

*Rusk County*  
Land and Water Resource Management Plan  
January 2016



**Land & Water Conservation Committee**

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## *Plan summary*

The Rusk County Land and Water Resource Management Plan is a ten year plan that provides direction to natural resources managers of all levels for the protection and improvement of our natural resources.

In 1997, Wisconsin Act 27 and in 1999, Wisconsin Act 9 amended Chapter 92 of the Wisconsin Statutes, requiring counties to develop Land and Water Resource Management Plans. The intent of this is to foster and support a locally led process that improves decision-making, streamlines administrative and delivery mechanisms and better utilizes local, state, and federal funds to protect Wisconsin's land and water resources. The purpose of the Rusk County Land and Water Resource Management Plan is to:

- Identify and prioritize natural resources issues and concerns for Rusk County.
- Develop a coordinated effort to resolve these issues and concerns.
- Determine the roles of agencies in implementing the plan.
- Develop strategies, goals, objectives, and outcomes for program years 2016-2020.
- Service funding for the protection and improvement of the natural resource base in Rusk County.

The implementation of this plan is dependent upon having available staff hours to assist landowners in meeting the agricultural performance standards and prohibitions, monitoring, compliance and delivering technical assistance. The Rusk County Land and Water Resource Management Plan will make every attempt to accomplish the goals set forth through a coordinated effort aimed at improving program effectiveness at all levels of government.

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## **Chapter 1: Introduction**

### **Background**

The purpose of this plan is to identify and prioritize natural resource issues of concern and to develop strategies to address concerns.

The Rusk County Land & Water Resource Management Plan was first developed in 2001. Its purpose was to guide citizens, county, state and federal agencies in their efforts to conserve and protect natural resources while supporting sustainable economic and recreational use of these resources. Subsequent revisions continue to carry that purpose.

Goals and objectives in the plan will help guide county resource conservation and protection work in Rusk County through 2020. The plan will also provide the basis for seeking funding from various private, local, state and federal sources to conduct resource assessment, conservation and protection efforts in Rusk County.

1997 Wisconsin Act 27 and 1999 Wisconsin Act 9 (the 2000-2001 Budget Bill), amended Chapter 92 of the Wisconsin Statutes, requiring counties to develop Land and Water Resource Management Plans. The intent of this change is to foster and support a locally led process that improves decision-making, streamlines administrative delivery mechanisms, and better utilizes local, state, and federal funds to protect Wisconsin's land and water resources.

### **Plan Development and Citizen Participation**

The focus of plan development is to identify and prioritize natural resource issues of concern and to develop strategies to address these concerns. A public and landowner survey gathered information to guide development of the plan.

The local advisory committee work group met on October 12, 2015. This group looked at a planning range of five to ten years while reviewing the draft Plan and expressing their resource concerns.

A draft of the plan was presented to the Rusk County Land and Water Conservation Committee on October 13, 2015. The draft was also submitted to the DATCP and DNR state office liaisons for suggestions. The Plan was sent to the Wisconsin LWCB and will be reviewed by the LWCB at their December 1, 2015 meeting.

The public hearing was held October 12, 2015. The Plan was approved by the Rusk County LWCC on October 13, 2015. DATCP approved the Plan on \_\_\_\_\_. The Plan will be presented to the Rusk County Board of Supervisors for approval at their December, 2015 meeting.

### **Related Resource Management Plans**

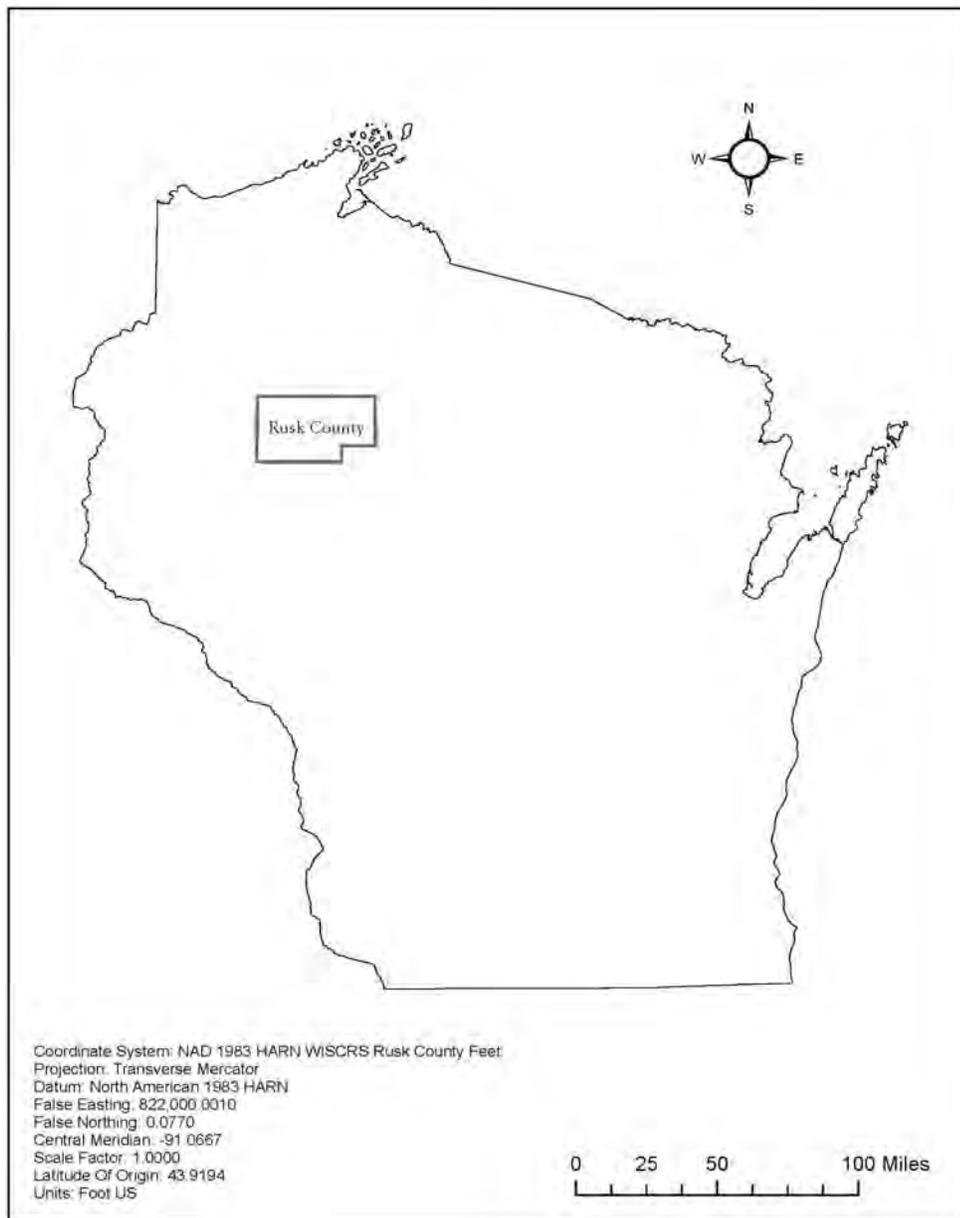
Several resource management plans have been previously developed that have a relationship to this plan. Data from these plans was reviewed in the preparation of the Rusk County Land and Water Resource Management Plan.

These include:

- Rusk County Land and Water Resource Management Plan (2007)
- Rusk County Land and Water Resource Management Plan (2000)
- Rusk County Farmland Preservation Plan (1982)
- Rusk county Comprehensive Land Use Plan (2009)
- Soil Erosion Control Plan (2000)

## Chapter 2: County Setting, Natural Resources and Trends

### General Characteristics



Rusk County is located in the northwest part of Wisconsin, about 120 miles south of Lake Superior and 75 miles east of the St. Croix River. The total area of the county is 584,565 acres or about 913.59 square miles. Approximately 61% of the land area is forested, and 34% is agricultural.

