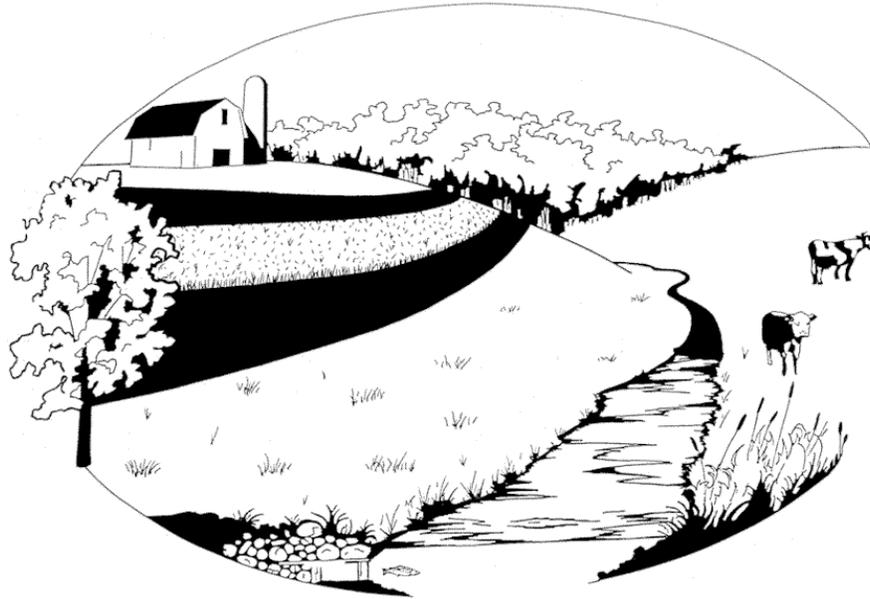


Vernon County
Land & Water Resource Management Plan



Vernon County
Land & Water Conservation Committee

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INTRODUCTION

Locally led conservation is based on the principle that local leaders are best suited to identify and resolve local natural resource problems. It challenges local, state, and federal agency representatives and urban and rural neighbors to work together and take responsibility for addressing resource needs.

Locally led conservation creates new opportunities, but also poses significant challenges to County Committees to take a more active role as conservation leaders in their communities. Following this principle, Wisconsin's County Land Conservation Committees continue to lead their communities in determining local conservation needs and priorities.

Every citizen benefits from the protection and sustainable use of our natural resources. As standing committees to County Boards, County Committees are the primary local delivery system of natural resource programs. County Committees and Departments are the public's vital link with local landowners to promote the implementation of conservation practices and achieve greater environmental stewardship of the land.

PUBLIC PARTICIPATION AND COOPERATION

Citizen Advisory Committee

which met on October 29, 2018, December 3, 2018, and January 3, 2019.

<u>Name</u>	<u>Affiliation</u>
Kevin Larson	LWCC Vice-Chair, Farmer
Cindy Koperski	WI DNR, Runoff Management Specialist
Shelly Brenneman	Valley Stewardship Network Executive Director
Dave Krier	Coulee Region Trout Unlimited
Berent Froiland	Farmer, Chaseburg Co-op
Ashley Olson	University Extension, Agricultural Agent
Ben Wojahn	LWCD County Conservationist
Sam Skemp	NRCS District Conservationist
Dona Goede	Western Technical College Ag Educator
Doug Avoles	LWCD Planner-GIS Coordinator
Sarah McDowell	LWCD Accounts Manager

Contributing LWCD Staff

Monthly meetings of LWCD staff also gave the opportunity to review the LWRM plan components and to voice their own concerns based on first hand experience with implementation of plan components.

<u>Name</u>	<u>Affiliation</u>
Ben Wojahn	LWCD, County Conservationist

Matt Albright	LWCD, Project Manager-NR151 Specialist
Marty Kennedy	LWCD, Project Manager-Parks Administrator
Sarah McDowell	LWCD, Accounts Manager
Nick Gilman	LWCD, Project Manager-Forester
Mark Erickson	LWCD, Project Manager-Resource Conservationist
Doug Avoles	LWCD, Planner-GIS Coordinator
Taylor Voegeli	LWCD, GIS Technician
Monique Hassman	LWCD, Intern

Coordination and Collaboration

Program activities of the Vernon County Land and Water Conservation Department are directed through the Vernon County Land and Water Conservation Committee (LCC), and the Vernon County Land Information Committee (LIC). All Committees and Commissions fall under the authority of the Vernon County Board of Supervisors. The staff of the Vernon County Land and Water Conservation Department carry out the activities of these committees.

A variety of cooperators provide program support or assistance in some manner which is indicated throughout this Land and Water Resource Management Plan. Program support, cooperation, and/or funding for Land and Water Conservation Department activities come from a variety of agencies and organizations including, but not limited to, those listed below:

Governmental Agencies

Other Departments within Vernon County Government
Townships, Villages, and Cities within Vernon County
United States Army Corps of Engineers
United States Department of Agriculture - Animal and Plant Health Inspection Service
United States Department of Agriculture – Natural Resources Conservation Service
United States Environmental Protection Agency
United States Fish and Wildlife Service
United States Forest Service
United States Geological Survey
University of Wisconsin - Extension
Wisconsin Department of Agriculture, Trade, and Consumer Protection
Wisconsin Department of Commerce
Wisconsin Department of Natural Resources
Wisconsin Department of Revenue
Wisconsin Department of Transportation
Wisconsin Geologic and Natural History Survey
Wisconsin State Cartographer’s Office

Partner Organizations

American Tree Farm System
Area Businesses
Area Sportsman’s / Rod and Gun Clubs

Coon Prairie Multi-Use Trail Governing Board
Driftless Area Initiative
Friends of Vernon County Parks & Forests
Kickapoo Valley Reserve
Kickapoo Woods Coop
National Association of Conservation Districts
National Watershed Coalition
National Wild Turkey Federation
Nuzum Foundation
Pheasants Forever
Southwest Badger Resource Conservation and Development
Sustainable Agriculture Research and Education
Tainter Watershed Farmer Led Group
The Nature Conservancy
The Prairie Enthusiasts
Trout Unlimited and associated local chapters
Upper Mississippi River Regional Planning Commission
UW-Stevens Point Groundwater Center
Valley Stewardship Network
Vernon County Cattleman's Association
Vernon County Conservation Alliance
Vernon County Economic Development Council
Vernon County Snowmobile Alliance
Vernon County Tourism Council
Vernon County Towns Association
Vernon Trails
Western Technical College
Wisconsin Association of Land Conservation Employees
Wisconsin Counties Association
Wisconsin County Forest Association
Wisconsin Farm Bureau
Wisconsin Farmer's Union
Wisconsin Land and Water Conservation Association
Wisconsin Land Information Association
Wisconsin Parks and Recreation Association
Wisconsin PL566 Coalition
Wisconsin Waterways Commission

Public Notification of the LWRMP Update

In January 2019, the Land and Water Conservation Department sent out a news release to all Vernon County papers discussing the 2019 Vernon County Land and Water Resource Management Plan. The news release covered: contents of the plan, where the plan could be viewed, phone numbers to contact, and notice of the public hearing. The public hearing was held on January 10, 2019.

The plan was also presented to the Vernon County Board for approval on April 16, 2019.

CHAPTER 1: ASSESSMENT OF WATER QUALITY & RESOURCE CONDITIONS

WATER QUALITY MONITORING

Fisheries Monitoring and Management Program

WDNR fisheries staff evaluates fish populations on lakes, river and streams. These evaluations include an assessment of fish community health, fish length, sex and age distributions, assessment of the impacts of stocking, habitat improvement and various regulations. This information is critical for sustaining good fishing and fish populations. Each year fisheries staff review and recommend stocking quotas and fishing regulation revisions for basin lakes and river and streams. They work with farmer's landowners angling group's lake associations and others to protect and restore aquatic and shoreline habitat, reduce bank erosion, improve trout habitat, and restore riverine environments through dam removal.

Valley Stewardship WAV Monitoring

In collaboration with WDNR and Wisconsin River Alliance, Valley Stewardship Network trains volunteers in Water Action Volunteer (WAV) monitoring who serve as "citizen scientists" to measure key parameters that indicate how well our streams and rivers support life. To date, we have trained over 200 citizen scientists and currently collect monthly data at 25 riparian sites. A map of the monitoring sites is located in the plan. Refer to Figure 1- 10 Year Summary Macroinvertebrate Monitoring Sites.

Geographic Management Units

When considering how to manage the vast natural resources throughout the state of Wisconsin, the WDNR has subdivided the state into 23 Geographic Management Units (GMU's). This is an integrated, or "ecosystem," approach by bringing together multiple agencies, interests and jurisdictions. Through this approach, all parts of the ecosystem are considered when addressing resource concerns – the land and land uses, surface and groundwater, and the plants, animals and people using the resources. Effective resource management requires an understanding of the interaction between all components in that ecosystem.

To help facilitate this type of management, the state has been divided into river ecosystems or basins. A river basin consists of one or two main streams (first-order), and all of their tributaries.

All of the land that drains to these streams is a part of the river's drainage basin. All of the activities that take place on the land, from agriculture to urbanization and preservation to utilization of natural resources can affect the health of the land and the water in that basin.

Two GMU's cover Vernon County, the Lower Wisconsin and La Crosse-Bad Axe River basins.

The Lower Wisconsin (LW) lays primarily East of Highway 27, and the La Crosse – Bad Axe River basin lays West of Highway 27.



Figure 1- Wisconsin DNR Geographic Management Units

Vernon County has a diversified farm economy in both the La Crosse-Bad Axe and the Lower Wisconsin River Basins with a total of 2,230 farms (down five percent from the 1997 survey) and 382,218 acres of farmland.

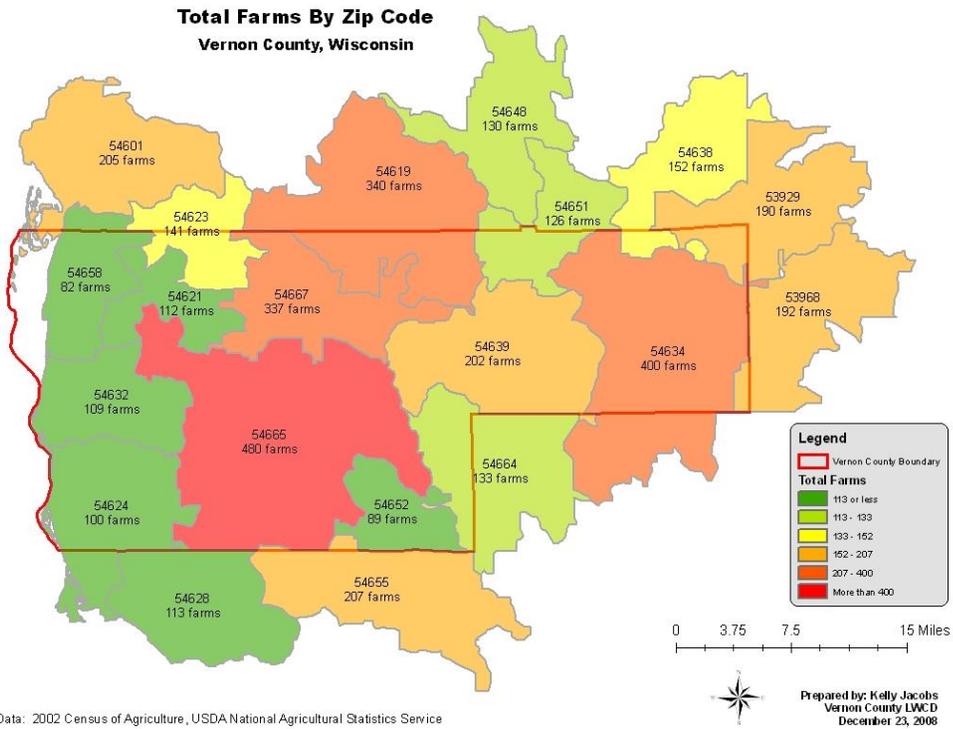


Figure 4- Density of Farms in Vernon County (By Zip Code). 2002 USDA NASS Data.



Figure 5 - Map of Major Management Units in WI – Lower Wisconsin River

Lower Wisconsin River Basin

The Eastern half of Vernon County lies in the Lower Wisconsin River Basin. The Lower Wisconsin River Basin is located in south central and southwestern Wisconsin and drains approximately 5,050 square miles of Wisconsin. All of the water that drains into the Lower Wisconsin River flows into the Mississippi River. The Mississippi River then transports the water from the Lower Wisconsin River to the Gulf of Mexico. As a result, our use of our natural resources in Wisconsin has significance on a national and international scale.

Vernon County lies in the “Driftless” region of the state, or the area not covered by the last glacier. The underlying geology of the entire basin is comprised of dolomites and sandstone. Streams in the “Driftless” region are cut into rugged steep-walled valleys and have a higher gradient than those of the glacial Lake Wisconsin area. The streams flowing to the Wisconsin River are shorter with steeper gradients than the streams flowing to the river from the north. The soils in this region are generally moderately to excessively well-drained mineral Mississippi soils. Wetlands are usually restricted to margins along streams and rivers.

SURFACE WATER AND GROUNDWATER IN THE BASIN

(Goal 4 of 5 year plan)

Surface water quality in the basin is generally considered good and the basin boasts a large number of healthy and productive cold and warm sport fisheries. Major rivers in Vernon County that are in the Lower Wisconsin River Basin: Baraboo, Pine, Reads, Tainter and Kickapoo Rivers.

The primary water quality problems are caused by nonpoint sources of pollution, particularly from agricultural operations, excessive populations of rough fish and hydrologic modifications of the streams such as damming, straightening, and the ditching, draining or other alteration of wetlands. These activities have caused or contributed to nutrient or sediment impaired waters within Vernon County and have resulted in development of two Total Maximum Daily Load reports-the Baraboo River and Jug Creek watersheds. See TMDL and Impaired waters section below for additional information.

Other threats to water quality and aquatic life in the basin come from toxics, including the atmospheric deposition of mercury, PCBs, nonpoint source pollution, point source discharges that exceed permit limits and development. Groundwater is available everywhere in the basin at depths ranging from 5 to 500 feet. Most of the groundwater in the basin comes from sandstone aquifers. North of the Lower Wisconsin River, the majority of groundwater is drawn from a Cambrian sandstone bedrock aquifer. South of the Lower Wisconsin River, groundwater sources come from the Galena-Platteville aquifer and the St. Peter Sandstone aquifer as well as the Cambrian sandstone. Groundwater in the basin is generally hard with a dissolved solid content of between 100 and 400 mg/l (Hindall and Borman, 1974).

(Addressed in the Soil & Water Management, Ordinance Administration, Plants & Animals Sections of the Multi-Year Work Plan) These karst geologic features are the driver behind our interconnected groundwater and surface water resources and their ultimate uses. Since this region is predominantly agricultural, often the contaminants found in the groundwater

are the result of agricultural land use practices (Hogan, 2001). Some of the documented problems in this region include:

- Nitrate and bacteriological contamination of wells and waterways.
- Nutrients
- Pesticides/herbicides
- Sediment delivery to waters of the state
- Improperly abandoned or unabandoned wells
- Substandard well issues including well locations with respect to contamination sources, wells subject to flooding due to improper locations in flood-prone areas, and wells located in pits, basements or alcoves. (Addressed in the Soil & Water Management Section of the Multi-Year Work Plan)
- Existing Ridgetop wells needing to drill deeper to due increased demand from an increased number of new residential wells within the same aquifer.

Groundwater Contamination

Groundwater contamination potential varies due to ground cover, depth to water table, bedrock and land use. WDNR has ranked each watershed in the basin to establish its groundwater contamination potential. This ranking was based on land cover and groundwater sample results found in the state's groundwater database. Representative samples are absent across Vernon County. Vernon LWCD plans to work with Richland and Crawford Counties, along with other partners, to try to obtain representative private well testing for Nitrates and bacteria. Our desire is to model, to the extent possible, the SWIGG study being conducted in Grant, Lafayette, and Iowa Counties.

A groundwater –contamination susceptibility map, compiled from depth to bedrock, type of bedrock, soil characteristics, depth to water table, and characteristics of surficial deposits.

Areas throughout the entire County indicate higher susceptibility to groundwater contamination with areas of particular vulnerability in the Central and Eastern portions of Vernon County.

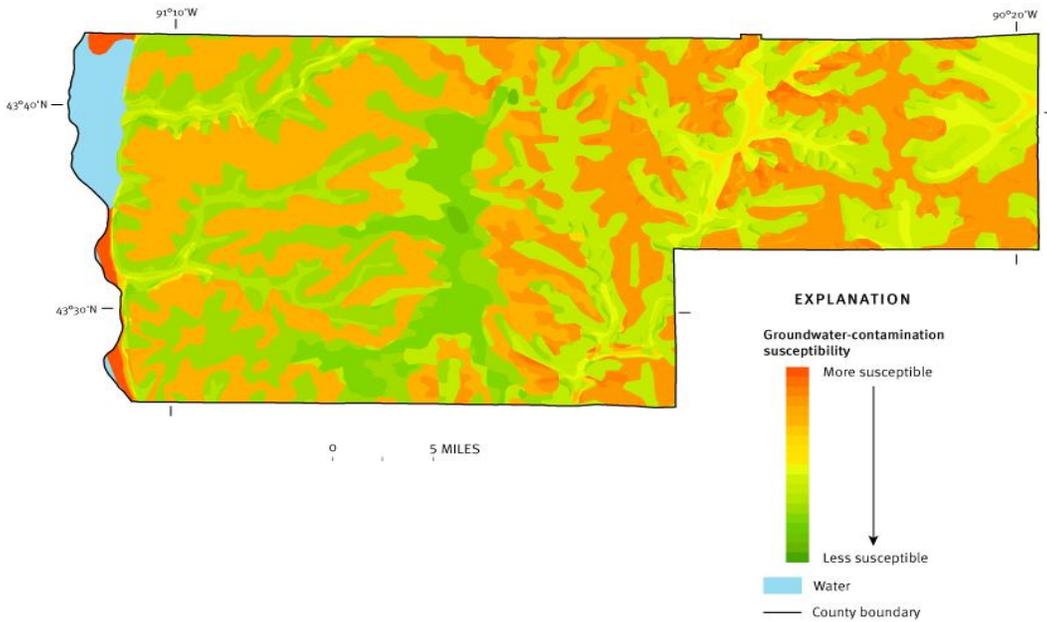


Figure 6 - Vernon County Depth to Water Table

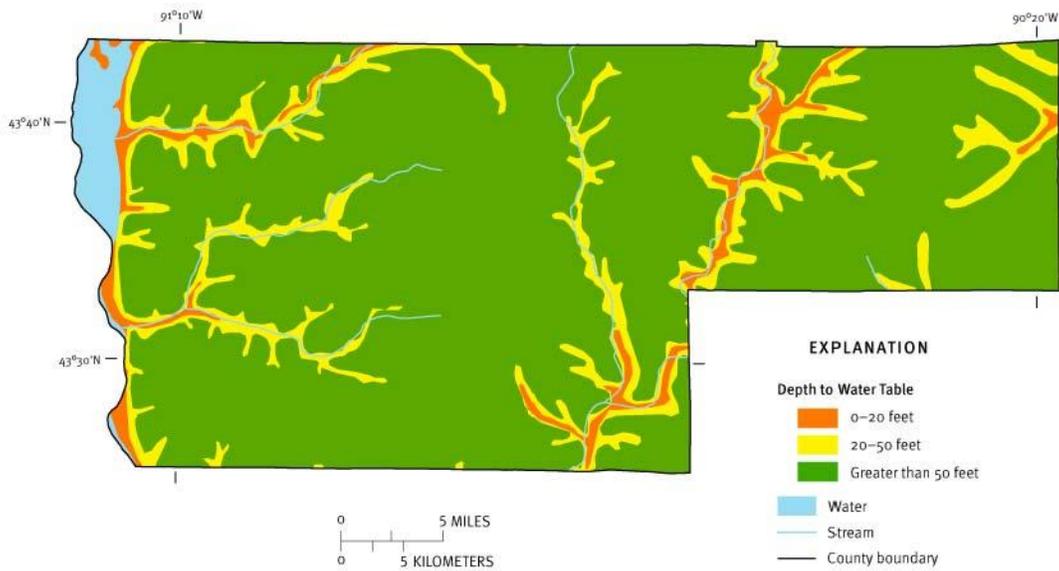


Figure 7 - Potential for Groundwater Contamination Map

Although there has been only a limited amount of drinking water well testing completed in Vernon County, the majority of the wells met drinking water limits for Nitrate-Nitrogen based on samples collected from 1996-2006. A higher percentage of wells were found to be contaminated with herbicides. New initiatives are being developed beginning in 2019 to do water testing with the Tainter Creek Farmer Led Watershed Group and the Westfork of the Kickapoo Landowner Group. Land & Water departments, along with Health Departments in Richland and Crawford Counties are also working with Vernon County to expand private homeowner groundwater testing.

