



# **JACKSON COUNTY** *Wisconsin*

## **LAND AND WATER RESOURCE MANAGEMENT PLAN**

**2022 – 2031**

# JACKSON COUNTY LAND AND WATER RESOURCE MANAGEMENT PLAN

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Jackson County Land and Water Resource Management Plan 2022 – 2031

Original Adopted March 12, 1999

1<sup>st</sup> Revision Approved July 2000

2<sup>nd</sup> Revision Approved June 2007

3<sup>rd</sup> Revision Approved April 2012

4<sup>th</sup> Revision Approved

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## PLAN SUMMARY

The Jackson County Land and Water Resource Management Plan (LWRMP) was prepared by the Jackson County Land Conservation Department with input and review from the LWRMP Advisory Committee and the Land Conservation and Agriculture Committee (LCAC). This plan is a revision of the original plan from 1999 and revisions approved in 2000, 2007 and 2012. The LWRMP has nine chapters.

### Chapter One – Introduction

Wisconsin ACT 27 and Wisconsin ACT 9 amended Chapter 92 of the Wisconsin Statutes requiring counties to develop Land and Water Resource Management Plans. The LWRMP will help guide the Land Conservation Department for the next ten years – 2022-2031. As a part of the plan development, a Land and Water Resource Management Advisory Committee was formed. The committee met once over the course of the plan's development and discussed the natural resource issues of concern and priorities in the county. A public hearing on the Jackson County Land and Water Resource Management Plan (LWRMP) was held on January 19, 2022. The Jackson County Board will review the LWRMP on March 21, 2022. The Land and Water Conservation Board will review the LWRMP on April 5, 2022.

### Chapter Two – County Characteristics

Jackson County is split in two parts by the Black River which flows from north to south through the county. The two portions are also two physiographic regions – the Western Upland (Western portion), which makes up about 40 percent of the county, and the Central Plain (Eastern portion) which makes up about 60 percent of the county. The county has portions of fourteen watersheds which are part of five basins. The five basins and approximate percent of the county are as follows:

Black River – 63%

- Halls Creek, Morrison Creek, East Fork Black River, Trout Run and Robinson Creek, Big and Douglas Creek, Beaver Creek and Lake Marinuka

Buffalo/Trempealeau River – 29%

- Pigeon Creek, Upper Trempealeau River

Lower Wisconsin River – 7%

- Beaver Creek – Juneau

Upper Chippewa River – 1%

- Black and Hay Creeks

Central Wisconsin River – less than 1%

- Lower Yellow River

### **See Jackson County Watershed Map Attachment 5 on Page 29**

Jackson County has 186 miles of streams considered to be exceptional resource waters. Surface water resource quality is threatened by sources of nonpoint pollution. According to the Wisconsin DNR, nonpoint source pollution, also known as polluted runoff, is a leading cause of water quality problems in Wisconsin. Polluted runoff is caused by rainfall or snowmelt moving over and through the ground picking up natural and human-made pollutants, depositing them into rivers, lakes, wetlands and groundwater. Pollutants include fertilizers, nutrients, oil, grease, sediment and bacteria from agricultural, urban and residential areas.

The primary sources of surface water quality impairments in Jackson County include stream bank erosion, cropland erosion, and manure pollution. As of 2020, Wisconsin DNR has determined there are 31 surface waters (streams, rivers or lakes) that on the 303(d) list of impaired waters as a result of these impairments. Although groundwater quality is generally good in Jackson County, threats to groundwater quality from improper handling and storage of manure, silage and pesticides or fertilizers do exist.

### Chapter Three – County Resource Assessment

There are 196,000 acres of Jackson County's total of 640,000 acres that are county or state owned and managed property. Approximately 70% of Jackson County is wooded or marshland. The western half of Jackson County supports traditional agronomic crops, beef and dairy along with wood-related industry. The eastern half of the county is predominately timber and cranberry growing. The amount of farm acreage has continued to decrease. Total cattle numbers have increased between from 40,500 in 2011 to 42,000 in 2021. The milk cow numbers have stayed about the same at 13,200 head. Corn and soybean acreage has increased from 71,000 acres in 2011 to 77,000 acres in 2020. Within the county, some farmers are continuing to allow excessive soil erosion with ongoing gullies and fields that exhibit excessive erosion, some of which can be seen from the road. Increased livestock and animal numbers in the County has increased the amount of manure generated which can increase the pollution potential with inappropriate manure application and livestock site manure management.

### Chapter Four – Goals, Objectives and Actions

The goals and objectives for this LWRMP were developed by considering existing resource management plans, new state mandates, county ordinances, and priority concerns from county residents and local natural resources professionals. Some of the major sources of information included the following:

- Goals and objectives from the previous Jackson County LWRMP;
- Performance standards and prohibitions in NR 151 for agriculture;
- Resource conditions and concerns
- Resource concerns from residents and natural resource professionals on the LWRM Advisory Committee, and;
- Local resource inventories, county ordinances, observations and environmental challenges faced by the Land Conservation Department.

The two main goals in the county are below. Both of these goals are of high priority.

Goal One – Improve manure management and reduce manure runoff pollution to the waters of Jackson County.

Goal Two – Continue work to decrease sedimentation from eroding gullies, eroded channelized flow sites and eroding stream bank locations.

The Annual Work Plan submitted annually for the Joint DATCP/DNR Grant Application explains how the LCD plans to meet the goals. The Annual Work Plan includes continued administration and implementation of different county and state programs. Some of those include the Livestock and Animal Facility Licensing Ordinance, the Animal Waste and Manure Management Ordinance and State of Wisconsin Notice of Discharge Program. The LCD Engineering Specialist has been involved with designing and providing construction supervision of a wide variety of structural conservation practices to prevent pollution from eroding sites and manure polluting sites. For the past several years, on average every year, 25-30 sites have been addressed using funding for the practices from a wide array of sources. Over the next ten years, the county will continue to use current programs, ordinances and staff abilities to meet these goals. Specific action items for each of these goals are described in the annual county work plan.

### Chapter Five – Implementation and Compliance

The LWRMP incorporates existing state and county programs that are utilized to meet state agricultural performance standards and to meet water quality standards. On October 1, 2002, the State of Wisconsin established by law NR 151 and ATCP 50. In December 2010, NR 151 was officially revised. The purpose of the rules is to prevent and correct sources of polluted runoff from farms and other sites. Currently, the Jackson County Livestock and Animal Facility Licensing Ordinance has been in effect since 2001 and is used to help decrease manure runoff pollution from new and expanding animal and livestock facilities. The utilization of existing state conservation grant programs has also been utilized to correct polluting animal and livestock sites. The LCD currently monitors approximately 25% of all licensed facilities each year. The LCD staff conducts

compliance checks and site visits on non-licensed livestock and animal facilities in the county as part of its priority site strategy.

Compliance information for livestock and animal facilities is maintained by the LCD. If a NR 151 determination is completed, the landowner and operator will be sent a copy of the inventory and evaluation form along with a letter describing any other action that is necessary. Enforcement actions not related to county ordinances for non-compliance with NR 151 performance standards will be coordinated with the DNR and will follow the procedures in NR 151.09, NR 151.095 r .

#### Chapter Six – Monitoring and Evaluation

Accomplishment reports, surveys and evaluations of cropland and livestock facilities and the installed conservation practices are used by the Land Conservation Department to check the progress to meeting this plan’s goals. The accomplishment report is developed by the Land Conservation Department and presented to the LCAC and County Board. This report reviews the planned work activities and the work activities accomplished. The county completes an annual soil erosion transect survey which provides information and trends on conservation program compliance. **A summary of the transect survey is provided in Table 3, Page 15.** In addition, the county conducts periodic monitoring of installed conservation practices.

The DNR provides information to the LCD regarding their water quality and assessment monitoring program. This information can be useful to the LCD to help direct work activities and to evaluate progress.

#### Chapter Seven – Existing County, State and Federal Conservation Programs

A variety of county, state and federal conservation programs are described in this chapter. Current local ordinances and existing state and federal conservation programs help Jackson County to implement its land and water resource management plan to meet stated goals. This chapter also provides a listing of other programs that may provide opportunities to improve our soil and water resources.

#### Chapter Eight – Coordination

This chapter provides a brief description of inter-agency and organization contacts between USDA-NRCS, LCD, WI-DATCP, WI-DNR, USDA-FSA, University of Wisconsin, County Zoning, County Forestry and Parks, USDA-Animal and Plant Health Inspection Service - Wildlife Services, and private conservation groups that help the county to meet land and water resource management goals. The annual work plan also provides information about how Jackson County plans to coordinate with various partner agencies and organizations to implement the land and water resource management plan.

#### Chapter Nine – Information and Education

The different forms of information dissemination to promote soil and water conservation are also described in the work plan. The chapter also describes briefly some of the partnerships that exist to help the county conduct its information and education efforts.

## **CHAPTER 1 – INTRODUCTION**

### **BACKGROUND**

Wisconsin Act 27 (the 1997-1999 Budget Bill) and Wisconsin Act 9 (the 2000-2001 Budget Bill), amended Chapter 92 of the Wisconsin Statutes, requiring each county to develop a Land and Water Resource Management Plan (LWRMP). The intent of the LWRMP is to foster and support a locally led process that will help improve conservation program and policy decision-making. The changes should also help coordinate the utilization of local, state and federal staff and funds to protect our land and water resources.

### **PLAN DEVELOPMENT AND PUBLIC PARTICIPATION**

A Land and Water Resource Management Advisory Committee was formed to review the previous plan accomplishments and provide input to the next revision. The committee had members from throughout the county, including agency staff, elected officials and landowners. The committee membership is listed as **Attachment 18 on page 44**. A meeting was held on June 17, 2021 to provide guidance to the Land Conservation Department prior to updating the LWRMP. Another meeting was held on Nov, 2021 to review the LWRMP Draft for any comments the committee had regarding the document.

An informational meeting and Public Hearing were held on January 19, 2022 to review the Jackson County LWRMP. The Jackson County Board of Supervisors approved the LWRMP at their March 21, 2022 meeting. Jackson County would like to utilize this plan for up to ten years due to the specific goals and objectives that the Land Conservation Department are expected to accomplish.

### **RELATED PLANS, PROGRAMS AND ORDINANCES**

There are many other plans, programs and ordinances that are directly and indirectly related to the goals of the LWRMP. **See Attachment 1, on Page 24**, for a list which provides the name of many of the related documents.

## **CHAPTER 2 – COUNTY CHARACTERISTICS**

### **PHYSIOGRAPHY, RELIEF AND DRAINAGE**

From Jackson County Soil Survey 2001

Robert N. Cheetham, geologist, USDA, NRCS

Jackson County is in two physiographic regions-the Western Upland, which makes up about 40 percent of the county, and the Central Plain, which makes up about 60 percent. The Western Upland, west of the Black River, is a dissected plateau with relief of several hundred feet. It is composed of Paleozoic marine sandstones. Much of the friable sandstone has been reduced by mass wastage and forms long slopes mantled by windblown silts and sands. A few high ridges near the Trempealeau County line are capped by remnants of a more resistant calcitic dolomite at elevations more than 1,300 feet above mean sea level.

The Central Plain, which extends from the eastern county boundary to a few miles west of the Black River, is a much-eroded landscape of Upper Cambrian sandstone. The area is mostly level and swampy with occasional sandstone mounds and a few knobs of Precambrian rock ranging from a few to several hundred feet above the plain. At Black River Falls the valley bottom is Precambrian granite; a fault line marks the transition from resistant granite to erodible sandstone. **See Attachments 2 and 2A on pages 25 and 26 for a soils map and soils key for Jackson County.**

The total relief in Jackson County is about 790 feet. The elevation is highest, about 1,400 feet, at Saddle Mound, just north of Highway 54 in the east-central part of the county. It is lowest, about 610 feet, at the point where the Black River leaves the county. About 64 percent of the county is drained by the Black River and its tributaries. The Black River flows toward the southwest through the middle of the county. It enters Jackson County (Lake Arbutus) at an elevation of 833 feet and leaves the county at an elevation of 610 feet at the Trempealeau and La Crosse County boundary. The Black River joins the Mississippi River about 20 miles downstream. About 25 percent of Jackson County, most of the northwestern portion, is within the Trempealeau River Basin. The Trempealeau River drains southwest to the Mississippi River. About 6 percent of the county, bordering Trempealeau County, is drained by the Buffalo River. The Buffalo River flows west and southwest to join the Mississippi River. About 5 percent of the county, the southeastern part, is within Wisconsin River Basin. That part of the County drains east and southeast to the Wisconsin River. **See Attachment 3, on page 27, for a relief map of Jackson County.**

## **WATER SUPPLY**

From Jackson County Soil Survey 2001

Robert N. Cheetham, geologist, USDA, NRCS

Jackson County has about 8,430 acres of surface water. Water quality is generally fair. In the eastern part of the county, the Black River and other surface water areas are darkly colored by organic substances from bogs and swamps. The water is soft, with generally less than 250 milligrams of dissolved solids per liter.

Jackson County has a large supply of good quality ground water. The Cambrian sandstones are the principal source. Also, less extensive areas of sand and gravel along the Black River and in the Central Sand Plain along the eastern boundary of the county are very good sources of ground water. The Precambrian bedrock, which underlies the sandstone and the sand and gravel, is mostly granitic and metamorphic rocks. It is not an important water source.

Wells in Jackson County have been monitored for water quality by the U.S. Geological Survey (Kammerer, 1984). Most of the ground water in the sandstone and sand and gravel aquifers has a relatively low content of dissolved solids, sulfates, and chlorides. It is mostly soft but ranges to hard in some sandstones. Some water use problems are caused by locally high concentrations of iron and manganese. Also, high concentrations of nitrates have been detected in a few wells.

Generally, the ground-water flow is toward local streams and rivers through seepage and spring discharge. Flow is controlled by local topography. It is well defined in areas of high narrow ridges and deep narrow valleys. Flow is greatest where valleys are deeply entrenched into the aquifer. Regional flow of deep aquifers is toward the Mississippi or Wisconsin Rivers (Zaporozec and Cotter, 1985). Probable well yields in thick sandstone and sand and gravel aquifers range from 100 to more than 1,000 gallons per minute. Yields are lower where the aquifers are thin.

## WATER RESOURCES

There are portions of fourteen Hierarchical Hydrologic Unit Code (HUC) 10 sized watersheds in Jackson County. The HUC 10 watersheds range from 40,000 to 250,000 acres; 62 to 390 mi<sup>2</sup> they are part of five basins, which include the Lower Chippewa River, Central Wisconsin River, Lower Wisconsin River, Black River and the Buffalo/Trempealeau Rivers. **See Attachments 4 and 5, on pages 28 and 29, for the Basin Listing and County Watershed Map. See Attachment 6, on page 30, for the Streams and Rivers and Lakes Map.** Approximately ninety percent of Jackson County is within the Black/Buffalo/Trempealeau Rivers Basin.

The WI-DNR has assessed some streams and rivers within the county's watersheds and basins in Wisconsin for water quality since 2010 .

