates-Olsen, Monica	CED FSA	monica.olsen@wi.usda.gov	
Nikki Larson	LCD		
Tracy Loffelholz	LCD		
Roger Lange	LCD		
Jim Amchein	WDNR	james.amchein@wisconsin.gov	

Troy Maynard SWWRPC

SIGN-IN SHEET

Lafayette County – Land and Water Resource Management Plan

June 26th, 2014
11:30 am
Talmer Bank Community Meeting Room

NAME	COMMUNITY AFFILIATION (e.g. list agency or organization)	EMAIL/PHONE (Please enter best contact method if no email)	SIGNATURE
Althaus, Rick	Farm Bureau	Enolos3 @ yousq.net 608-778-5395	
Amrhein, Jim	WDNR		
Bartels, John	LCC	pbartls@yahoo.com	
Bartz, Melissa	NRCS	melissa.bartz@wi.usda.gov	
Bay, Ted	UWEX	Ted.Bay@ces.uwex.edu	
Bondele, Arleigh	SW Leadmine Region AEA	bondelesbluff@gmail.com	
Burbach, Ron	Ducks Unlimited	burbach1741@yousq.net	
Carpenter, Steve	Farmer	stevecarp@redrockviewfarms.com	
Carper, Cara	SW Badger	cara.carper@swbadger.org	
Compton, Peggy	UWEX	peggy.compton@ces.uwex.edu	
Eastlick, Jeff	Ag Teacher		
Gerlich, Ryan	NRCS	ryan.gerlich@wi.usda.gov	
Gould, Mike	Conservation Groups		
Hammer, David	LCC		
James, Ed	Conservation Groups/Farmer	Jamesej@huges.net	
Jeff Russell, Talmer Bank	Banker	jrussell@talmerbank.com	
Larson, Jack	Township Rep/Farmer	jacklarson1@gmail.com	

Lafayette County LWRM Plan - Local Advisory Meeting June 26th, 2014

NAME	COMMUNITY AFFILIATION (e.g. list agency or organization)	EMAIL/PHONE	SIGNATURE
Larson, Nikki	LCD	nikkilarson96@yahoo.com	Nikki Larson
Lange, Roger	LCD		
Loeffelholz, Terry	LCD		
McDaniel, Carol	Bluebird Society		
Olthaffer, George W.	Grain/Cattle farmer		
Parr, David	Produce Aggregator/Amish Liaison		
Place, Pat	Dairy/Cattle Farmer		
Roelli, Steve	Realtor		
Sauer, Jack	Co. Board Chair		
Shea, Patrick	LCC	Pjshea5656@gmail.com	
Singer, Matt	DNR Forester	matthew.singer@wisconsin.gov	
Stauffacher, Jay	Farmer		
Thomas, Ted	Realtor/Farmer	athomas@talmerbank.com	
Vosberg, Dan	Dairy Farmer/Grazer	drvosberg@wekz.net	
Wang, Alice	FSA Representative		Alice Wang
Webster, Nick	WDNR Warden	Nicholas.Webster@Wisconsin.gov	
Wiegel, Jack	LCC	ritawiegel@yahoo.com	
Wilson, Keith	Organic Dairy Farmer	organicwilly@gmail.com	
Winn, Jim	Dairy farmer	JWinn.Cottonwood@gmail.com	
Wolfe, Leon	LCC	leonnwolfe81@gmail.com	Leon Wolfe
Yates-Olsen, Monica	CED FSA	monica.olsen@wi.usda.gov	
Gilbertson, Mike	WDNR	Mike.g.Gilbertson@wi.gov	Michael A. Gilbertson
Craig, Andrew	WDNR	andrew.craig@wi.gov	Andrew Craig