Surface Water Resources

The Lower Wisconsin River Basin is rich with surface water resources including approximately 3,800 miles of streams and numerous lakes. Despite the large number of lakes in the basin, many of these lakes are not “natural” lakes most of the "lakes" are man-made. Many of these flowages and impoundments were created to provide recreation and/or flood control. Natural lakes are typical of remnant oxbow features along streams and rivers.

Outstanding and Exceptional Resource Waters

Overall, water quality in the Lower Wisconsin River basin is generally considered to be good. The streams in the basin that are considered of good quality and support valuable fisheries, unique hydrologic or geologic features, outstanding recreational opportunities, or have pristine environmental settings that are mostly unaffected by human activities, have been designated as Exceptional or Outstanding Water Resources (ERW/ORW).

Outstanding Resource Waters (ORW) have the highest value as a resource, excellent water quality and high quality fisheries. They do not receive wastewater discharges and point source discharges will not be allowed in the future unless the quality of such a discharge meets or exceeds the quality in the receive water. The classification includes national and state wild and scenic rivers and the highest quality Class I trout streams in the state.

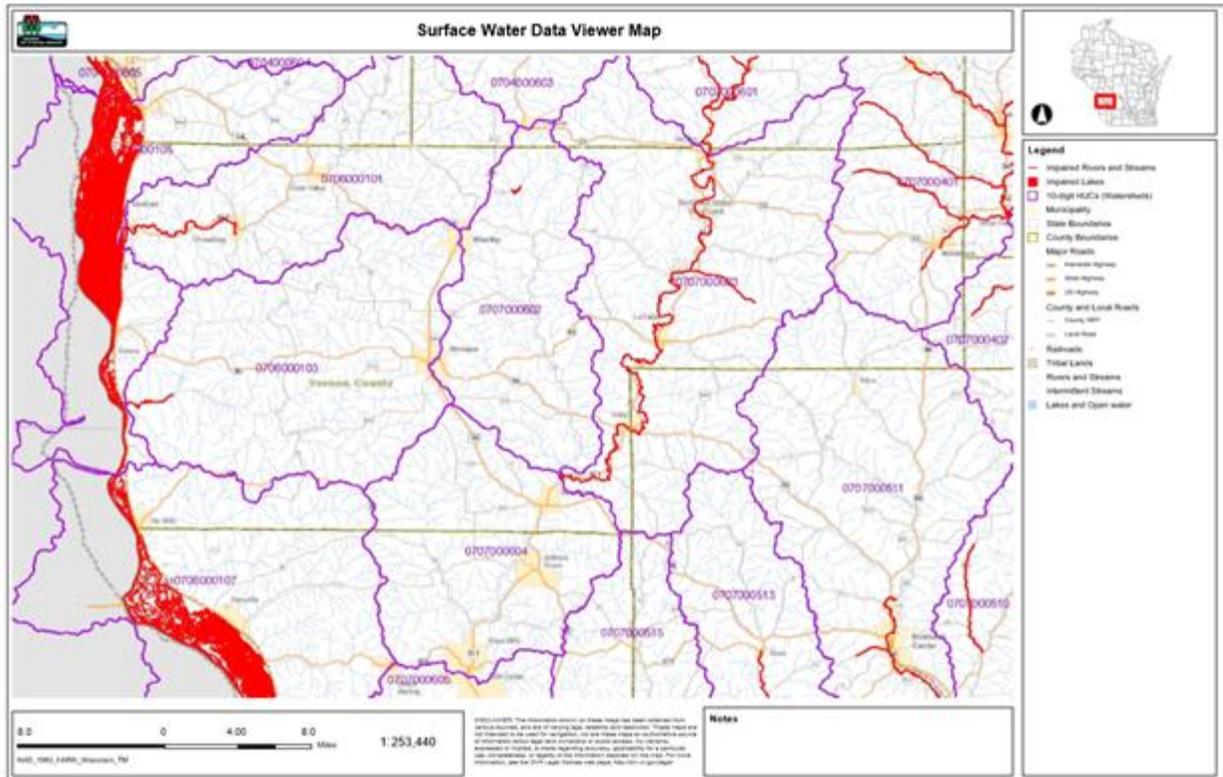
Exceptional Resource Waters (ERW) have excellent water quality and valued fisheries but already receive wastewater discharges or may receive future discharges, if necessary to correct environmental or public health problems. This classification includes Class I trout streams as identified in the 1980 Wisconsin Trout Streams book. There are presently approximately 373 miles of ERW streams in the basin.

Impaired Waters and Total Maximum Daily Loads (TMDLs)

(Goal 2 of 5 year plan)

Despite the many miles of ERW/ORW streams in the basin, there are also some water bodies that have impaired water quality as defined by the USEPA’s standards of fishable and swimmable waters. The WDNR, as required by Section 303(d) of the Federal Clean Water Act, identifies and submits a list of impaired Wisconsin water bodies to the USEPA. The list is known as the 303(d) list. The cause of impairment on a water body may include nutrients, sediments, and pollutants from point and/or Nonpoint sources, airborne pollutants, contaminated sediments and physical or habitat degradation. (Addressed in Soil & Water Management, Ordinance Administration, Public Awareness, Plants & Animals, Finances, Funding and Interagency Cooperation, and Forestry Sections of the Multi-Year Work Plan)

Total Maximum Daily Loads (TMDL's) are utilized to address the source of impairments and ensure that these streams are not further degraded. Vernon County will begin to work on TMDL efforts as opportunities and staffing allows.



IMPAIRED WATERS

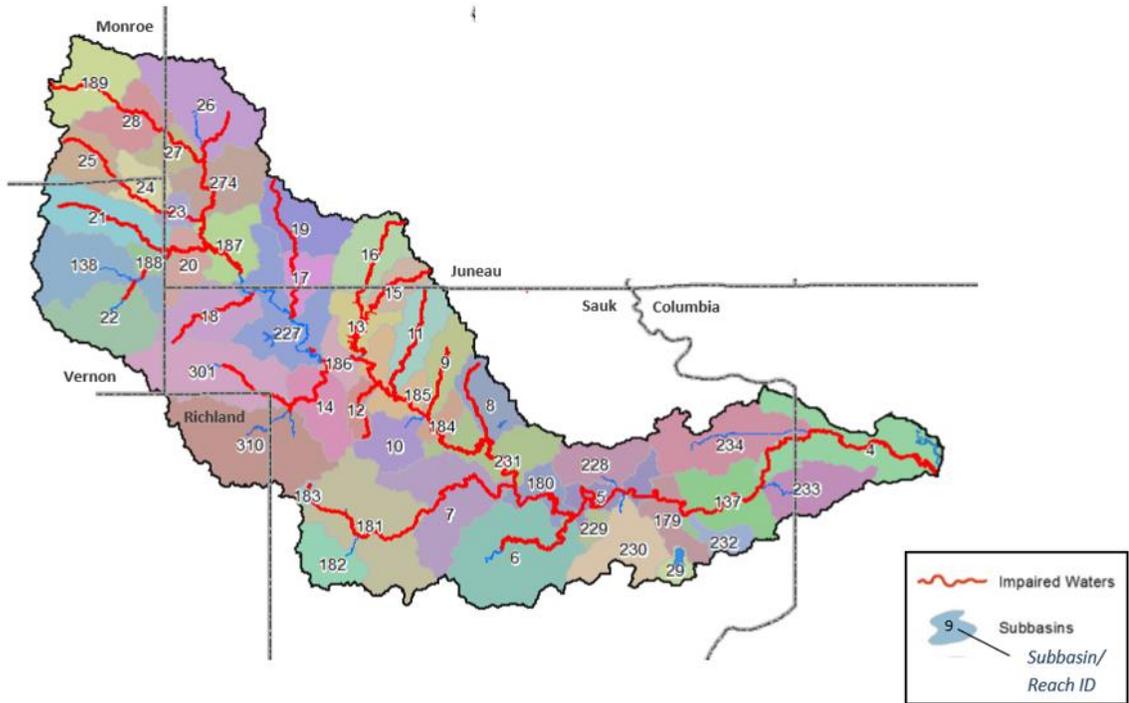


Figure 8 –Includes Two maps above showing Impaired Waters and TMDL areas for Vernon County

Vernon County has two Total Maximum Daily Load reports for the Baraboo River and Jug Creek watersheds. See links below for these TMDL reports:

Wisconsin River TMDL Report-Baraboo Watershed

<https://dnr.wi.gov/topic/TMDLs/documents/WisconsinRiver/Submittal/AppendixA.pdf>

<https://dnr.wi.gov/topic/TMDLs/WisconsinRiver/>

Jug Creek TMDL Report

<https://dnr.wi.gov/topic/tmdls/tmdlreports.html>

Figure 8 above, shows the location of TMDL and Impaired Waters within Vernon County.

Figure 9 below, shows Vernon County TMDL Reduction Goals.

Vernon LWCD has an objective to reduce Soil Erosion and total phosphorus by 25% in the Wisconsin River TMDL report to guide TMDL implementation efforts within Baraboo River sub-basins if Farmland Preservation Zoning or a strong and cohesive Producer Led Watershed Group is formed in the area, and as staffing allows. Currently our priority efforts of FPP and Producer Led are not present in DNR's TMDL areas.

Appendix N: Agricultural Phosphorus Targets for the Wisconsin River TMDL

<https://dnr.wi.gov/topic/TMDLs/documents/WisconsinRiver/Submittal/AppendixN.pdf>

Vernon LWCD has a goal to reduce soil erosion and phosphorus loss by 25% in the Jug Creek Watershed if Farmland Preservation Zoning or a strong and cohesive Producer Led Watershed Group is formed in that area, and as staffing allows.

Appendix N of the Wisconsin River TMDL estimates baseline average P loss/ac/yr values by TMDL reach/sub-basins within Vernon County = TMDL reaches 21,22, 24, 25, 138, 188, 301. Below is Appendix N TMDL reach map and baseline and TMDL reduction goals for Vernon County.

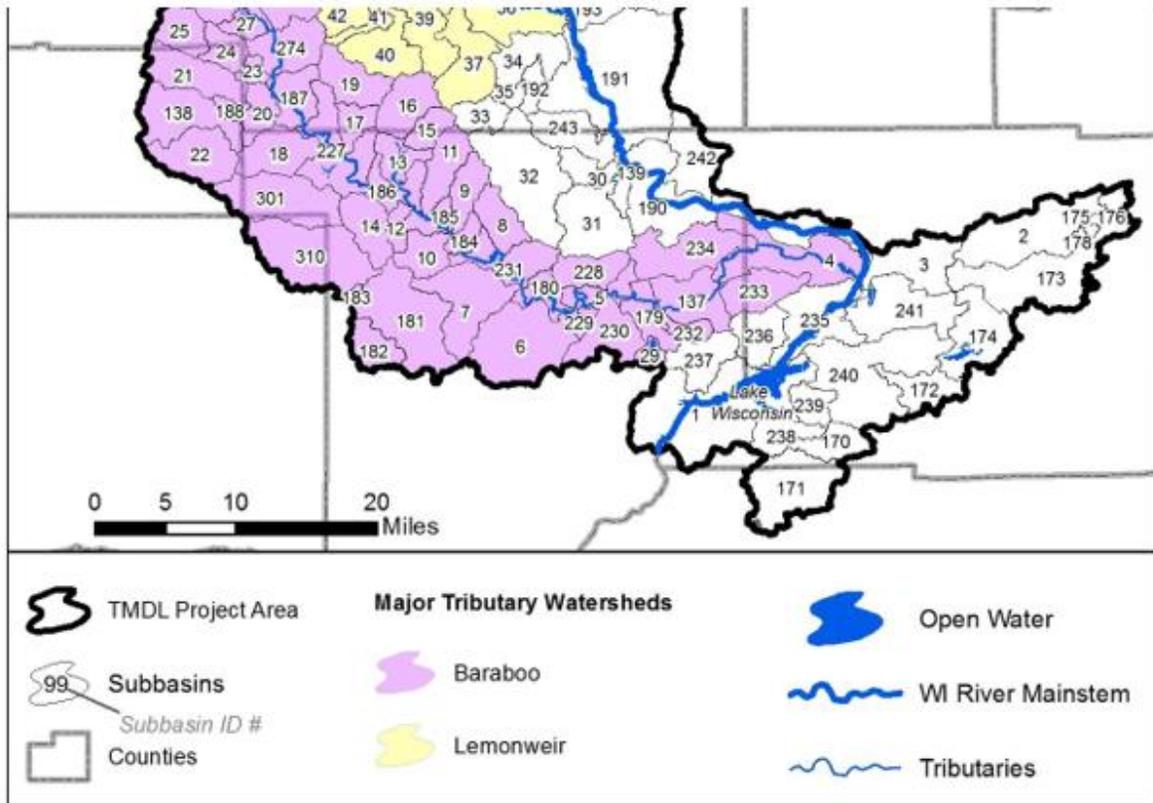


Figure 9 - TMDL Reduction Goals

Subbasin	Baseline TP (lb./acre/yr.)	Translated TMDL Allocations			
		Current Criteria		Recommended SSC	
		Reduction	TP Target (lb./acre/yr.)	Reduction	TP Target (lb./acre/yr.)
21	6.2	82%	1.1	82%	1.1
22	5.6	64%	2.0	64%	2.0
23	6.0	60%	2.4	63%	2.2
24	6.9	70%	2.0	70%	2.0
25	4.8	87%	0.6	87%	0.6
138	6.2	81%	1.2	81%	1.2
188	9.9	77%	2.2	77%	2.2

Figure 10 - Agricultural Total Phosphorus Targets by TMDL Subbasin

TMDL sub-basin values as edge of field WQ objectives will be used as priorities as additional staff and resources become available.

Exceptional Resource Waters (ERW)		
<u>Water Name</u>	<u>Location/Length</u>	<u>Watershed</u>
Creek 6-11 (Tributary to Tainter Creek)	All (T11N R3W)	LW03
Reads Creek (Black Bottom Creek)	All	LW03
Tainter Creek	From Headwaters to CTH "B"	LW03
Bishop Branch	All	LW04
Seas Branch	Above PL566 structure	LW04
Cheyenne Valley Creek	All	LW05
South Bear Creek	T12N R2W S2	LW05
Outstanding Resource Waters (ORW)		
<u>Water Name</u>	<u>Location/Length</u>	<u>Watershed</u>
Camp Creek	All	LW05
Elk Creek	All	LW05

Figure 11 - Exceptional Resource Waters

Threats to Aquatic Resources

Although there are many healthy aquatic resources in the basin, these resources almost all are threatened. The primary threats to these resources are storm water runoff and Nonpoint sources of pollution; particularly from agricultural operations, new development, and hydrologic modifications such as dams, stream straightening, and the ditching, draining or other alterations of wetlands. Other factors that potentially impact aquatic resources in the basin include point source discharges to surface water, toxic substances, an increased silt load within stream systems, and non-native or invasive plants and animals. (Addressed in the Soil & Water Management and Plants & Animals Sections of the Multi-Year Work Plan)

Storm Water Runoff and Nonpoint Sources of Pollution

Storm water runoff and Nonpoint source pollution are the biggest threats to the quality of the aquatic resources in the basin and occurs when water from rainfall, snowmelt, or irrigation runs over the land, picks up pollutants, and deposits them into rivers, lakes, sewer systems, or groundwater. There are many sources of pollution in the basin in this manner. Due to the high percentage of land in the basin used for agricultural purposes, much of the runoff comes from cropland erosion and barnyards. Other major sources of runoff in the basin come from construction sites. Streambank erosion also contributes a high volume of sediment to streams in some locations (Bertolacini, 2002).

The nutrients found in Nonpoint source pollution and storm water runoff can increase the productivity in the water and cause an increase plant and algae growth. In addition, sediment can silt over in-stream habitat and cause changes in the overall ecosystem. These sediments and the increased plant growth in the stream, lake or river, will eventually increase the turbidity of the water. Chemicals and other toxins can create an unhealthy aquatic environment for plants and animals. (Addressed in the Soil & Water Management Section of the Multi-Year Work Plan)

Bad Axe – Lacrosse River Basin



Figure 12 - Map of La Crosse-Bad Axe River Basin

Introduction to the Bad Axe – La Crosse River Basin

The Bad Axe - La Crosse River Basin, located in southwest Wisconsin, contains numerous scenic vistas from the many hilltops and beautiful stream valleys. This basin is characterized by steep forested hillsides with agricultural activities located mainly in the relatively level valleys. The last glaciers to flatten Wisconsin did not reach this part of the state. Consequently, a highly dendritic network of primarily cold, groundwater fed streams drains this basin. In fact, the Bad Axe - La Crosse River basin contains 400 hundred miles of trout streams. Portions of Crawford, La Crosse, Monroe, and Vernon Counties lie within the Bad Axe - La Crosse River Basin.

