

Monroe County Land & Water Resource Management Plan - Summary

The Monroe County Land and Water Resource Management Plan (LWRMP) was prepared by the Monroe County Land Conservation Department (LCD) staff with input and support from Monroe County citizens, Agricultural Advisory Team, Agency partners, and the Natural Resource & Extension Committee. The plan will guide natural resource management activities in Monroe County from 2018-2028. This plan summarizes the views of the citizens of the county and local, state, and federal agencies with resource responsibilities in Monroe County. Resource assessments and management recommendations are derived from existing plans, staff knowledge, experience, and monitoring activities.

To read the plan in its entirety visit: <http://www.co.monroe.wi.us/wp-content/uploads/2019/01/2018-LW-Plan-Final.pdf>

The Monroe County LWRM plan consists of the following eight chapters:

Chapter One -Introduction

Background: Monroe County prepared its' initial LWRMP in 1999 in response to Wisconsin Act 27 and 9. The plan was revised and approved in 2005 and 2010. Since that time, several changes and trends have taken place that impact resource management, including use value assessment, NR 151 rules, comprehensive planning, and passage of the Working Lands Initiative.

Plan Development and Public Participation: Monroe County formed a citizen & advisory committee to develop and support the 2018 LWRM Plan. Members represent agency staff, all realms of agriculture in Monroe County along with citizens were asked to provide input into this plan. Public input was also gained through a survey available to customers that came into our office, available on the LCD website, FSA newsletter and Schools were targeted for input. In addition to the survey and personal correspondence with the citizen members listed, Monroe County staff and cooperating agency staff have had many informal discussions with the public concerning Monroe County resource issues. These discussions are taken into consideration when decisions are made on resource management priorities. The draft plan was reviewed by the citizen & advisory committee, advisors and agency staff. A public hearing was held on January 8, 2019.

Relationship to Other Plans: Monroe County is unique in the fact that 4 DNR river basins drain the county. These basins are detailed in three State of the Basin Plans. Monroe County has completed two Nonpoint Watershed Plans, Discovery Farm Research Project and a Trout Unlimited funded a hydrologic assessment of the Kickapoo Watershed. A plan for the management of Lake Tomah was also recently completed, as was the Monroe County Farmland Preservation Plan. 4 municipalities and one business have developed adaptive P-Management plans. The Land Conservation Department in consultation with DNR is considering over the next few years of seeking EPA approval on a watershed plan that focuses on groundwater monitoring and or flood mitigation.

County Approval: The Monroe County LWRMP is scheduled for approval by the Monroe County Board of Supervisors on February 27, 2019.

Chapter Two – County Characteristics

Location, Size, and Population: Monroe County (population 46,109) is 581,300 acres in size, including 60,000 acres in the Fort McCoy military installation, and 16,000 acres in the Central Wisconsin Conservation Area. The largest cities are Sparta (pop 9,881) and Tomah (pop 9,491).

Geography and Geology: All of Monroe County is in the nonglaciaded driftless area of southwest Wisconsin. Soils range from sandy soils in the northwest part of the county to silty and loamy soils in the south half of the county.

Surface Water Resources: All of the county's four major drainageways have their headwaters in the county, except the Black River. Monroe County has a limited number of lakes.

Land Use and Trends: The primary land use in Monroe County is agriculture, with dairy farming being the dominant type. Cranberry operations comprise a large portion of the landscape in the northeast part of the county. The number of

larger, confined dairy operations are increasing, but the number of milk cows is decreasing. Corn and soybean acreage is increasing. The number of rural, non-farm residences has greatly increased along with sand mining. This has led to a section of agricultural land per year being consumed in Monroe County by these other land uses.

As for land use regulations, the majority of Monroe County has historically shown low interest in land use regulations and planning.

Compounding these land use changes with climate change has impacted certain regions of Monroe County. Based on the 2018 La Crosse Meteorologist Report, 16 major flood events have occurred within the driftless area since 2007, leading to major agriculture, infrastructure and personal property damage. The rainfall intensity of these events in the 2-6 inches of rain per hour have jeopardized our historic conservation practices and challenged our traditional land use within the valley floors/flood plain.

Chapter Three – Resource Assessment

Cropland and Gully Erosion: Various inventories and the transect survey have shown county wide cropland soil loss rates at all-time highs above “T”. An increase in row crop acreage and a decrease in forage crops makes conservation tillage more important. Because of Monroe County’s topography, gully erosion in the county is a significant concern.

Storm Water and Construction Sites: Construction sites have high sediment delivery rates, especially in areas of steep topography. Monroe County has seen an increase in rural construction, many of which have had no erosion control requirements in the past. Rules enacted at the state level requiring compliance with UDC for one and two family dwellings, and storm water permits for construction site over one acre, are addressing this issue.