**Attachment 7 on Page 31 and Attachment 8 on page 32 provides a list of the major county watersheds and information regarding the surface waters placed on the 2020 303 (d) impaired waters list.** The Pollutant and Impairments listed in the far-right column list the problems that limit the water body usage for humans and fish. Atmospheric deposition of mercury is the source of contamination for those water bodies listed. Cropland erosion and streambank erosion are the two sources of sedimentation for those waters listed.

In the past, Jackson County worked with Trempealeau County and the DNR to implement two Priority Watershed Projects: (1) Portion of Beaver Creek Watershed in southwestern Jackson County included approximately 20,000 acres of the 101,066 acres; this project started in 1984 and closed in 1995; (2) the Upper Trempealeau River Watershed, started in 1992 and was completed at the end of 2007.

The Coon Fork Priority Lake Project is a cooperative effort with the DNR, Clark, Eau Claire and Jackson County. The implementation portion of the project lasted from 2006 – 2009. The project's goal was to reduce animal waste inputs, reduce cropland sediments and improve fish and wildlife habitat to the lake's watershed.

In the past 10 years, the Land Conservation Department has tried to bring an awareness and correction of the perched culvert problems that are continuing to occur in our County. There are private and municipal culverts installed every year without realizing the negative impact that a perched culvert outlet causes to fish passage and other aquatic species for decades or longer. The Land Conservation Department has helped municipalities apply for grant funds to help fund replacements of perched municipal culverts on streams that have habitat for trout and other species. The grant funding has been provided by the U.S. Fish and Wildlife Service and Trout Unlimited. Several culverts throughout Jackson County were replaced. The Land Conservation Department and the Wisconsin DNR representatives have engaged members of the Jackson County Wisconsin Towns Association officials, municipal town maintenance operators, the Jackson County Highway Department, local contractors and the local press in an effort to bring an awareness and proper procedures for culvert replacement throughout Jackson County.

Every year there are stream culverts replaced throughout the County. It has been observed that many culvert replacements are placed with the outlet inches to feet above the downstream water level. With that type of placement, the potential for fish species to move upstream becomes impossible in most situations. Jackson County is at the headwaters of many trout streams, many of those are Class I trout streams. One perched culvert in a stream system can eliminate the potential for fish natural reproduction(spawning) to occur farther upstream. In the past few years, there seems to be more stream habitat work by various groups and agencies throughout western Wisconsin. Unfortunately, a perched or blocked culvert can hinder some of the efforts for increased fish retention and production in the same watershed.

**Attachment 9, on page 33**, provides a list of the outstanding resource waters/exceptional resource waters. Outstanding and Exceptional Resource Waters (ORWs/ERWs) are lakes and streams with limited amounts of point and non-point sources that impact the quality of the waters. The natural stream channels have excellent water quality, fishing, recreation, and aesthetic value. ERWs are similar to ORWs, but may be impacted by point or non-point source pollutants. (BBT Basin Plan, May 2002).

## **Water Quality Priorities**

Across Jackson County, the primary pollution sources that either cause, or threaten water quality impairments include cropland erosion, livestock and animal pollution, and primarily natural-occurring stream bank erosion.

Based upon DNR stream assessments in the County, water quality restoration and protection projects should be directed toward controlling manure pollution and cropland erosion. Currently, some landowners have asked the Land Conservation Department for assistance in fixing gully and channelized flow erosion sites. The use of various state grant programs has helped to correct and prevent manure pollution also. From 2006 to 2017, 20 high priority pollution correction sites were addressed by the Land Conservation Department utilizing the DNR Targeted Runoff Management Grant Program (9 sites) and the Notice of Discharge Program (11 sites). The LCD has utilized county, state and some federal grant dollars to fix polluting sites. In several years Jackson County was fortunate to obtain transfers of bond dollars from other counties to supplement its funding sources.

In the last five years, some municipalities and private businesses (non-farm) in Jackson County with waste discharge permits have been required by the U.S. Environmental Protection Agency and Wisconsin DNR to lower their discharge of phosphorous to surface water. Accordingly, these facilities have made evaluations and decisions on whether to make water treatment facility changes or to pay other entities to reduce phosphorous pollution related to agriculture. One example of the latter is the Wisconsin DNR Multi-Discharger Variance Program (MDV Program). In this program, municipalities pay into a pool of funds based on a calculation of their annual phosphorous discharge limit exceedance and counties can then apply to use the funds to implement phosphorus reduction practices that meet Wisconsin's NR 151 agricultural performance standards. Jackson County started participating in the MDV Program in 2020 and has begun using the allocated funds for reducing phosphorous from agricultural fields adjacent to eroding streambanks in the county.

The Land Conservation Department has also designed and provided construction supervision of phosphorous reduction projects for a private business from 2018-2020. In 2018, Jackson County allocated the Land Conservation Department over \$100,000 from Environmental Impact Fees to reduce stream bank erosion, reduce phosphorous and improve stream habitat for aquatic species in Jackson County. There was over one mile of stream corridor of bank shaping, seeding and rip rapping completed in 2020-2021 with the use of those funds.

It seems likely that the Land Conservation Department will continue to utilize many different programs and sources of funding to provide adequate funds for the LCD Engineering Specialist to work on the wide-variety of erosion and manure pollution correction sites that exist in the County.

## **Groundwater Resources**

Although ground water quality is generally good in Jackson County, there are threats of direct contamination dependent on the proximity of the sources to wells, sink-holes and other conduits to groundwater. There continues to be many unused wells in the rural areas that should be properly closed. Previous attempts to provide information to the public about the potential human and environmental threat of idle wells in the community has resulted in little interest to properly close them.

Agricultural impairments and threats to groundwater are typically associated with the handling and storage of manure, silage along with application of pesticides/herbicides or fertilizers. These types of sources are commonly found throughout Jackson County although direct contamination is dependent on the proximity of the source to wells, sink-holes and other direct conduits to groundwater and groundwater contamination susceptibility. The Land Conservation Department continues to contact site owners about the closure of idle manure storage systems that meet the State of Wisconsin criteria.

Along with the possible threat to our water the inactive manure storage systems can pose a threat to human and livestock safety. It has occurred where landowners are unaware of manure storage structures that exist on their property and were installed by previous occupants. On average there have been one or two closures completed annually in the past decade.

NR 811 and 812, Wis. Adm. Code regulates the setback distances to many different types of agricultural contamination sources from private and public wells, reservoirs and potable spring water. Areas vulnerable to groundwater contamination could be identified and designated as water quality management areas (WQMAs). Requirements to protect the WQMAs could be part of the County Livestock License or Agriculture Performance Standards. **See Attachment 10, on Page 34 for a general map of the Groundwater Contamination Susceptibility Analysis for Jackson County.**

Land Conservation Department (LCD) staff is aware of the setbacks required for common types of agricultural sources (see table below). The LCD should verify that all agriculture practices designed are in compliance with the requirements of both NR 811 and 812, Wis. Adm. Code. The LCD will work with landowners and DNR Water Supply Specialist handling Jackson County for follow-up on non-compliance issues. The Jackson County Livestock and Animal Facility Ordinance references both NR 811 and 812 in the license application.

Well, Reservoir and Potable Spring Setbacks*	Table 2
Potential Contamination Source	Set Back Distance from Water Source
Animal barn/pen	50 feet
Animal shelter/pasture	50 feet
Manure loading area	50 feet
Temporary manure stack	150 feet
Manure storage (earthen)	250 feet
Manure storage (liquid tight)	100 feet
Pesticide/dry fertilizer storage	100 feet
Silage storage (plastic tube)	50 feet
Silage storage (earthen)	250 feet
Silage storage (liquid tight)	100 feet
Silo storage	50 feet
* Check for recent code changes. Separation distances are specified in NR 811 and NR 812, depending on the type of facility.	

Source: <https://wi.water.usgs.gov/gwcomp/find/jackson/susceptibility.html>

## **CHAPTER 3 – COUNTY RESOURCE ASSESSMENT**

### **LAND USE AND RECREATION**

Jackson County has a total area of 639,879 acres and is almost equally divided by the Black River, which flows southerly through the county. Approximately 41% of the area that is west of the river is farmland and about 97% of the area east of the river is woodland and wetlands. Almost 70% of the total land area is wooded and marshland. **See Attachments 11 and 12, on pages 35 and 36, for maps displaying the different land cover types and vegetation types.**

The Jackson County Forest and recreation areas comprise 120,000 acres in the eastern part of the county. This acreage ranks Jackson County 10<sup>th</sup> in Wisconsin for the acreage in county forestland. Since 2002, the Jackson County-owned Forest lands have generated between \$700,000 and \$1.6 million annually, 14 different years the revenues have exceeded \$1 million. The number of acres logged is generally between 1,500 and 2,500 annually. The Black River State Forest, owned by the State of Wisconsin, is 68,000 acres and is bordered by county forestland. The County Parks system has seen significant increase in use over the past few years due to the vast All-Terrain Vehicle (ATV) and Utility-Terrain Vehicle (UTV) Trail System that is connected to surrounding county ATV/UTV trails. The County estimates that over 40,000 ATV/UTVs use the county trails per year. With over 1,000 vehicles accessing the trails on some weekends. The ATV users have a wide variety of public and private camping and lodging opportunities with direct access to the trail system. The Jackson County Park System has expanded over the past few years with additional camp sites and upgrades to the showers, toilet facilities and electrical hookups at various locations in the County Parks system, including Lake Arbutus. The Jackson County Forest and Parks System also encompasses the Lake Wazee Recreational Area (previously an iron mine in the 1970s and early 1980s) features a 180-acre lake that is 350-foot-deep with surrounding areas for camping, swimming, scuba diving, bicycle and hiking trails. The site was deeded to the County in the early 1980s. The development of the Lake Wazee Recreational Area started occurring in the late 1980s after the reclamation of the iron mine had been successfully completed. It also includes wildlife observation areas throughout the park. With an average of 200 new vehicle passes sold per weekend it is estimated that up to 1,000 visitors per weekend utilize the area during the summer months. **See Attachment 13, on page 37, for the distribution of county and state forests.**

The County Forester and DNR Forester are invited to attend the monthly Land Conservation and Agriculture Committee (LCAC) meetings. Both foresters inform the LCAC of activities on the County and State land. The Jackson County Forest – Comprehensive Land Use Plan – 2020-2035 is used to guide the land use on county land. The DNR implements a plan for the Black River State Forest also.

The Land Conservation Department (LCD) works with the County Forestry and Parks on various projects to help prevent erosion and develop trails. The LCD and county Forestry and Parks Department are working together to develop more stable trails to withstand the traffic and decrease erosion potential.

There are an additional 562 acres of State natural areas, 4,356 acres of state fishery areas, and 3,153 acres of DNR wildlife areas in Jackson County. Approximately 31% of the county land area is owned by the county, state and federal government. In 2012, there was 47,000 acres of private land enrolled in the Managed Forest Law Program compared to 33,241 in 2006.

### **AGRICULTURAL TRENDS**

There is approximately 148,000 acres of farmland in Jackson County, including pasture. According to USDA – National Agricultural Statistics Service, in 2007 Jackson County had total land acreage of 239,000 acres in farm ownership. There were 945 farms averaging 253 acres per farm. **See Jackson County Land Cover Categories Map, Attachment 14, on Page 38.** The county has over 3,000 acres of planted cranberry beds.

Jackson and Monroe County have about the same number of cranberry acres. Wood County has the largest amount of cranberry acreage in Wisconsin.

The USDA – National Agricultural Statistics Service reports the following information for Jackson County.

- From 1980 – 2007 land in farms 272,900 acres on 1,140 farms to 239,000 on 945 farms  
In 2017 there were 248,300 acres on 855 farms
- From 1980 – 2010 Dairy cow numbers decreased from 19,000 to 13,200
- From 2011 – 2019 Dairy cow numbers decreased from 13,200 to 12,200
- From 1980 – 2011 total head of cattle decreased from 48,200 to 40,500
- From 2012 – 2021 total head of cattle increased from 40,000 to 42,000
- From 1980 – 2010 total corn and soybean acreage increased from 49,100 acres to 67,700 ac.  
In 2020 there were 76,900 acres of corn and soybean acreage

The number of livestock and other animals in Jackson County had been decreasing but has recently started to increase. There are different factors that could be contributing to this trend. There is exponential growth of Amish families within the County along with continued migration into the existing Amish communities. The western portion of Jackson County has been the settlement area and growth of their communities. All of the families have horses along with other livestock, even if their main farm business is not raising livestock or animals.

There continues to be an increase of livestock and animal producers evenly distributed across the western half of Jackson County. Many once idle farm buildings and other structures are now being used for a variety of animals and livestock. New livestock and animal housing construction has continued to increase. In the past few years many people in the County have decided to start having livestock and or animals. The operations have varied from several head of horses, to raising cattle or combinations of livestock and animals. In many cases, there is no plan for manure management methods to avoid pollution, which includes collection, removal or limiting the potential for pollution. The fact that an adult horse emits up to 9 tons of waste/year, a beef cow may emit up to 70 pounds of waste per day or a dairy cow can emit as much as 155 pounds of waste per day is generally not considered by the owners of the livestock or animals. The pet, 4-H project or animal for food produces waste regardless of the purpose for having it. The pleasure horse riding and raising business has seen dramatic increase in the county in the last 30 years.

The trend for expanding livestock operations for various types of livestock continues. There are currently five livestock operations over 1000 animal units issued a Wisconsin Pollution Discharge Elimination System (WPDES) Permit. These operations are subject to compliance inspections and annual reporting requirements to the Wisconsin DNR and most have a Livestock and Animal Facility License from the Land Conservation Department. There are at least five more operations that are county licensed for near 900 Animal Units. The increased number of livestock and animal sites, along with the increase in the total livestock and animal numbers can increase the pollution potential in the County.

**See the Jackson County CAFO Farms and Fields Map, Attachment 15 on Page 39.**

Livestock and animal mortality concerns, along with on-the-farm processing of animals has increased the number of calls to the Land Conservation Department by the public in the past few years. The number of available dead livestock disposal vendors has diminished over the years. Years ago, the farmers could get paid for their dead livestock, that has changed. Currently, farmers or animal owners have to pay to get rid of their dead livestock or find an alternative method to dispose of them. There are some farmers that compost or bury them according to State of Wisconsin dead livestock mortality standards. There has also been an increasing trend in our county for farmers to sell livestock for slaughter directly to the general public. Some of the livestock and animals will be processed at the farm site generating animal parts to be disposed of. Improper

disposal of dead livestock and their body parts can generate potential disease and vermin problems, possible ground water contamination, along with odor issues that can persist as long as the decomposition continues.

## **LAND USE TRENDS**

The land east of the Black River is predominately forest and wetlands. This part of the county has a large public land area that provides many square miles of recreation, logging, and sphagnum moss collection. The private land area has cranberry producers and woodland owners that contribute to the county and state economies.