Lafayette County LWRM Plan - Local Advisory Meeting June 26th, 2014

Appendix D: Public Hearing Press Release

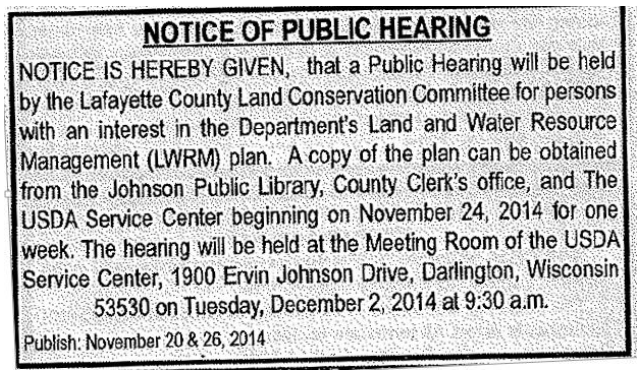
Lafayette County Conservation and Zoning Office

1900 Ervin Johnson Drive
Darlington, WI 53530-9271
Phone: (608) 776-3836

NOTICE OF PUBLIC HEARING

NOTICE IS HEREBY GIVEN, that a Public Hearing will be held by the Lafayette County Land Conservation Committee for persons with an interest in the Department's Land and Water Resource Management (LWRM) plan. A copy of the plan can be obtained from the Johnson Public Library, County Clerk's office, and The USDA Service Center beginning on November 24th, 2014 for one week. The hearing will be held at the Meeting Room of the USDA Service Center, 1900 Ervin Johnson Drive, Darlington, Wisconsin 53530 on Tuesday, December, 2014 at 9:30 a.m.

Publish November 20th and 26th, 2014



NOTICE OF PUBLIC HEARING

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Publish: November 20 & 26, 2014

Appendix E: UW-Platteville Internship Partners

Agricultural Business

Contact: Dr. Annie Kinwa-Muzinga
Telephone: 608 342-1007
E-mail: kinwamua@uwplatt.edu

Environmental Engineering

Contact: Philip Parker, Ph.D
Telephone: 608 342-1235
E-mail: parkerp@uwplatt.edu

Geography

Contact: Melissa Gormley
Telephone: 608 342-6111
E-mail: gormleym@uwplatt.edu

Reclamation, Environment, and Conservation

Contact: Dr. Yari Johnson
Telephone: 608 342 7332
E-mail: johnsony@uwplatt.edu

Soil and Crop Science

Contact: Dr. Chris Baxter
Telephone: 608 342-1388
E-mail: baxterch@uwplatt.edu

Sustainable & Renewable Energy Systems

Contact: Tim Zauche
Telephone: 608 342-1678
E-mail: zauchet@uwplatt.edu

Environmental Science

Contact: Richard Waugh
Telephone: 608-342-1386
E-mail: waugh@uwplatt.edu

Biology

Contact: Jeff Huebschman
Telephone: 608-342-1793
E-mail: huebschj@uwplatt.edu

Social Media Studies

Contact: Rob Snyder
Telephone: 608-342-1194
E-mail: snyderro@uwplatt.edu

Appendix F: NR 151 Standards & Implementation

NR 151.02 Sheet, Rill and Wind Erosion
1. All land where crops or feed are grown shall be cropped to achieve a soil erosion rate equal to, or less than, the "tolerable" (T) rate established for that soil.
2. This section applies to livestock pastures and winter grazing areas after July 1, 2012.

NR 151.03 Tillage Setback
1. No tillage operation shall impact stream integrity or deposit soil directly in surface waters.
2. No tillage may be conducted within five (5) feet of the top of the channel of surface waters. Tillage setbacks greater than five (5) feet but no more than 20 feet may be required to meet this standard.
3. Producers shall maintain the five (5) foot tillage setback in sod or vegetative cover.

NR 151.04 Phosphorus Index Performance Standards
1. Croplands, pastures and winter grazing areas shall average a Phosphorus Index of six (6) or less over the accounting period and may not exceed an index of 12 in any individual year. The Phosphorus Index shall be calculated using the version of the Wisconsin Phosphorus Index available as of January 1, 2011.