The 2010 population census for Rusk County was 14,755. Wisconsin Department of Workforce Development projects Rusk County's population to decrease 9.79% by the year 2040. Most of the population in the county is centered on Ladysmith, the county seat which makes up approximately 20% of the county's population. Rusk County is mostly rural with 16.2 persons per square mile. Rusk County's population density ranks 64 out of 72 Wisconsin Counties.

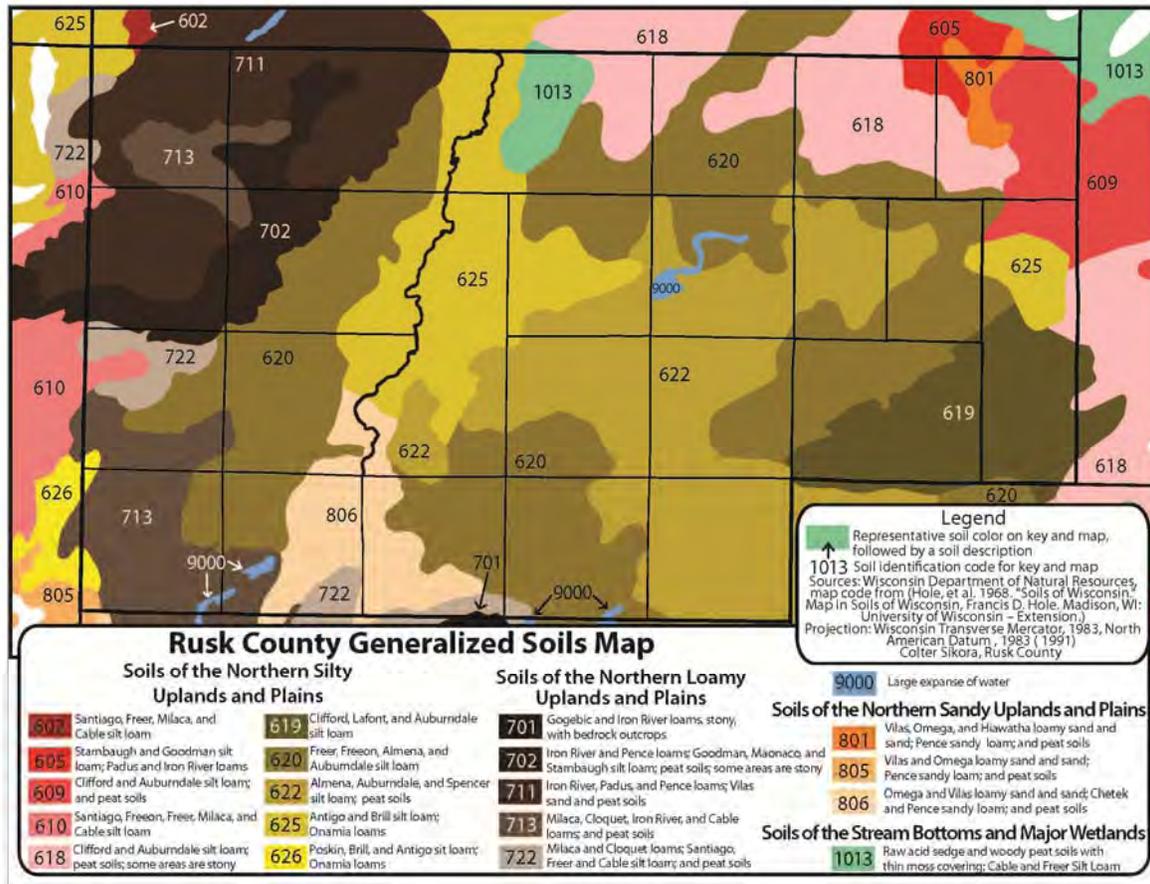
## History and Development

Rusk County, the 71st County to be formed in Wisconsin in 1901, originally named Gates County after Milwaukee land speculator James L. Gates. It was renamed Rusk County in 1905 after Jeremiah M. Rusk, governor of Wisconsin and the first U.S. Secretary of Agriculture. It was formed out of the northern portion of Chippewa County.

## Climate

The present-day climate of Rusk County is characterized by long winters and a net excess of precipitation over potential evapotranspiration. In other words, the climate is generally cold and moist and results in a slow accumulation of soil organic matter over time. A warmer climate would alter that trend. Variations in topography lead to marked differences in micro-climate, that is, the climate of smaller areas within the landscape. For example, south-facing slopes are measurably warmer and drier than north-facing slopes and low spots on the landscape are commonly colder and subject to more frequent frosts than the surrounding uplands. These topo-climatic effects are important factors that help to explain local variations in soils and vegetation.

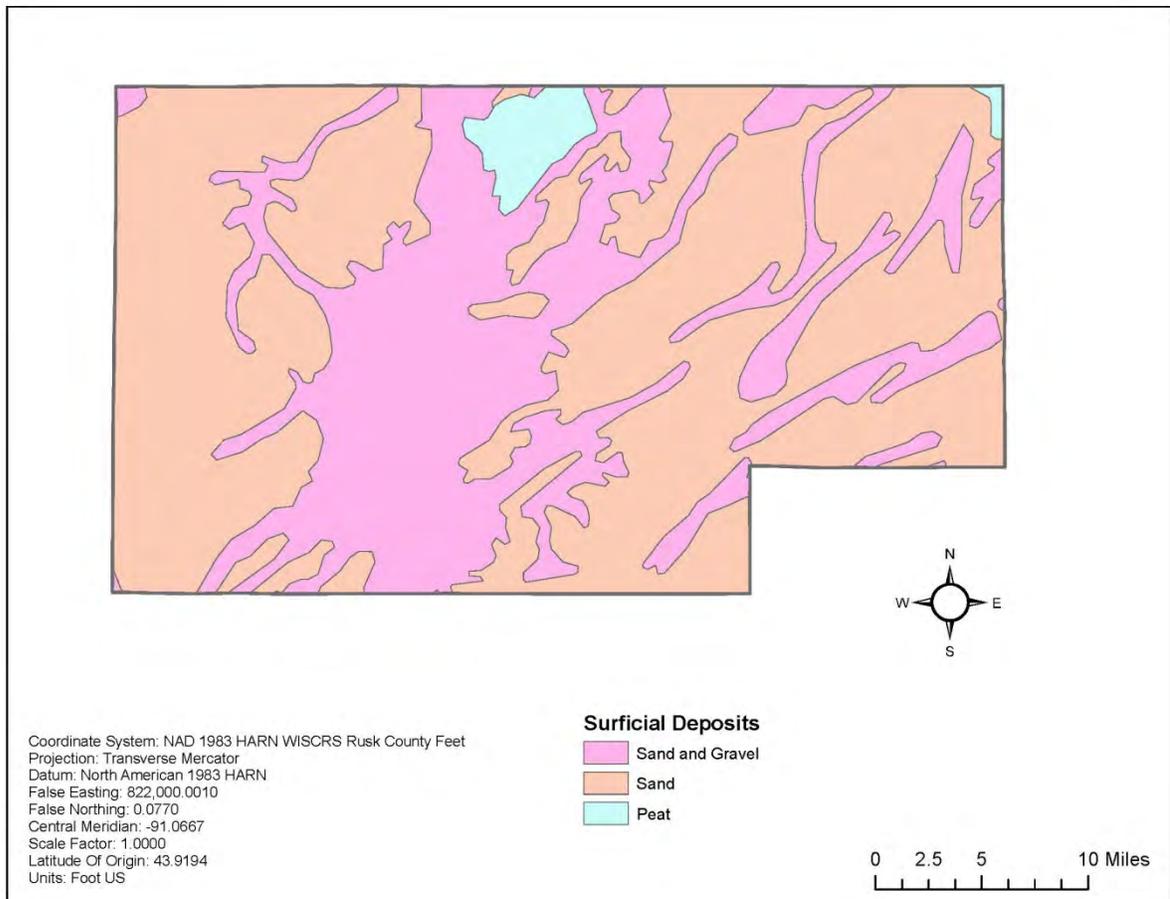
## Soils



The entire county lies within an area of recent glaciation; stream valleys are shallow, and drainage is not well established. As a result, the whole county is dotted and laced with numerous wetlands and small unnamed lakes. Glaciation has resulted in a general drainage pattern from northeast to southwest.