The land west of the Black River is mainly private land. Over 50% of the land is wooded or wetland. There are many farms of all sizes that are a mixture of livestock producers and cash grain farmers. Interstate 94 dissects the county from the northwest to the southeast. The county is located between La Crosse, Eau Claire and Wisconsin Rapids with some county residents commuting to those cities for employment. In the past 25 years, with business growth in the county there are more people in surrounding counties commuting to Jackson County for employment. The establishment and expansion of the Ho-Chunk Nation Tribal Headquarters along with their associated businesses and services has added many different job opportunities. Jackson Correctional Institute started housing inmates in 1996 and is located near Black River Falls. The 1,000-bed prison created and continues to provide many jobs at the facility.

Starting in January 2011, there was a growing amount of Non-Metallic Mining in Jackson County. Most of the non-metallic mining growth was due to a demand for industrial sand from our county to use in the oil and natural gas industry. There was development of some industrial sand mines proposals but many of the sites have not developed and other sites terminated their proposals without starting. In the past three years, eight non-metallic mine sites of various acreage size are being or have been reclaimed for closure. The completion of mining the material or change in market conditions has contributed to the decisions to close the sites. There has been one industrial sand mine operating since 1978 in Jackson County. As of December 2020, there was approximately 1,100 acres of active mining area. The active mining acreage has been decreasing in the past three years with different types of mines of various sizes reclaiming their sites.

According to the 2020 census, the county population has grown to 20,800 people including approximately 1,000 inmates at the Jackson Correctional Facility. Fourteen of Twenty-one townships now participate in county zoning. The County completed a Comprehensive County Plan in 2010.

## **SOIL EROSION**

The Jackson County Land Conservation Department has conducted a Transect Survey of western Jackson County since 1999 to monitor soil erosion conditions. The Transect Survey data helps project the amount of cropland erosion that is occurring annually in the county. The same route is followed every year to view the 588 data points to monitor them for crop residue coverage, tillage method, type of crop planted and contour planting. The transect survey is conducted on the western portion of Jackson County from the Eau Claire County line in the north to the La Crosse County line in the south. This information helps provide annual comparisons in tillage trends and erosion levels from watershed to watershed. In the past five years, the Big/Douglas Creek and Pigeon Creek watershed areas have consistently had the highest erosion of the eight different watersheds that are part of the survey. The survey also provides an opportunity to personally see what is occurring on various fields throughout the county.

The following chart gives a comparison of trends from the Transect Survey results. The decrease in soil erosion levels starting in 2007 are due primarily to the changes in the Transect Survey computations. The model that calculates the soil erosion on the fields changed after the 2007 survey. This summary is a trend based on the Transect Survey program calculations of cropland acres in the County.

Table 3	1999	2000	2001	2002	2003	2004	2005
Average annual soil loss (Tons/Acre)	3.1	3.0	3.0	3.7	3.7	3.3	3.0
Corn/Soybean-No-Till Planted (Acres)	6360	18561	19603	19733	22500	24000	26750
Corn/Soybean-30% Residue Coverage (Acres)	14433	26132	26464	23186	28000	32500	39750
Cropland Erosion – 2 T (Acres)	13455	10258	10781	16280	14500	13000	12500
	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Average annual soil loss (Tons/Acre)	3.3	3.2	2.3	1.6	2.5	2.6	2.7
Corn/Soybean-No-Till Planted (Acres)	27179	26437	17342	20165	14224	20525	15173
Corn/Soybean-30% Residue Coverage (Acres)	34838	35579	18426	30068	20165	23046	18829
Cropland Erosion – > 2 T (Acres)	11613	12601	5961	3240	6661	7021	8047
	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
Average annual soil loss (Tons/Acre)	2.6	2.6	2.7	2.8	3.1	2.9	2.8
Corn/Soybean-No-Till Planted (Acres)	21023	25959	26324	28152	21754	27604	29066
Corn/Soybean-30% Residue Coverage (Acres)	24679	33454	32905	35282	28152	33088	37475
Cropland Erosion – 2 T (Acres)	5484	6033	6763	7496	10604	7861	6946
	<b>2020</b>	<b>2021</b>					
Average annual soil loss (Tons/Acre)	2.8	2.7					
Corn/Soybean-No-Till Planted (Acres)	23582	25776					
Corn/Soybean-30% Residue Coverage (Acres)	31991	32357					
Cropland Erosion – 2 T (Acres)	7312	6764					

There are some farmers utilizing conservation and cropping practices to minimize the potential erosion there are others that are not. The potential for cropland erosion can be enhanced or be diminished depending on the farm operator. It is the choice of the crop producer to determine what methods to use to grow the crop. There are cash grain growers and livestock farmers that have adopted and utilized conservation practices to minimize erosion pollution potential and have proven their methods to work. Unfortunately, there are some cropland fields where excessive erosion occurs annually that could have been prevented. A significant factor in the excessive erosion pollution is that the soil is over-tilled, sometimes pulverized, annually before crops are planted. The tillage is accomplished by a variety of equipment that may include single or multiple passes. With the soil structure broken down annually the fields are proven to erode easily and significantly, regardless of slope steepness. Many fields are worked in the fall, if possible, and are worked again in the spring with little to no residue remaining on the surface to help reduce the erosion potential. Many of the tilled fields leave bare soil exposed and are extremely prone to erosion for over two-thirds of the year before the crops root system and crop canopy develops. Some of the same fields are treated this way year after year. In spite of over 80 years-worth of ongoing conservation education and pollution prevention research available from both public institutions and the private sector there continues to be excessive erosion pollution occurring. Although the increased intensity of the rainfall events has contributed to additional erosion the main factor in erosion pollution is the excessive tillage with lack of conservation practices.

Another disturbing part of the excessive cropland erosion and in many cases manure pollution, is it generates few public comments. In the past few years, there has been alarming displays of repeated erosion, including rill and gully erosion in crop fields that form ditches from several inches to several feet deep. The eroded soil covers the roads, fills in road ditches, wetlands, and deposits soil in the stream. Recently dredged, municipal lakes and ponds in Jackson County and Trempealeau County are filling in with sediment within a few years and the water bodies are brown with sediment for days after rain fall events. The nutrients that are attached to soil particles along with manure pollution will potentially feed algae causing problems for aquatic life. Many of these problems are visible by driving past the various locations. Seldom are there contacts made to local conservation officials, concerned individuals writing letters to the editors, concerned citizens groups formed or the polluter engaged by the public.

Gully and streambank erosion in Jackson County is a major problem causing thousands of tons of erosion each year. Of the watershed areas in western Jackson County, the Black River and some of its tributary areas downstream from Black River Falls have the most severe erosion problems that include gully and streambank erosion and the Big Creek and Douglas Creek watersheds. The steep topography, from the uplands leading to the streams, causes rapid concentrated flows to occur. Once the flows channelize and empty to an intermittent stream or permanent flow stream, the velocities remain fast due to the steep stream channel gradient leading to the Black River. Another contributing factor to the massive amounts of erosion is the extremely sandy subsoil that readily erodes. These factors, in addition to bank heights of gullies and streams ranging from five feet to seventy-five feet, make much of the Black River watershed area extremely vulnerable to gully and streambank erosion.

## **Chapter 4 – GOALS, OBJECTIVES AND ACTIONS**

The goals and objectives for this LWRMP were developed by considering existing resource management plans, state mandated programs, county ordinances, new phosphorous reduction programs, and priority concerns from County residents and local natural resources professionals. Some of the major sources of information included the following:

- Goals and objectives from the 2008 – 2012 and 2012-2022 Jackson County LWRMPs;
- Performance standards and prohibitions in NR 151 for agriculture;
- The observed historic agricultural pollution problems
- Resource conditions and concerns from four DNR basin plans and basin staff;
- Resource concerns from residents and natural resource professionals on the LWRM Advisory Committee, and;
- Local resource inventories and county ordinances.

The LWRM Advisory Committee met on June 17, 2021 to discuss the LWRMP Revision process. The committee directed the LCD to continue to address the resource concerns that are within the department's capabilities and the existing plan's goals and objectives. Manure management and manure pollution prevention and soil erosion prevention from agricultural lands have both been important resource issues.

Annual Work Plans are submitted by the Land Conservation Department to WI-DATCP that identify goals, objectives and actions that the LCD will work on to achieve. These are a continuation of the existing plan goals that the LCD is currently working on. The LCD is the lead agency for the actions in the work plan unless noted. The entire work plan is a high priority to accomplish. County-licensed sites over 500 Animal Units are required to have and implement a Nutrient Management Plan, annually.

Goal One – Improve livestock and animal facility manure management to reduce manure pollution to the waters of Jackson County.

Goal Two – Continue work to decrease sedimentation from eroding gullies, eroded channelized flow sites, and eroding streambank locations.

These goals are slightly revised from the 2013 - 2022 Jackson County LWRM Work Plan. In the development of this LWRMP, the DNR was consulted for their input.

**The 2022-2026 LWRM Work Plan for Jackson County is Attachment 16 on Pages 40 and 41.**

## **CHAPTER 5 – IMPLEMENTATION AND COMPLIANCE**

### **NR 151 and ATCP 50**

The LWRMP incorporates existing state and county programs that are utilized to meet state and federal water quality standards. On October 1, 2002 the State of Wisconsin established by law NR 151 and ATCP 50. Since 2002, NR 151 has been revised periodically by the DNR to reflect additional performance standards. NR 151 sets the agricultural performance standards and prohibitions for landowners and farmers while ATCP 50 defines the conservation practices that will help individuals meet the performance standards. **See Attachment 21 on page 47 for a list of the NR 151 Performance Standards.**

### **PRIORITY SITE STRATEGY AND RECORD-KEEPING**

The Jackson County Land Conservation Department has administered the County Livestock and Animal Facility Licensing (LAFL) Ordinance since November 1, 2001. The implementation of the LAFL Ordinance has been a significant workload for the LCD and aids in achieving LWRM Plan Goal Number One. For those operations that are at or greater than 500 animal units a Nutrient Management Plan (NR 151.07) is required to be submitted annually. Nutrient Management Plan maintenance and certification has been difficult to obtain from some operators over the years. Due to that fact, staff have been directed by the Land Conservation and Agriculture Committee to focus their time with other aspects of program delivery and compliance monitoring. Livestock and animal facilities that are new or expanding must comply with NR 151.08. NR151.08 states all livestock producers shall comply with the four manure management standards: No manure storage facility overflow, no unconfined manure piles in Water Quality Management Areas, no direct runoff from a feedlot or stored manure into waters of the state, no unlimited livestock access to waters of the state in a location where high concentrations or animals prevent maintenance of adequate sod or self-sustaining vegetative cover. The LCD has utilized various methods to engage and discuss manure pollution prevention as it relates to the State of Wisconsin performance standards and the County Livestock and Animal Facility Licensing Ordinance. Every two or three years a flyer with an article from the LCD is distributed to all Jackson County town clerks to include with the property taxes for information. Lenders, realtors and builders are sent a letter from the LCD approximately every three years alerting them of the various county land use ordinances. By driving throughout the county there are various properties identified where livestock and animals have been introduced or facilities are built or converted for livestock/animal use. Letters are then sent to landowners to request a visit to discuss their plans for livestock as it relates to manure management, pollution prevention and the county ordinances. In the course of viewing updated air photos, it is common to notice sites where livestock and animals are placed which would also lead to a letter requesting to meet with the landowner. Should the landowner not reply to the letter, site visits are made to engage the landowner directly.

The LCD monitors approximately 25% of county-licensed facilities each year. Currently there are over 310 environmental licenses issued by the Land Conservation Department. Almost all of the licenses are issued west of the Black River and are distributed widely throughout the western portion of the County. The LCD Engineering Specialist helps to review some of the larger animal unit operations license applications regarding their current manure and proposed management systems. The LCD works with many livestock and animal facilities annually to check their compliance status with Performance Standard NR 151.08. Since 2008, the Land Conservation Department has worked with the Targeted Runoff Management Program and the Notice of Discharge Program to work with 20 different sites to achieve compliance with the state manure management standards. As landowners or livestock producers contact our department for various cost-sharing of Best Management Practices those locations are also monitored for compliance. In Jackson County, conservation cost-share agreements for any state or county money have required compliance with NR 151.08 since 2001.

In the 1930s and through 1941 there were many different conservation practices installed in the south western portion of Jackson County by the Civilian Conservation Corps and their predecessors. Unfortunately, the records of those conservation practices are no longer available. A few of the designs were recorded in the County Register of Deeds office. Due to the change in ownership, the rugged terrain and vegetation growth many of these structures are no longer visible or even known to current landowners. In the past 20 years, the LCD Engineering Specialist has been involved with repairing or replacing several of these structures. These structures have proved to be challenging to renovate or replace due to the size of the gullies adjacent to the existing structure, the size of the drainage areas, the complexity of retro-fitting the existing structure and the cost of the fix. Fortunately, for Jackson County, the Engineering Specialist has been a leader in resolving these situations. Contractors and landowners have repeatedly asked for his expertise to view the locations and provide possible solutions. These sites become a priority to remedy as they are discovered. Due to the significant costs, generally \$50,000-\$70,000, to fix many of these sites the landowner has requested funds from both the USDA-NRCS and LCD.

As a note related to this topic: Several years ago, the Jackson County LCD performed a state-wide inquiry to all Land Conservation Departments, WI-DATCP, USDA-NRCS, USDA-FSA, UW-Extension and some retired conservation staff to find any records of installed Civilian Conservation Corps (CCC) conservation practices for Jackson County. Many of the counties that responded are in a similar situation, with little to no records of these CCC installed conservation practices. Of the respondents, it seems that only Buffalo County, somehow, retained much of the original design documents from the 1930s. It is so unfortunate that important conservation documents pertinent to conservation practices and conservation history from less than 90 years ago are gone.

Partly due to the experience with the missing Civilian Conservation Corps conservation practice designs the Land Conservation Department started investigating what options there are to have a recording system of the conservation programs and accomplishments implemented by the Land Conservation Department. In the past three years the Land Conservation Department has worked with the County Land Information Office and a private contractor to develop a system to track conservation practices, LCD program licenses and permits, conservation contracts and cost-share agreements, and contacts with landowners. The current Land Conservation Department staff have been present since the development of all the Jackson County implemented conservation programs began in the mid-1980s. The Land Conservation and Agriculture Committee and LCD felt it was important to have a system in place for future staff to be able to find some record of conservation information by location on an interactive mapping/tracking system. The system that was developed has served the intended purpose, is user-friendly and was cost-effective. The conservation tracking programs is utilized internally by the Land Conservation Department staff. Additional work remains as we continue to go through files to enter information and documentation from close to 40 years-worth of conservation program activities before the current staff leave. Not all conservation documents are intended to be transferred to the tracking system but at least enough information to allow correlation to the site and the paper files located in the office by future Land Conservation Department staff.

Landowners with erosion problems contact the LCD throughout the year. For many years, those continuous contacts have generated a constant list of sites for the Engineering Specialist (ES) to address with various best management practice options. By consistently providing solutions for 20 – 25 sites or more per year the ES has helped the LCD work towards LWRM Plan Goal Number 2.

The LCD will continue to work with landowners at sites that are adjacent to Jackson County streams that currently are listed as impaired waters and exceptional or outstanding resource waters. Those streams are a continued priority areas to focus staff time and financial resources after ordinance and other pre-existing program needs have been met.