NR 151.05 Manure Storage Facilities Performance Standards
1. All new or substantially altered manure storage facilities built after October 1, 2002
shall comply with this section.
2. All new or substantially altered manure storage facilities shall be designed, constructed and maintained to minimize failure.
3. All facilities built or altered after January 2, 2011 shall contain the additional runoff volume of a 25-year, 24-hour storm.
4. A manure storage structure where usage has ceased for 24 months shall be abandoned.
5. Facilities where future use is anticipated may be retained under specific conditions.
6. Facilities in existence as of October 1, 2002 that pose an imminent threat to public health, aquatic life or groundwater shall be upgraded, replaced or abandoned in accordance with this section.
7. Manure storage levels in new or existing (based on the definitions of new and existing) may not exceed the margin of safety.

NR 151.055 Process Wastewater
1. All livestock producers shall comply with this section.
2. There may be no significant discharge of process wastewater, defined by NR 243.03(53) to waters of the state.

NR 151.06 Clean Water Diversion
1. All livestock producers shall comply with this section.
2. Runoff shall be diverted from contacting feedlots, manure storage and barnyard areas within the Water Quality Management Area.
3. Private wells only need protection when located downstream of feedlots and barnyards.

NR 151.07 Nutrient Management
1. All crop producers and livestock producers that apply manure or other nutrients directly or through contact to agriculture fields shall comply with ATCP 50 technical standards.
2. Manure, commercial fertilizer, and other nutrients shall be applied in conformance with an approved NRCS 590 nutrient management plan.

NR 151.08 Manure Management Prohibitions
1. All livestock producers shall comply with this section.

2. All livestock operations shall have no overflow of manure storage facilities.
3. A livestock operation shall have no unconfined manure pile in a water quality management area.
4. A livestock operation shall have no direct runoff from a feedlot or stored manure into the waters of the state.
5. A livestock operation may not allow unlimited access by livestock to the waters of the state where high concentrations of animals prevent the maintenance of adequate sod cover.

Appendix G: Installed Practice & Practice Counts

Count of Practice Name	Column Labels						
Row Labels	2008	2009	2010	2011	2012	2013	Grand Total
Access Control				34			34
Access Road		3					3
Agricultural Energy Management Plan, Headquarters -				14			14
Animal Trails and Walkways		1	1			1	3
Apply controlled release nitrogen fertilizer						4	4
Brush Management		6	4		1	1	12
Channel Bank Vegetation				1	1		2
Comprehensive Nutrient Management Plan	7		2	1			10
Comprehensive Nutrient Management Plan - Applied			4	2			6
Comprehensive Nutrient Management Plan - Written			8	2	2		12
Conservation Cover	98	387	211	196	142	280	1,314
Conservation Crop Rotation	486	474	382	227	58	210	1,837
Contour Buffer Strips	4	7	37	57	19	23	147
Contour Farming	126	195	188	126	51	75	761
Cover Crop			12	1	47	216	276
Critical Area Planting	1	24	14		1		40
Deep Tillage					1		1
Diversion				1	1		2
Early Successional Habitat Development/Management		75	26			6	107
Feed Management		1	1				2
Fence		2	2	3	1	1	9
Filter Strip	4	8	31	7	8	21	79
Forage and Biomass Planting	1	1	18		6	2	28
Forest Management Plan - Written				1			1
Forest Stand Improvement	10	3	3			4	20
Grade Stabilization Structure	8	4	12	13	5	1	43
Grassed Waterway	18	97	75	107	67	28	392
Harvest hay in a manner that allows wildlife to flush and						20	20
Heavy Use Area Protection		4		1			5
Integrated Pest Management (IPM)		1				8	9
Lined Waterway or Outlet			2	3	1		6
Monitoring nutritional status of livestock using the NUTBAL						4	4
Mulching						2	2
Nitrogen stabilizers for air emissions control						4	4
Nutrient Management	162	381	703	433	494	201	2,374
Obstruction Removal	1		2			1	4
Plant Tissue Testsing and Analysis to Improve Nitrogen						26	26
Precision application technology to apply nutrients						77	77