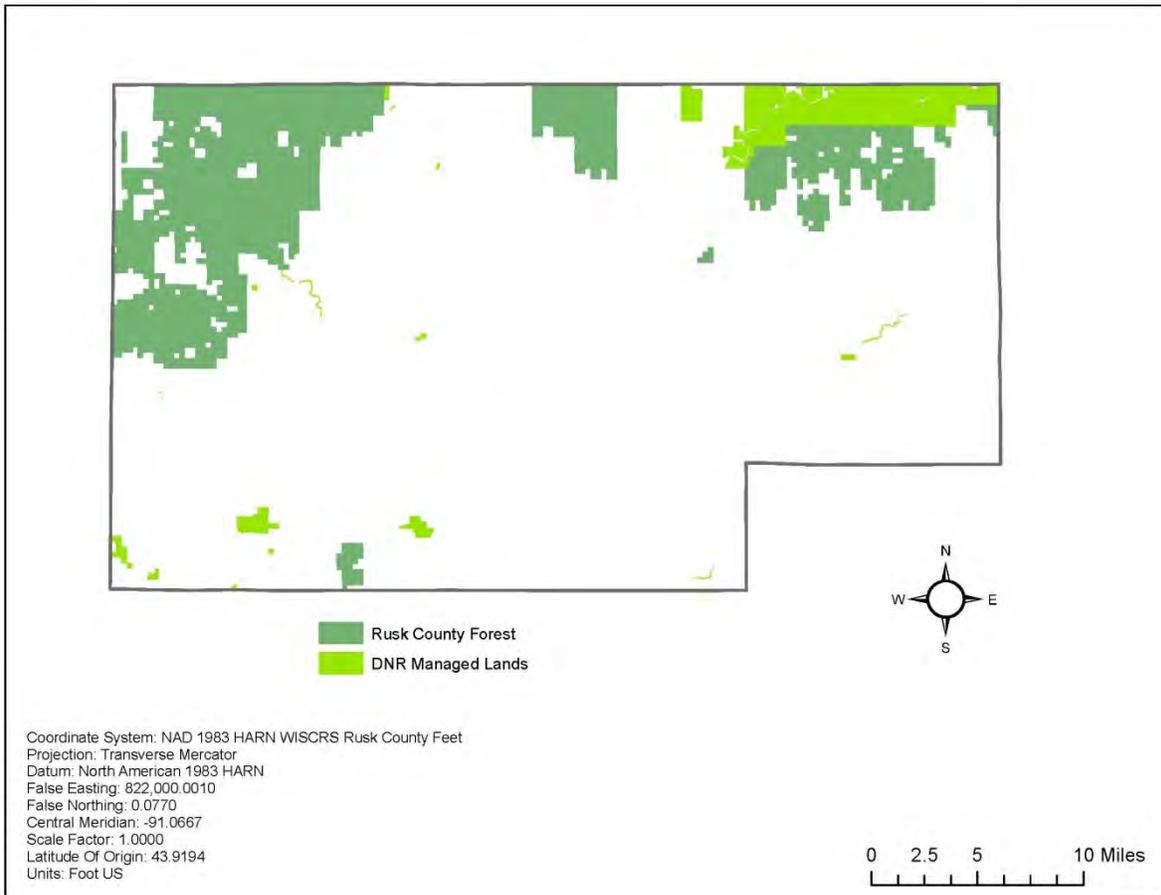
Deposits of glacial drift (a mixture of sand, silt, clay and boulders) cover the entire county with the exception of a few small areas where bedrock is exposed. Depth of glacial drift material varies

from several inches to over 100 feet. Many depression areas are filled with peat or muck. Along the Chippewa River is a broad sandy plain 2 to 8 miles wide. Along the western border, a range of steep quartzite ridges form the backbone of the Blue Hills. The major soil types of Rusk County are those of the Almena-Freer-Auburndale-Adolph-eat Association.



The use and management of soil has many impacts on the communities in Rusk County. Soil forms the foundation that all other ecosystems; plant life, wildlife, streams, wetlands, and lakes-- depend on. Soils may also pose limitation to our use of the land in activities such as agricultural production, forestry, building development, and road construction.

## Woodland



Woodlands provide habitat for a variety of plants and animals, as well as adding scenic beauty to the landscape. Large continuous blocks of forested land are important habitat for a variety of plants and animals.

Woodlands also provide recreational opportunities in Rusk County. Snowmobiling, hunting, hiking and cross-country skiing, are popular activities throughout the forest. Woodlands managed according to approved forest management practices can support varying objectives, such as timber production, recreation, and wildlife habitat.

DNR manages forestry tax law programs that provide tax incentives to encourage managing private forestlands for forest crop production while recognizing a variety of other objectives. Rusk County has almost 70,000 acres of forest enrolled in these programs. Forest land owned by Rusk County and managed by the Forestry Department equals 88,576 acres.

Woodland is one of the most prominent land cover features found in Rusk County. Woodlands are important to the county's resource base, culture, and economy. Woodland serves many functions, adds value to both the local economy and quality of life. They provide wildlife habitat, recreational opportunities, timber, and pulpwood.

Woodlands occupy a major portion of the land area in Rusk County with aspen, oak, maples, white birch, white pine, and red pine being the dominant species. Of the 516,544 acres in the county, 215,400 acres or 42 percent are classified as woodland (see map 2-2). The county forest contains

37,536 acres of woodland. In the 1850's county forests were covered primarily with stands of white pine and tamarack. Between 1850 and the early 1930's when the county first acquired forestland, portions of the county were cutover, drained, burned, and farmed. Because of soil condition many farms failed, leaving tax delinquent lands with acquisitions beginning in the 1930's. The Rusk County Forest generates significant revenues for the county, primarily through pulpwood harvests.

As one of only 29 counties with county forestland, the Rusk County Forest is a unique community resource. The landscape of the county forest supports thriving forest communities and abundant recreational opportunities. Hunting, fishing, hiking, biking, camping, canoeing, kayaking, ATVs, snowmobiles, snowshoeing, boating, cross-country skiing, bird watching, and sightseeing are all important elements of Rusk County's culture and economy that are supported by the County Forest.

## **Farmland and Agriculture**

Rusk County is home to over 500 farms. Rusk County is home to a diverse and ever-changing agriculture industry. Its major production areas are dairy, grain production, livestock production, and hay. In 2014, Rusk County followed the state trend of a decrease in dairy farms to 134 operating dairy farms in 2014; however dairy cow numbers were estimated to have remained steady at about 11,500 cows. 2013 was a challenging crop year with a larger than normal number of acres going unharvested. Corn grain production dropped almost a million bushels to 1,450,000 bu. of corn grain being harvested from 13,800 acres of 25,900 acres that were planted for grain. Some of this corn was instead harvested as silage. Soybean harvest was also down by 162,000 bu to 220,000 bu harvested from 9,630 acres planted.