## COMPLIANCE DETERMINATION AND STRATEGY

On-site evaluations are conducted as part of the livestock and animal facility inventory to determine compliance with applicable NR 151 livestock or cropland agricultural performance standards. **The evaluation form listed in Attachment 17 on pages 42 and 43 can be used for the inventory.** Compliance information will be maintained by the LCD. Once a determination has been completed, the landowner and operator will be sent a copy of the inventory and evaluation form along with a letter describing any other action that is necessary. The letter will list any performance standard violations or compliance that has been achieved. If corrective action is necessary to meet the Performance Standards recommendations will be listed. If cost-sharing of Best Management Practices is deemed appropriate, the procedure for fund application would be described in the letter. A compliance schedule to meet the necessary Performance Standards will be established with the landowner, LCD, DNR and included in the letter. Appeal procedures will also be listed. The corrective measures will be discussed with the landowners to bring the site into compliance. **The Performance Standards are listed as Attachment 21 on page 47.**

### ENFORCEMENT

Enforcement of actions associated with NR 151.09 or other Performance Standards will be coordinated with the DNR. County ordinance violations of the State Performance Standards has resulted in action taken by Jackson County regarding the violator. If a landowner continues to remain in noncompliance with the state performance standards, or should a landowner refuse technical and/or financial assistance from the LCD or other cost-share sources, the LCD will forward all information corresponding to the infraction(s) to the DNR. The DNR will notify the landowner (s) by registered mail that they are subject to an enforcement action pursuant to NR 151.09. The DNR contact for Jackson County is the DNR Regional Coordinator in La Crosse, Wisconsin.

### APPEALS

Any person aggrieved by a decision of the Jackson County Land Conservation Department may file a written appeal of the decision with the Jackson County Land Conservation and Agriculture Committee or in some cases the Jackson County Board of Adjustment, 307 Main Street, Courthouse, Black River Falls, WI 54615 within 30 days of the Department's decision. A hearing on the appeal shall be commenced within 60 days of the date of the appeal.

## **CHAPTER 6 – MONITORING AND EVALUATION**

The Land Conservation Department provides an annual report to the LCAC and the County Board. The report is a review of work that has been accomplished. Program operations, cost-sharing policies and license issuance are reviewed periodically during the year.

The DNR provides water quality monitoring results to the Land Conservation Department. The water quality information may help direct the LCD where to focus some of their time and efforts. The LCD can use the water quality information to help direct time and efforts and evaluate progress in an area where work has been completed.

The LCD has completed a transect survey for 22 years. The information and visual observations provide the LCD with trends and site-specific information regarding conservation program compliance. The LCD plans on continuing to conduct the transect survey.

The LCD periodically monitors installed conservation practices. The practice inspection provides the LCD with valuable information regarding the effectiveness of the practice and the maintenance efforts of the owner/operator.

## **ACCOMPLISHMENT REPORTS**

The LCD will summarize the accomplishments by reporting to the DNR and DATCP as required. The activity that occurs through county ordinances and State Performance Standards is reported to the LCAC and County Board. The reported information will be reflective to the goals and objectives that the work plan has established.

## **CHAPTER 7 –COUNTY, STATE AND FEDERAL CONSERVATION PROGRAMS**

Jackson County will continue to encourage landowners and livestock producers to implement and comply with NR 151.08. The Land Conservation Department will use mailings, newsletters, and other information and education efforts to promote the implementation of the current performance standards.

There are a variety of existing county, state and federal programs and ordinances that are available, and sometimes required, to establish compliance with the State Performance Standards. More information regarding the following list of programs and ordinances can be obtained from the Land Conservation Department.

### Jackson County Ordinances and Programs –

#### *Chapter 23 – Jackson County Livestock and Animal Facility Licensing Ordinance –*

The ordinance was established in November 2001 and is administered by the Land Conservation Department. The ordinance details the procedures for obtaining a license for the siting of new and expanded livestock and/or animal facilities in Jackson County. Compliance with the four manure management standards is the basis for the ordinance.

#### *Chapter 22 – Jackson County Animal Waste and Manure Management Ordinance –*

The ordinance was adopted in December 1990 and is administered by the Land Conservation Department. The ordinance regulates the location, construction, installation, alteration, design, operation, maintenance, abandonment and the application of waste and manure from all livestock storage facilities.

#### *Farmland Preservation Program –*

The Wisconsin Farmland Preservation program became available in Jackson County in 1986 and administered by the Land Conservation Department. The State of Wisconsin provides tax credits to eligible landowners that follow a soil and water conservation plan. There are no Agriculture Enterprise Areas or Farmland Preservation Zoning in Jackson County. There is one FPP agreement remaining.

#### *Chapter 24 – Jackson County Non-Metallic Mining Reclamation Ordinance –*

This ordinance was established in April 2001 after the State of Wisconsin established NR 135 for state-wide implementation. The ordinance administered by the Land Conservation Department. The ordinance establishes a local program to ensure effective reclamation of non-metallic mining sites.

#### *Chapter 16 – Jackson County Shoreland Zoning and Chapter 20 – Jackson County Floodplain Ordinance –*

These ordinances regulate the areas near navigable streams to reduce water pollution and prevent damage to property and individuals. The ordinances are administered by the County Zoning Department.

### *Targeted Runoff Management Grant Program –*

The DNR has a competitive grant program that the Land Conservation Department can apply for money to implement conservation practices on approved sites that do not meet current agricultural State Performance Standards. The LCD has provided technical assistance to help implement the grant on 9 project sites.

### *Notice of Discharge –*

The DNR and DATCP provides financial assistance to sites that have manure pollution or manure storage water quality problems. The County has worked on 11 sites since using funding from this program.

### *Jackson County Conservation Cost-Share Program*

The Land Conservation Department administers county money that is utilized for cost-sharing various best management practices. The county was provided money for this program since 1999. **A list of the cost-share program policies and cost-share rates for this program and the SWRM Grant Program are on Attachments 19 and 20 on pages 45 and 46.**

### *Phosphorous Reduction Programs*

The Land Conservation Department has worked with the Multi-Discharger Variance Program, beginning in 2020 and Water Quality Trading Program, beginning in 2017, to help install best management programs to reduce sources of phosphorous related to agriculture. Funding for best management practice installation is provided by municipalities and businesses to the County or farms. These best management practices help those municipalities and businesses meet water quality standard requirements mandated on them by the U.S. Environmental Protection Agency.

### *Wildlife Damage Claims and Abatement Program*

The Land Conservation Department has been involved with the program since it started in 1984. The program is utilized to help prevent wildlife damage to crops and other agricultural products. Jackson County has contracted with the USDA-Animal and Plant Health Inspection Service for 25 years to assist with program implementation. In addition to the deer, bear, geese and other wildlife, recently elk have caused damage to various crops in Jackson County resulting in state-funded fence construction to prevent crop damage. The damage to crops has been occurring since the elk were introduced to the County in 2015.

### State of Wisconsin Rules

#### *Wisconsin Administrative Code NR 151 – Runoff Management –*

This section of the code contains performance standards and prohibitions for control of agricultural runoff and the processes and procedures that must be used to enforce them. It prescribes procedures for noncompliance notifications, cost share offers, and enforcement actions. The section also contains performance standards for nonagricultural and transportation pollution related to construction site erosion and post-construction storm water. The Land Conservation Department continues to work on sites regarding the agricultural runoff standards.

#### *Wisconsin Administrative Code NR 216 – Construction Site Erosion Control*

This section of the code is regulated under Subchapter III of NR 216. A notice of intent shall be filed with the DNR by any landowner who disturbs one or more acres of land. This disturbance can create a point source discharge of storm water from the construction site to waters of the state and is therefore regulated by DNR. Agriculture is exempt from this requirement for activities such as planting, growing, cultivating and harvesting of crops for human or livestock consumption and pasturing or yarding of livestock as well as sod farms and tree nurseries. Agriculture is not exempt from the requirement to submit a notice of intent for one or more acres of land disturbance for the construction of structures such as barns, manure storage facilities or barnyard runoff control systems. (See s. NR 216.42(2), Wis. Adm. Code) Furthermore, construction of an agricultural building or facility must follow an erosion and sediment control plan consistent with s. NR 216.46, Wis. Adm. Code and

including meeting the performance standards of s. NR 151.11, Wis. Adm. Code. An agricultural building or facility is not required to meet the post-construction performance standards of NR 151.12, Wis. Admin. Code.

*Wisconsin Administrative Code NR 243 – Animal Feeding Operations –*

This section of the code contains the performance standards and prohibitions for livestock operations over 1,000 animal units and requires them to obtain a permit to operate from DNR, called a Wisconsin Pollution Discharge Elimination System (WPDES) permit. It also sets criteria for DNR enforcement actions on and permit requirement for smaller size livestock operations that discharge significant amounts of pollutants to waters of the state. The Land Conservation Department conducts site visits and converses with the DNR regarding all WPDES sites in the County especially those that also have county Livestock and Animal Facility License.

*Wisconsin Administrative Code ATCP 50 – Soil and Water Resource Management – (SWRM) –*

This section of the code prescribes soil and water conservation practices for agricultural landowners and operators to implement the DNR performance standards and prohibitions in NR 151 and describes them. It outlines the specific cost sharing requirements for compliance with the standards and prohibition. It also contains requirements for county soil and water programs, cost share grants to farmer, certification of soil and water professionals, and local ordinances that regulate animal waste storage, livestock operations and agricultural land uses.

Unites States Fish and Wildlife Service – Fish Passage Program

The Land Conservation Department has been working with municipalities in Jackson County to help restore fish passage to different streams and stream segments in the County. The LCD has helped coordinate the application of the municipalities to the USFWS and sometimes Trout Unlimited. Streams have had fish passage barriers, particularly perched culverts, changed to allow fish to move freely up and down stream.

United State Department of Agriculture (USDA) Programs

*Conservation Reserve Enhancement Program (CREP) –*

This joint federal, state and local program provides annual rental payments up to 15 years for taking cropland adjacent to surface water and sinkholes out of production. A strip of land adjacent to the stream must be planted and maintained in vegetative cover consisting of certain mixtures of tree, shrub, forbs and/or grass species. Cost sharing incentives and technical assistance are provided for planting and maintenance of the vegetative strips. Landowners also receive an upfront, lump sum payment for enrolling in the program, with the amount of payment dependent on whether they enroll the program for 15 years or permanently.

There are seven townships in Jackson County that are in the CREP eligibility area.

*Conservation Reserve Program (CRP) –*

This program provides annual rental payments for taking environmentally sensitive cropland out of production for 10 to 15 years. The land must be planted and maintained in vegetative cover consisting of certain mixtures of tree, shrub, forbs and/or grass species. Cost sharing incentives and technical assistance are provided for planting and maintenance.

*Environmental Quality Incentives Program (EQIP) –*

This USDA-Natural Resources Conservation Service (NRCS) program provides technical assistance and cost sharing to farm operators to install conservation practices to reduce soil erosion and polluted runoff delivery to ground and surface waters.

## **CHAPTER 8 – COORDINATION**

The Land Conservation Department works with many different agencies and departments. The monthly Land Conservation and Agriculture Committee meetings have time allocated for representatives from DNR Forestry,

County Forestry and Parks, USDA – APHIS Wildlife Services, USDA- Natural Resource Conservation Service, UW – Extension, and the County Zoning Department. The Wisconsin Department of Agriculture, Trade, and Consumer Protection (DATCP) also works with the LCD on various programs annually.

The Land Conservation Department has utilized county, state and federal funding for conservation practice installation. In some instances, the Land Conservation Department Engineering Specialist (ES) has designed and helped install conservation practices that utilize combined funding from multiple agencies. The ES can assist the landowners to obtain county, state and federal approvals for various best management practices.

## **CHAPTER 9 – INFORMATION AND EDUCATION**

There are different forms of information utilized to educate landowners and farmers about the soil and water conservation programs and ordinances to the county. The LCD works together with USDA-NRCS, USDA-FSA, UWEX, DNR and the County Zoning Department to distribute information relevant to pollution prevention standards, ordinances and programs. Newsletters, news releases and property tax bill insert with county ordinance and program information have been some of the means to contact people. Letters are sent throughout the year from the Land Conservation Department to individuals asking to meet with them about county ordinances that may affect the use of their property. Some of these contacts are generated from observing activities by driving along the roads. Area lenders, realtors, and builders are contacted approximately every three years and provided information regarding County land use ordinances that could impact their current or prospective clients. Affidavits are filed on parcels that have a Livestock and Animal Facility License to alert prospective new landowners of the environmental standards compliance. As noticed by county staff, vacated livestock facilities that are within the Shoreland Zoning Area are also provided a notice of the environmental compliance standards. Occasionally, the Land Conservation Department has spoken at various meetings within the County and outside the County regarding the agricultural environmental concerns that are occurring in Jackson County. Annually, the Land Conservation Department has provided an overview of their activities to the Black River Falls High School agriculture class. For approximately 15 years, the Land Conservation Department has provided the County Board a Power Point presentation with pictures displaying conservation practices, conservation challenges and a program update as a part of the LCD Annual Report.

A major challenge for agricultural pollution prevention is that almost anyone at any time can start farming cropland, purchase livestock or animals and feed them with no prior knowledge of crop production, animal husbandry or the possible pollution their actions may create and deliver to others or the environment. In most of Wisconsin, there is no uniform educational process or requirement that a cropland farmer or livestock producer has to know or agree with pollution prevention measures on their property. In some situations, in order to obtain certain licenses/permits or program benefits there is a contract the entity enters that requires them to comply with the program criteria, which may include pollution correction or prevention measures. Some farmers don't participate in government program or on a limited basis. It can be difficult and sometimes impossible to resolve pollution problems with individuals that have already determined how they intend to operate and some have done so for many years. It becomes even more challenging when the polluter doesn't believe they are polluting and unwilling to change their farming methods. There are always new farmers entering the farming business many of which don't seem to be aware of current conservation standards let alone knowing how or wanting to comply with them. A portion of conservation education and program direction continues to be utilizing staff resources and making payments to farmers to entice them to follow measures to decrease pollution, in many cases after significant pollution has occurred. This method has been occurring for several decades. Should all farmers and livestock producers have the knowledge and understanding of agricultural pollution prevention measures and be expected to maintain environmental compliance standards prior to purchasing their farm or starting to farm it would help decrease the pollution that occurs.