Count of Practice Name	Column Labels						
Row Labels	2008	2009	2010	2011	2012	2013	Grand Total
Prescribed Burning		11	69	17	4	11	112
Prescribed Grazing	1	3	5	1			10
Recycle 100% of farm lubricants						1	1
Residue and Tillage Management, No-Till	195	291	115	134	21	103	859
Residue and Tillage Management, Reduced Till	309	252	280	83	17	112	1,053
Residue Management, Mulch Till	7	1	3	1			12
Residue Management, No-Till/Strip Till	24	17	1	6			48
Residue Management, Seasonal						2	2
Restoration and Management of Rare and Declining Habitats	28	88	27	13	26	40	222
Riparian Forest Buffer		5	3	1	2	2	13
Roof Runoff Structure		1					1
Rotation of supplement and feeding areas						13	13
Seasonal High Tunnel System for Crops					2		2
Sediment Basin		1					1
Shallow Water Development and Management				1			1
Spring Development	1	1					2
Stormwater Runoff Control		1					1
Stream Crossing	1	7	4		3	9	24
Stream Habitat Improvement and Management					4	7	11
Streambank and Shoreline Protection		19	10	5	9	22	65
Stripcropping	31	16	117	7	3	22	196
Subsurface Drain	1	10	7	12	12	2	44
Terrace	2		1	2			5
Tree/Shrub Establishment	4	6	4	27	6	53	100
Tree/Shrub Pruning						1	1
Underground Outlet	20	3		1			24
Upland Wildlife Habitat Management	31	127	76	149	58	58	499
Use drift reducing nozzles, low pressures, lower boom height and adjuvants to reduce pesticide drift						124	124
Waste Storage Facility		1		1			2
Waste Transfer		1					1
Water Well Decommissioning		1			1	4	6
Wetland Restoration	5	2	5		1	4	17
Wetland Wildlife Habitat Management						2	2
Grand Total	**1,586**	**2,539**	**2,465**	**1,691**	**1,075**	**1,808**	**11,164**

Appendix H: 2012 Annual Report

Lafayette County
Land Conservation
Department

Lafayette County Land Conservation Department
USDA Service Center
1900 Ervin Johnson Drive, Darlington, WI 53530-9271
Phone (608) 776-3836 Fax (608) 776-2170

2012 DEPARTMENT ACTIVITIES

Lafayette County is involved in many different activities throughout the year. The following lists are a summary of some of these activities:

Youth and Education

Annual Earth Day Preparation
180 5th graders, 60 presenters
ALEA Plant Sale w/LCD Tree Sales
Arbor Day Presentations- Humpty Dumpty
3 classes, 54 students
County Government Day
Fair Book Cover
Fair Booth & Children's Program
FFA Contest Judging
Lafayette County Clean Sweep
Lafayette County Fair Display
Newsletters- New E-mail Format-4 letters
Nutrient Crediting, Snap+ & Soils Testing Classes
Press Releases
Rain Barrels
Renewable Energy Focus Group
School Presentation-Southwestern
Southern Area WLWCA Tour
SW WI Land Judging Contest – Lafayette Co.
165 students, 14 High Schools
WLI Discussions w/CPA's & Tax Preparers
Water Testing Program

Community/County Involvement

AEA's – Pecatonica, SW Lead Mine Region
American Recovery Reinvestment Act
Awards - Conservation Farmer, Water Quality, Wildlife Habitat, and Conservation Leadership
Dairy Breakfast
Conservation Compliance Certification Letters - 640+ for Zoning & 75+ for Agreements
Hydroseeding and Mulching Services
Junior Science Award
MALWEG Application
Manure Storage Ordinance
Master Gardener's Project
Mississippi River Buffer Initiative
Native Prairie Plant Program with ALEA
NR243 Program
Permit Sites, Runoff sites, & Violations
Rental Equipment Available
Silver Springs Watershed Project
Transect Survey
Tree Program
U.W.P. Farm Assistance
Wildlife Damage Program
Woodford Park Involvement
Working Lands Initiative