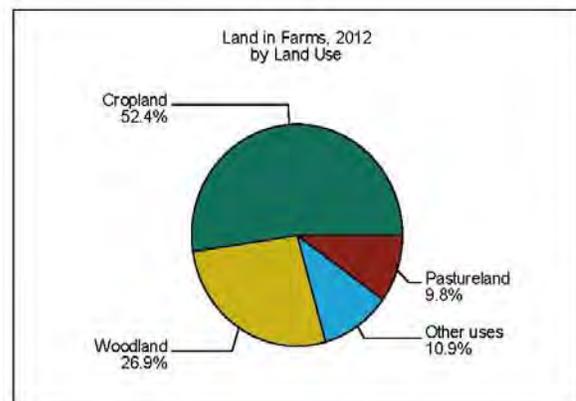
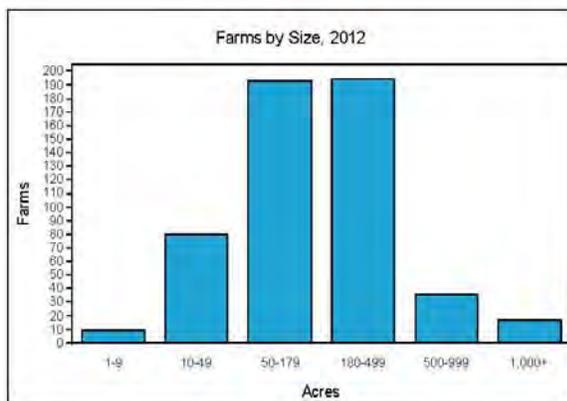
# 2012 CENSUS OF AGRICULTURE

## COUNTY PROFILE



### Rusk County Wisconsin

	2012	2007	% change
<b>Number of Farms</b>	529	651	- 19
<b>Land in Farms</b>	133,601 acres	160,534 acres	- 17
<b>Average Size of Farm</b>	253 acres	247 acres	+ 2
<b>Market Value of Products Sold</b>	\$64,203,000	\$52,957,000	+ 21
Crop Sales \$18,237,000 (28 percent)			
Livestock Sales \$45,965,000 (72 percent)			
<b>Average Per Farm</b>	\$121,366	\$81,348	+ 49
<b>Government Payments</b>	\$1,236,000	\$1,000,000	+ 24
<b>Average Per Farm Receiving Payments</b>	\$4,905	\$3,106	+ 58





## Rusk County – Wisconsin

Ranked items among the 72 state counties and 3,079 U.S. counties, 2012

Item	Quantity	State Rank	Universe <sup>1</sup>	U.S. Rank	Universe <sup>1</sup>
<b>MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD (\$1,000)</b>					
Total value of agricultural products sold	64,203	56	72	1,576	3,077
Value of crops including nursery and greenhouse	18,237	57	71	1,756	3,072
Value of livestock, poultry, and their products	45,965	45	72	961	3,076
<b>VALUE OF SALES BY COMMODITY GROUP (\$1,000)</b>					
Grains, oilseeds, dry beans, and dry peas	14,350	56	71	1,364	2,926
Tobacco	-	-	10	-	436
Cotton and cottonseed	-	-	-	-	635
Vegetables, melons, potatoes, and sweet potatoes	27	68	70	2,368	2,802
Fruits, tree nuts, and berries	(D)	(D)	70	(D)	2,724
Nursery, greenhouse, floriculture, and sod	73	67	71	2,132	2,678
Cut Christmas trees and short rotation woody crops	8	58	67	1,028	1,530
Other crops and hay	(D)	42	71	(D)	3,049
Poultry and eggs	30	59	72	1,849	3,013
Cattle and calves	8,874	48	72	1,403	3,056
Milk from cows	34,394	47	66	221	2,038
Hogs and pigs	29	54	70	1,630	2,827
Sheep, goats, wool, mohair, and milk	(D)	(D)	68	(D)	2,988
Horses, ponies, mules, burros, and donkeys	52	54	69	2,253	3,011
Aquaculture	(D)	45	53	(D)	1,366
Other animals and other animal products	(D)	11	70	(D)	2,924
<b>TOP CROP ITEMS (acres)</b>					
Forage-land used for all hay and haylage, grass silage, and greenchop	29,045	39	72	628	3,057
Corn for grain	18,035	54	69	1,007	2,638
Corn for silage	7,643	43	69	244	2,237
Soybeans for beans	7,511	56	66	1,184	2,162
Oats for grain	1,327	38	71	225	1,825
<b>TOP LIVESTOCK INVENTORY ITEMS (number)</b>					
Cattle and calves	29,024	44	72	991	3,063
Layers	1,750	51	72	1,409	3,040
Sheep and lambs	1,298	21	70	692	2,897
Horses and ponies	850	50	72	1,403	3,072
Broilers and other meat-type chickens	443	50	71	1,283	2,723

### Other County Highlights, 2012

Economic Characteristics	Quantity	Operator Characteristics	Quantity
Farms by value of sales:		Principal operators by primary occupation:	
Less than \$1,000	84	Farming	333
\$1,000 to \$2,499	39	Other	196
\$2,500 to \$4,999	40		
\$5,000 to \$9,999	56	Principal operators by sex:	
\$10,000 to \$19,999	51	Male	473
\$20,000 to \$24,999	13	Female	56
\$25,000 to \$39,999	32		
\$40,000 to \$49,999	22	Average age of principal operator (years)	56.2
\$50,000 to \$99,999	61		
\$100,000 to \$249,999	72	All operators by race <sup>2</sup> :	
\$250,000 to \$499,999	30	American Indian or Alaska Native	-
\$500,000 or more	29	Asian	-
Total farm production expenses (\$1,000)	48,740	Black or African American	-
Average per farm (\$)	92,137	Native Hawaiian or Other Pacific Islander	-
		White	812
Net cash farm income of operation (\$1,000)	18,315	More than one race	-
Average per farm (\$)	34,622	All operators of Spanish, Hispanic, or Latino Origin <sup>2</sup>	5

See "Census of Agriculture, Volume 1, Geographic Area Series" for complete footnotes, explanations, definitions, and methodology.

- Represents zero. (D) Withheld to avoid disclosing data for individual operations.

<sup>1</sup> Universe is number of counties in state or U.S. with item. <sup>2</sup> Data were collected for a maximum of three operators per farm.

In general, the suitability for agriculture of Rusk County soils is good, with modifications. The following chart shows the soils of Rusk County by Land Capability Class:

***Land suitable for cultivation***

**Approximately 454,100 acres**

- Class I - 1,100 acres - Lands adapted to a wide range of uses with little or no limitations.
- Class II - 102,000 acres - Lands adapted to wide usage with minor limitations that are easily corrected.
- Class III - 221,000 acres - Lands adapted to wide usage with severe limitations. Special conservation practices are needed on cropland.
- Class IV - 130,000 acres - Lands having severe problems restricting the choice of plants or requiring conservation practices that are difficult to apply.

***Lands not suitable for cultivation***

**Approximately 112,000 acres**

- Class V - 74,000 acres - Lands have special problems that are impractical to correct; uses limited to pasture, woodland or wildlife.
- Class VI - 14,000 acres - Lands generally unsuited for cultivation due to erosion or drought hazards; may be used for pasture, trees or wildlife.
- Class VII - 7,000 acres - Lands suited primarily for trees and wildlife; may have some limited value for pasture.

Class VIII - 17,000 acres - Land or water areas limited to wildlife or recreational uses; not suited for commercial production of trees, pasture or crops.

Rusk County farmers own and manage 133,601 acres, or about 23 percent, of the county's land. This includes cropland, rangeland, pasture, tree farms and farm forests. Farmers use conservation practices, such as crop rotation, nutrient management and integrated pest management, to protect environmental resources and provide habitat for wildlife.

Rusk County agriculture provides 1,052 jobs, or 14.2 percent, of the county's workforce of 7,389. Production jobs include farm owners and managers and farm employees. Agricultural service jobs include veterinarians, crop and livestock consultants, feed, fuel and other crop input suppliers, farm machinery dealers, barn builders and agricultural lenders, to name a few. Processing jobs include those employed in food processing and other value-added industries that support food processors. Every job in agriculture generates an additional 0.30 jobs in the county.