## **Attachment 1**

### **Related Plans, Programs and Ordinances Available for Additional Details**

**SOIL SURVEY OF JACKSON COUNTY, WISCONSIN** – United States Department of Agriculture-Natural Resources Conservation Service and the Research Division of the College of Agricultural and Life Sciences, University of Wisconsin – 2001

**LOWER CHIPPEWA RIVER BASIN – WATER QUALITY MANAGEMENT PLAN** – Wisconsin Department of Natural Resources, PUBL – WT-554-2001

**BLACK/BUFFALO/TREMPEALEAU RIVER BASIN – WATER QUALITY MANAGEMENT PLAN** – May 2002, Wisconsin Department of Natural Resources, PUBL WT-556-2002

**LOWER WISCONSIN – WATER QUALITY MANAGEMENT PLAN** – July 2002, Wisconsin Department of Natural Resources, PUBL- 559.2002

**THE 303(D) LIST OF WATERS NOT CURRENTLY MEETING WATER QUALITY STANDARDS** – 2020 – Wisconsin Department of Natural Resources – Water Division

**NATIONAL AGRICULTURAL STATISTICS SERVICE AND THE WISCONSIN DEPARTMENT OF AGRICULTURE, TRADE AND CONSUMER PROTECTION** – 2020

**JACKSON COUNTY EROSION CONTROL PLAN** – 1987

**NONPOINT SOURCE CONTROL PLAN FOR THE BEAVER CREEK PRIORITY WATERSHED PROJECT** – July 1987 – Trempealeau and Jackson County Land Conservation Departments, Wisconsin Department of Natural Resources, PUBL-WR-198-87

**NONPOINT SOURCE CONTROL PLAN FOR THE UPPER TREMPEALEAU RIVER PRIORITY WATERSHED PROJECT** – July 1994 – Trempealeau and Jackson County Land Conservation Departments, Wisconsin Department of Natural Resources, Wisconsin Department of Agriculture, Trade and Consumer Protection, PUBL-WR-419-95

**JACKSON COUNTY, WISCONSIN – FARMLAND PRESERVATION PLAN** – June 1986, Revised in 2012, Jackson County Land Conservation Department, Urban and Regional Planning Department, University of Wisconsin – Madison

**SURFACE WATER RESOURCES OF JACKSON COUNTY** – 1968 – Wisconsin Department of Natural Resources

**JACKSON COUNTY FOREST** – Comprehensive Land Use Plan – 2006-2020

**JACKSON COUNTY LIVESTOCK AND ANIMAL FACILITY LICENSING ORDINANCE** – November 2001, First Ordinance, Revised

**JACKSON COUNTY ANIMAL WASTE AND MANURE MANAGEMENT ORDINANCE** - December 1990, Revised September 2006

**JACKSON COUNTY NON-METALLIC MINING RECLAMATION ORDINANCE** – April 2001, Original

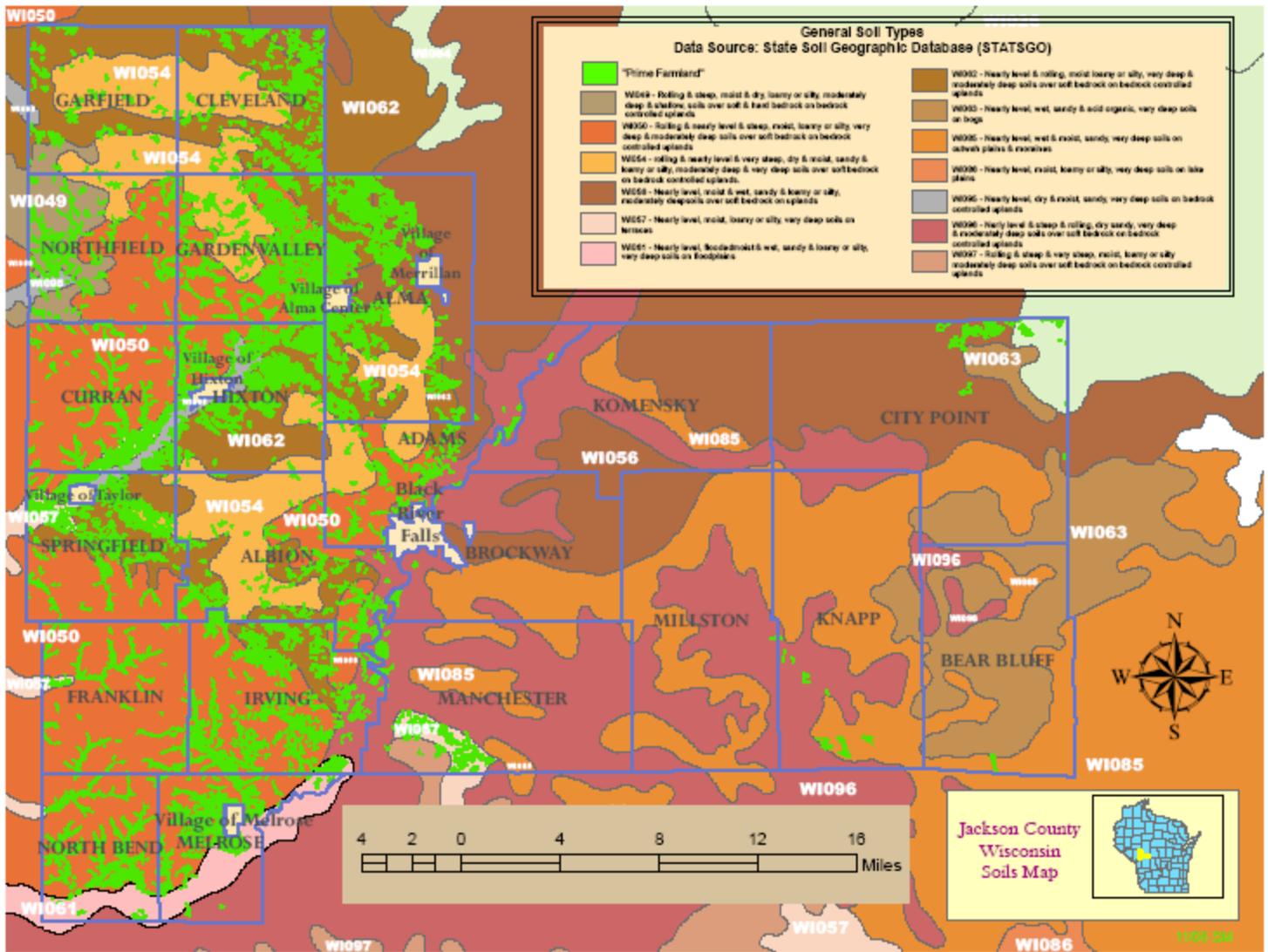
**JACKSON COUNTY SHORELAND ZONING ORDINANCE** – April 1970

**JACKSON COUNTY FLOODPLAIN ZONING ORDINANCE** – Revised February 2004

**COON FORK LAKE MANAGEMENT PLAN** – November 2004

**JACKSON COUNTY COMPREHENSIVE PLAN** – 2010 - 2030

Attachment 2



**Attachment 2-A**

Mapping Legend  
Wisconsin STATSGO  
10/90

<u>Map Symbol</u>	<u>Map Unit Name</u>
WI049	Elkmound-Urne-Eleva
WI050	Seaton-Gale-Tell
WI054	Boone-Tarr-Eleva
WI056	Ludington-Elm Lake-Merrillan
WI057	Billett-Curran-Ettrick
WI061	Abscota-Glendora-Kalmarville
WI062	Eleva-Billett-Seaton
WI063	Loxley-Dawson-Newson
WI085	Newson-Meehan-Friendship
WI086	Delton-Wyeville-Plainfield
WI095	Sparta-Gotham-Plainfield
WI096	Boone-Tarr-Impact
WI097	La Farge-Urne-Norden