Committee & Organizational Meetings

Ag & Extension Board
Annual Report
Community Energy Project
County Board Presentation
County Conservationist Meeting
Emergency Government Committee
Farmland Preservation I & E
Lafayette County Sportsmen Alliance
IT Meetings
Friends of Woodford Park
Invasive Species Tri-County Workshop
Land Conservation Committee Meetings
Land Use Planning
Local Work Group Meetings
Long Range Planning Committee
Monthly LCC Meetings
Pecatonica River Enhancement Council
Planning & Zoning Meetings
Public Hearings – NR 151, NR 153, & NR 155

2012 LCC, Staff, and Cooperating Agencies

LCC	LCD	NRCS
John Bartels	Lisa Trumble	Melissa Bartz
Pat Shea	Al Brandt	Chris Miller
Jack Wiegel	Roger Lange	Gary Bald
Leon Wolfe	Nikki Larson	Ryan Gerlich
Ed James		Amy Schulte
David Hammer		
Land Records		**DNR**
Mary Jean Ritchie		Bruce Folley
		Matt Singer

Southwest Badger RC & D
Southern Area Association & Awards Program
Staff Meetings
State Historical Society for Pecatonica Battlefield
SW Badger RC&D Involvement
Township Meetings-4
Wisconsin Association of Land Conservation Employees (WALCE)
WALCE Administrative & Professional Improvement Committee
Wisconsin Land and Water Conservation Association (WLWCA)
Women Caring for the Land Workshop-18 attended, additional 6 contacts

CONSERVATION PROGRAM SUMMARIES

January 1, 2012– December 31, 2012

Working Lands Initiative

Statewide in 2012, 4,413 farmers received just over $ 3.4 million dollars in Farmland Preservation credits under the old law and 10,818 farmers received a little over 15.5 million under the new version of the credit. In total, the state paid out almost $19 million dollars in farmland preservation credits to 15,231 claimants for farmland covering 2.8 million acres. In Lafayette County, 89 farmers received $79,605 on 20,060 acres in farmland preservation credits under the old law and 293 farmers received $494,120 on 65,814 acres under the new version of the credit. In total, 382 Lafayette County landowners received $ 573,725 on 85,874 acres. Average Credit under the old law was $894.43 and under the new version of the credit $1,686.41. Nearly double the credit.

Wildlife Damage and Abatement Program

One landowners participated in the program and was issued a shooting permit. In 2012, the deer donation program was again coordinated by DNR and APHIS. Lafayette County had 86 deer donated for a total of 3,221 pounds of meat.

Tree & Native Plant Program

The LCD filled 76 orders for 6,150 trees and shrubs. The Argyle Land Ethics Academy worked with the LCD on prairie plant sales; growing and distributing them, and helping with tree sorting. Working in cooperation with the DNR Forester, 17,725 trees were planted using the 2 LCD planters.

Nutrient Management Education

2012 marked our 4th year of providing classes for landowners to write their own Nutrient Management Plans (NMP). Participating Landowners were required to attend 4 separate classes and complete their own NMP. Class I, "Taking Soil Samples", was attended by 4 landowners. The "Nutrient Crediting" class, was attended by 5 landowners. The two "Snap-plus" classes, held in Jan. 2013, were attended by 11 landowners . Six (6) new NMP's for a total of 705.7 acres and three (3) plan updates totaling 924.8 acres were completed thus far. Two more landowners may complete by the end of 2013. Although no Nutrient Management Farmer Education Grant (NMFEG) was received for the 2011-12 season, the LCD applied for and received an NMFEG for 2012-13, which will be used to offset landowner expenses. Upon completion of the course and development of a NM Plan, each of the 6 landowners will receive a stipend of $866.66.