This basin is rich in cold-water streams. Many of these streams are in good shape, but many others are threatened by both urban and agricultural non-point source pollution. Storm water runoff from urban areas, barnyard runoff and inadequate sod cover on stream banks top the list of problems. An extensive effort to restore in-stream habitat for trout and purchase Streambank easements for fishing access has been very successful in the Bad Axe - La Crosse River Basin. Groundwater provides drinking water to all citizens of the basin. This precious resource is at risk simply due to the prevalence of fractured dolomite, which acts as a conduit, rather than a filter of groundwater. Knowing this risk is pervasive throughout the basin, residents, business and municipalities must take great care in disposing of wastes that could potentially contaminate their drinking water supply.

The picturesque hills, valleys, and sandstone cliffs bring many visitors to the basin, some of whom decide to make it their home. Consequently, many farmers parcel their land and sell acreage to people who want to build homes in the hills. Even though many hills are too steep for crops or grazing, some new landowners simply carve out a hillside to create a flat building area for their home. These actions threaten surface water quality if erosion results as well as the integrity of the hillsides. The forests of the Bad Axe - La Crosse River Basin contain primarily oak species; however, oak wilt is taking its toll in the basin. The steep topography of this basin is not conducive to many acres of wetlands; however, large expanses still exist near the mouths of the Bad Axe River, Coon Creek, and the La Crosse River.

Major Bad Axe - La Crosse River Basin Issues (as identified in the Bad Axe- La Crosse Basin Report)

- Threats to land, forest and water quality from urbanization. (Addressed in the Public Awareness and Forestry Sections of the Multi-Year Work Plan)
- Changing agricultural practices and the effect on surface and groundwater quality as well as forests. (Addressed in the Soil & Water Management Section of the Multi-Year Work Plan)
- Land use changes and threats to the basin's many sensitive and unique plant and animal species and their associated habitats. (Addressed in the Soil & Water Management and Plant & Animal Sections of the Multi-Year Work Plan)
- Improvement in the availability of recreational opportunities. (Addressed in the Provide Outdoor Recreation Section of the Multi-Year Work Plan)
- Need for coordinated management of forest ecosystems. (Addressed in the Forestry Section of the Multi-Year Work Plan)
- Enhance public education regarding the basin's unique resources and how to protect them. (Addressed in the Public Awareness Section of the Multi-Year Work Plan)

Current Land and Water Resource Issues pertaining to Vernon County (as identified in the Bad Axe-LaCrosse Basin Report)

Even with the good news of recovering streams, challenges to water quality still exist in the Bad Axe - La Crosse River Basin.

Agricultural Lands

Agricultural lands of the Bad Axe - La Crosse basin total approximately 275,000 acres, which is 36% of the entire basin. Due to the steep topography of the basin, agricultural land in the basin is confined to the valley floors and wide ridge tops. Slopes too steep to crop or pasture sustain a forest canopy. Soil loss from farmland was a devastating problem until soil conservation measures were implemented in the 1930's and 40's. Cropping along the contours of the sloped lands was one measure that greatly reduced the loss of valuable soil. The characteristic strips of different crops in gentle curves around hills and through valleys is a common site in the basin to this day. Soil conservation remains an important objective of farmers in the basin today. Moderate to heavy silt loam soils, which are generally well drained, dominates the Coon Creek, Bad Axe River and Rush Creek watersheds. The La Crosse River basin contains soils that are well to excessively drained loamy sands and silt loams. These soil types lend themselves well to agricultural crops if erosion is minimized.

Vernon LWCD within the next five years will attempt to utilize EVAAL, as able, to evaluate priority areas. EVAAL and other modeling efforts will be prioritized in Watersheds with PL-566 structures and Producer-Led Initiatives. TMDL areas may have EVAAL performed with consultation and assistance from WI DNR. **(Goal 6)**

Outstanding and Exceptional Resource Waters

The creation of Chapter NR207 "Water Quality Antidegradation" and changes to NR102 "Water Quality Standards for Wisconsin Surface Waters", (Wisconsin Administrative Code) allows the Department of Natural Resources to determine which water bodies, because of their particular resource values and water quality, are most vital to protect for the citizens of Wisconsin. When coupled with other administrative codes, NR207 protects surface waters and reflects their values and priorities when determining what kind of environmental safeguards are applied to new or increased wastewater discharges. The purpose of the antidegradation policy is to increase protection for high quality streams and lakes in the state. To achieve this, the antidegradation classification system includes outstanding resource waters (ORW) and exceptional resource waters (ERW).

An outstanding or exceptional resource water is a surface water, which provides valuable fisheries, hydrologically or geologically unique features, outstanding recreational opportunities, unique environmental settings and which are not significantly impacted by human activities. The outstanding and exceptional resource water distinction requires that all new permitted discharges.

<u>Stream</u>	<u>ERW</u>	<u>Watershed</u>
<i>All Class I Trout Streams in WI</i>		
Trout Streams (WDNR, 1980)	ERW	All Entire Basin
Coon Creek (from Chaseburg upstream)	ERW	Coon Creek
Frohock Valley Creek	ERW	Bad Axe River
Hornby Creek	ERW	Bad Axe River
Rullands Coulee Creek	ORW	Coon Creek
Spring Coulee Creek	ORW	Coon Creek
Timber Coulee Creek	ORW	Coon Creek

<u>Waterbody Name</u>	<u>Portion Within ORW/ERW Classification</u>	<u>Status</u>
Spring Coulee Creek	All	ORW
Timber Coulee Creek	From T14N R4W S8 NENW downstream to East section line of T14N R5W S2	ORW
Bishop Branch	All	ERW
Cheyenne Valley Creek	All	ERW
Cooley Creek	All	ERW
Coon Creek	From LaCrosse county line to Chaseburg	ERW
Creek 36-16 T13N R7W	All	ERW
Creek 6-11 T11N R3W	All	ERW
Frohock Valley Creek	All	ERW
Hornby Creek	All	ERW
Reads Creek	All	ERW
Seas Branch	Above PL566 structure @ T13N R4W S14 NW	ERW
Tainter Creek	All	ERW

Figure 13 - Water Body Classifications- La Crosse-Bad Axe River Basin, Vernon Co

Watershed Name	Overall Rank		Lakes	GW	Wshd Drains to TMDL	
	Rank	Streams			Sites Full/	Drinking
Rush Creek	High	High	NR	Med	No	No
Bad Axe River	High	High	NR	Low	No	No
Coon Creek	High	High	NR	Med	No	No

Figure 14- Watershed/Lake Status for Priority Watershed Program

Meeting with Water Team Leaders of the Lower Wisconsin and Bad Axe La Crosse Basin

The Land and Water Conservation Department solicited input from Cindy Koperski, DNR Runoff Management Specialist, to gain input on the basin's water resource condition and Nonpoint source priority issues.

Phosphorus has been identified as the major impairment of surface waters – see impaired waters map above. The best course of action in the next ten years is to continue to implement our priority farm policy. This includes promotion of the Farmland Preservation Program, Nutrient Management Planning, and outreach and education focused on cover crops, soil health, and managed grazing – all of which can help to meet, or exceed, Wisconsin's NR 151 Agricultural Performance Standards and Prohibitions.

A sublist of 303d and orw/erw waters was provided by DNR and is located in this plan. The Wisconsin River Basin and Jug Creek TMDL reports provide WQ objectives for the Baraboo River Sub-basins and Jug Creek Watershed within Vernon County.

DNR Consultation

Hillsboro Lake TWA WQM Draft plan 2017

The DNR has developed a Targeted Watershed Assessment (TWA) within Seymour Creek and the Upper Baraboo River watersheds. The land in this watershed is characteristic of the driftless area with steep hills, however many stream valleys are fairly wide. Agricultural activities are found both on the wider ridgetops and in most valleys

The Hillsboro Lake targeted watershed contains two major streams, West Branch of the Baraboo River (WBIC: 1288400), and South Branch Creek (WBIC: 1289800). The South Branch Creek subwatershed is approximately 11,428 acres in size, and land use in the subwatershed is dominantly agriculture (48%), followed by forest (31%), grassland/pasture (16%), residential (5%), and water (0.12%) (Figure 2). The major tributary of South Branch Creek is Beaver Creek (WBIC: 1290100). Both the West Branch and South Branch flow into Hillsboro Lake at the west end. West Branch Creek subwatershed is approximately 11,635 acres, and land use in the subwatershed is primarily agricultural (43%), followed by forest (36%), grassland/pasture (16%), residential (5%), and water (0.02%) (Figure 3). The major tributary of The West Branch is an unnamed tributary (WBIC: 1290900), also known locally as Dilly Creek.

This TWA contains the following management priorities and recommendations:

Management Priorities:

- It is imperative to work with the landowners and Vernon County staff to install agricultural BMPs that will help protect the water quality coming from spring heads.
- It is imperative to continue to work with landowners in the watersheds in locations where woody vegetation has overgrown the stream banks. The goal would be to encourage prevention of woody overgrowth along banks so that streams can continue to flow in a meandering pattern and to narrow streams for better fish habitat. Bank

shaping and sloping at a 3:1 ratio in areas with eroding banks will help stabilize stream banks and reduce soil erosion.

- Encouraging stabilization of banks with vegetated buffers planted in grasses and forbs will help prevent erosion, act as natural cover for fish, and reduce sediment and nutrients flowing to the streams.

Recommendations:

- South Branch Creek has some stream segments and springheads that are highly eroded from livestock grazing, therefore, DNR and partners should implement agricultural BMPs to reduce soil erosion.
- • The Unnamed Tributary (WBIC: 1290500) of South Branch Creek flowing from a spring pond, appears to be contributing a high amount of nutrients to South Branch Creek, and DNR along with partners should implement BMPs to reduce soil erosion and nutrient inputs. • The West Branch of Baraboo River has some stream segments that, while not excessively grazed, have steep or vertical banks. DNR and Partners should implement stream bank erosion controls on bends to reduce erosion and stream siltation. • The West Branch of Baraboo River fish lunger structures in the segment upstream of STH-33 have either collapsed or silted in. DNR should work with Trout Unlimited to restore structures and improve cover for fish.

The complete Hillsboro TWA is available on the DNR website: -

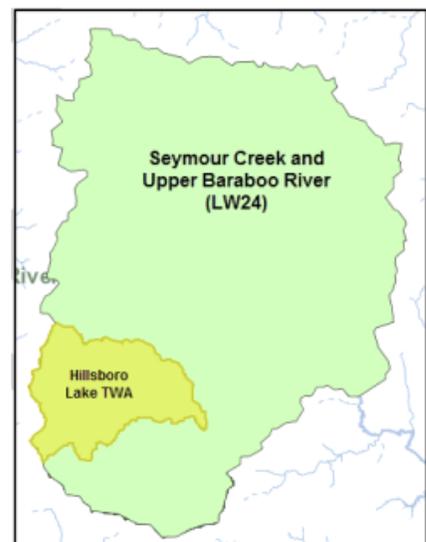
<http://dev1www.dnr.state.wi.us/topic/surfacewater/wqmplan/index.html>

<https://dnr.wi.gov/water/projectDetail.aspx?key=111674507>

This plan will be utilized to work with DNR in eventual development of a 9 key element plan and priority goals as DNR staff and LWCD staff and resources allow.

More information can be contacted by Jean Unmuth, Wisconsin DNR.

Figure 15- Seymour Creek and Upper Baraboo River Watershed with Hillsboro Lake TWA highlighted



Vernon County List of Water Body Impairments and 303d Listed Waters

Official Name (Click for Details)	Local Name (Click for Map)	Start Mile	End Mile	WBIC	Water Type	County	Pollutant	Impairment	Status	Priority
Kickapoo River	Kickapoo River	61.03	107.83	1182400	River	Monroe, Richland, Vernon	Total Phosphorus	Impairment Unknown	303d Listed	Low
Jersey Valley Lake	Jersey Valley Lake			1191600	Lake	Vernon	Total Phosphorus	Impairment Unknown, Excess Algal Growth	303d Listed	Low
Hills Creek	Hills Creek	0.00	10.00	1288800	River	Juneau, Vernon	Total Phosphorus	Degraded Biological Community	TMDL Development	High
West Branch Baraboo River	West Br Baraboo River	0.00	7.24	1288400	River	Juneau, Vernon	Total Phosphorus	Low DO	TMDL Development	High
South Branch Creek	South Br Creek (S Br Baraboo)	0.00	1.25	1289800	River	Vernon	Total Phosphorus	Impairment Unknown	TMDL Development	High
Bad Axe River	Bad Axe River	0.00	4.26	1639300	River	Vernon	Total Phosphorus	Impairment Unknown	303d Listed	Medium
Coon Creek	Coon Creek	0.00	13.81	1643500	River	Vernon	Total Phosphorus	Impairment Unknown	303d Listed	Low
Seymour Creek	Seymour Creek	2.63	6.48	1291400	River	Juneau, Vernon	Total Phosphorus	Impairment Unknown	TMDL Development	High
Seymour Creek	Seymour Creek	6.48	11.49	1291400	River	Monroe, Vernon	Total Phosphorus	Impairment Unknown	TMDL Development	High
Mississippi River	Mississippi (Reach 4) Coon-Yellow - Pool 8 portion - LD 8 to Root R.)	679.10	693.70	721000	River	La Crosse, Vernon	Total Phosphorus	Impairment Unknown	303d Listed	Low
Mississippi River	Mississippi (Reach 4) Coon-Yellow - Pool 9 portion - LD 9 to LD 8)	648.00	679.10	721000	River	Crawford, Vernon	Total Phosphorus	Impairment Unknown	303d Listed	Low
Mississippi River	Mississippi (Reach 4) Coon-Yellow - Pool 8 portion - LD 8 to Root R.)	679.10	693.70	721000	River	La Crosse, Vernon	Mercury	Water Quality Use Restrictions	303d Listed	Low

Official Name (Click for Details)	Local Name (Click for Map)	Start Mile	End Mile	WBIC	Water Type	County	Pollutant	Impairment	Status	Priority
Mississippi River	Mississippi (Reach 4) Coon-Yellow - Pool 9 portion - LD 9 to LD 8)	648.00	679.10	721000	River	Crawford, Vernon	Mercury	Contaminated Fish Tissue, Water Quality Use Restrictions	303d Listed	Low
Mississippi River	Mississippi (Reach 4) Coon-Yellow - Pool 8 portion - LD 8 to Root R.)	679.10	693.70	721000	River	La Crosse, Vernon	PCBs	Contaminated Fish Tissue, Water Quality Use Restrictions	303d Listed	Low
Mississippi River	Mississippi (Reach 4) Coon-Yellow - Pool 9 portion - LD 9 to LD 8)	648.00	679.10	721000	River	Crawford, Vernon	PCBs	Contaminated Fish Tissue, Water Quality Use Restrictions	303d Listed	Low
Jug Creek	Jug Creek	0.00	4.65	1195500	River	Vernon	Sediment/Total Suspended Solids	Degraded Habitat	TMDL Approved	Not Applicable
West Branch Baraboo River	West Br Baraboo River	0.00	7.24	1288400	River	Juneau, Vernon	Sediment/Total Suspended Solids	Low DO	TMDL Development	High
Melancthon Creek	Melancthon Creek	6.76	7.59	1232200	River	Vernon	Sediment/Total Suspended Solids	Degraded Habitat	Water Delisted	Delisted 2008
West Branch Baraboo River	West Br Baraboo River	0.00	7.24	1288400	River	Juneau, Vernon	BOD	Low DO	303d Listed	Low

Figure 16- *Vernon County Water Body Impairments and 303d Listed Waters*

Exceptional Resource Waters (ERW)

<u>Water Name</u>	<u>Location/Length</u>	<u>Watershed</u>
Creek 6-11 (Tributary to Tainter Creek)	All (T11N R3W)	LW03
Reads Creek (Black Bottom Creek)	All	LW03
Tainter Creek	From Headwaters to CTH "B"	LW03
Bishop Branch	All	LW04
Seas Branch	Above PL566 structure	LW04
Cheyenne Valley Creek	All	LW05
South Bear Creek	T12N R2W S2	LW05

Outstanding Resource Waters (ORW)

<u>Water Name</u>	<u>Location/Length</u>	<u>Watershed</u>
Camp Creek	All	LW05
Elk Creek	All	LW05

Figure 17- Exceptional Resource Waters

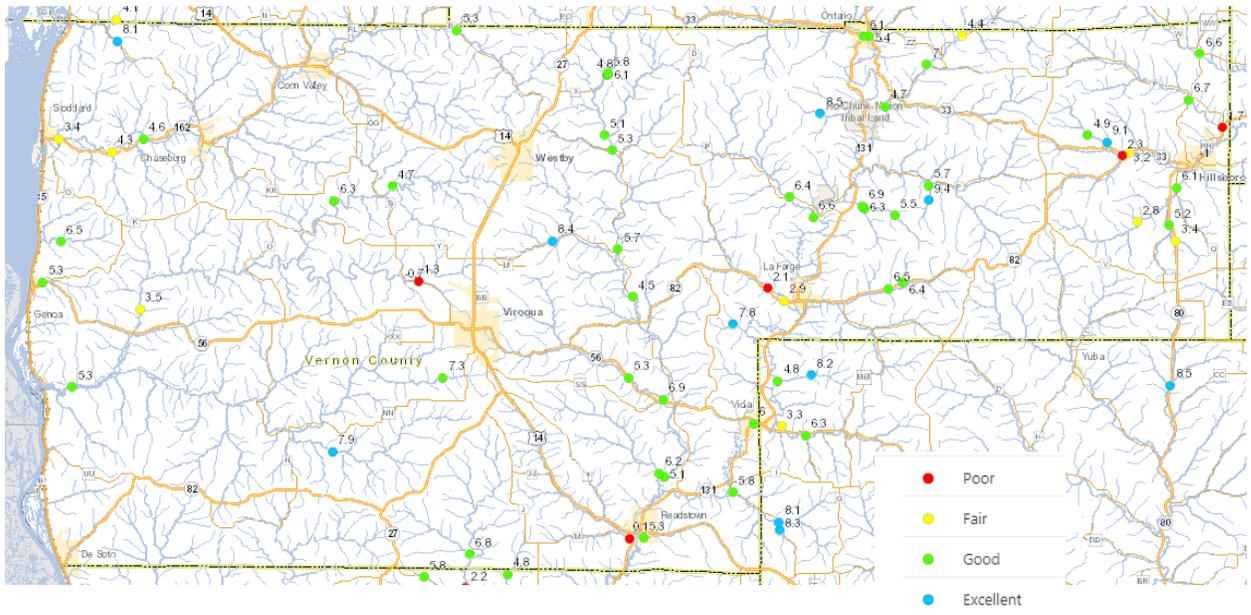


Figure 18- 10 Year Summary Macroinvertebrate Monitoring Sites.