Streambank Erosion: Streambank erosion in Monroe County has historically been a problem due to steep gradients, high stream velocities, and agricultural activities in the watersheds. Inventories show 30% - 40% of sediment loading to surface waters is from streambank erosion.

Fish Habitat: All watersheds in Monroe County have coldwater streams with populations of brook or brown trout. Monroe County has 92 miles of Class I and 114 miles of Class II trout streams. Monroe County works with a several agencies and a variety of funding sources to improve trout habitat in streams with improvement potential.

Animal Waste: A trend towards larger, confined dairy herds has resulted in fewer barnyard runoff issues and more land spreading problems. Manure runoff events frequently occur because of poor management decisions which result in fish kills.

Nutrient Management: Agency staff have spent available time and money attempting to increase the amount of land under a nutrient management plan. Lake Tomah has documented high phosphorus levels, although the reasons behind those high levels are not completely known. Monroe County’s many cranberry growers have increased their use of nutrient management planning.

Woodland: About 47% of Monroe County is wooded. The main resource concerns are pastured woodlots, land use practices that remove woodlands from proper management, and high-grade logging. Use Value Assessment has given landowners a tax incentive to pasture woodlots, but it has also increased the participation in the Managed Forest Law.

Wetlands: Monroe County has experienced a decline in the acreage and quality of wetlands. There is increased interest in wetlands restoration, mostly because of recreational interests and programs offering restoration opportunities. State and Federal mitigation and cross-compliance rules have also had a positive impact.

Invasive Plants: Invasive species are probably an old problem, but a relatively new concern to the public. Monroe County’s Invasive Species Working Group, a multi-agency partnership, provides educational efforts for species of concern to Monroe County.

Watershed Rankings and DNR Basin Plan Recommendations: Three completed Basin Plans provide data and recommendations for the four basins in Monroe County. These plans were reviewed with Cindy Koperski, DNR Program and Planning Analyst at La Crosse.

Chapter Four – Goals, Objectives, & Actions

The major resource concerns of Monroe County are:

1. *Soil Erosion* – The three primary sources of soil erosion are cropland, gully, and streambank erosion. Due to the increased use of tillage, sheet, rill, and gully erosion contribute a majority of the sediment delivered to our streams and rivers.
2. *Surface & Groundwater Quality* – Phosphorous contamination of surface water and nitrates in groundwater are the identified limitation to water quality. Feedlots and land spreading are the main sources of contamination.
3. *Development* - The loss of prime farmland and conversion to hard surface has increased the amount and delivery of sediment.
4. *Invasive Plant Species* – This issue is effecting our infrastructure (Right of Way), river and stream corridors and reproduction of our native forest on public and private lands.
5. *Management of privately owned forest land and stream restoration.*
6. *Destruction and/or degradation of wetlands*

To address these concerns, goals are established to reduce sediment delivery to surface waters, reduce phosphorus runoff to surface waters, improve the cold water fishery, monitor and provide education on invasive plants, improve forest management on private lands, maintain or increase wetland acreage and quality, and assist with farmland preservation efforts.

Chapter Five – NR 151 Agricultural Performance Standards

NR 151 rules to control polluted runoff from farms and other sources in Wisconsin went into effect on October 1, 2002 & revised in 2010, 2013 then again in 2018. DNR rule NR 151 sets performance standards and prohibitions for farms. Monroe County uses the following implementation strategy and compliance procedures in assisting with the administration of these rules:

Information and Education: LCD, NRCS, and UWEX staff will use information and education in an effort to encourage voluntary compliance with NR 151. Tools used will be brochures, newsletters, direct mailings, web postings, talks at meetings, and individual contacts.

Priority Farm Identification: Priority farms for evaluations, I & E contacts, and implementation will be those located in watersheds draining to 303(d) waters, those identified in the 2018 Water Quality Management Areas survey, and those participating in Farmland Preservation.

Compliance Determinations: Compliance determinations will be made using existing data and will usually involve an on-site investigation. NR 151 evaluation and implementation information will be tracked using the county's Geographic Information System.

Enforcement: Enforcement of NR 151 violations will be coordinated with local DNR officials.

Appeals: Persons may appeal decisions made by the Monroe County LCD by requesting an appeal with the Monroe County Land Conservation Committee.

Chapter Six – Evaluation and Monitoring

Geographic Information System (GIS): In addition to tracking NR 151 information, conservation practice data and permit data are tracked using GIS technology.

Cropland Transect Survey: Monroe County conducts an annual cropland transect survey for the purpose of determining cropland soil loss rates and changes in conservation tillage utilization.