Dairy farming is the major agricultural industry in Rusk County. On-farm production and milk sales account for \$56.3 million. On-farm milk production accounts for 370 jobs. At the county level, each dairy cow generates \$4,107 in on-farm sales to producers

Rusk County's top commodities (sales by dollar value, 2012)

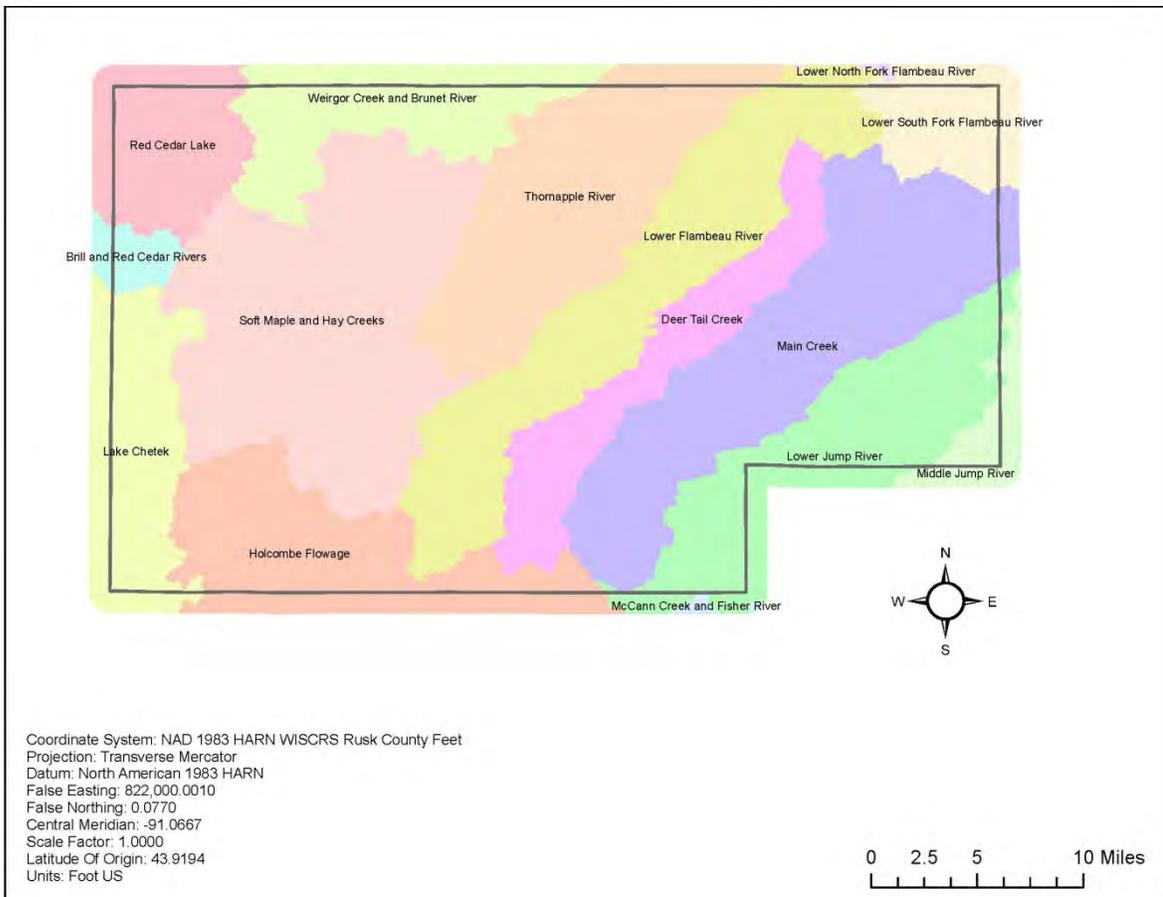
1. Milk	\$34.4 million
2. Grain	\$14.4 million
3. Cattle & calves	\$8.9 million
4. Other livestock & their products	\$2.6 million

## Other Livestock

Agriculture supports equipment and implements manufacturers and dealers, the vegetable and meat processing industries, the construction trade, trucking, veterinary services, genetic research, and many others.

Agriculture is connected to Wisconsin's culture and heritage. Barns, cows, fields, and silos paint the scene that so many define as Wisconsin's rural character. Farm families include some of the earliest settlers of many areas and provide a sense of continuity to a community. Public opinion surveys conducted by the American Farmland Trust, the U.S. Department of Agriculture, the American Farm Bureau, Wisconsin counties, and other local units of government show that Wisconsin citizens place a high value on the presence of agriculture and agriculture lands. Agriculture has many considerations relative to the natural environment, both positive and negative. Farms provide green space, wildlife habitat, enhanced groundwater recharge, and nutrient recycling. Farms can also be sources of soil erosion, polluted runoff, odors, and damage to riparian areas. Agriculture is connected to other land uses. The interaction between farms and rural residential development has impacted land values, property taxes and the right to farm. The distance from farm related services, markets for farm commodities, processing industries, and other critical land uses can determine the long-term success of an agricultural area.

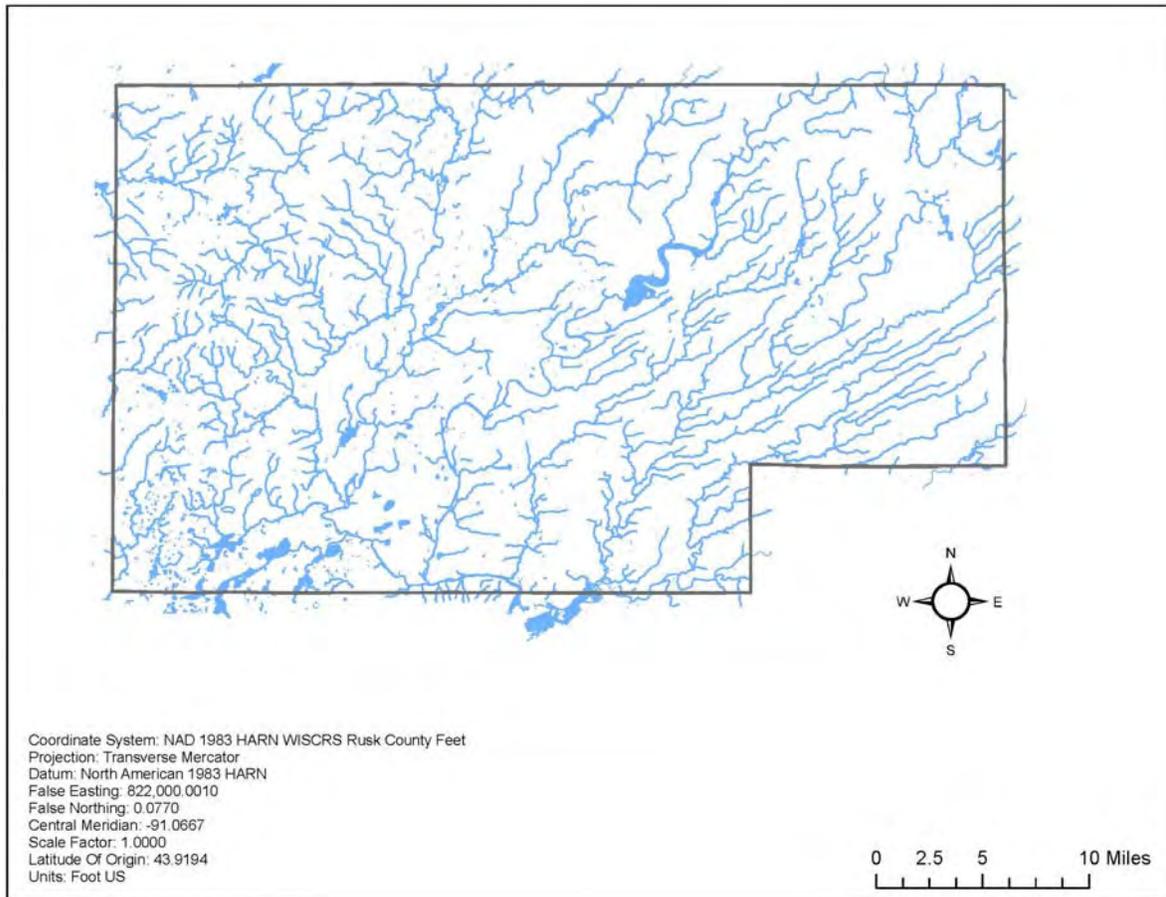
## Watersheds and Drainage



Rusk County is part of the Upper Chippewa River basin and the Lower Chippewa River Basin and has 14 distinct watersheds.