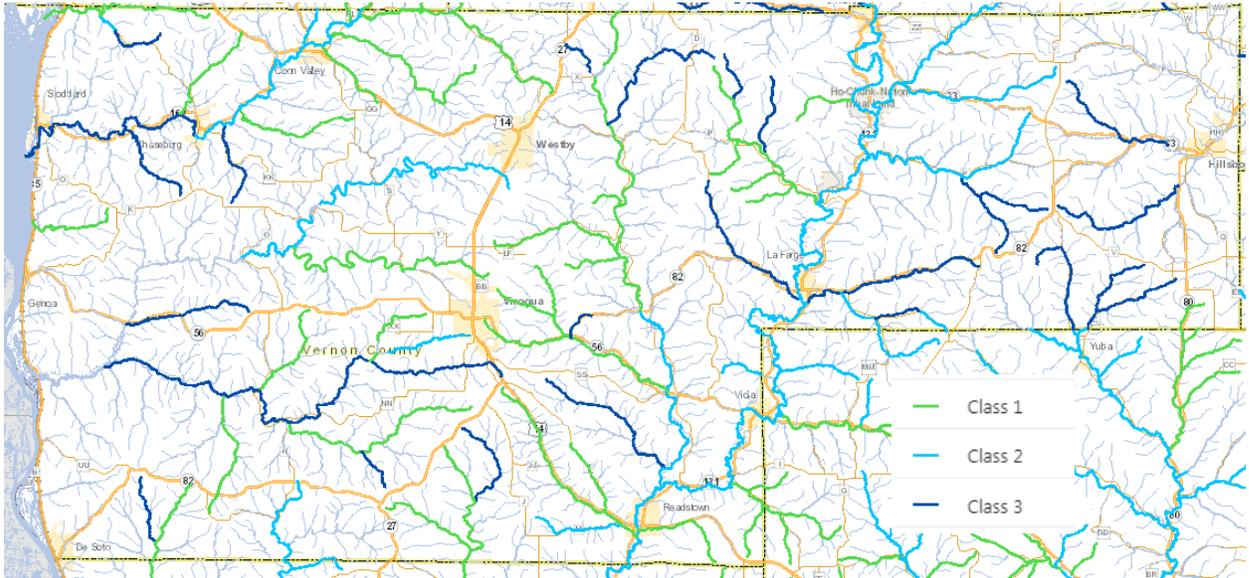


Figure 19- Vernon County Trout Stream Classifications

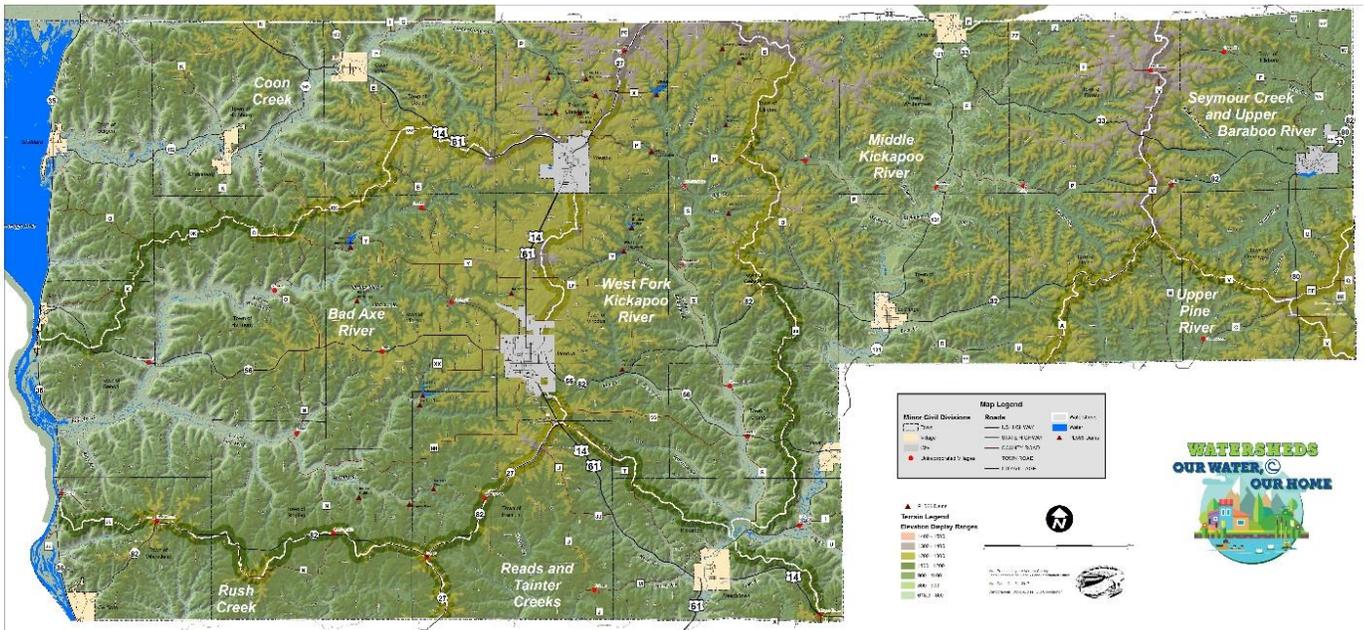


Figure 20- Vernon County Watershed Map

CHAPTER 2: SOIL CHARACTERISTICS AND SURVEY RESULTS

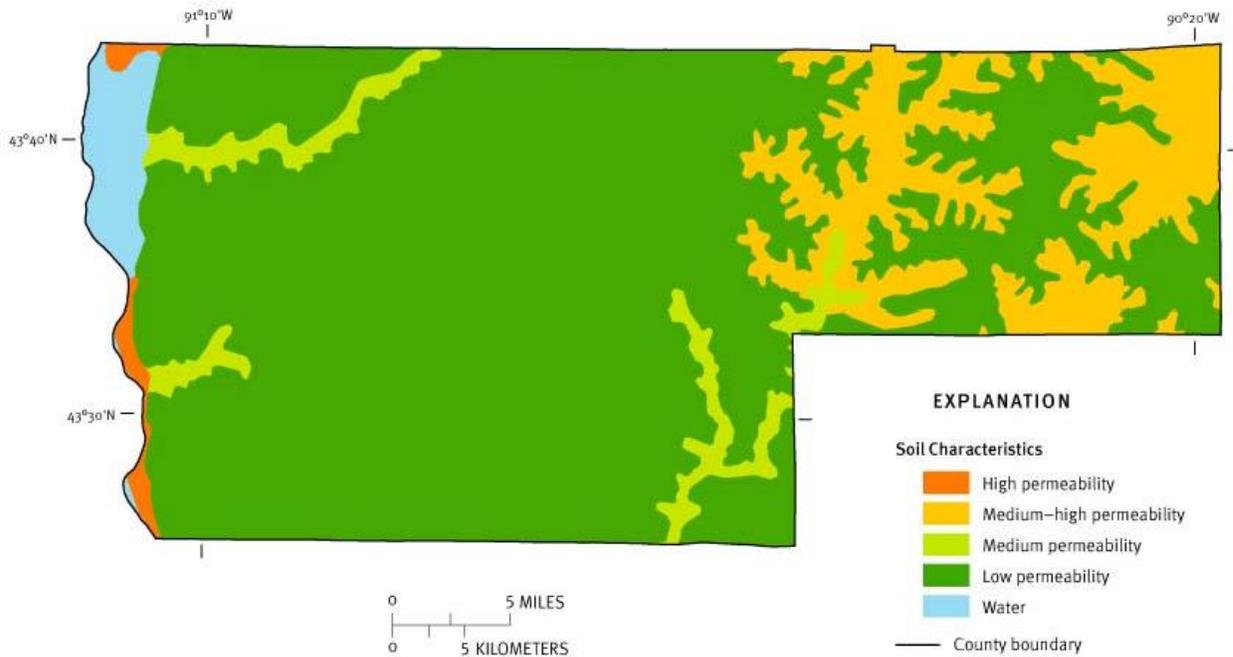


Figure 21- Soil Characteristics for Vernon County

VERNON COUNTY TRANSECT SURVEY

(Goal 3 of 5 year plan)

The grid transect survey predicts crop and tillage trends in Vernon County by furnishing a random sample of data points obtained throughout the county. Results are included for 1999-2002, and also for the most recent three year rotation. Snap+ is now utilized for completing the Transect Survey, as WinTransect is no longer being updated. Reports that were created in the past are no longer available through Snap+. Phosphorus Index (PI) calculations on the transect survey have very limited value, as no soil test data exists for the Transect points. Working with DATCP, the Parts Per Million phosphorus (PPM) assumptions for soil test information was 36 ppm. This was chosen as a likely average of soil test P values in the County. A number simply had to be chosen, though we know that soil test phosphorus ppm can vary widely. Cropping and reasonable rotation assumptions were made for 2019 in order to complete the three year soil loss and phosphorus index calculations. Assumptions were based on past transect knowledge. Dairy rotations included hay and were typically spring chisel. Corn and bean rotations were typically assumed to be no-till if past evidence suggested that. Amish operated fields are generally presumed to be in contour strips with moldboard plowing. The Transect Survey is beneficial because it allows us to see typical trends throughout the County. In general, the erosion rates are very high in this steep terrain. **Our department is not currently able to choose a 10 year priority area based on soil**

erosion rates, as high erosion rates are common throughout all of the Watersheds. In the future, we may use the Transect Survey to prioritize our staff efforts as funding allows. The highest PI was 23, and the lowest was 0. The average of all PI's was 5, though this can be misleading as earlier explained. When comparing PI's to the Wisconsin River TMDL sub basins in Vernon County, the averages seem reasonable. PI's in appendix N of the Wisconsin River TMDL range from around 5 to 9. This is consistent with what we are seeing, however many fields greatly exceeded these averages. The chart below summarizes the 2018 Transect Survey results. 50% of all fields are over "T" Tolerable soil loss. Slopes of 9% have 55.37% of fields exceeding T. Slopes of 16% have 75% of fields exceeding T. Slopes of 25% have 93.75% of fields exceeding T. Soil loss rates can be seen as high as 52 tons per acre. Soil loss rates of between 11 and 16 tons per acre are common.

2018 -2019 Transect Survey Results- Average Soil Loss by Slope

Number of Sites by Slope	% of Total Sites By Slope	Slope	Number of Sites not meeting T	% of Sites not meeting T	Average Soil Loss 2019
20	3.50%	1	0	0.00%	0.81
12	2.10%	2	0	0.00%	1.53
13	2.27%	3	0	0.00%	1.69
111	19.41%	4	21	18.92%	2.91
4	0.70%	8	0	0.00%	3.56
242	42.31%	9	134	55.37%	6.99
148	25.87%	16	111	75.00%	9.98
16	2.80%	25	15	93.75%	13.04
3	0.52%	30	1	33.33%	8.84
1	0.17%	33	0	0.00%	4.14
2	0.35%	38	2	100.00%	7.80
572		100.00%			

Figure 22 - Transect Survey Results

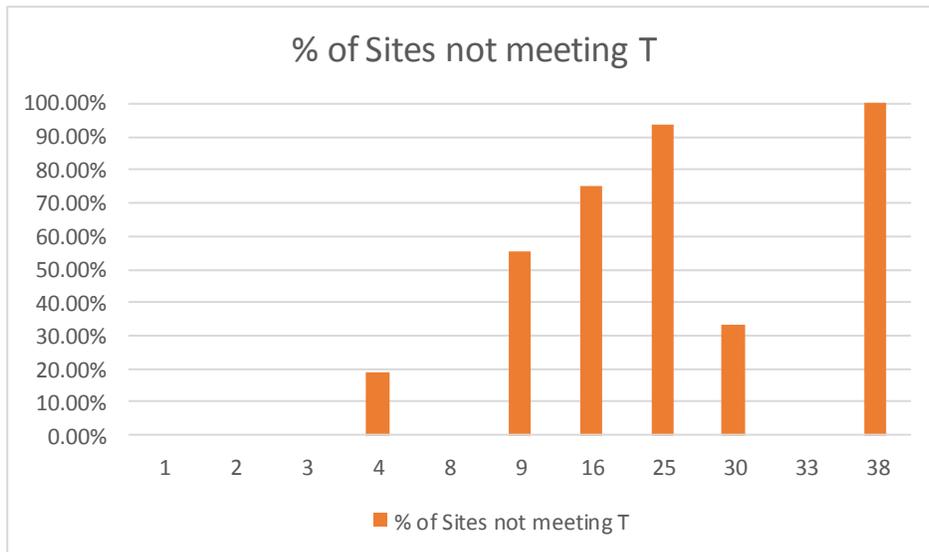


Figure 23 - Percentage of Sites Not Meeting T

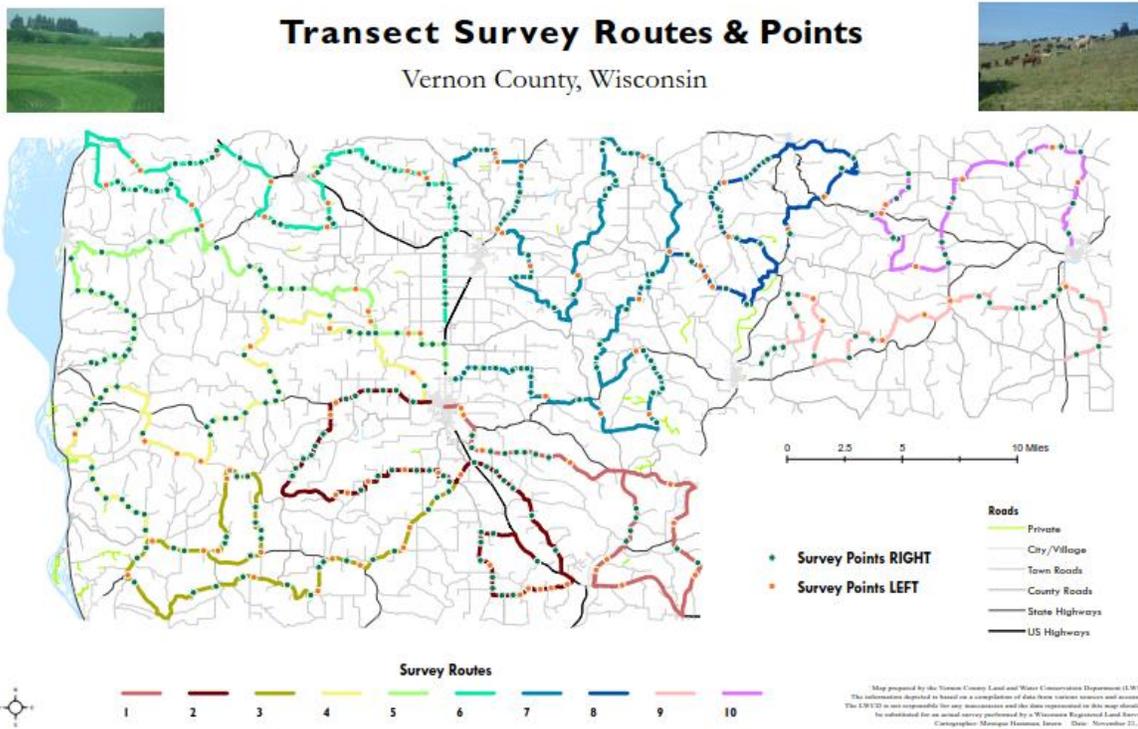


Figure 24- Current Transect Survey Routes and Points

CHAPTER 3: PLAN GOALS

Overview

Land Information

The County's on-line GIS based interactive mapping website continues to experience tremendous use and we are constantly being complimented for it. Due to evolving web technologies and technical obsolescence we will be updating the GIS mapping website in 2019. The new site will also be mobile enabled and allow citizens to access the information from there smart phones and other mobile devices.

We continue to make great strides in parcel map completion. Pro West, of Walker MN, our vendor for mapping the Villages have completed Coon Valley, Chaseburg, Ontario, La Farge, and Viola. Stoddard and Genoa will be completed in early 2019. Approximately 29,200 parcels, or 86% of the tax parcels, have been mapped as of mid-October 2018. Parcel mapping should be completed in 2019, and then finally enter an on-going maintenance phase. Having completed parcel mapping will greatly assist in utilization and implementation of our landowner tracking database for NR 151 performance standards.

Over 200 PLSS corners were remonumented in 2018, and the County will be nearing the completion of the initial PLSS remonumentation work that was started in the mid 1990's by the end of 2018.

In 2018, the County Board approved making the County Surveyor a full-time county position starting in 2019. More information for the County Surveyor can be found here, <http://www.vernoncounty.org/LWCD/surveyor.htm>

Additional details about Vernon County's Land Information development and PLSS remonumentation efforts are described in the 2016-2018 Land Information Plan. Additional information about the Land Information Office can be found here, <http://www.vernoncounty.org/LWCD/LIO.htm>.

Vernon County PLSS Re-monumentation Status Map

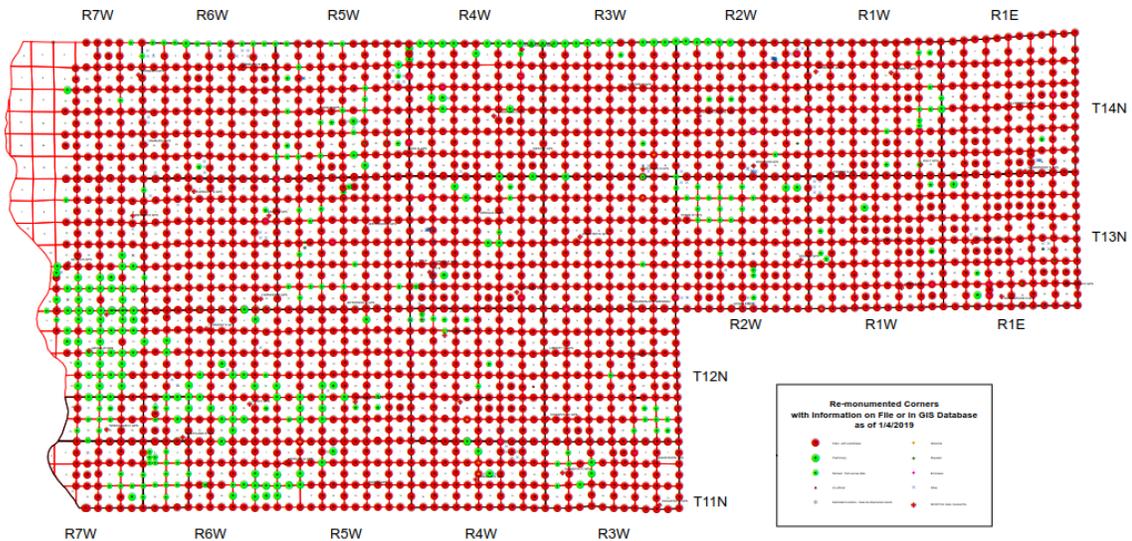


Figure 25- Vernon County PLSS Re-monumentation Status Map

P.L. 566 Flood Control Dams

(Goal 1 and 3 of 5 year plan)

Operation & Maintenance

The Vernon County Land & Water Conservation Department (L&WCD) has the legal responsibility to actively operate and maintain (O&M) twenty-two (22) large, earthen embankment flood control dams built in partnership with USDA/NRCS.