39th Annual LCD/LWRM Cost Share Program – County Cost Share = $15,0000 and LWRM Cost Share = $85,242

2012 Practices	Amount
Closure of Impoundment	1 No.
Critical Area Stabilization	ac.
Diversions	lineal feet
Grade Stabilization Structure	1 No.
Hydroseeding	ac.
Cottonwood-33 miles/3 loads) (Montchevre32miles/1 load	
Manure Storage Structure	2 No.
Surface Drain	1 No.
Well Abandonments	5 No.
Wildlife Scrape	1 No.

Lafayette County Manure Storage Ordinance

Assisted 23 landowners on manure storage permit investigations. 2 permits were issued. To date 23 permits have been issued for the County.

Information and Education

Conservation Award Winners

NMP Training

Earth Day - Pecatonica Battlefield

Appendix I: County & State Plan Approvals

RESOLUTION # 48 - 14

Resolution Regarding Approval of Lafayette County
2016-2026 Land and Water Resource Management Plan

WHEREAS, through 1997-1999 Wisconsin Act 27, Chapter 92.10 of the Wisconsin Statutes was amended, requiring counties to develop land and water resource management plans, and this statutory amendment provided Lafayette County with the opportunity to assess our resource conditions and needs and to decide how we can best meet our goals; and

WHEREAS, the intent of this change was to develop a locally led process that would utilize local, state, and federal funds to protect our land and water resources; and

WHEREAS, Lafayette County, by its Land Conservation Department, assembled the 2016-2026 Land and Water Resource Management Plan with the assistance and oversight from a diverse Citizens Advisory Committee and Technical Advisory Committee and consultation with many agencies, farmers, conservation, and agricultural organizations; and

WHEREAS, Lafayette County held a public hearing on December 2, 2014 to accept comments on the Lafayette County Land and Water Resource Management Plan and all comments received were in support of the plan; and

WHEREAS, counties that want to be eligible to receive soil and water resource management grant funds from the Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP) must submit a plan and funding request based upon an approved land and water resource management plan.

NOW, THEREFORE, BE IT RESOLVED, that the Lafayette County Board of Supervisors, at the request of the Land Conservation Committee, approves the ten-year land and water resource management plan.

BE IT FURTHER RESOLVED THAT a copy of this resolution be provided to DATCP for state approval.

Dated: December 2, 2014

Respectfully Submitted,
LAND CONSERVATION COMMITTEE

Leon Wolfe, Chair

John Bartels

David Hammer

Jack Wiegel

Alice Wang

Ed James

I, Linda Bawden, Clerk of the County of Lafayette, State of Wisconsin, do certify that this resolution was adopted by the Lafayette County Board of Supervisors at a meeting held on January 27, 2015

Linda L. Bawden
Lafayette County Clerk

Legal Note: Management plan required by statute in order to receive future grant monies.

Fiscal Note: No Direct Fiscal Impact

STATE OF WISCONSIN
DEPARTMENT OF AGRICULTURE, TRADE AND CONSUMER PROTECTION
2811 Agriculture Drive, P.O. Box 8911
Madison, WI 53708-8911

IN THE MATTER OF THE COUNTY LAND AND WATER RESOURCE MANAGEMENT PLAN FOR LAFAYETTE COUNTY	LWCB DOCKET NO. 065-00000-L-15-A-0215 ORDER APPROVING THE REVISED PLAN THROUGH DECEMBER 31, 2025, CONTINGENT ON LWCB REVIEW IN 2020

INTRODUCTION

The State of Wisconsin Department of Agriculture, Trade and Consumer Protection ("department"), having consulted the State of Wisconsin Land and Water Conservation Board ("LWCB"), makes the following findings of fact and conclusions of law and enters the following order under s. 92.10(4), Wis. Stats.