The Chippewa and Flambeau Rivers flow through the county from north to south forming the confluence near the southern border. Except for the Blue Hills in the northwestern part, the county is generally rolling to level at the eastern edge.

## Surface Water Resources

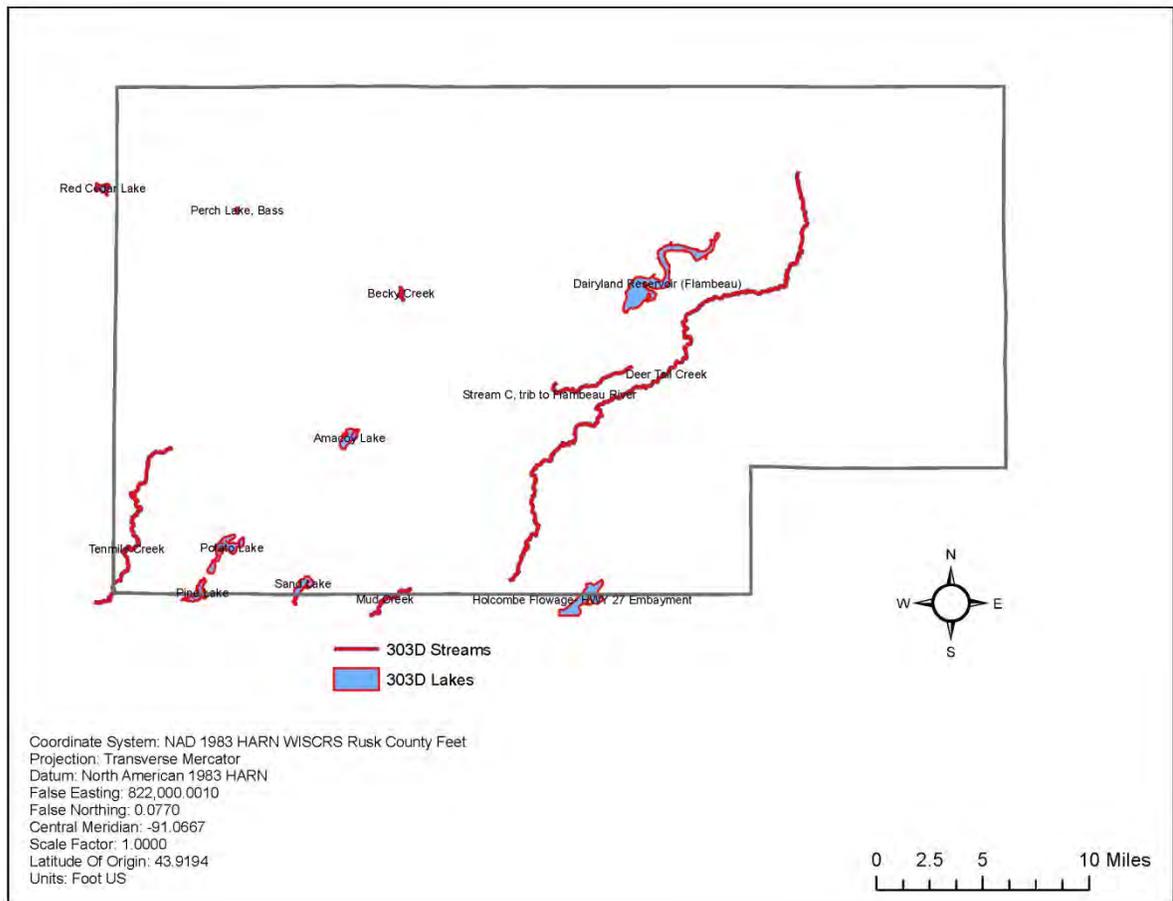


Lakes, ponds, rivers, streams, and intermittent waterways make up the surface waters of Rusk County. Sediment, nutrients, and other pollutants are carried in runoff water from watersheds that drain to these surface water features.

In total there are 266 lakes in Rusk County, 90 named and 176 unnamed. Many of the lakes in the county have brownish water of low transparency mostly caused by dissolved organics from decaying plant material.

There are 69 named streams totaling 430 miles in Rusk County; 124 miles of stream are classified as trout water. The Flambeau, Thornapple and Chippewa are the major rivers in the county.

## Impaired Waters

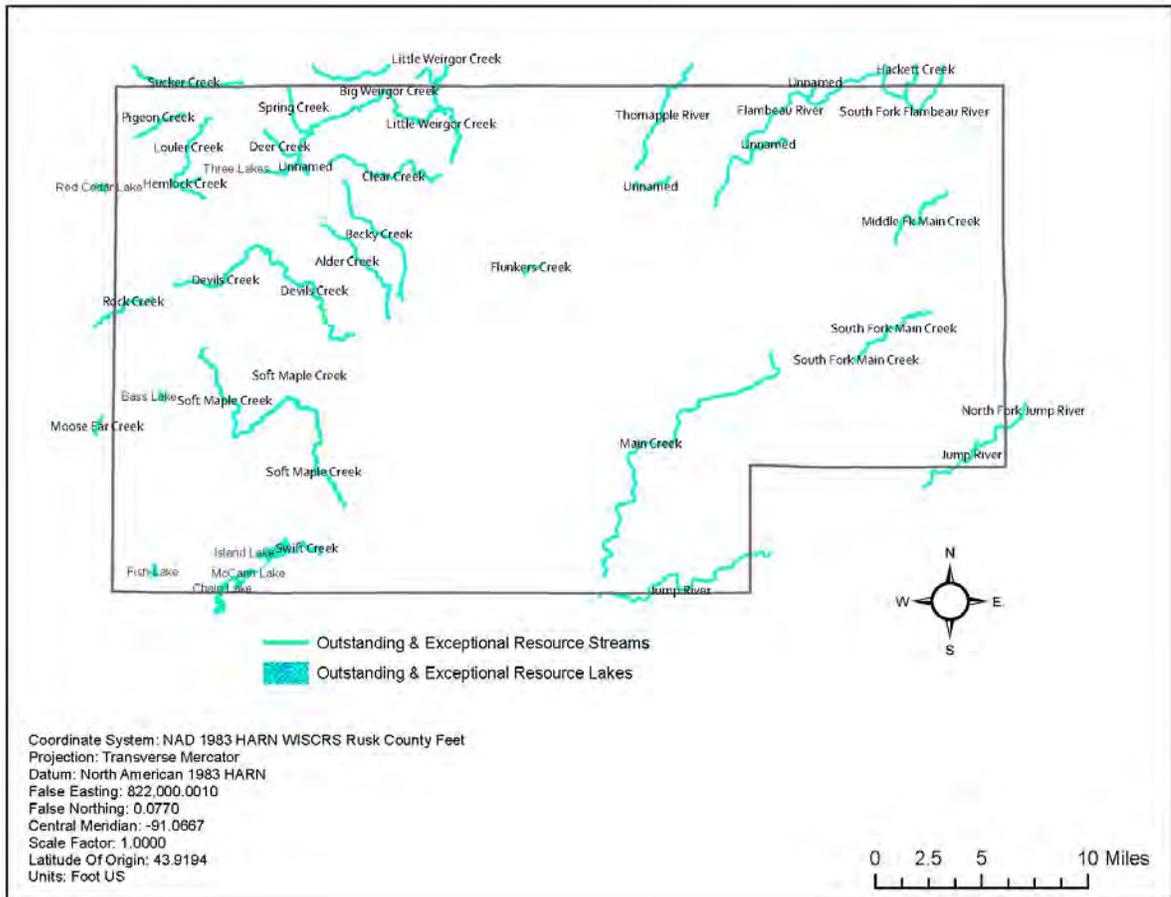


Impaired waters, also known as 303(d) listed waters, and are compiled in a regularly revised list compiled by the Department of Natural Resources. The list, required by the Environmental Protection Agency under the Clean Water Act, identifies water bodies that do not meet water quality standards. The list will be used as the basis for establishing strategies to improve water bodies using total maximum daily loads.