In August of 2007 and again in June of 2008, Vernon County was severely impacted by tremendous rainfall events that generated flooding which exceeded 500-year return elevations. Each of the 22 dams was damaged to some extent, some much worse than others. It is estimated that repairs and rehabilitations will exceed \$10 million.

Flooding has continued to be an issue and again in 2018 our Dam structures were drastically affected in a large flood event. Both Jersey Valley and Mlsna spillways were breached in this flood event with damage to every other structure. We will continue to work toward answers of how we should go about fixing the structures and apply for funding from multiple sources.

PL-566 Dam Structures

Vernon County, Wisconsin

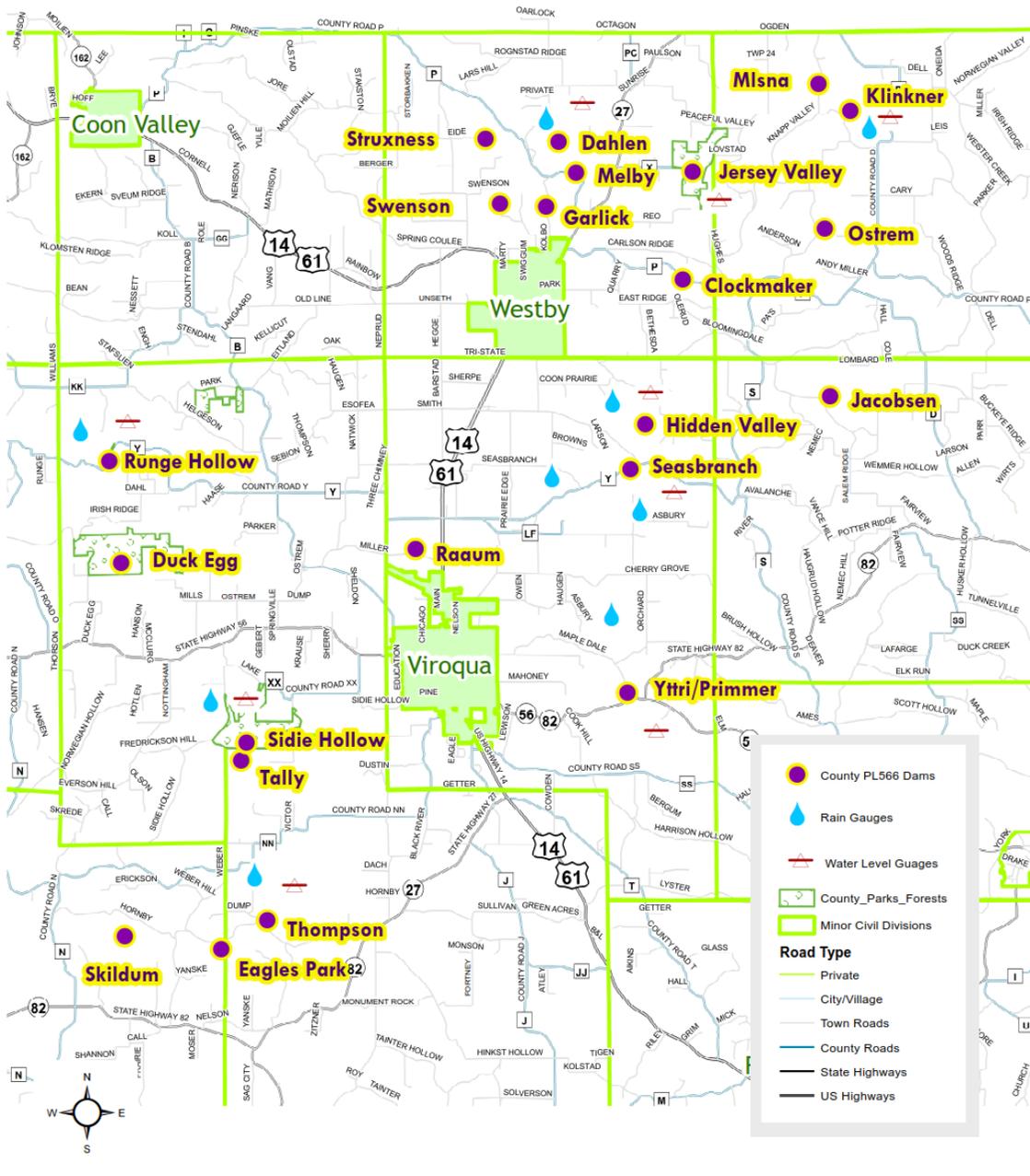
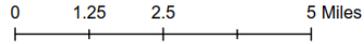
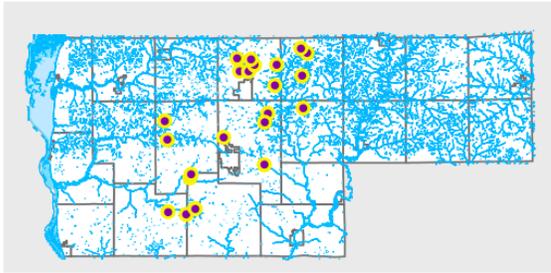


Figure 26- Vernon County PL-566 Dam Structure Map

Vernon County Parks and Forests

Vernon County Parks

Vernon County has eight County Parks that they maintain including Sidie Hollow, Esofea, Duck Egg, Kooyumjin, Jersey Valley, Blackhawk, Runge Hollow Recreational Area, and Wayside Park. They include over 1,800 acres of park and forest land, containing 32 miles of multi-use trail offering a multitude of leisure time pursuits. Three of these Parks have campgrounds that are open to the public for a fee. Sidie Hollow County Park has 74 campsites, of which 17 are full hook up, 25 are electric only and 31 are primitive with no electric or water. Esofea-Rentz Memorial County Park has 27 sites, of which 4 are full hook up, 8 are electric only and 15 are primitive with no electric and water. Blackhawk Park has 11 full hook-up seasonal sites offering a public boat landing on the Mississippi River.

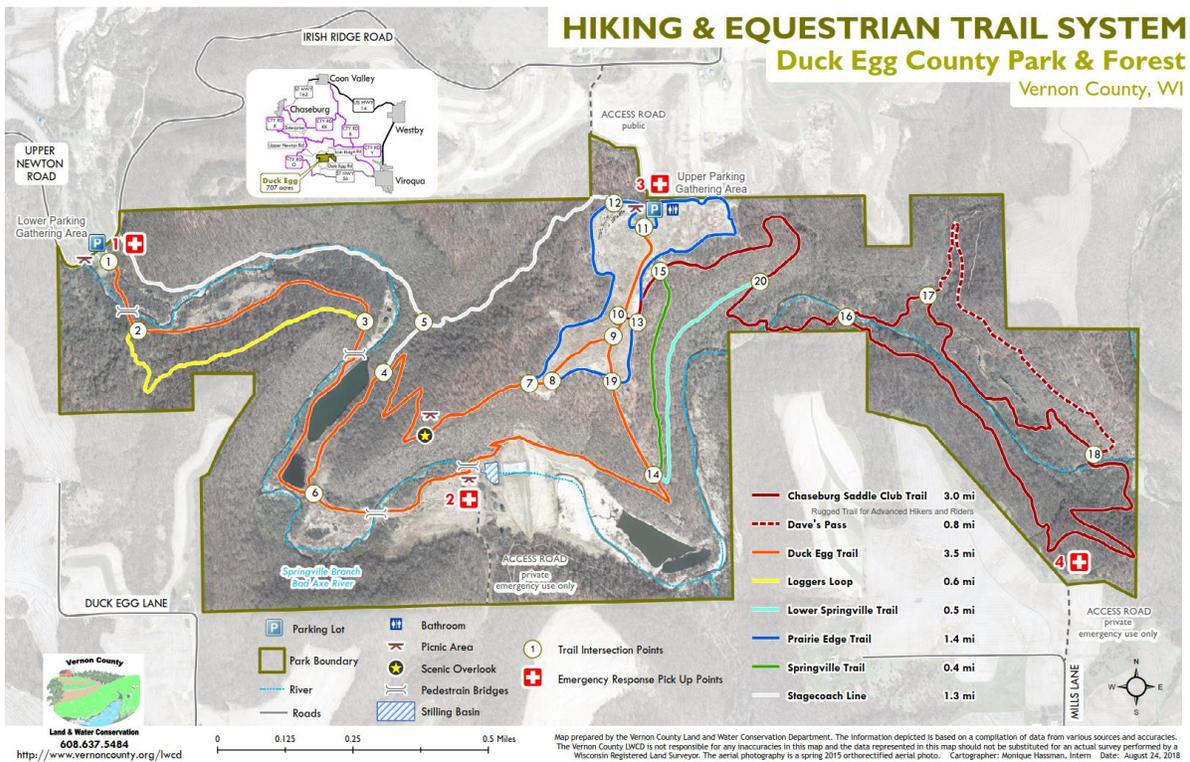
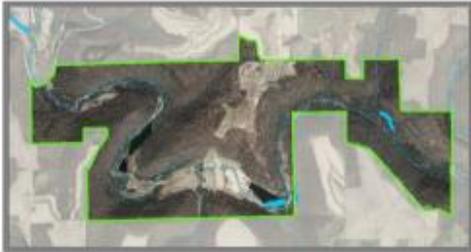


Figure 27- Duck Egg County Park Trail Map

Vernon County Forest Lands

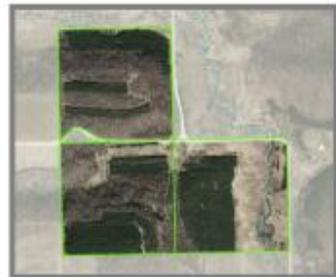


Duck Egg (Compartment 1)

696 acre tract in Jefferson Township. It is located 10 miles west of Viroqua south of Irish Ridge Road. This compartment is used for timber management, horse-riding, hiking, hunting, fishing, and trapping.

Kooyumjian – Lost Creek (Compartment 2)

119 acre tract in Union Township. It is located off Pine Avenue, South of County Highway 82, between La Farge and Hillsboro. In the fall of 2002, Tom Kooyumjian Family donated 112 acres of their Certified Tree Farm to Vernon County for addition into the County Forest. This compartment is used for timber management, hiking, hunting, fishing and trapping.



Esofea – Rentz (Compartment 3) 144 acre tract in Jefferson Township, 9 miles northwest of Viroqua off of County Road B. This compartment is used for timber management, day-use recreation, camping, hiking, hunting and fishing.

Sidie Hollow (Compartment 4)

512 acre tract in Jefferson & Franklin Townships, 3 miles southwest of Viroqua off County Road XX. This compartment is used for timber management, day-use recreation, camping, fishing, hiking, hunting and mountain biking.



Jersey Valley (Compartment 5)

A 363 acre tract located in Christiana & Clinton Townships, 4 miles northeast of Westby on County Highway X. This compartment is used for timber management, day-use recreation, fishing, hiking, hunting and mountain biking.

Private Forest Lands

Of the 509,000 acres of land in Vernon County, approximately 225,000 of those acres are forested. The majority of forested acres are owned by private landowners.

Forests are a valuable resource for forest products, wildlife, erosion control, clean air, and recreation. The Wisconsin DNR (WDNR) Private Forestry Program is available to private landowners to help them in achieving sustainable forestry management.

Vernon County, through its County Forest Administrator, works along side the DNR assisting private landowners with developing Stewardship Forestry Plans, Tree Planting Plans, Best Management Practices for Water Quality in relation to timber harvesting, and Private Landowner Timber Stand Improvement. (Addressed in the Forestry Section of the Multi-Year Work Plan)

A Forest Management Plan is a basic requirement for government funded cost share assistance. These plans address the landowner's goals and objectives. The Plan further describes the forest composition and outlines practices that encourage growth, productivity, health, wildlife, and erosion control.

Vernon County also works closely with the DNR on a Vernon County Tree Planting Program- usually planting over 100,000 annually on private lands (Addressed in the Forestry Section of the Multi-Year Work Plan).

The Public Participation Process helped us identify and define the following goals for the department.

Soil and Water Management

(Goal 1 and 3 of 5 year plan)

Runoff is the biggest threat to water quality in the county. This problem also has implications with respect to soil productivity and groundwater quality. Since much of the county is rural, many of these sources come from rural land use activities.

Reducing runoff often requires partnering of local, state, and federal organizations with private citizens. Erosion rates are very high throughout the entire County. Average cropland slopes are 12%, with some crop fields ranging from 25-30% slope. This being the case, Vernon County does not have a specific area which merits unique attention within the next 10 years. Rather, our priority farm strategy will be most effective in addressing the high soil loss rates in the County.

- Manage Activities to Ensure Nonpoint Source Pollution Abatement, Soil and Water Resource Management, and Assist in Implementation and Management of Local Conservation Priorities and State Water Quality Standards
- Reduce Cropland Erosion, Nonpoint Runoff and Sedimentation

- Improve/Maintain Groundwater Supply
- Improving Water Quality and In-Stream Habitat
- Administer Wisconsin Farmland Preservation Program
- Foster and support Farmer and Landowner led Watershed Groups
- Increase the number and quality of Nutrient Management Plans

P.L. 566 Flood Control Structures

(Goal 6, 9, 10, 11 of 5 year plan)

Maintaining these structures requires partnering of local, state, and federal organizations to burden the costs. The development and maintenance of these structures helps save lives and assets.

Issue: Many of these structures are reaching their intended life span. Construction projects to keep the dams functioning is now a necessity.

- Operate and Maintain 22 Flood Control Structures as Required by Statute and Agreements
- Rehabilitate and Repair Flood Control Structures to Extend their Useful Life
- Provide Leadership to PL566 Operators in Wisconsin and the Nation

Ordinance Administration

(Goal 12, 13, 14, 15 of 5 year plan)

The county has striven to establish regulations, which are environmentally beneficial while at the same time allowing businesses to remain in operation.

Issue: These regulations provide environmental protection while establishing a system to ensure that each operation is judged fairly.

- Administer the Nonmetallic Mining Reclamation Ordinance
- Administer Vernon County Manure Storage Ordinance
- Administer the Vernon County Livestock Facility Licensing Ordinance
- Administer the Vernon County Certified Survey Map Review Ordinance

Land Information

(Goal 16 of 5 year plan)

Trends in development are relying on the cooperation between all involved parties. Their decisions have implication on the conservation and restoration of certain types of land use, including the preservation of natural areas.

Issue: Development in rural areas in the county is increasing. There is a need to provide adequate information and services to ensure that environmental quality is being achieved. Good land uses and good planning are the driver for good soil and water management long term.

- Administer Land Information Program

Public Awareness

(Goal 18, 19, 20 of 5 year plan)

By increasing community involvement in natural resource management, we form valuable partnerships that enable us to better address issues that relate to the sustainability of our resources.

Issue: Community involvement is a vital part of natural resource management. It is important to get the community involved in projects happening in their watershed.

- Educate Vernon County Residents and Landowners About Conservation Issues
- Increase Community Involvement
- Start a Friends of Group for the Parks & Forests

Plants and Animals

(Goal 21, 22 of 5 year plan)

The biggest threats to wildlife include development, fragmentation, and degradation of habitat. Since most habitats in the county is privately owned, it is increasingly important to develop partnerships between citizens and other organizations to address these issues.

Issue: There are many threatened, endangered, and rare species in the county. Without protection from development, parcelization, and invasion from non-native species, many of these plants and animals may disappear.

- Control and Eradicate Non-Native and Invasive Species
- Protect Wildlife and Plant Species

Finances, Funding, and Interagency Cooperation

(Goal 23, 24, 25 of 5 year plan)

The County will try to stretch its limited resources as far as possible by partnering with different individuals, groups, and agencies to combine efforts both financially and technically.

Issue: Partnering with these different entities will create a larger knowledge pool, make money go further, and will eliminate any duplication of work; all things necessary to keep the county's efforts viable.

- Financial Administration of all Financial Assets
- Work with Cooperating Agencies and Other Groups for Additional Dollars for Tech. Asst. & Cost-Sharing
- Cooperate with the Natural Resource Conservation Service for Funding, Technical Assistance, and Public Awareness

Forestry

(Goal 26, 27, 28 of 5 year plan)

Managing forests for productive timber harvests benefits the landowner by creating a source of finances but helps the environment by eliminating cattle from the wood lots and managing for the desirable tree species which provide habitat and food for animals.

Issue: County forests are utilized by many citizens and groups. These areas should be a model example of woodland management.

- Increase Forestry Services in Vernon County
- Manage Vernon County's Tree Planting Program
- Improve Vernon County Forests

Provide Outdoor Recreation

(Goal 29, 30 of 5 year plan)

Work to provide our citizens and visitors with increased access to recreational opportunities to give them a richer outdoor experience while protecting and restoring valuable ecosystems.

Issue: The counties resources are utilized by thousands of individuals who live in or near the county. It is important to provide abundant and diverse recreational opportunities for these individuals from boating, fishing, hunting and biking, to camping, birdwatching, and swimming.

- Improve Vernon County Parks & Campgrounds
- Increase Outdoor Recreational Based Activities

Relationship to other plans:

The following resource management plans have been previously developed that have a relationship to this plan:

- Vernon County Farmland Preservation Plan
- Vernon County Outdoor Recreation Plan
- Vernon County Land Records Modernization Plan
- Vernon County Multi-Hazard Mitigation Plan
- Vernon County Emergency Action Plan for Dams

CHAPTER 4: REGULATORY REQUIREMENTS

Non-Metallic Mining Ordinance:

Vernon County adopted a nonmetallic mining reclamation ordinance in response to Wis. Administrative Code NR135, and is being administered by the Land and Water Conservation Department. This ordinance requires operators of nonmetallic mining sites to plan for a specific post-mining land use once mining at their site has ceased.

With approximately 50 nonmetallic mines in the county, the Land & Water Conservation Department is well occupied inspecting, determining and collecting annual fees, measuring the acreage covered by mining activity, receiving and reviewing reclamation plans, and investigating complaints. The department also works closely with the Wisconsin Department of Natural Resources to assure that sediment -laden water does not negatively affect surrounding properties or surface waters.

Experience indicates that applications for new (nonmetallic mining reclamation) permits, associated fees and reclamation plans can be expected every year.