FINDINGS OF FACT

(1) Paragraphs (1) through (10) from the "Findings of Fact" in the October 17, 2007 Order approving the revised plan through December 31, 2012, *In the Matter of the County Land and Water Resource Management Plan for Lafayette County*, LWCB Docket No. 07-15-33-000-L-1, are incorporated by reference as if fully set forth herein. A copy of the Order is on file at the Land and Water Resource Bureau of the Wisconsin Department of Agriculture, Trade and Consumer Protection at 2811 Agriculture Drive, Madison, WI 53708-8911.

(2) On October 17, 2007, the department approved the Lafayette County land and water resource management ("LWRM") plan until December 31, 2012, as more fully described in Docket No. 07-15-33-000-L-1.

(3) On December 19, 2012, upon the LWCB's recommendation, the department extended the approval of the Lafayette County LWRM plan through December 31, 2015, as more fully described in Docket No. 12-95-33-000-L-1.

(4) On January 12, 2015, Lafayette County submitted its revised LWRM plan for LWCB and department review, and requested department approval of its revised plan through December 31, 2025.

(5) The revised LWRM plan referenced in Finding (4) ("revised LWRM plan") meets the requirements in s. 92.10(6), Wis. Stats., and ss. ATCP 50.12 and ATCP 50.30(3), Wis. Admin. Code, as documented in the plan approval checklist prepared by the department.

(6) The LWCB established criteria for recommending the approval of a LWRM plan for a ten year period. (These criteria are set forth in its February 27, 2012 guidance, available at http://datcp.wi.gov/uploads/Environment/pdf/FinalGuidanceOnAdditionalCritieria.pdf)

(7) On January 27, 2015, the Lafayette County Board approved the revised Lafayette County LWRM plan.

(8) On February 3, 2015, upon finding that Lafayette County met the criteria for a ten year plan approval, the LWCB recommended the approval of the revised LWRM plan through December 31, 2025, contingent on Lafayette County submitting to a five-year review by the LWCB in 2020.

CONCLUSIONS OF LAW

(1) The department, working in consultation with the LWCB, may approve a LWRM plan for a period not to exceed 10 years, in accordance with s. ATCP 50.12(5) Wis. Admin. Code.

(2) In order to be approved by the department, a county land and water resource management plan must comply with standards specified under s. 92.10, Wis. Stats.

(3) The revised Lafayette County LWRM plan complies with s. 92.10(6), Wis. Stats., and ss. ATCP 50.12 and ATCP 50.30(3), Wis. Admin. Code and may be approved by the department.

(4) The LWCB recommended approval of the revised LWRM plan for a ten year period after finding that the revised LWRM plan meets applicable criteria.

(5) Based on Findings of Fact (1) through (8) above, the department should issue an order approving the revised LWRM plan for a term ending December 31, 2025, subject to the LWCB review specified in Finding of Fact (8).

ORDER

NOW, THEREFORE, IT IS ORDERED that:

1) Pursuant to s. 92.10, Wis. Stats., the revised Lafayette County LWRM plan is approved through December 31, 2025.

2) This order is contingent on a LWCB review in 2020, in which the county must meet the requirements in the LWCB guidance, referenced in Finding of Fact (6), relating to the five-year review of ten-year plan approvals.

3) If the department receives a finding from the LWCB that Lafayette County has failed to meet the LWCB guidance, this order is automatically modified to approve the plan only through December 31, 2020. The county will be notified of this modification and is responsible for submitting a revised land and water resource management plan for department approval to continue its eligibility for department grant funding.

4) As a condition of this plan approval, Lafayette County must have on file with the department a work plan that describes planned activities during the period of this plan approval and includes annual benchmarks for key activities as provided in the February 27, 2012 guidance. Lafayette County may remain in compliance with this requirement by updating its work plan by no later than April 15th of each year during the period of the plan approval specified in this Order.

Dated this 25th day of Jan, 2015

STATE OF WISCONSIN
DEPARTMENT OF AGRICULTURE,
TRADE AND CONSUMER PROTECTION

By Ben Brancel
Ben Brancel, Secretary