Perch Lake, the Chippewa River (mainstream), Flambeau River (Dairyland Reservoir), Pine Lake and Beck's Creek are listed on the most recent list of impaired waters. All of these lakes are listed for mercury that comes from atmospheric deposition. The rivers and streams are polluted by mercury except for Beck's Creek, which is impaired by bacteria, sediment, and temperature.

The lakes, rivers, and wetlands of the county are impacted by land use practices in the watersheds that drain to them. Most of the pollutants that enter surface water resources are carried in runoff from many diffuse (nonpoint) sources. The major pollutants of concern are sediment carried from areas with bare soil such as crop fields and construction sites, and phosphorus attached to soil particles and dissolved in water from fertilizers and livestock operations. The Department of Natural Resources basin plans list a variety of nonpoint sources of sediment and nutrients including streambank pasturing, barnyard runoff, cropland erosion, fertilization, winter manure spreading, sand and gravel washing, and runoff from urban and residential land. Runoff from these sources can also contribute bacteria and organic materials that reduce oxygen content as they decay and may alter temperature and other habitat conditions.

## Outstanding and Exceptional Waters

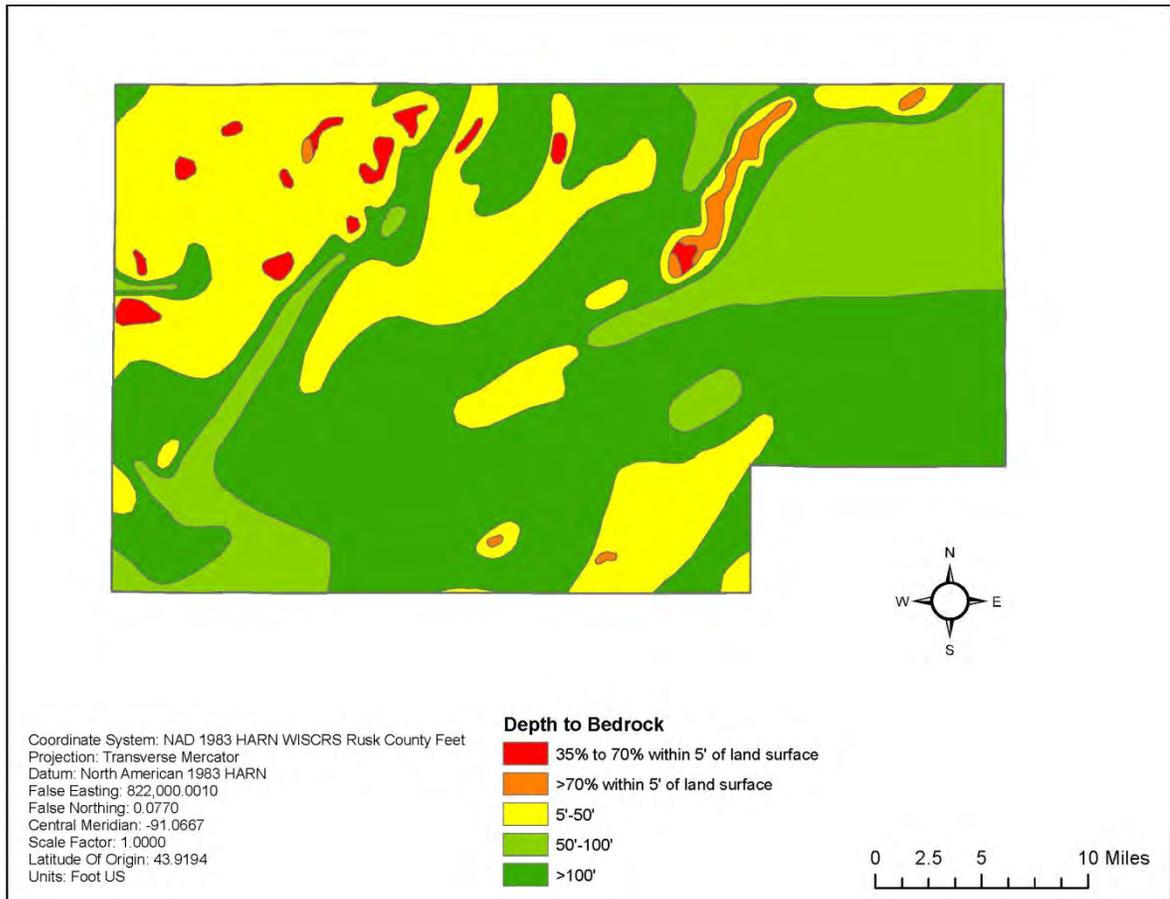


Surface water resources have also been evaluated and rated for water quality, wildlife, fish, and aesthetic values of the WDNR. High quality water resources were classified as either Outstanding Resource Waters (ORW) or Exceptional Resource Waters (ERW). Outstanding Resource Waters are defined as a lake or stream having excellent water quality, high recreational and aesthetic value, high quality fishing, and are free from point source or non-point source pollution. Exceptional Resource Waters are defined as a stream exhibiting the same high quality resource values as an ORW but may be impacted by point or non-point sources of pollution or have the potential for receiving a wastewater discharge from a non-sewered community in the future.

Outstanding and exceptional resource waters are protected through Department of Natural Resources (DNR) regulation. These waters may not be lowered in quality due to DNR permitted activities, such as wastewater treatment plants.

The waters in Rusk County listed as outstanding or exceptional are most of Devils Creek and stretches of South Fork Main Creek, Fish, Bass, Island Chain of Lakes, Three Lakes No. 1, Big Weirgor Creek, Hemlock, Jump, South Fork Hemlock, Clear Creek, Deer Creek, Flunkers, Hackett, Louler, Middle Fork Main Creek, Pigeon, Rock, South Fork Flambeau, Alder, Becky, and Little Weirgor.

## Groundwater



Groundwater is also important for supplying fresh water to lakes, rivers and streams. Contaminates of groundwater generally travel unnoticed, are difficult to remove and may persist for decades. Water percolates through the soil collecting pollutants and transporting them to the groundwater. Contaminants also enter the groundwater through unused wells that are not properly sealed. Groundwater contamination comes from a variety of sources including leaking underground petroleum pipes and tanks; use and storage of road salt; improper use, disposal, and storage of hazardous materials; and mismanagement of fertilizers, pesticides, and animal waste.

Groundwater is the only source of drinking water for residents of Rusk County and supplies many agricultural and industrial process as well. Groundwater is a limited resource, and both its quality and quantity are important factors. These factors are primarily influenced by local geology and local land use. Groundwater in Rusk County is generally abundant and of good quality.