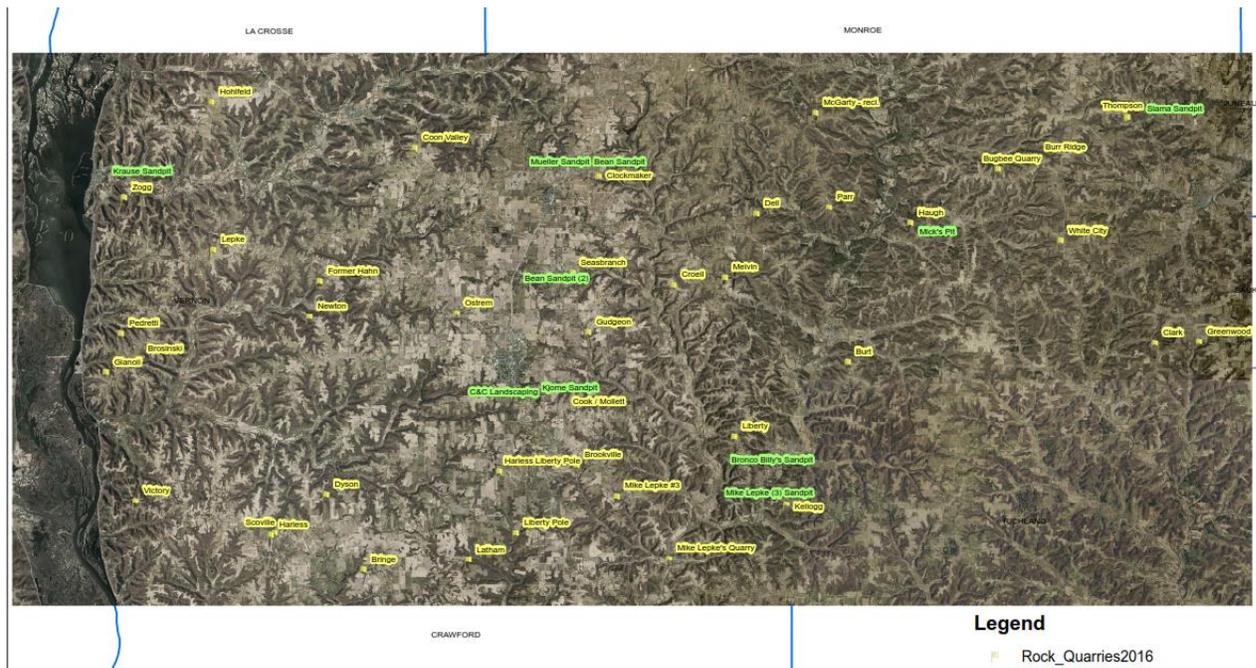


Figure 28 - Vernon County Nonmetallic Mining Sites

Manure Storage Ordinance:

The purpose of the Manure Storage Ordinance for Vernon County is to regulate the location, design, construction, installation, alteration, closure, and use of animal manure storage facilities, in order to prevent water pollution and thereby protect the health of Vernon County residents and transients; prevent the spread of disease; and promote the prosperity and general welfare of the citizens of Vernon County. It is also intended to provide for the administration and enforcement of the ordinance and to provide penalties for its violation.

New or substantially altered manure storage facilities shall be designed, constructed and maintained to minimize the risk of structural failure of the facility, minimize leakage of the facility in order to comply with groundwater’s standards, and maintain one foot of freeboard storage or adequate freeboard storage to the equivalent volume of a 25-year, 24-hour storm, whichever is greater.

Livestock Facility Licensing Ordinance:

The Vernon County Board of Supervisors in August 2007 adopted the Livestock Facility Licensing Ordinance for Vernon County. This ordinance requires a permit for livestock facilities of 500-999 animal units to ensure environmental safety and protection measures are met.

NR 151 Performance Standards Implementation Strategy

(Goal 7 of 5 year plan)

The following is Vernon County Land and Water Conservation Departments proposed strategy for implementation of the NR 151 performance standards. Our current priority farm strategy is rooted in Farmland Preservation. Through FPP, we are able to offer farmers the incentive to not only work with us initially, but also to continue to maintain their conservation practices, NR 151, and Nutrient Management Plans. This strategy has proven to be very effective, as we have steadily increased the number of Towns with FPP zoning and the number of farms eligible for the Tax Credit and NR 151 performance standards compliance. From our evaluations, we can conclude that this strategy has worked because most farmers choose to continue with the compliance. This sustained compliance leads to a better rate of return on our conservation efforts. Most farmers not in an FPP zoned township do not regularly update their Nutrient Management Plan, if one was ever even developed. (see figure 30 FPP Zoning in Vernon County)

Moving forward we will work with Farmer/Landowner Led Watershed groups to help determine our priority farm strategies. That is one reason why we include these farmers in our Citizen Advisory Committee during the development of our most recent LWRM plan. Currently we conduct approximately 40-50 farm inspections per year. We have determined that between 180 and 200 total farms are compliant with NR 151 in Vernon County. Farms checked moving forward are likely to not be new, but are to be farms in Farmland Preservation that are to be inspected on a four year rotation. There is currently no mechanism in place for mapping this compliance. We are working with GCS to get better parcel records and mapping of farm compliance, this tracking database and mapping ability should be started in 2020 and completed by 2022.

Tainter Creek Farmer-Led Watershed Council

(Goal 1 and 3 of 5 year plan)

This Tainter Creek watershed (HUC 10 – 0707000604) straddles Vernon and Crawford County and is characterized by steep hills, highly erodible soil, and karst topography. Accordingly, land use has a direct, dramatic effect on quantity and quality of water in streams. In addition, trout fishing is a local economic driver. The council was awarded a DATCP grant in 2019 and will seek to reduce the impacts of flooding and erosion, learn what the surface water baseline is, learn good farming practices and share knowledge among neighbors, and improve agriculture's image. The DATCP grant will help the council fund farm evaluations, surface water testing, a field day, a DNR stream ecology day, and cost-sharing for 500 acres of cover crops. Their collaborator is Vernon County Land and Water Conservation Department.

For additional information see links below:

https://content.govdelivery.com/attachments/WIDATCP/2018/12/07/file_attachments/1120109/ProducerLedRecipients2019.pdf

<http://www.swnews4u.com/archives/38670/>

https://datcp.wi.gov/Pages/News_Media/ProducerLedRecipients2018.aspx

1. Identification of Priority Farms

Priority farms are:

- Farms participating in the Farmland Preservation Program
 - Farms Subject to Vernon County Ordinances
 - Farms and land in Producer or Landowner Led Watershed Groups
 - Farms receiving formal complaints by our department in association with the NR151 performance standards and prohibitions.
 - Farms with significant manure management problems or are making clearly excessive nutrient applications
 - Farms with clearly excessive rates of cropland erosion (i.e. gullies)
 - Farms located in watersheds with TMDL's (Jug and Baraboo) or watersheds with impaired waters
- The implementation of this strategy is based on staff and funding availability.

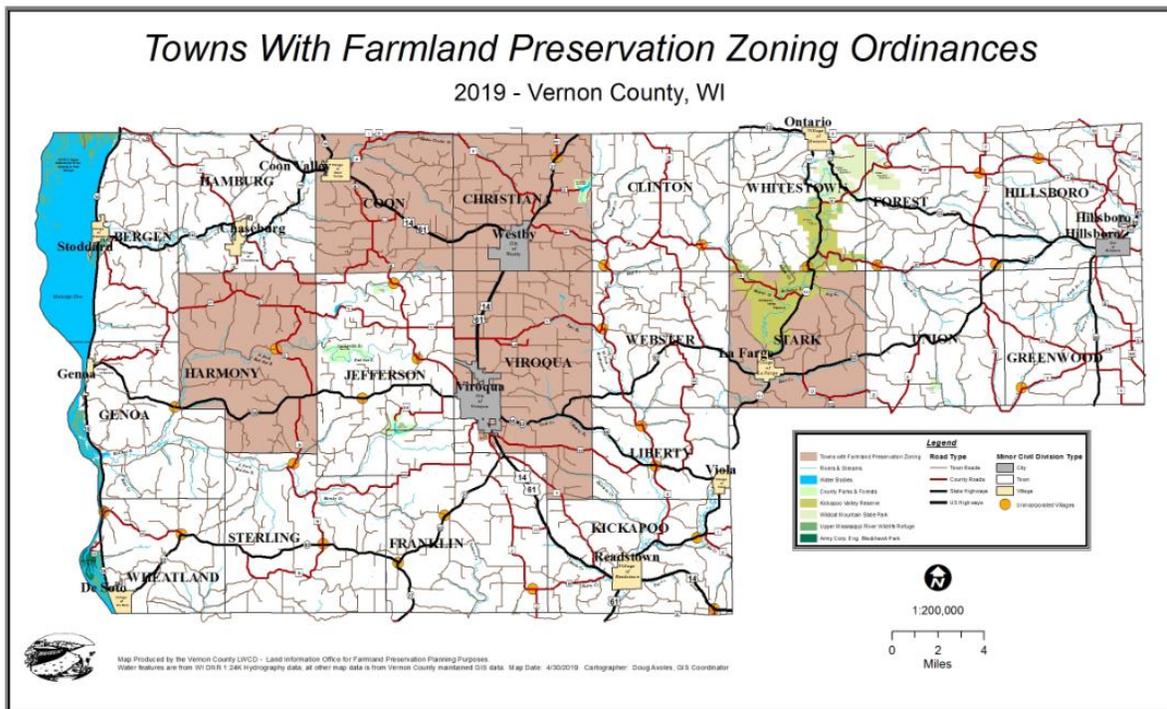


Figure 30 – Towns with Farmland Preservation Zoning Ordinances

2. Information and Educational Activities

Vernon County LWCD will make every effort to contact landowners and inform them of Wisconsin's agricultural performance standards and prohibitions. Through a combination of newsletters, public information meetings, new media and one-on-one contacts landowners will become notified of Wisconsin's performance standards.

Outreach and education has thrived in the last five years. The LWRM plan helps to identify the importance of our programs. Without the plan, it would be easy for outreach and education to get lost in the "daily grind" of our responsibilities. We held nine Cover Crop events over the past two years. Managed Grazing (3 events) is always a priority for our education field days, and is a consistent theme woven into all of our Soil Health events. We held a few large Soil Health events featuring Ray Archuleta with over 200 attendees.

Youth Education has been completely resurrected in the past five years. We currently teach over 700 students each year about a conservation topic that is chosen at the national level. Then the students create a poster for our Youth Conservation Poster Contest. Our annual awards banquet is a very positive event that allows us to celebrate the youth, as well as the farmers and conservation landowners in our community.

3. Determining Current Compliance

Records Inventory

The records inventory will be a review of existing records of landowners throughout the county who may already be in compliance based upon past and/or present program participation. The focus of compliance determination is for participants in the Farmland Preservation Program. Compliance evaluation is based on the NR 151 performance standards.

- Farmland Preservation Program – annual review.
- Reviews of existing plan folders.
- Contracts developed through the Middle Kickapoo River and Hillsboro Watershed Projects.
- Cost Share Participant Compliance
- Issue certificates of compliance or notice of non-compliance or a schedule of compliance.

Onsite Evaluations

Vernon County Land and Water Conservation Department will conduct on site evaluations. Farmland Preservation participants will be monitored on a four year schedule. Evaluations

will also be based on the following criteria. All evaluations are based on Department resources available.

- Farms identified as priority by the Land Conservation Department.
- Formal complaints received by the Land and Water Conservation Department.
- Farms that are found out of compliance with NR151 Ag performance standards and state water quality standards (as a result of requirements associated with participation in Vernon County LWCD program participation).
- Other farms found out of compliance with NR151 as they become apparent.
- Landowners who are found out of compliance during the records inventory process.
- Farmsteads located within a Water Quality Management Area that drains into an Impaired Stream or one of Vernon Counties Outstanding or Exceptional Resource Waters.
- Farms located within a TMDL or sub-watershed
- Review at the request of the landowner.
- Other Impaired Waters.

4. Prepare Report and Notify Landowners of NR 151 Compliance Status

Following completion of records review and/or an on-site evaluation the Vernon County LWCD will prepare and issue a NR 151 Status Report to owners of the evaluated parcels. Mapping is not currently available. Very limited NR 151 tracking has occurred outside of FPP Zoned Towns. The tracking and implementation of this process will be completed through the county GIS and GCS tracking system and will work jointly with existing access databases. The report will be developed to include the following:

- The current status of compliance of individual parcels with each of the performance standards and prohibitions.
- Corrective measures needed to be brought into compliance and rough cost estimates to comply with each of the performance standards and prohibitions.
- Status of eligibility for public cost sharing
- Grant funding sources and technical assistance available from Federal, state, and local sources, and third party service providers.
- An explanation of conditions that apply if public cost share funds are used.
- A signature line indicating landowner's agreement or disagreement with the report findings.
- The process and procedures to contest evaluation results to county and or state.
- A copy of the performance standards and prohibitions and technical design standards.

- A cover letter (signed jointly by the DNR and LCD), which describes the ramifications and assumptions, related to the Status Report.

5. Administer Funding and Technical Assistance

The LWCD utilizes various sources for funding conservation practices including federal, state, and private dollars. Annual allocations from DATCP are typically used on cost-share BMP projects on their own, and are sometimes earmarked for piggy backing with federal and private funds. SWRM funds and EQIP dollars represent the majority of cost-share used. DNR NOD funds have been used at approximately 1 project every 2 years. We plan to pursue TRM dollars as able, and to focus those efforts in watersheds where 9 key element plans have been developed. The Local Work group has identified the following practices as priority BMP's:

Erosion Control Practices:

- Critical Area Shaping
- Grassed Waterway
- Diversion
- Grade Stab. Structure
- Streambank & Shoreline Protection
- Access Road (Stream crossing)

Waste Management Practices:

- Diversion (Barnyard)
- Nutrient Management Plan
- Roof Runoff Management
- Barnyard Runoff Control System
- Sediment Basin Filter Strip
- Filter Strip
- Heavy Use Area Protection

Environmental and Water Quality Practices:

- Sinkhole Treatment
- Tree and Shrub Establishment
- Forest Site Preparation
- Cover Crop
- Fence
- Conservation Cover

New Technology Practices:

- Organic Farming Transition
- Prescribed Grazing
- Roller-Crimper (organic no-till)

6. Strategy to Encourage Voluntary Compliance

Every effort will be made to encourage and allow for compliance to be achieved voluntarily. FPP Zoning, Farmer-Led Watershed groups, and our extensive outreach and education efforts have been the most effective in promoting voluntary compliance.

The Land and Water Conservation Department may use any of the following measures to achieve voluntary compliance:

- Provide landowners with information concerning:
 - What performance standards and prohibitions are in general, what they are designed to achieve as well as what the requirements of the law are;
 - What performance standards and prohibitions specifically apply to their land and/or operation, and what the status of their compliance is with respect to those applicable standards;
 - The options they have for achieving and/or maintaining compliance;
 - The implications of their decisions and actions regarding compliance (e.g. what they may expect to happen if they decide to voluntarily comply versus if enforcement measures are taken to comply); and
 - Available sources of cost sharing and technical assistance and how they may access these.
 - Assisting landowners in making decisions about the specific practices they would need to adopt or implement to comply with an applicable standard or prohibition;
 - Providing assistance to help landowners apply for cost sharing and technical assistance;
 - Providing technical assistance such as preparing or reviewing conservation practice plans and designs.
 - Administering cost sharing
 - Providing follow-up assistance and support as needed to maintain compliance.

7. Enforcement

If a landowner refuses technical and financial assistance of the Vernon County Land and Water Conservation Department, they will be notified by mail that they are subject to an enforcement action pursuant to NR 151.09, provided an offer of cost sharing (as required) with compliance deadline, and referred to the DNR if necessary.

CHAPTER 5: MONITORING AND EVALUATION

Tracking Plan Progress:

Locally led conservation does not end after the plan is completed. Yearly evaluations will need to be performed to ensure that goals and objectives are being achieved and where actual results differ from those anticipated. After five years, the county will use the results of the monitoring and evaluation to improve the revised land and water resource management plan.

The Vernon County LWCD will utilize the joint reporting system being developed by DATCP and DNR, as well as our internal GCS tracking system. The report will track the activities and accomplishments to implement the performance standards. The report will track:

- number of acres meeting one or more NR 151 performance standards and prohibitions, included but not limited to:
 - Meeting nutrient management plan
 - Tolerable soil loss for sheet and rill erosion and Phosphorus-Index standards
- number of farms and acres meeting the NR 151 performance standards
- number of active and inactive manure storage structures and structures brought into compliance;
- number of livestock operations in compliance for each of the manure management prohibitions; and
- number of acres cropped using nutrient management planning.

Vernon County LWCD is actively working with GCS to develop Parcel Based tracking of Farmland Preservation, Nutrient Management, and other BMP's. We anticipate that this tracking system will be completed in 2019, and fully populated and functional by 2020.

Chapter 6: Vernon County Workplan

Workplan Year - 2020 to 2024

The establishment of these goals and objectives were made with the assistance of the Wisconsin DNR. Vernon County has a goal to complete or make significant progress on all of these goals during the 5 year planning period.

Soil and Water Management

Reducing runoff often requires partnering of local, state and federal organizations with private citizens. The development and implementation of projects to address this problem often leads to an improvement in ecosystem health.

Issue: Runoff is the biggest threat to water quality in the county. This problem also has implications with respect to soil productivity and groundwater quality. Since much of the county is rural, many of these sources come from rural land use activities.