Water Quality Monitoring: Several agencies, municipalities and private groups are involved in water quality monitoring efforts that can be used to assess existing conditions, predict success of planned practice installation, and determine the actual effectiveness of installed best management practices.

Annual Accomplishment Reports: Monroe County LCD will prepare annual work plan and accomplishments report as required by rule.

Chapter Seven – Information and Education

An information and education program implemented by all local, state, and federal cooperating agencies will be used to inform the public about pollution problems, rules and regulations, and programs and resources available to address problems.

Chapter Eight – Coordination

Local, state, and federal agencies and private groups with resource responsibilities in Monroe County have a good history of cooperation that has resulted in getting the most done for the money available. Programs and resources from USDA, DNR, DATCP, USFWS, Fort McCoy, Monroe County, and private conservation groups are used to address resource issues.

Work Plan

As stated in Chapter 4, the main resource concerns in Monroe County are sediment delivery (from cropland, gullies, streambanks, and construction sites), and phosphorus delivery (from cropland runoff, barnyard runoff, and winter spread manure). Therefore the high priority work plan activities for Monroe County are: 1) reduce sediment delivery to surface waters of Monroe County; 2) reduce phosphorus runoff to surface water of Monroe County.

Monroe County has developed and utilized current county, state and federal programs to meet plan objectives. The following list of programs highlight LCD efforts in providing support to landowners throughout Monroe County, which average over 1 million dollars per year in cost sharing.

- CREP – Conservation Reserve Enhancement Program – Stream Buffers
- Stream Restoration Program – (Includes: LCD fish easement, habitat, bank stabilization & management with additional focus in the Amish Community)
- County -ATC Funding – Flood/climate change mitigation (dams/wetlands/buffers)
- DNR – NOI/NOD program – Target NR151 feedlot violations with roofed barnyards & or relocation.
- DNR - Adaptive Phosphorous Management Program – Implement water quality trading practices with 4 municipalities and one business.
- DNR – Conservation Aids Program
- Lake Tomah Committee – Water quality monitoring, and education.
- Farmland Preservation Program – (7 townships eligible through two AEA's)
- Mississippi Valley Conservancy (MVC) – Promote and assist preservation of rural landscapes
- SWRM Funding – Cost share erosion control practices and nutrient management plans.
- Federal Funding - EQIP/RCP/RCPP/MRBI/CSP – Cost share erosion control and agricultural manure mgt. practices.
- Transect Survey – Monitor cropland soil erosion throughout the county.
- Land Use Planning – Tri-Creek & the County Farm along with County & Township Comprehensive plans
- Monroe County Invasive Species Working Group – Educate, train & implement invasive plant mgt. practices on private and public lands.
- Tree Sales Program – Sell & promote forestry practices by planting trees and shrubs
- Stewardship Awards Program – Recognize Conservationist, Conservation Farmer, and Tree Farmer of the year to promote land stewardship
- County Deer Advisory Council (CDAC) – Participate in the county deer management program.
- Monroe County CWD Task Force – 12 recommendation developed to reduce/slow CWD from entering Monroe County whitetail population.

- Wildlife Damage Abatement Program – Facilitate wildlife abatement practices
- Manure Storage Ordinance – Permit the construction/modification/closure of manure storage facilities
- CAFO's (4) – Assist DNR with monitoring and information gathering
- Non-Metallic Mining Ordinance – Provide oversight and permit sand, limestone and topsoil mining reclamation plans.
- Agricultural Advisory Team – 13 Members represent all variations of agriculture in Monroe County. Charged with defining/creating/implementing measure to promote sustainable agriculture
- PL566 Dams – Responsible for operation and maintenance of 8 flood control structures
- Watershed Planning/Assessment/Flood Mitigation – Coon Creek, Kickapoo & Little La Crosse Watersheds
- School Programs: tours, presentations, poster contest and environmental camps.
- Land & Water Association/Natural Resource & Extension Committees
- State Technical Committee/Forestry Sub-Committee
- Valley Stewardship Network – Facilitate water quality monitoring and education
- Golden Sands RC&D – Provide education and expertise towards land mgt. practices
- Local Sportsmen's Clubs, Trout Unlimited and the Boy Scouts – Assist and support stream corridor management.
- Walk in's/phone - pollution & land use complaints from urban and rural areas

Monroe County LCD Future Goals:

- Land Use Planner Position – 2019
- Agronomist/Nutrient Management Planner
- Stream Restoration/Invasive Species Coordinator
- Perpetual Programing for all Conservation Measures
- Private Well Monitoring Program
- Farmland Preservation Zoning
- School Program Committee
- Monroe County Elected Official – Chat Group