**Attachment 4**

**WATERSHEDS AND BASINS IN JACKSON COUNTY**

Lower Chippewa River Basin

Lower Eau Claire River LC 14

Black And Hay Creeks LC 15

Buffalo/Trempealeau River Basin

Upper Buffalo River BT 08

Pigeon Creek BT 04

Upper Trempealeau River BT 05

Black River Basin

Halls Creek BR 06

East Fork Black River BR 07

Morrison Creek BR 05

Trout Run and Robinson Creek BR 04

Big and Douglas Creeks BR 03

Beaver Creek and Lake Marinuka BR 02

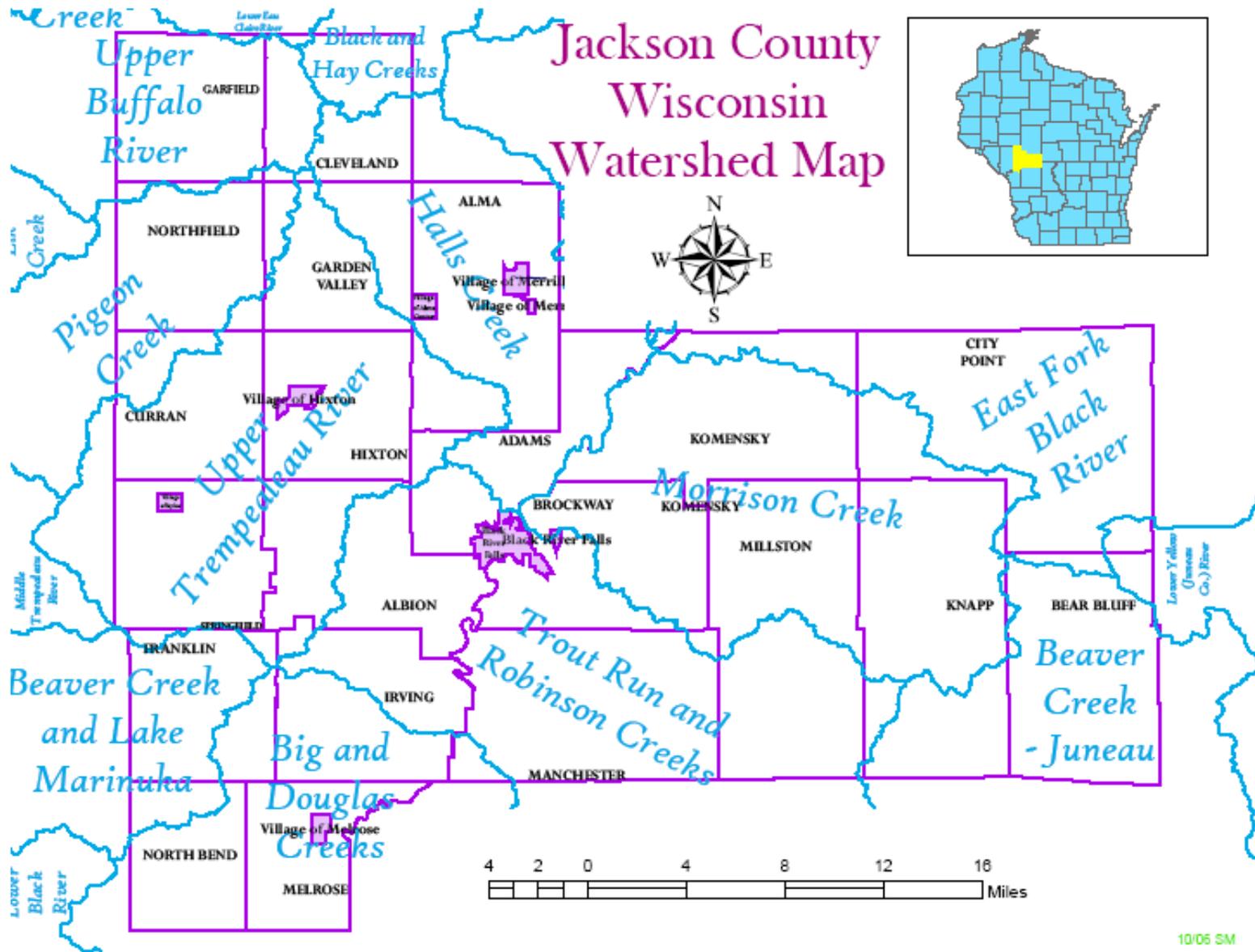
Fiver Mile and Wedges Creek BR 08

Central Wisconsin River Basin

Lower Yellow River (Juneau Co.) CW 02

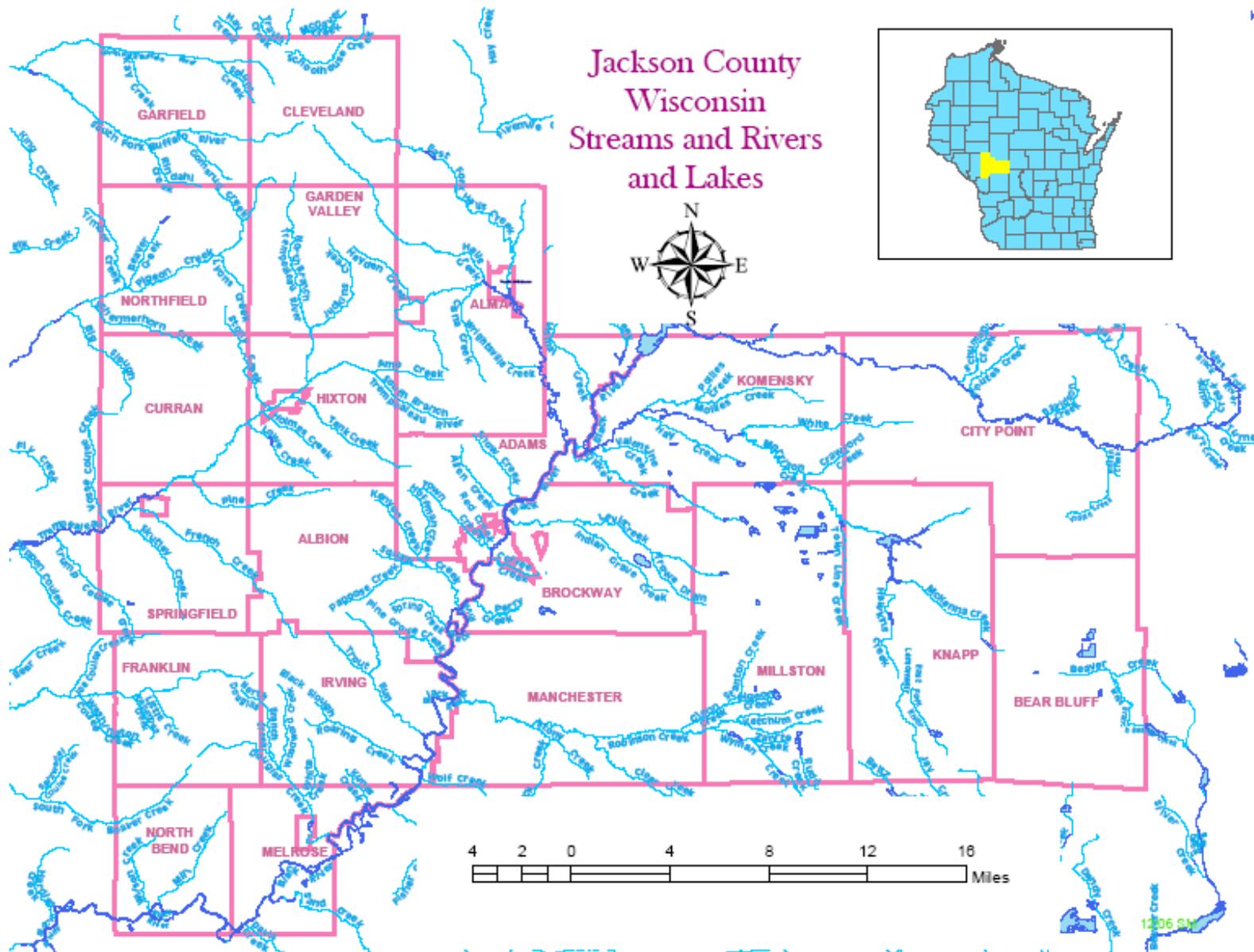
Lower Wisconsin River Basin

Beaver Creek (Juneau Watershed) LW 28

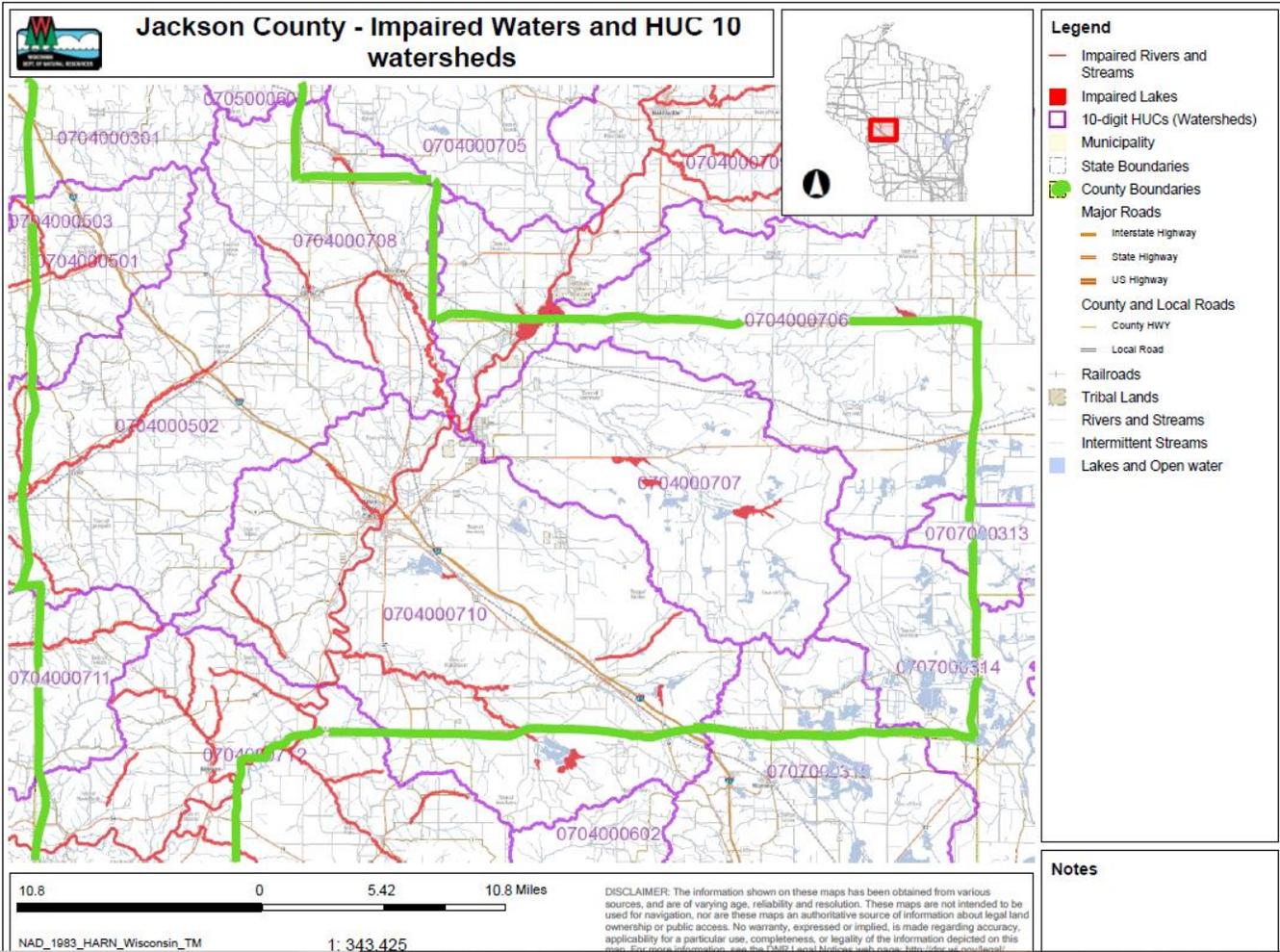


10/06 SM

Attachment 6



Attachment 7



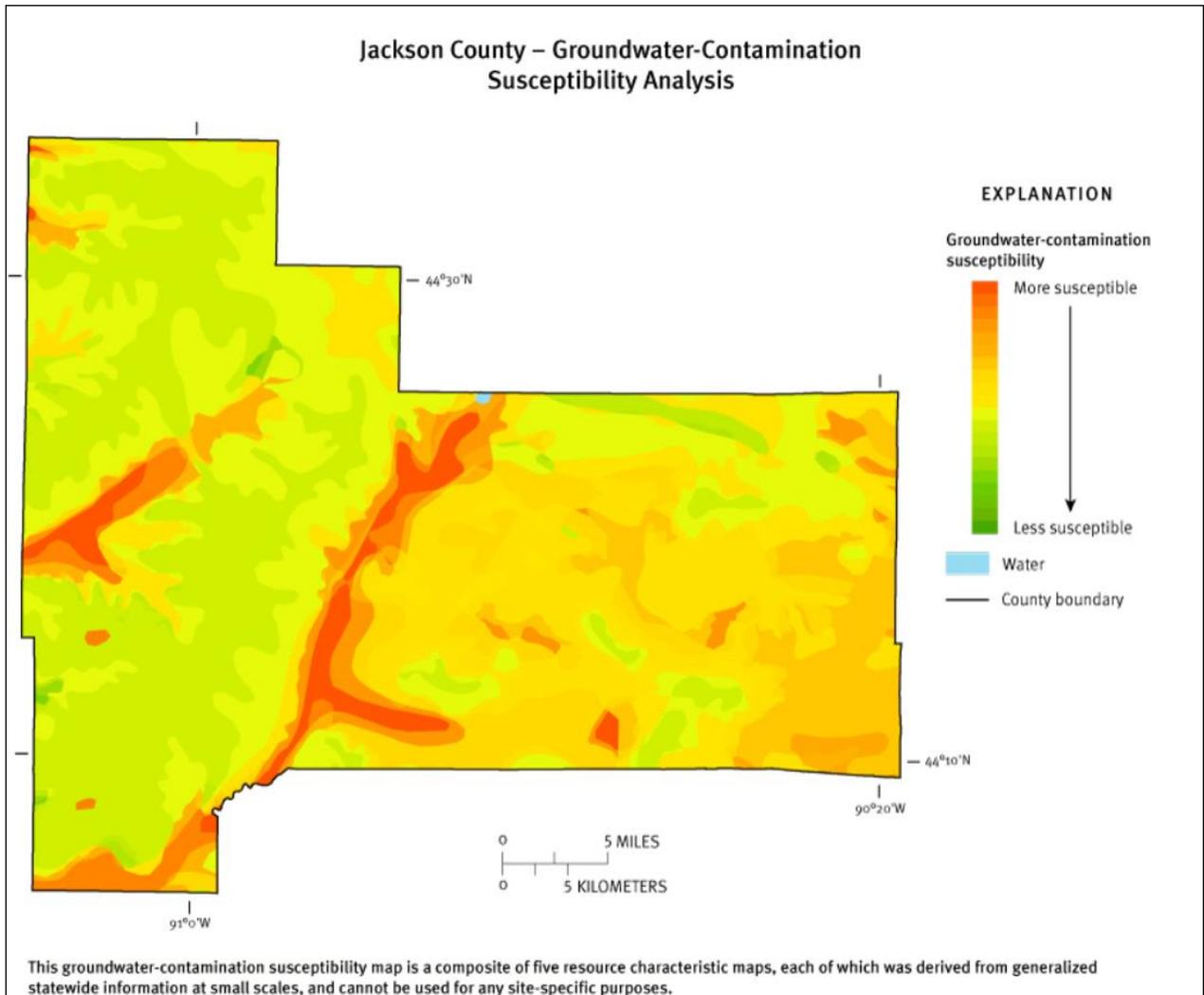
## Attachment 8

Watershed Name	River Basins	NPS Ranking	NPS 303 (d) Waters List	Pollutant or Impairment
Beaver Creek – LW28	Lemonweir			
Beaver Creek and Lake Marinuka-BR02	Black River	Medium	North Fork Beaver Creek	Total Phosphorous (P)
Big and Douglas Creeks-BR03	Black River	Low	Mill Creek	Total Suspended Solids (TSS)/Degraded Habitat (DH)
		Medium	Douglas Creek	High P levels
		Medium	Roaring Creek	DH, High P levels
		Low	White Creek	TSS/DH
		Low	Woodward Creek	TSS/DH
		Low	Black River	Mercury/Contaminated Fish Tissue (CFT)
		Medium	Sand Creek	High P level
		Low	Davis Creek	High P level
Black and Hay Creeks-LC15	Lower Chippewa	Low		
East Fork Black River-BR07	Black River	Low	Lake Arbutus	Mercury/CFT/High P, Algae
Fivemile and Wedges Creeks-BR08	Black River	Low		
Halls Creek-BR06	Black River	Low	Trow Lake	Eutrophication, Elevated P
		Low	Halls Creek	Total P
		Low	East Fork Halls Creek	Total P
		Low	Hayden Creek	High P levels
Lower Eau Claire River-LC14	Lower Chippewa	High		
Lower Yellow(Juneau Co.) River-CW02	Central Wisconsin	Low		
Morrison Creek-BR05	Black River	Low	Potter Flowage	Mercury/CFT
		Low	Town Line Flowage	Mercury/CFT
		Low	Whitetail Flowage	Mercury/CFT
Pigeon Creek-BT04	Buffalo/Trempealeau	Low	Pigeon Creek Timber Creek	High Phosphorous Levels Degraded biological community
Trout Run and Robinson Creeks-BR04	Black River	Low	Trout Run Creek	Sediment/BOD/TSS
		Low	Roaring Creek	Elevated Temp.
		Low	Pigeon Creek	Sediment/TSS
		Low	Clear Creek	Elevated water temperature
		Low	Cranberry Flowage-Up.	Flow/Elevated Water Temp
		Low	Harkner Flowage	Elevated water temp./ Degraded Biological Com.
		Low	Black River	Mercury/CFT
Low	Robinson Creek	Mercury/CFT		
		Medium	Town Creek	PCBs/CFT Total P
Upper Buffalo River-BT08	Buffalo/Trempealeau	High		High P levels