Goal 1: Manage Activities to Ensure Nonpoint Source Pollution Abatement, Soil and Water Resource Management, and Assist in Implementation and Management of Local Conservation Priorities and State Water Quality Standards

Objectives	Actions	Status * C,O,D,N	Priority ** H, M, L	Who***	Measurement Tools	Accomplishments
Review status of all cost share agreements	Determine practices to be applied, maintained, and agreement status	O	H	CC, Tech	Number of agreements reviewed. Number and types of BMP's to be installed	
Determine compliance with state agricultural performance standards.	Map and track compliance status utilizing a GIS spatial database system, GCS	N, O	H	CC, Staff	Percentage of County with the status mapped.	
	Assess compliance with state performance standards when working with any program participant	N, O	H	CC, Staff	Number of Program Participants assisted by LWCD	

	Sign up participants for NMP development and implementation in targeted watersheds throughout the County	N, O	H	CC	Number of signed contracts	
	Offer farmer training for writing certified NRCS 590 plans	N, O	H	CC	Number of farmers attending	
Promote the use of Nutrient Management Planning as one tool to help attain Water Quality Standards	Promote the use of NRCS Comprehensive Nutrient Management Planning where appropriate	C, O	M	Staff, NRCS	amount of CNMPs completed, acres & # of farms	
	Work with Farmland Preservation Participants on Nutrient Management Plan Development in conjunction with program requirements.	C, N, O	H	CC, Staff	number of acres in NMPs created in the county	
	Survey, design and put out for bid, projects to address problems using appropriate BMP's on ag sites deemed out of compliance according to NR151 Standards	C, N, O	H	Tech, Staff, NRCS	number of BMPs surveyed, designed and installed	
	Identify, survey, design and put out for bid, projects to address problems using appropriate BMP's on sites with Notice of Discharge Violations	C, N, O	H	Tech, Staff	Number of NOD sites addressed	
BMP Installation on Problem Sites	Sign-up sites for installation of hard practices to address non-point sources of pollution and install needed BMP's in watersheds of concern	C, N, O	H	Tech, Staff	Number of new sites enrolled in program	
Sign-up new participants for BMPs in targeted watersheds	Sign-up sites for installation of hard practices to address non-point sources of pollution and install needed BMP's in watersheds of concern	C, N, O	H	Tech, Staff	Number of new sites enrolled in program	
Prioritize farms based on Farmer Led Involvement	Promote strong, cohesive, and sustained Farmer-Led and Landowner organizations in watersheds.	C, N, O	H	Tech, Staff	Number of new and sustained groups enrolled in program	

Goal 2: Classify and Monitor Impaired Streams and their Associated Watersheds to ensure Environmental Compliance

Objectives	Actions	Status * C,O,D,N	Priority ** H, M, L	Who	Measurement Tools	Accomplishments
Assist in defining impaired watersheds and water bodies	Work with DNR to define 303(d) impaired streams	C, N, O	M	DNR, Staff	Number of Impaired Streams in the County	
Supplement water monitoring activities in County watersheds	Track Water Quality Improvements in conjunction with BMP implementation	N, O	M	Staff, DNR, VSN		
	Track Water Quality Improvements in locally targeted watersheds in conjunction with nutrient management plan implementation in the watershed	N, O	M	CC, Staff, VSN, DNR		
	Monitor streams with temperature data loggers in all major watersheds. Work with landowners to place data loggers in streams.	C, O	M	VSN	Number of sites monitoring. Data is sent to DNR for their records	
<i>Estimated costs for new and ongoing activities: \$70,000/yr for staff and \$400,000 for support</i>						

Goal 3: Reduce Cropland Erosion, Nonpoint Runoff and Sedimentation

Objectives	Actions	Status * C,O,D,N	Priority ** H, M, L	Who	Measurement Tools	Accomplishments
Form Strengthen and enhance Watershed Group	1 Farmer Led Watershed Group Established	O	M	CC	Securing Grants and Performing deliverables	
	1 New Farmer Led Group Forming	N	M	CC		
	1 Landowner Group Established	O	M	CC	Group Established with Growing attendance	

Perform Transect Survey	Update GCS software to new database format and archive old data	N, O	H	CC, Staff		
	Identify cropland acres meeting/ not meeting "T" and track with GCS software	C, N, O	M	CC, Staff	Number of acres meeting "T"	
Control Upland Gully Erosion	Survey, design and put out for bid, projects to address problems using appropriate BMP's	C, N, O	H	Parks, Tech, Staff	Number of Projects	
Write and Update Nutrient Man Write and Update	Develop/ Update NMP's that address problem areas and for landowners requesting BMPs	C, N, O	H	CC, Staff, NRCS, CCA's	Number of Plans	
	Create public handouts and outline at organizational meetings to inform public of plan requirements	C, N, O	M	Staff	number of meetings and handouts created	
	Develop/ Update NMP's with Farmland Preservation Program participants	C, N, O	H	CC, Staff, NRCS	amount of conservation plans completed, acres & # of farms	
	Locate and correct any landowners who might be in violation of any of the prohibitions	C, N, O	H	Staff, DNR	number of landowners who have been located and corrected	
Identify priority areas in need of streambank protection	Locate and contact landowners of problems, attempt correction, or at least record problems for future funding opportunities	C, N, O	H	Staff, NRCS, TU	number of priority areas discovered and recorded	
	Work with different agencies and groups to find dollars to install BMP's	C, N, O	H	Staff, Partners	amount of funding attained by staff to install BMP's	
	Seek federal, state and private sources of funding to provide cost share funds for local landowners to install innovative technologies for long-term agricultural sustainability.	C, N, O	M	Staff, NRCS, Partners	Number of landowners assisted	
Work with landowners on managed grazing, sustainable agriculture efforts, and other programs	Improve the management of grazing on Highly Erodible Land and Steep Slopes to reduce erosion.	C, N, O	H	Staff, NRCS, RC&D	Number of grazing plans and landowners assisted	
	Improve the management of streambank grazing to reduce erosion.	C, N, O	H	Staff, NRCS, RC&D	Number of CREP contracts and grazing plans	

	Continue implementation of the CREP program for riparian corridor conservation	C, N, O	M	Forester, FSA, DATCP	Number of CREP contracts	
	Encourage and foster Managed Grazing plan development and education	C,O	H	Staff, NRCS, RC&D, partners		
	Assist with the connection of local food processing and distribution networks.	N, O	M	Staff, Partners	Economic Trends and Markets for Agricultural Products	
	Assist with the connection of local food processing and distribution networks.	N, O	M	Staff, Partners	Economic Trends and Markets for Agricultural Products	
<i>Estimated costs for new and ongoing activities: Staff costs \$160,000/yr and Support/Project costs \$90,000</i>						

<u>Goal 4: Improve/Maintain Groundwater Supply</u>						
Objectives	Actions	Status	Priority	Who	Measurement Tools	Accomplishments
	Promote programs such as MFL, CREP, CRP, EQIP, and the use of conservation practices to increase water infiltration and decrease runoff.	C, N, O	H	Staff, NRCS	Acres enrolled into these programs and educational speeches/handouts about conservation practices.	
Protect and restore groundwater recharge areas	Develop a Ground Water Testing programs working with Watershed Groups and communities and neighboring Counties	N	H	Staff, Watershed Groups, UWSP, Health Dept.	Number of wells tested and people attending education events	
Protect critical ground water areas	Promote the use of EQIP and other program funds for Groundwater Protection purposes and assist any landowners interested in these practices.	C, N, O	M	Staff, NRCS	EQIP contracts and landowners assisted	

	Use proper well abandonment; buffer karst areas, channels leading to karst areas, groundwater recharge areas, and protect springs	C, N, O	M	Staff	Number of wells properly abandoned and buffers installed.	
	Assess and document drinking water well / groundwater contamination	N, O	L	Staff, Cty Health Dept	Number of samples analyzed	
Characterize existing karst features and groundwater contamination in the area	Document and Track Sinkholes, Springs, and Other Karst Features	N, O	M	Staff	Number of database entries	
	Educate the public regarding groundwater quality and quantity concerns	C, N, O	L	Staff	Number of Correspondence and Meetings	
	Educate the public regarding groundwater quality and quantity concerns	C, N, O	L	Staff	Number of Correspondence and Meetings	

Estimated Costs for new and ongoing activities: Staff Costs \$90,000/yr and Project Costs \$60,000

<u>Goal 5: Improving Water Quality and In-Stream Habitat</u>						
Objectives	Action	Status	Priority	Who	Measurement Tools	Accomplishments
	Assist landowners in creating a variety of different abitat structures for fish, reptiles, amphibians, and mammals	O	H	Staff, NRCS	Number of structures created	
Conduct in-stream habitat work on selected priority streams in the county	Assist landowners in identifying and installing practices to protect these areas	C, N, O	H	Staff	Number of sources identified and protected	

Protect spring heads and headwater tributaries to cold water streams	Assist landowners in stabilizing streambanks, while at the same time providing a buffer of native vegetation for run-off protection and wildlife habitat.	C, N, O	H	Staff, NRCS, VSN	Feet of practices installed and number of people attending education events
Encourage the use of stream buffers and streambank protection.	Assist landowners in stabilizing streambanks, while at the same time providing a buffer of native vegetation for run-off protection and wildlife habitat.	C, N, O	H	Staff, NRCS, VSN	Feet of practices installed and number of people attending education events

Estimated costs for new and ongoing activities: Staff Costs \$36,000/yr and Cost-sharing \$450,000/yr

Goal 6: Flood Mitigation						
Objectives	Actions	Status * C,O,D,N	Priority ** H, M, L	Who	Measurement Tools	Accomplishments
	Create a new position to map and document the current and historical flood damages					
	Create a new position to design flood mitigation, water retention and conservation practices	N, O	H	Staff, NRCS	GIS Mapping	
	Develop mapping and model flood mitigation priorities	D	H	Tech, Partners	Practices Implemented	
	Utilize modeling, including EVAAL to identify priority areas for conservation and mitigation practices and projects	N, O	H	Staff, VSN	Number of Models & Priorities Developed	
	Utilize modeling, including EVAAL to identify priority areas for conservation and mitigation practices and projects	N, O	H	Staff, VSN	Number of Models & Priorities Developed	
	Develop a road/culvert inventory and documenting of "digital dams" that interfere with watershed modeling	N, O	H	Staff, Highway, LLIO	Percent of Inventory Completed	

Compile and Create available data in order to maximize the Cost Benefit of BMP practices installed to mitigate flood impacts	Develop a landowner/farmer outreach program which will increase the number of practices that will retain water	N, O	H	Staff, VSN, Watershed Groups	Number of meetings, number of practices developed	
	Develop a strategy for changed practices for roads and culverts	N, O	H	Highway, LIO	Strategy Identified	
	Develop a cost-share program for flood mitigation projects	D	H	Staff, Partners	Number of Projects	
Work throughout the County, with multiple departments and partners, in order to best address flooding impacts to farms and infrastructure	Develop a landowner/farmer outreach program which will increase the number of practices that will retain water	N, O	H	Staff, VSN, Watershed Groups	Number of meetings, number of practices developed	
	Develop a strategy for changed practices for roads and culverts	N, O	H	Highway, LIO	Strategy Identified	
	Develop a cost-share program for flood mitigation projects	D	H	Staff, Partners	Number of Projects	
<i>Estimated costs for new and ongoing activities: Staff Costs \$152,000/yr and Cost-sharing \$450,000/yr</i>						

Goal 7: Administer Wisconsin Farmland Preservation Program						
Objectives	Actions	Status	Priority	Who	Measurement Tools	Accomplishments
	Perform Farm Evaluations to determine if land use is consistent with NR151 and farmland is being farmed to "T"	C, N, O	M	Staff	Number of spot-checks completed	

Maintain farmland preservation database and verify compliance with law	Write news releases, answer telephone questions and conduct meetings	C, N, O	M	Staff	Number of meetings, news releases and contacts	
Provide public information about Farmland Preservation Program	Promote FPP, Zoning at local level, purchase of development rights, Purchase of easements, etc.	C, N, O	M	Staff, Towns, Farmer Groups	Number of Town and other FPP Meetings, attendees	
Work to promote FPP and Slow loss of Farmland	Assist in programs to promote working lands	O	M	Staff	Number of contacts made	
	Revise and update existing Farmland Preservation Plan	O	M	Staff	Plan revised and approved by county and WI LWCB	
Farmland Preservation Plan	Revise and update existing Farmland Preservation Plan	O	M	Staff	Plan revised and approved by county and WI LWCB	

Goal 8: Administer Conservation Reserve Enhancement Program (CREP)						
Objectives	Actions	Status * C,O,D,N	Priority ** H, M, L	Who	Measurement Tools	Accomplishments
Provide public information about CREP	Write news releases, answer telephone questions and conduct meetings	C, N, O	M	Forester, FSA	Number of meetings conducted and landowners conferred with.	
Reduce Streambank erosion in Vernon County	Enroll landowners in CREP program and try to attain the max of 150' buffers on both sides of stream	C, N, O	M	Forester, FSA	Feet of streams buffered in county	
Reduce non-point run off entering Vernon County streams	Enroll landowners in CREP program and try to attain the max of 150' buffers on both sides of stream	C, N, O	M	Forester, FSA	Miles of streams buffered in county	

Administer CREP Program	Delineate eligibility, boundaries, consult with landowners, fill out paperwork, gather needed information on land	C, N, O	M	Forester, FSA, DATCP, NRS	DATCP reports on CREP	
Other easements	Where CREP is not feasible, work with other partners on easement options for buffers to reduce runoff directly entering streams and address streambank erosion from continuous use	N	L	Staff	Number of easements enrolled	

Estimated costs for new and ongoing activities: Staff costs \$10,000/yr, cost-sharing \$120,000/yr

P.L.566 Flood Control Structures

Maintaining these structures requires partnering of local, state and federal organizations to burden the costs. The development and maintenance of these structures helps saves lives and assets.

Issue: Many of these structures are reaching their intended life-span. Construction projects to keep the dams functioning is now a necessity

Goal 9: Operate and Maintain 22 Flood Control Structures as Required by Statute and Agreements

Objectives	Actions	Status * C,O,D,N	Priority ** H, M, L	Who	Measurement Tools	Accomplishments
Insure funding for one permanent and seasonal employee to PL566 operations and maintenance	Presentations to County Board Emphasizing need for maintenance to reduce County's liability	C, N, O	H	Dams, CC, AM	Number of news releases, & presentations made	
	Provide informative articles to newspapers that will foster citizen support for dams	C, N, O	M	Dams	Number of articles written	
	Establish a system of levying funds for operations and maintenance from land protected by each dam	C, N, O	L	Dams	Establishment of the system	
Insure that Emergency Action Plans (EAPs) are formulated and maintained	Update all EAPs as needed and/or directed	C, N, O	H	Dams	EAP forms completed	
	Gain approval of EAPs from State Dam Safety Officials	C, N, O	H	Dams	EAPs accepted by DNR	
	Carry out tests of EAPs to insure adequacy and public awareness	C, N, O	M	Dams	Number of tests completed every 5 years	
Engage in preventive maintenance of dams	Maintain inventory of tools, vehicles and Equipment to safely and efficiently carry out maintenance	C, N, O	H	Dams, Accounts	Inventory lists	
	Secure funding from County to cover costs of operations and maintenance of dams	C, N, O	H	Dams, CC	Amount of funds secured	
	Build cash reserve of at least \$100,000 for emergency repairs and for matching state and federal grant funds	C, N, O	M	Dams	Reserve established	

	Generate \$5,000 in custom mowing contracts from other Counties and local units of government	C, N, O	M	Dams	Number of contracts and dollars brought into the county	
	Attend available training on operations and maintenance of flood control structures	C, N, O	M	Dams	Number of events attended	
Stay in compliance with local, state and federal regulations, laws and guidelines	Maintain communications with state and federal personnel responsible for dam safety regulations and engineering standards	C, N, O	M	Dams	Communications established	
	Submit annual inspection reports to state and federal officials	C, N, O	H	Dams	Reports submitted on CD	
	Attend available training and information sessions on state and federal regulations and programs	C, N, O	M	Dams	Number of events attended	
	Maintain membership in the American Society of Dam Safety Officials (ASDSO)	C, N, O	M	Dams	Membership sustained	
Identify and complete necessary repairs to the dams	Work to meet all DNR Orders and Directives for repairs to flood control structures	N, O	H	Dams	Number of Orders/Directives met	
	Conduct inspections of each dam and breach route annually	C, N, O	H	Dams	Inspections completed	
	Conduct inspections of each dam and breach route following every 100-year storm	C, N, O	H	Dams	Inspections completed following a 100-year storm	
High Water Warning Systems	Complete installation of, monitor, and maintain Precipitation Gauge stations and Water Level monitors (and their associated notification system) on all Vernon County PL-566 high hazard dams (and Sidie Hollow)	N, O	H	Dams	Installation completed, data acquisition	

Estimated costs for new and ongoing activities: Staff costs \$120,000/yr, Project Costs \$1,500,000/yr

Goal 10: Rehabilitate and Repair Flood Control Structures to Extend their Useful Life

Objectives	Actions	Status * C,O,D,N	Priority ** H, M, L	Who	Measurement Tools	Accomplishments
Identify structures in need of rehabilitation or repair	Maintain listings of dams and their components needing rehabilitation	C, N, O	M	Dams	List of dams and components	
	Provide rehabilitation needs to USDA/NRCS officials and secure funds	C, N, O	M	Dams	List sent	
	Secure alternate funds for necessary repairs	N, O	H	Dams, CC	Funds received	
Construction activities designed to rehabilitate structures	Act as Contracting Officer for all construction projects	C, N, O	M	Dams	Contracts administered	
	Provide and maintain a mobile construction office	C, N, O	M	Dams	Construction trailer	
	Establish an accounting system for tracking income and expenses for each rehabilitation project	C, N, O	L	Dams, AM	Accounting system spreadsheet	

Estimated costs for new and ongoing activities: Staff costs \$70,000 and Cost-sharing needed \$12,000,000

Goal 11: Provide Leadership to PL566 Operators in Wisconsin and the Nation

Objectives	Actions	Status * C,O,D,N	Priority ** H, M, L	Who	Measurement Tools	Accomplishments
Maintain membership and leadership role in Wisconsin PL566 Coalition	Pay \$50 dues to the Wisconsin P.L.566 Coalition on an annual basis	C, N, O	M	Dams	Dues paid	
	Serve as an officer on the Coalition Executive Committee	C, N, O	H	Dams	Officer position held	
	Provide office space and supplies for operating the Coalition	C, N, O	M	Dams	Office space provided	
	Provide information and support to other members of the Coalition	C, N, O	M	Dams	Information sent	
Maintain membership and leadership role in National Watershed Coalition	Attend all meetings for NWC	C, N, O	M	Dams	Meetings attended	
	Pay \$50 dues to the National Watershed Coalition on an annual basis	C, N, O	M	Dams	Dues paid	

Estimated costs for new and ongoing activities: Staff costs \$5,000/yr Support Costs \$4,000/yr

Ordinance Administration

The county has striven to establish regulations which are environmentally beneficial while at the same time allowing businesses to remain in operation.

Issue: These regulations provide environmental protection while establishing a system to ensure that each operation is judged fairly

Goal 12: Administer the Nonmetallic Mining Reclamation Ordinance

Objectives	Actions	Status * C,O,D,N	Priority ** H, M, L	Who	Measurement Tools	Accomplishments
Ensure all quarry operators have an approved reclamation plan on file	1) Review reclamation plans 2) Approve, conditionally approve or disapprove plans 3) Provide public notice of plans 4) Determine financial assurance amount; collect/verify accuracy of FA documents	C, N, O	H	Dams	Number of plans received, reviewed, noticed and approved	
Administer our county ordinance in accordance with the State Admin. Code NR135.	1) Grant permits to eligible applicants 2) Inspect, photograph, and measure each site at least once every 2 years 3) Collect fees associated with this ordinance 4) Report annually to WI DNR on county mining activities	C, N, O	H	Dams	Number of permits granted; Number of sites inspected; Dollar amount of fees collected; Annual report completed and sent to DNR	

Estimated costs for new and ongoing activities: Staff costs \$30,000/yr, Support Costs \$15,000/yr.

Goal 13: Administer Vernon County Manure Storage Ordinance

Objectives	Actions	Status * C,O,D,N	Priority ** H, M, L	Who	Measurement Tools	Accomplishments
Require that new and modified manure storage facilities meet NRCS standards	Issue permits to build manure storage facilities under local ordinance. Verify NRCS standards are met	C, N, O	H	CC	Number of permits issued	
Require that new and modified manure storage facilities have an updated nutrient mgt. plan	Check nutrient management plans for conformance with NRCS 590 standard	C, N, O	H	CC	Number of nutrient management plans checked	
Require that unused manure storage structures be abandoned according to NRCS standards	Assist landowner by providing a plan for abandonment that meets NRCS specifications. Verify that NRCS standards are met.	C, N, O	M	CC, Staff	Number of permits issued.	

Expected costs for new and ongoing activities: Staff Costs \$15,000 Support Costs \$15,000/yr.

Goal 14: Administer the Vernon County Livestock Facility Licensing Ordinance

Objectives	Actions	Status * C,O,D,N	Priority ** H, M, L	Who	Measurement Tools	Accomplishments
Ensure compliance with the Livestock Facility Licensing Ordinance	Inform public of licensing rules	N, O	L	CC	News releases, mailings, etc	
	Correspondence with expected permittees	N, O	M	CC	Number of contacts	

Estimated costs for new and ongoing activities: Staff costs \$4,000/yr, Support Costs \$6,000/yr.

Goal 15: Administer the Vernon County Certified Survey Map Review Ordinance

Objectives	Actions	Status * C,O,D,N	Priority ** H, M, L	Who	Measurement Tools	Accomplishments
Ensure compliance with the CSM Review Ordinance	Provide all necessary information to contracted review surveyor	N, O	H	LIO	Number of CSMs reviewed	
	Correspondence with surveyors on requirements of the ordinance	N. O	M	LIO	Number of contacts, mailings	

Estimated costs for new and ongoing activities: Staff costs \$4,000/yr, Support Costs \$1,000/yr.

Land Information and Land Use Planning

Trends in development are relying increasingly on the cooperation between all involved parties. Their decisions have implications on the conservation and restoration of certain types of land use, including the preservation of natural areas.

Issue: Development in rural areas in the county is increasing. There is a need to provide adequate information and services to ensure that environmental quality is being achieved. Good land uses and good planning are the driver for good soil and water management long term.

Goal 16: Administer Land Information Program

Objectives	Actions	Status * C,O,D,N	Priority ** H, M, L	Who	Measurement Tools	Accomplishments
Staff Land Information Committee	create agendas and minutes, publicly post meetings, perform related GIS and LIO tasks assigned at committee meetings	C, N, O	M	LIO	Recorded minutes in the county clerks office	
Administer Wisconsin Land Information Program Grants	track grant spending, submit applications, close grant agreements, and act as contact person with Department of Administration for WLIP grants	C, N, O	H	LIO	Amount of grants and retaining fees held by the county	
	Secure other funds as is feasible	N, O	M	LIO	Amount of additional grant funds	
Acquire and Develop GIS data, Orthophotography, and other Land Information	Coordinate data acquisition activities	C, N, O	H	LIO	Files in database	
Initiate use of GIS software through all county departments	set up or conduct trainings, assist with technical questions and assist in establishing data for GIS	C, N, O	M	LIO	Number of departments using GIS	
Assist public & cooperating agencies in acquiring air photos and maps	Use ArcGIS to generate aerial photography and thematic maps for public and cooperating agencies	C, N, O	M	LIO	Amount of photos and maps sold from office	
	Develop Internet-based publicly accessible mapping interface	N, O	M	LIO	Number of Hits to website	

Assist with any Floodplain and dam breach mapping updates	Update contour and surface elevation using LIDAR technology to provide more accurate information for several departments	N	L	LIO	Acquisition of New Elevation Data	
Track progress of Section Corner Remonumentation Project	Keep track of corners secured by surveyors, materials, map progress, and field verify corners as needed.	C, N, O	L	LIO	Percentage of corners mapped	

Estimated costs for new and ongoing activities: Staff costs \$35,000/yr, Support Costs \$5,000/yr, Project Costs \$120,000.

Goal 17: Coordinate Comprehensive Planning Activities in Vernon County

Objectives	Actions	Status * C,O,D,N	Priority ** H, M, L	Who	Measurement Tools	Accomplishments
Development of 9 Key Element Plans	Work with partners to gather data and develop plans	N	H	CC, LIO, VSN, DNR	Plans Completed	
Land & Water Plan	Track Progress of plan completion for municipalities involved	O	L	LIO	Number of plans completed	
	Review and Update Land & Water Plan on a 5 and 10 year basis	O	M	CC, Staff	Approved Plan	

Estimated costs for new and ongoing activities: Staff costs \$25,000/yr, Support costs \$10,000/yr.

Public Awareness

By increasing community involvement in natural resource management, we form valuable partnerships that enable us to better address issues that relate to the sustainability of our resources.

Issue: Community involvement is a vital part of natural resource management. It is important to get the community involved in projects happening in their watershed

Goal 18: Develop, Publish and Maintain Web Site for Department

Objectives	Actions	Status * C,O,D,N	Priority ** H, M, L	Who	Measurement Tools	Accomplishments
Provide an informational site on the internet for the public and inform them of new programs and opportunities	Maintain and update pages within the site. Provide information on a variety of local, state and federal programs	C, O	M	AM, CC, Vernon Cty IT Dept.	Maintain and update "user friendly" web site	
Vernon County Website	Maintain a site that lists personnel, program responsibilities, and phone numbers	C, O	M	IT, Staff	Date last updated	

Estimated costs for new and ongoing activities: Staff costs \$18,000/yr, Support Costs \$2,000/yr.

Goal 19: Educate Vernon County Residents and Landowners About Conservation Issues

Objectives	Actions	Status * C,O,D,N	Priority ** H, M, L	Who	Measurement Tools	Accomplishments
Educate the youth about various conservation programs, opportunities, and introduce them to various aspects of soil, trees, plants etc.	Present at "Conservation Field Days," Speak with the schools, Youth Education and Awards Banquet	C, O	M	Staff, NRCS, DNR, RC&D, UW-EXT	Number of presentations throughout the year	
Educate adults about various conservation programs, opportunities, and introduce them to various aspects of soil, trees, plants etc.	Present to groups, clubs, etc. Newsletters, Maintain Web Page, County Board Presentations, Press releases.	C, O	M	Staff, NRCS, UW-EXT	Number of talks and releases.	
Work with VSN to maintain and update the "Owning Rural Land" Publication	Topics covered include permits for stream crossings, Farmland Preservation Program, Managed Forest Law, Zoning, etc. for rural landowners in the County	C, O	M	Staff, VSN	Number of Books Printed	

Estimated costs for new and ongoing activities: Staff \$7,500/yr, Support Costs \$500/yr.

Goal 20: Increase Community Involvement

Objectives	Actions	Status * C,O,D,N	Priority ** H, M, L	Who	Measurement Tools	Accomplishments
Continue to support interagency and community supported natural resource projects.	Attending collaboration meetings organized by VSN, Watershed Basins, Trout Unlimited, Conservation Clubs, Farmer Organizations, etc.	C, O	M	Staff, VSN, TU	Number of meetings attended	
Promote community-oriented natural resource programs such as the existing citizen monitoring programs.	Help support with staff time or money.	C, O	M	Staff, DNR, VSN	Dollars spent, or time spent assisting citizen monitoring group.	
Assist community-based groups, such as Valley Stewardship Network, citizen monitoring groups, schools and Grazing Group with identifying and receiving sources of funding to support their efforts.	Write letters of support, seek federal, state and county dollars.	O	M	CC	Letters written and dollars acquired to assist groups.	

Estimated costs for new and ongoing activities: Staff \$17,500/yr, Support Costs \$15,000/yr,

Plants and Animals

The biggest threats to wildlife include development, fragmentation and degradation of habitat. Since most habitat in the county is privately owned, it is increasingly important to develop partnerships between citizens and other organizations to address these issues.

Issue: There are many threatened, endangered, and rare species in the county. Without protection from development, parcelization, and invasion from non-native species, many of these plants and animals may disappear.

Goal 21: Control and Eradicate Non-Native and Invasive Species

Objectives	Actions	Status * C,O,D,N	Priority ** H, M, L	Who	Measurement Tools	Accomplishments
Utilize alternative biological invasive species control	Work with sheep and goat herds to control brush and invasive species on Public and private land, including along fishing easements	N,O	H	Forester, Parks, VSN, TU, Watershed Groups, Friends of VCPF, Veg Solutions		
Collaborate with cooperating agencies and other conservation groups to control and eradicate non-native plant and animal species.	Promote and participate in activities that control and eradicate non-native plant and animal species.	O	M	Forester, Dams, Staff	Number of workshops participated in. Workshops promoted through LWCD publications.	
Continue program of prescribed burning to promote native prairie species on county lands.	Periodically burn county grasslands in the spring of the year.	O	M	Parks, Forester, Staff	Number of prescribed burns completed.	
Identify areas in the county where there are non-native and invasive species, and monitor	Track sites using spatial GIS database.	C, O	M	Staff, RC&D	Number of Areas	

Educate	Assist road crews in the County in identification and control of invasive species along roads	N	L	Staff, RC&D	Number of trainings and/or contacts	
Aquatic Invasive Species (AIS)	Determine Extent of AIS in the County and develop baseline information on status.	N	M	Staff	Analysis completed.	
	Participate in the Aquatic Invasive Species email list.	N	L	Parks, SWISC	Subscription status.	
<i>Estimated costs for new and ongoing activities: Staff Costs \$28,000/yr, Support Costs \$1,500/yr, Project Costs \$100,000</i>						

Goal 22: Protect Wildlife and Plant Species

Objective	Actions	Status * C,O,D,N	Priority ** H, M, L	Who	Measurement Tools	Accomplishments
Protect continuous blocks of forested land.	Acquisition and management of county forest lands. Promotion of programs such as MFL, CRP, EQIP, and WHIP	C, N, O	H	Forester, Parks, Staff, DNR	Management of County forested lands, and enrollment into programs	
Provide herpitile and other habitats during stream bank stabilization and in-stream habitat projects	Design habitat areas such as point bars and in stream logs for habitats of rare and endangered herpitiles such as the wood turtle.	C, N, O	H	Staff, DNR	The number of these habitat structures developed.	
Restore habitats such as prairie, savannas and wetlands.	Promote enrollment into programs such as MFL, CRP, CREP, EQIP, WHIP, WRP, FIP and SIP	C, N, O	H	Staff, NRCS, FSA, DATCP, DNR	Amount of enrollment into programs for purpose of restoring or protecting habitats	

Estimated costs for new and ongoing activities: Staff time \$18,000/yr, Support Costs \$6,800/yr, Project costs \$120,000.

Goal 23: Financial Administration of all Financial Assets

Objectives	Actions	Status * C,O,D,N	Priority ** H, M, L	Who	Measurement Tools	Accomplishments
Follow generally accepted accounting principles while meeting various grant and auditing requirements.	Record all transactions and keep written and computerized documentation. Complete and submit annual reports to funding sources.	C, O	H	AM	Annual audits. Annual reports to grantors. Periodic audits by funding sources.	

Estimated costs for new and ongoing activities: Staff time \$15,000/yr, Support Costs \$1,000/yr.

Finances, Funding and Interagency Cooperation

The county will try to stretch its limited resources as far as possible by partnering with different individuals, groups and agencies to combine efforts both financially and technically.

Issue: Partnering with these different entities will create a larger knowledge pool, make money go further, and will eliminate any duplication of work, all things necessary to keep the county's efforts viable.

Goal 24: Work with Cooperating Agencies and Other Groups (TU, businesses, USFWS, etc.) for Additional Dollars for Tech. Asst. & Cost-Sharing.

Objectives	Actions	Status * C,O,D,N	Priority ** H, M, L	Who	Measurement Tools	Accomplishments
Maintain 3 to 4 million dollars per year above County revenue funding each year.	Apply for Land Water Res. Mgmt. Funding; Lake Planning Grants; U.S. Fish & Wildlife Service Funds; Federal Funding; Private sector; TU Chapters; etc.	O	H	Staff	Dollars brought in.	

Estimated costs for new and ongoing activities: Staff Time \$20,000/yr.

Goal 25: Maintain and Enhance Funding, Technical Assistance, and Public Awareness

Objectives	Actions	Status * C,O,D,N	Priority ** H, M, L	Who	Measurement Tools	Accomplishments
TMDL	Work with DNR to classify and assist with TMDL Implementation Including: Priority Farm Strategy NR 151 EVAAL and other modeling efforts water quality objectives working with DNR	O	L	Staff, DNR	Projects Completed in TMDL Watersheds	

Educate contractors, developers, realtors and land buyers	Work with the Wisconsin DNR to have meetings setup to inform these groups of regulations and environmental BMP's.	O	L	Staff, DNR	Number of meetings held	
Partner with NRCS technicians for support and use NRCS programs to fund practices	Use programs such as EQIP, WHIP, WRP, CRP, and GRP to attain federal funds. Take advantage of local NRCS personnel for technical support. Utilize agreements with NRCS for financial support of LWCD technical staff.	O	H	Staff, NRCS	Number of landowners who enroll and are accepted into federal programs	
<i>Estimated costs for new and ongoing activities: Staff time \$8,000/yr.</i>						

Forestry

Managing forests for productive timber harvests benefits the landowner by creating a source of finances but helps the environment by eliminating cattle from the wood lots and managing for the desirable tree species which provide habitat and food for animals.

Issue: County forests are utilized by many citizens and groups. These areas should be a model example of woodland management.

Goal 26: Increase Forestry Services in Vernon County

Objectives	Actions	Status * C,O,D,N	Priority ** H, M, L	Who	Measurement Tools	Accomplishments
Inform Public about the detrimental effects of grazing woodlots	Give Presentations, hand out information about the problems of grazing woodlots	O	M	Staff, DNR	Information handed out	
Develop Forest Stewardship Plans for landowners	Allow landowners to become eligible for cost-share programs through drafting of stewardship plans.	N	H	Forester, RC&D	Number of plans written	
Assist with implementation of NRCS Forestry Practices	Develop plans for implementation of NRCS forestry practices associated with programs such as EQIP, CREP, WHIP, CRP, etc.	N	M	Forester, Staff, RC&D, DNR	Number of contracts assisted on...	
Help the DNR Foresters workload with the Managed Forest Law program	Field-work, and assist with MFL outreach	O	H	Forester, DNR, RC&D	Number of contacts	

Estimated costs for new and ongoing activities: Staff time \$25,000/yr, Support \$17,000/yr.

Goal 27: Manage Vernon County's Tree Planting Program

Objectives	Actions	Status * C,O,D,N	Priority ** H, M, L	Who	Measurement Tools	Accomplishments
Vernon County Tree Sale	Administer Tree Sale to Assist Landowners to plant over 15,000 trees per year	O	M	CC, Accounts, Forester	Number of trees planted	
Help landowners better manage their woods	Provide technical assistance	O	H	Forester. DNR	Number of landowners receiving technical assistance.	

Estimated costs for new and ongoing activities: Staff Costs \$5,000/yr.

Goal 28: Improve Vernon County Forests

Objectives	Actions	Status * C,O,D,N	Priority ** H, M, L	Who	Measurement Tools	Accomplishments
Practice sustainable forestry on county forest land	Mark, bid out, and administer timber sales on County Forest Properties	N	H	Forester	Acres and timber volume sustainably harvested	
Sustainable Forest Certification	Assess the feasibility of sustainable forest certification and enroll as deemed viable.	N	L	Forester	Acres certified	
Acquire contiguous County Forest lands	As the opportunity arises, coordinate acquisition of additional land for inclusion in the County Forest Program.	N	M	Forester	Acres acquired	

Estimated costs for new and ongoing activities: Staff time \$25,000/yr, Support Costs \$18,000/yr.

Provide Outdoor Recreation

Work to provide our citizens and visitors with increased access to recreational opportunities to give them a richer outdoor experience while protecting and restoring valuable ecosystems.

Issue: The counties resources are utilized by thousands of individuals who live in or near the county. It is important to provide abundant and diverse recreational opportunities for these individuals from boating, fishing, hunting, hiking and biking, to camping, birdwatching and swimming.

Goal 29: Improve Vernon County Parks & Campgrounds

Objectives	Actions	Status * C,O,D,N	Priority ** H, M, L	Who	Measurement Tools	Accomplishments
Establishing more efficient fee collection system	Expand the camping self-registration system, donation collection system, and other fee collection (as needed) throughout the County Parks	N, O	M	Parks	Number of stations installed and associated revenue collected.	
Secure funds for Parks Improvements	Expand camping areas as is feasible, Improve/Maintain existing facilities, dredging as needed, etc.	N, O	M	Parks	Revenue collected through parks program activities	
Develop and maintain swimming beaches throughout the county.	Improve swimming beach at Jersey Valley and develop swimming area at Sidie Hollow.	N	M	Parks	Improvements made to Jersey Valley beach. Development of swimming area at Sidie Hollow	
Manage Campgrounds on County Properties	Continue (and expand as feasible) management of campsites at County Park properties.	O	M	Parks	Number of new or enhanced sites.	
Oversee Blackhawk Park County Property and Boat Landing	Administer lease and maintain boat landing area	O	M	Parks	Revenue secured and lease satisfied.	
Manage the Multi-Use Trail Park between Westby and Viroqua	Operate, Maintain, and Improve the park facilities at the wayside along the MUT trail.	N	M	Parks	Successful maintenance and operation	
Implement outdoor/ environmental education opportunities at County Parks	Park improvement projects and educational programs as they arise.	N, O	L	Parks	Number of Participants	

Work with the Vernon County Friends of Group to help host events and fundraising	Utilize the new Friends of Vernon County Parks group to work with them on events and fundraising goals for the Parks and Forests	N	H	Parks	Number of friends and event popularity	
<i>Estimated costs for new and ongoing activities: Staff Costs \$50,000/yr; Materials \$25,000/yr, Projects \$400,000.</i>						

Goal 30: Increase Outdoor Recreational Based Activities						
Objectives	Actions	Status * C,O,D,N	Priority ** H, M, L	Who	Measurement Tools	Accomplishments
Increase cooperation between partners to expand and improve recreational opportunities in the county.	Continue to seek grants to improve habitat work on both county and state lands.	O	M	Parks, Staff	Grant dollars brought in for recreational purposes.	
Increase public access to good quality streams and land to increase recreational opportunities throughout the county	Continue to take 20/20 year County fishing easements. Purchase additional land adjacent to County land when it becomes available	O	M	Staff	Number of easements obtained. Additional acres added to county land.	
Maintain/ Repair County Easement Areas	As needed, habitat work is found in need of repair on County easements and funds will be secured to assist landowners with those repairs.	N, O	M	Staff	Number of Easements repaired	
Promote hunting, fishing and trapping opportunities in the county to ensure the long-term viability of these recreational opportunities.	Allow public hunting, fishing and trapping at designated times in county parks	O	M	Parks, Staff	Establish yearly times for hunting, fishing and trapping	
<i>Estimated costs for new and ongoing activities: Staff Costs \$10,000/yr; Projects \$500,000.</i>						

All individuals listed work for the Land and Water Conservation Department.

All costs are associated to the Land and Water Conservation Dept. Staff time/costs refers to Land and Water Conservation Department staff only.

List of Acronyms

****H** = High

M = Medium

L = Low

***C** = Completed

D = Deferred

N = New

O = Ongoing

*****CC** = County Conservationist

Tech = Technician,

AM = Accounts Manager

Parks = Parks Administrator

Dams = Dams Administrator

VSN = Valley Stewardship Network

TU = Trout Unlimited, **DNR**=Dept. of Natural Resources

RC & D = Southwest Badger Resource Conservation & Development

NRCS = Natural Resource Conservation Service

FSA = Farm Service Agency,

SWISC= Southwest Wisconsin Invasive Species Cooperative

VCPF = Vernon County Parks & Forests

DATCP = Dept. of Ag, Trade, & Consumer Protection

LIO = Land Information Office