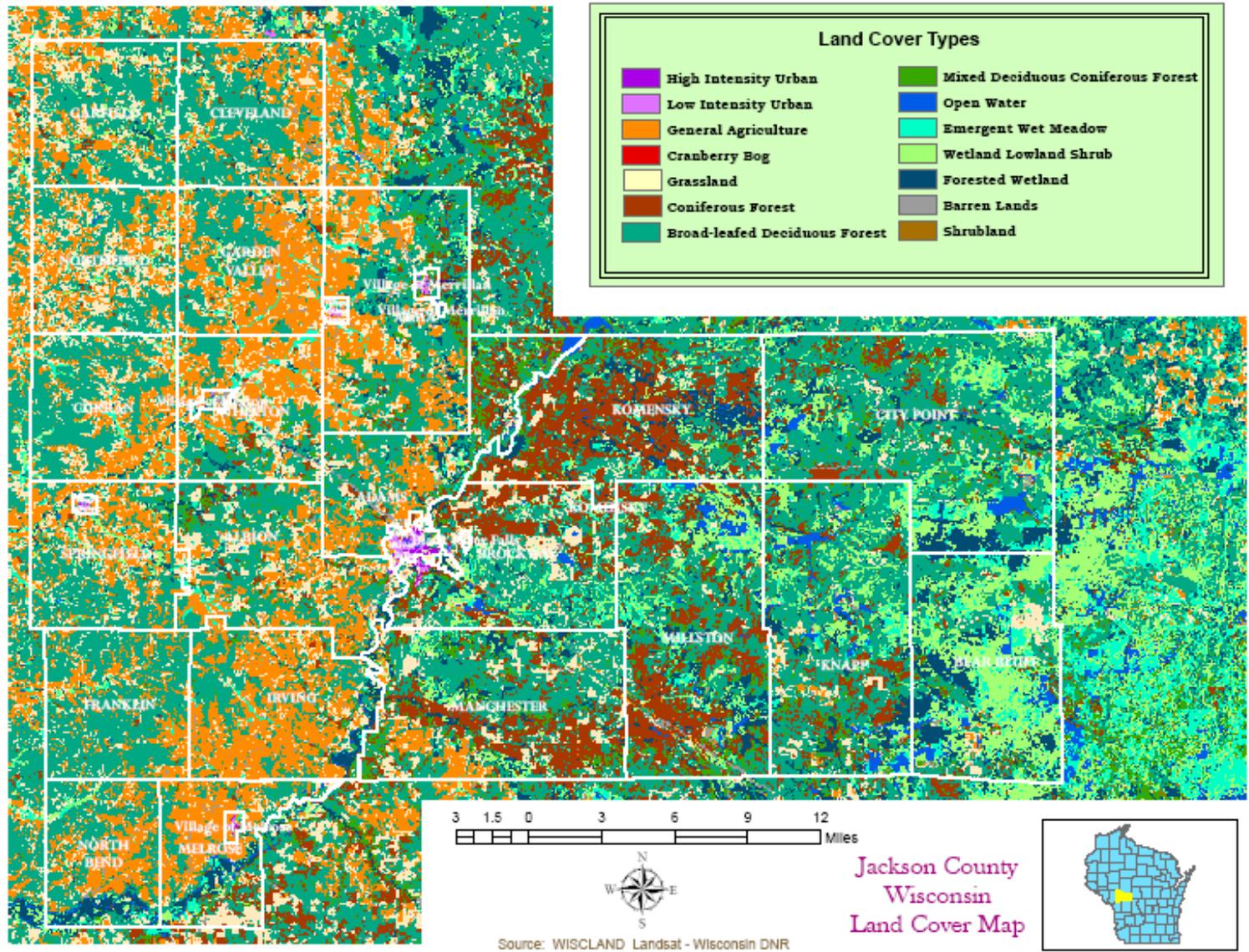
## Attachment 9

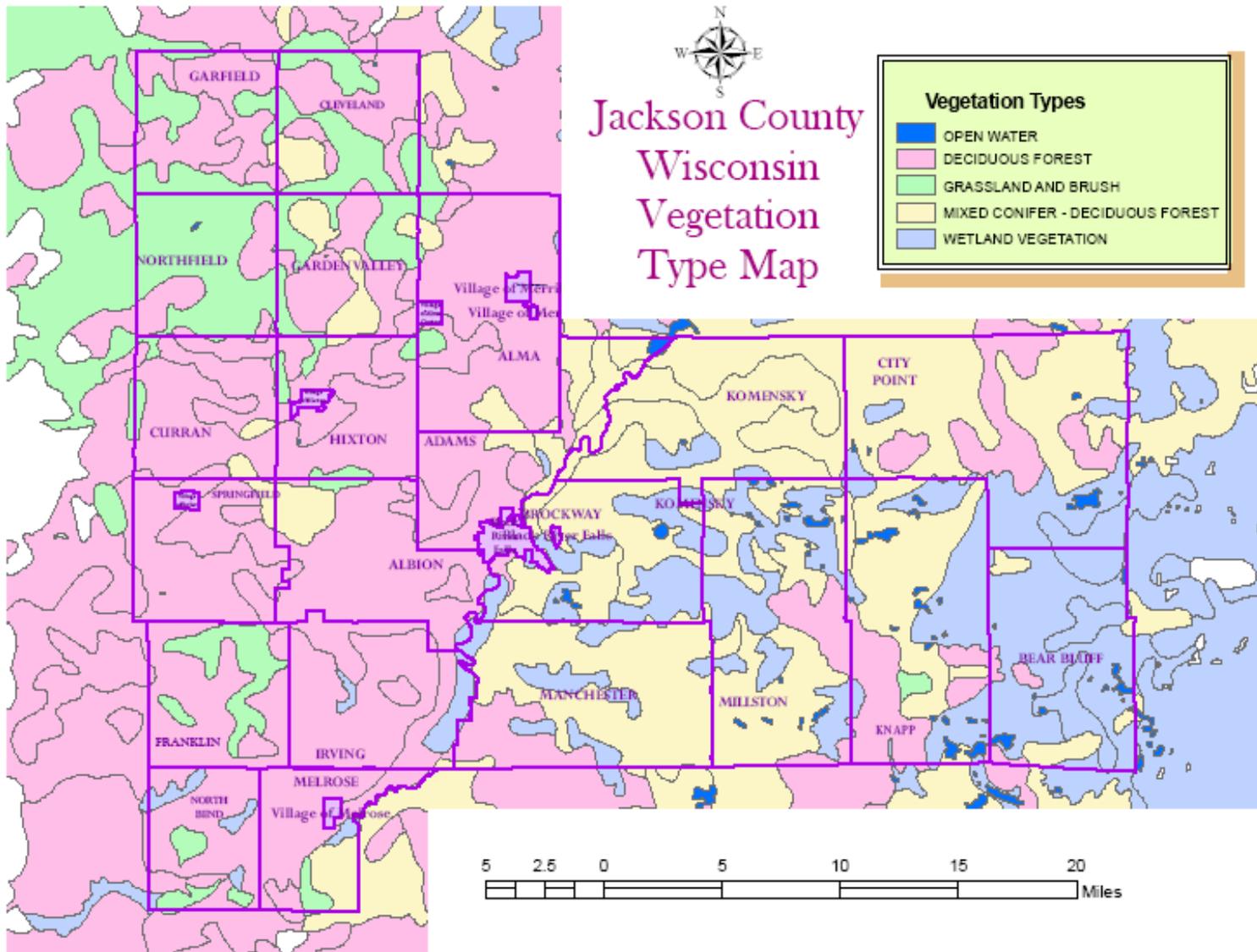
<u>Waterbody Name</u>	<u>JACKSON COUNTY Portion Within ORW/ERW Classifications</u>	<u>Status</u>
Allen Creek	All	ERW
Beltz Creek	All	ERW
Cisna Creek	All	ERW
Clear Creek	All	ERW
Coffee Creek	All	ERW
Columbus Creek	Originating in S29 T20N R6W	ERW
Creek 7-7	All	ERW
Creek 10-10 T20N R6W	Originating in S14 T20N R6W	ERW
Creek 13-12 T21N R5W	All	ERW
Creek 12-3a T20N R7W	All	ERW
Creek 16-2 T20N R6W	Originating in S22 T20N R6W	ERW
Creek 19-16 T24N R6W	All	ERW
Creek 21-16 T24N R6W	All	ERW
Creek 23-11 T24N R6W	All	ERW
Creek 23-13 T20N R2W	All	ERW
Creek 25-2 T24N R6W	All	ERW
Creek 26-7 T20N R6W	Originating in S2 T20N R6W	ERW
Creek 27-7 T22N R5W	All	ERW
Creek 28-6 T24N R6W	Mouth upstream to W line of S21 T24N R6W	ERW
Creek 29-1 T24N R6W Rindahl Creek	All	ERW
Creek 29-10 T22N R3W Clear Creek	All	ERW
Creek 29-5 T24N R6W	All	ERW
Creek 3-12 T24N R6W	All	ERW
Creek 30-5	All	ERW
Creek 30-6 T24N R5W	All	ERW
Creek 30-15 N. Branch	All	ERW
Creek 33-2 T22N R4W	All	ERW
Creek 33-5 T22N R4W	All	ERW
Creek 4-10 T24N R6W	All	ERW
Creek 5-10 T24N R6W	All	ERW
Creek 7-5 T24N R5W	All	ERW
Creek 9-13 T20N R6W	Originating in S4 T20N R6W	ERW
Douglas Creek	From S. section line S32 T20N R5W upstream to Head W. S27 T20N R6W	ERW
Kay Creek	All	ERW
Levis Creek	Mouth to junction with Indian Grave Creek	ERW
Little Creek	Originating in S21 T20N R6W	ERW
N Branch Douglas Creek	All	ERW
N Branch Trempealeau River	All	ERW
N Fork Buffalo River	All	ERW
Pine Creek	All	ERW
Rindahl Creek	All	ERW
S Fork Buffalo River	All	ERW
Sand Creek	All	ERW
Snow Creek	All	ERW
Solum Creek	All	ERW
Squaw Creek	All	ERW
Tank Creek	All	ERW
Trempealeau River	From STH 95 at Hixton to CTH "P" at Taylor	ERW
Unnamed Creek, T22N R3W, Sec. 17	All	ERW
Unnamed Tributary, T20N R6W, Sec. 17	All	ERW
Valentine Creek	All	ERW
Vismal Creek	All	ERW
Vosse Coulee Creek	All	ERW
Washington Coulee Creek	Originating in S29 T20N R6W	ERW
Wyman Creek	Portion	ERW

# Attachment 10

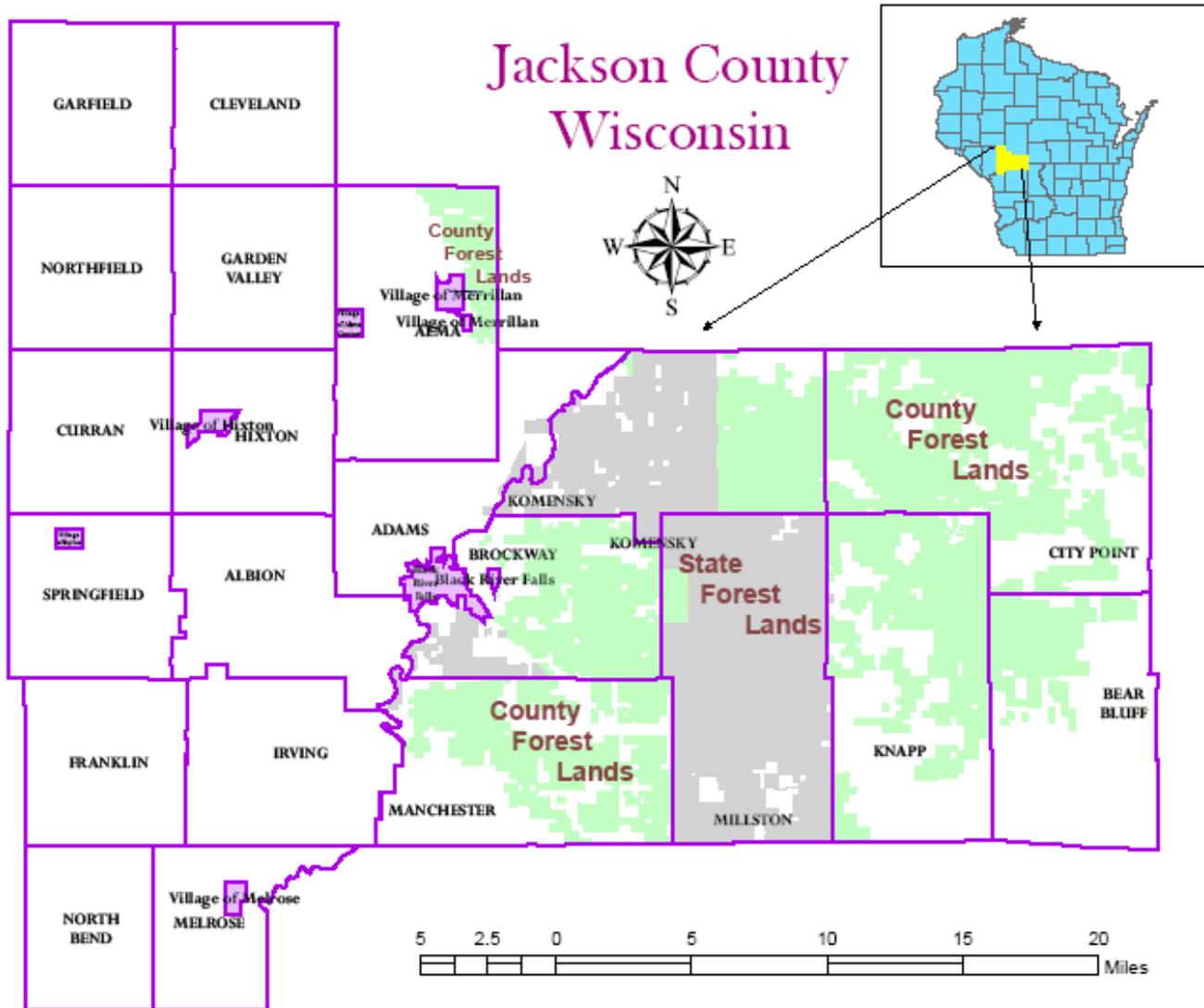


Attachment 11





Attachment 13



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# CDL2020 CDL, Jackson County, Wisconsin



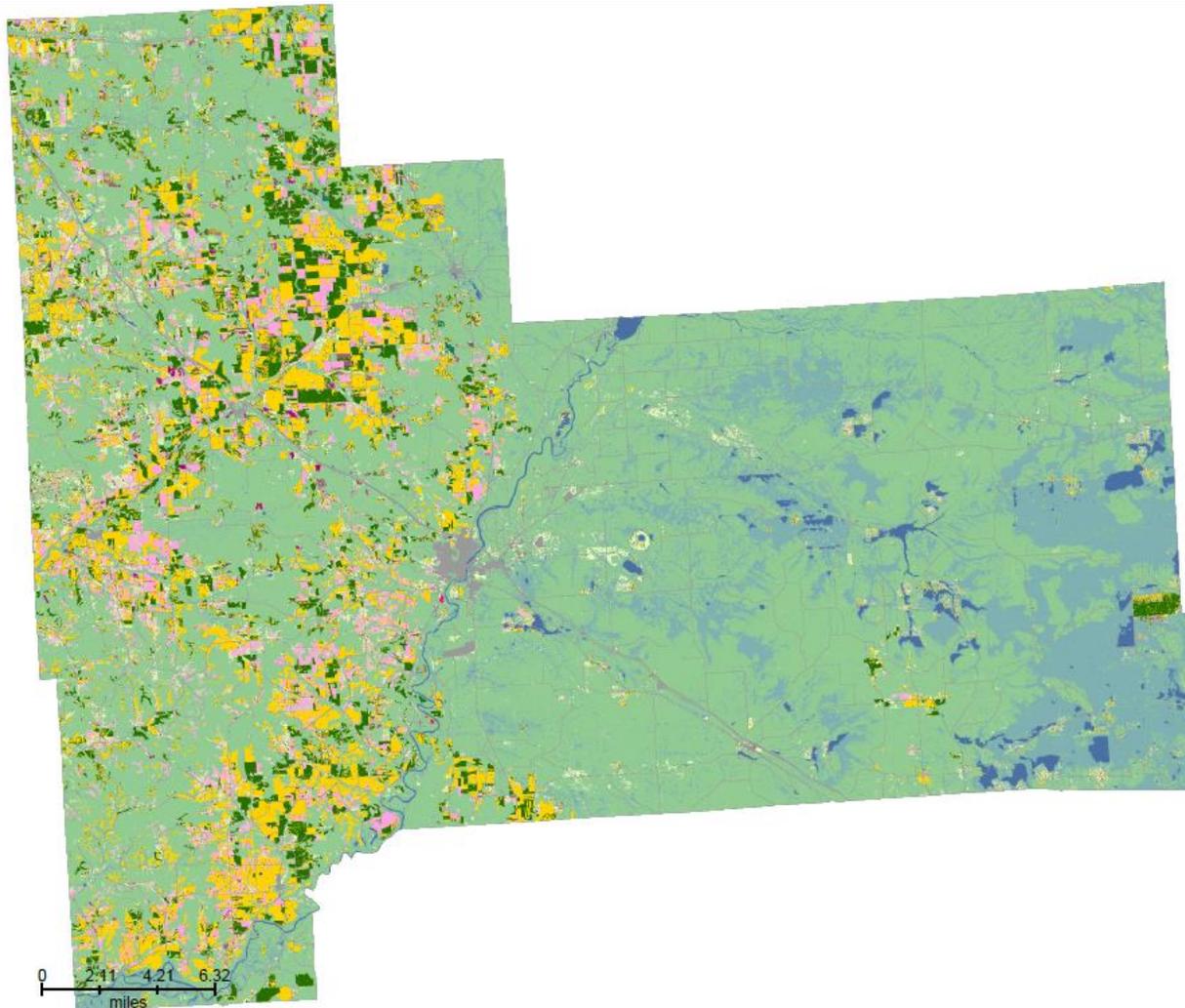
Land Cover Categories  
(by decreasing acreage)

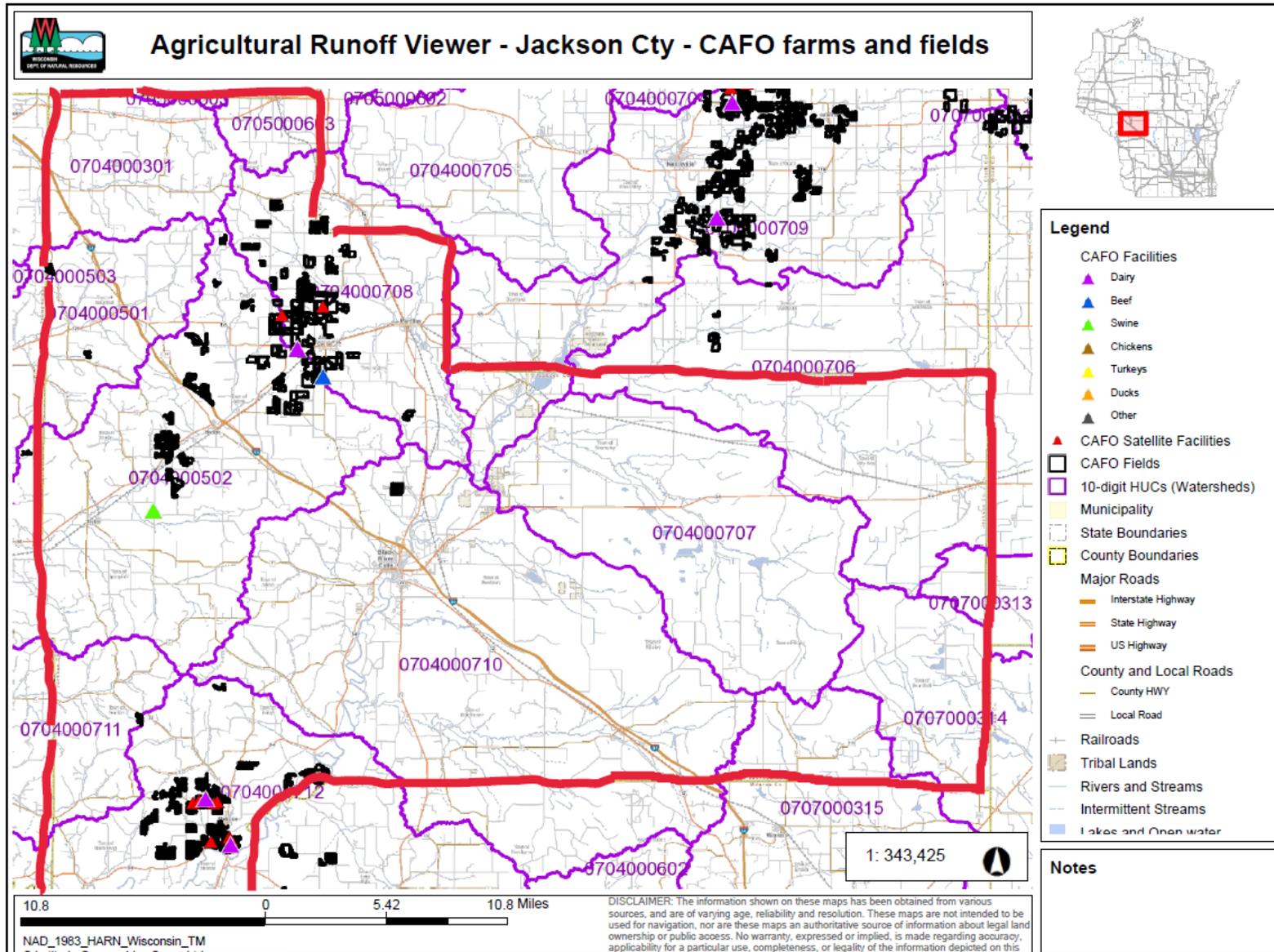
**AGRICULTURE\***

- Corn
- Soybeans
- Alfalfa
- Grass/Pasture
- Other Hay/Non Alfalfa
- Oats
- Rye
- Christmas Trees
- Fallow/Idle Cropland
- Clover/Wildflowers
- Winter Wheat
- Barley
- Spring Wheat
- Sorghum
- Apples
- Potatoes

**NON-AGRICULTURE\*\***

- Deciduous Forest
- Mixed Forest
- Woody Wetlands
- Evergreen Forest
- Herbaceous Wetlands
- Developed/Open Space





## 2022– 2026 WORK PLAN FOR JACKSON COUNTY

## GOAL 1: Improve Manure Management and Reduce Manure Pollution to the Waters of Jackson County

<b>OBJECTIVES</b>	<b>ACTIONS</b>	<b>WHO</b>	<b>WHEN</b>	<b>PROGRESS MEASUREMENT</b>	<b>INFORMATION AND EDUCATION</b>
Prevent Manure Runoff from impacting county surface waters	Continue to implement the County Livestock and Animal Facility Licensing Ordinance.	LCD	2022-2026	+15 licenses issued per year +Landowner engagement at the property +Inspect 25% of the licensed County Livestock Facilities per year for compliance	+Handouts sent with tax bills to unincorporated towns every other year +Letters sent to individuals +FSA Newsletter +Many site visits
	Continue to implement the County Manure Storage Ordinance	LCD	2022-2026	Assist 4 livestock producers per year	
	Implement the State Performance Standards in conjunction with the county ordinances	LCD UWEX	2022-2026		Use handouts and information to educate producers
Provide Technical Assistance to livestock facilities and operations needing licenses	Work with other departments and agencies for proper facility site planning	+LCD +Zoning Dept. +DNR +County Board of Adjustment	2022-2026	Visits with 40 livestock producers per year	+Tax bill handout +Many site visits +LCD testimony at hearings and meetings
Monitor manure spreading and utilization		LCD, DNR			+News releases by DATCP

Estimated annual LCD staff costs for Goal Number One-1.0 position - \$100,000 County and DATCP money.

Estimated annual costs other than staff - \$50,000 Cost-Share from DATCP, DNR, NRCS, LCD, MDV Program

The entire Work Plan is a High Priority.

2022 – 2026 WORK PLAN FOR JACKSON COUNTY

Goal 2: Continue work to decrease Sedimentation from other eroding gullies, eroded channelized flow sites and eroding streambank locations

Objectives	Actions	Who	When	Progress Measurement	Information and Education
Reduce sediment from gullies and stream bank erosion	Utilize cost-share to install BMPs to control erosion from sites.	LCD NRCS	2022-2026	Install 15-20 BMPs annually	FSA Newsletter News releases
Reduce soil erosion from cropland	Contact landowners with excessive erosion to discuss remedies	LCD NRCS	2022-2026		FSA newsletter News release
	Continue transect survey	LCD	2022-2026	Check and compare results	
	Assist with Conservation Reserve Enhancement Program	FSA NRCS LCD	2022-2026		
Prevent soil erosion from non-metallic mining sites	Administer the non-metallic mining reclamation ordinance	LCD	2022-2026	Annually monitor 19 existing sites	

Estimated annual LCD staff costs for Goal 2 – 1.0 positions - \$100,000 County and DATCP money

Estimated annual costs other than staff - \$200,000 Cost-share from DATCP, DNR, NRCS, LCD, MDV Program

The entire Work Plan is High Priority.

JACKSON COUNTY INVENTORY AND EVALUATION FORM
for
AGRICULTURAL PERFORMANCE STANDARDS AND PROHIBITIONS
NR 151, RUNOFF MANAGEMENT

Landowner - \_\_\_\_\_ Operator - \_\_\_\_\_

Address - \_\_\_\_\_ Address - \_\_\_\_\_

Phone Number - \_\_\_\_\_ Phone Number - \_\_\_\_\_

Evaluated by - \_\_\_\_\_ Date - \_\_\_\_\_

NR151.02 Sheet, Rill and Wind Erosion

Cropland shall be cropped to tolerable soil loss.

- Is there a conservation plan developed by a cropland erosion prediction model? Yes / No / NA / Unsure
Does the existing farm plan meet "T" using RUSLE II? Yes / No / NA / Unsure
Does the conservation plan meet "tolerable" soil loss? Yes / No / NA / Unsure

NR 151.03 Tillage Setback

Prevent tillage operations from destroying stream banks and depositing soil directly in the stream

Is there tillage operations depositing soil in the stream? Yes / No / NA / Unsure

NR 151.04 Phosphorus Index

Croplands, pastures and winter grazing areas shall have a phosphorus index of 6 or less

Are the phosphorus index standards being met? Yes / No / NA / Unsure

NR 151.05 Manure Storage Facilities

New, altered, or abandoned manure storage facilities must meet NRCS standards.

NR 151.05 (2) New Construction and Alterations

- Is there a manure storage facility at this site? Yes / No / NA / Unsure
What year was the facility constructed or altered? Yes / No / NA / Unsure
Is the facility certified as meeting NRCS standards? Yes / No / NA / Unsure

NR 151.05 (3) Closure

- Has any manure been added or removed in past 24 months? Yes / No / NA / Unsure
Is retention of the facility warranted based on future use? Yes / No / NA / Unsure

NR 151.05 (4) Failing and Leaking Existing Facilities

- Does the facility as is pose a public health threat, a threat to fish and aquatic life, or is it violating groundwater standards? Yes / No / NA / Unsure

Comments: \_\_\_\_\_

NR 151.055 Process wastewater handling

There may be no significant discharge of process wastewater to waters of the state

Is there a potential for a significant discharge to streams or lakes? Yes / No / NA / Unsure

Comments: \_\_\_\_\_

NR 151.06 Clean Water Diversions



## **Attachment 18**

### Land and Water Resource Management Plan Advisory Committee

Ron Carney – Land Conservation and Agriculture Committee Chair

Gaylord Olson II– Land Conservation Department – County Conservationist

Michael Goehring – Land Conservation Department – Engineering Specialist

Erinn Meier – USDA Farm Service Agency – Executive Director

Ryan Swatek – USDA Natural Resources Conservation Service – District Conservationist

Steven Okonek – University of Wisconsin, Extension – Agriculture Agent

Jim Zahasky – Jackson County Forestry & Parks – Administrator

Hoyt Strandberg – Land Conservation and Agriculture Committee Member

Jerrold Schmidt – Land Conservation and Agriculture Committee Member  
Friends of the Black River member

Thomas Clark – Land Conservation and Agriculture Committee member, Town Board Official

Larry Blaken – Land Conservation and Agriculture Committee member, Dairy Producer

Steven Kling – Land Conservation and Agriculture Committee member, Dairy Producer, Farm Bureau member

Jason Gazdecki – Jackson County Zoning/Sanitation Director

## Attachment 19

### 2021 County Conservation Cost-Share Program Policies

Manure storage systems	Relocating or abandoning animal feeding operations
Manure storage systems closure	Barnyard runoff control systems
Roof runoff systems	Sediment basins
Access roads and cattle crossings	Stream bank and shoreline protection
Animal trails and walkways	Strip-cropping
Critical area stabilization	Subsurface drains
Diversions	Underground outlets
Filter strips	Waste transfer systems
Grade stabilization structures	Wastewater treatment strips
Heavy use area protection	Water and sediment control basins
Livestock watering facilities	Waterway systems
Milking center waste control systems	Well decommissioning
	Wetland development or restoration

- ◆ The cost-share rate is set at 70%.
- ◆ Cost-sharing will be near \$5,000.00 per Best Management Practice/year – Cost-sharing is limited to one Best Management Practice per year to the applicant.
- ◆ Checks will be issued to the applicant and the contractor unless the contractor has been paid prior to the check being issued.
- ◆ BMPs will not be authorized if previous contractors have not been paid in full.
- ◆ It is optional to bid the Best Management Practice. Bills will be reviewed by the LCD prior to authorizing payment.
- ◆ All Best Management Practices will be reviewed by the LCD to insure they meet NRCS Standards and Specifications
- ◆ Strip cropping (contour) will be cost-shared at \$18.50/Ac.

## PRACTICE COST-SHARE RATE FOR COUNTY – STATE PROGRAMS

<b>Tech Guide Practice Code</b>	<b>Practice</b>	<b>County Cost Share Rates</b>	<b>SWRM Grant</b>
560	Access Road	70%	50%
362	Diversion	70%	70%
585	Stripcropping	\$13.50/Acre	
342	Critical Area Planting	70%	70%
410	Grade Stabilization Structure	70%	70%
412	Waterway Systems	70%	70%
468	Lined Waterway or Outlet	70%	70%
313	Manure Storage Systems	70%	70%
635	Waste Water Treatment Strip	70%	70%
590	Nutrient Management		
558	Roof Runoff Management	70%	70%
350	Sediment Basin	70%	
580	Streambank Stabilization	70%	50%
606	Subsurface Drain	70%	
614	Watering Facility Trough/Tank	70%	70%
620	Underground Outlet	70%	70%
638	Water/Sediment Control Basin	70%	70%
360	Manure Storage Systems Closure	70%	70%
575	Animal Trails and Walkways	70%	70%
642	Well Decommissioning	70%	70%
657	Wetland Restoration	70%	70%
393	Filter Strips	70%	70%
561	Heavy Use Area Protection	70%	70%
	Milking Center Waster Control Systems	70%	70%
	Relocating or Abandoning Feeding Operations	70%	70%
	Barnyard Runoff Control Systems	70%	70%
634	Waste Transfer Systems	70%	70%

## State Performance Standards

Performance standard (Type of standard covered)	Effective Date	Conservation Initiatives
<b>NR 151.02</b> Sheet, rill and wind erosion performance standard. (Cropland and pasture)	October 1, 2002 and July 2012 for pastures	Install contour farming, cover and green manure crop, crop rotation, diversions, field windbreaks, residue management, strip-cropping, and terrace systems. Related runoff controls: critical area stabilization, grade stabilization structures, sinkhole treatment, water and sediment control basins, waterway systems.
<b>NR 151.03</b> Tillage Setback from Stream Banks	January 1, 2011	Prevent tillage operations from destroying stream banks and depositing soil directly in the stream.
<b>NR 151.04</b> Phosphorus Index	January 1, 2011	Croplands, pastures and winter grazing areas shall average a phosphorus index of 6 or less over the accounting period and may not exceed a phosphorus index of 12 in any individual year within the accounting period.
<b>NR 151.05</b> Construct, maintain and close manure storage facilities to prevent manure overflows and leaks. (Livestock operations and facilities)	October 1, 2002	Meet NRCS standards for construction, maintenance, and closure using technical standards: 313 (waste storage facility), 360 (closure of waste impoundments), 634 (manure transfer standard).
<b>NR 151.055</b> Process wastewater handling	January 1, 2011	There may be no significant discharge of process wastewater to waters of the state.
<b>NR 151.06</b> Divert clean water from feedlots. (Livestock operations and facilities within Water Quality Management Areas)	October 1, 2002	Install diversions, roof runoff systems, subsurface drains, and underground outlets.
<b>NR 151.07</b> Nutrient Management. Control nutrient runoff into water of the state. (Cropland)	Effective for all operations on January 1, 2008.	Develop and follow an annual nutrient management plan for applying fertilizer or manure. Base plans on soil tests conducted by DATCP certified laboratory. Become qualified to prepare plan or use qualified planners. Apply nutrients according to UWEX recommendations for crops. Install additional conservation or management practices to reduce nutrient loading.
<b>NR 151.075</b> Silurian Bedrock Performance Standards	Effective July 1, 2018	Decrease the potential for manure pollution to contaminate ground water
<b>NR 151.08</b> Manure Management Prohibitions <ul style="list-style-type: none"> <li>a. No overflow from manure storage facilities.</li> <li>b. No unconfined manure stacks within the Water Quality Management Area.</li> <li>c. No direct runoff from feedlots and manure storage facilities.</li> <li>d. No unlimited access of livestock to shore lands that prevents maintenance of adequate sod cover. (Livestock operations and facilities)</li> </ul>	October 1, 2002	<ul style="list-style-type: none"> <li>a. Design and construct facilities to technical standards, maintain facilities including adequate freeboard, repair or replace facilities, as needed.</li> <li>b. Relocate manure piles, construct manure storage facilities.</li> <li>c. Install barnyard runoff control systems, including diversions, milking center waste control systems, relocating or abandoning animal feeding operations, roof runoff systems, sediment basins, subsurface drains, underground outlets, water and sediment control basin, wastewater treatment strips, well decommissioning. For manure storage facility runoff, see (a.) above.</li> <li>d. Install access roads and cattle crossings, animal trails and walkways, critical area stabilization, livestock fencing, livestock watering facilities, prescribed grazing, riparian buffers, stream bank and shoreline protection.</li> </ul>