Groundwater contamination is most likely to occur where fractured bedrock is near the ground surface, or where only a thin layer of soil separates the ground surface from the water table.

## Animal Waste Management

A countywide animal waste management ordinance was adopted in 1985. This ordinance is effective in all towns. The ordinance requires a permit from the Land & Water Conservation Department for animal waste storage structures. Structures must be constructed according to the Natural Resources Conservation Service Standards and Specifications. Because agriculture is so

prevalent in Rusk County, one of the most significant potential groundwater contamination sources is animal waste. Both storage and spreading of animal waste can contaminate groundwater if not done properly.

The State of Wisconsin regulates livestock operations with 1,000 animal units or more and livestock operations with less than 1,000 animal units that have discharges that significantly affect water quality.

The WDNR has also created Agriculture Performance Standards and Prohibitions through Administrative Rule NR151, State Statutes. The performance standards and prohibitions were created to control polluted runoff from farms, as well as other sources, to help protect Wisconsin's lakes, streams, and groundwater. The agricultural performance standards apply to all farm operations in Wisconsin.

### ***Animal Waste Facilities***

Animal waste storage facilities currently in use range from manure pits dug 50 years ago to newly engineered and installed storage structures. There are approximately 50 animal waste storage facilities in Rusk County. Rusk County regulates the location, design, and installation of animal waste through its Animal Waste and Manure Management Ordinance. This ordinance ensures that all new, substantially altered, and abandoned manure storage facilities are completed in compliance with approved standards and specifications. The ordinance also requires that permitted storage facilities submit and follow an annual nutrient management plan.

### **Agricultural Trends and Outlook**

The following are anticipated farmland trends for the next ten years in Rusk County.

- Increased pressure to convert farmland to other uses.
- The size of the average farm will continue to increase.
- The number of dairy farms will continue to decline though sizes will continue to increase.
- Expect an increase in the number of large dairies that are required to obtain WPDES permits.
- Decreased interest in farmland preservation programs.
- Dairy herd production will continue to increase.

The following trends are anticipated with respect to forest resources within the county:

- Property tax burden will increase for private forest owners not enrolled in a management program (MFL).
- Interest in voluntary management programs that supply a property tax break including MFL will increase.
- Forestland sales at rising prices for recreational purposes will continue.
- Continued interest in "living in the woods" will lead to additional forest fragmentation.
- The variety of recreational uses requested in the county forest will increase.
- The number of recreation enthusiasts attempting to use the county forest will increase.

The following are other anticipated trends with regard to agricultural, natural, or cultural resources within the county.

- Interest in using water features for recreational purposes will continue.
- The county's woodlands and highland areas will be desired as residential building sites.
- Demand for sand or frac-sand and gravel resources will continue to increase.
- Livestock grazing along waterways will continue.
- Challenges to groundwater resources will grow including increasing quantity of withdrawal and increasing potential contamination sources.

### **Sediment Delivery**

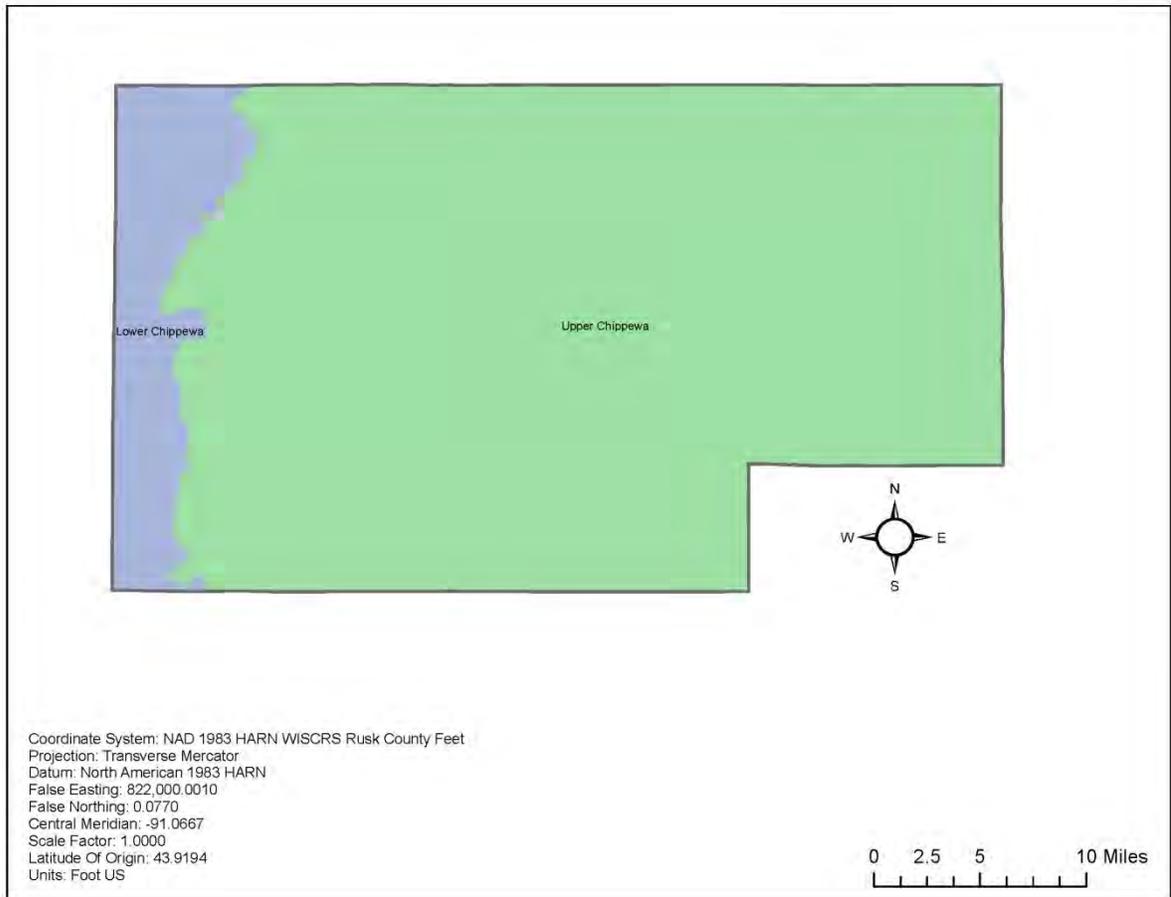
Although soil erosion is not a prominent water quality problem in Rusk County, it does provide a means of transporting nutrient rich soil particles and animal waste to lakes and streams. It is important to prevent the migration of nutrients to surface waters by installing best management practices that reduce erosion rates.

### **Air Quality**

In order to evaluate the quality of the air and to protect the public health, a series of National Ambient Air Quality Standards has been developed by the U.S. EPA as established in Section 109 of the Clean Air Act. According to the Wisconsin Air Quality Report, as prepared by the WDNR, the air pollutants affecting Wisconsin include sulfur dioxide, suspended particulate matter, and carbon monoxide, and ozone, oxides of nitrogen, lead, sulfates, and nitrates. Although wind erosion is not a prominent air quality problem in Rusk County, it does provide a means at certain times of the year of displacing topsoil particles into the air causing poor visibility and other air quality issues. It is important that the LWCD continues to assist growers of Rusk County with wind erosion control.

## Chapter 3: Water Resources

### Basins/Geography



Rusk County consists of two major drainage basins. They are the Upper Chippewa Basin and the Lower Chippewa Basin.

Watershed rankings identify those areas in the state dominated by nonpoint source or polluted runoff issues. The watersheds are organized by “high”, “medium”, and “low” level issues with polluted runoff (both rural and urban).

Complete basin information is available from the Department of Natural Resources, the State of the Lower Chippewa River Basin and Upper Chippewa River Basin Water Quality Management Plan. The county will continue to support initiatives established in the basin and watershed plans to address areas of concern.

#### Lower Chippewa River Basin

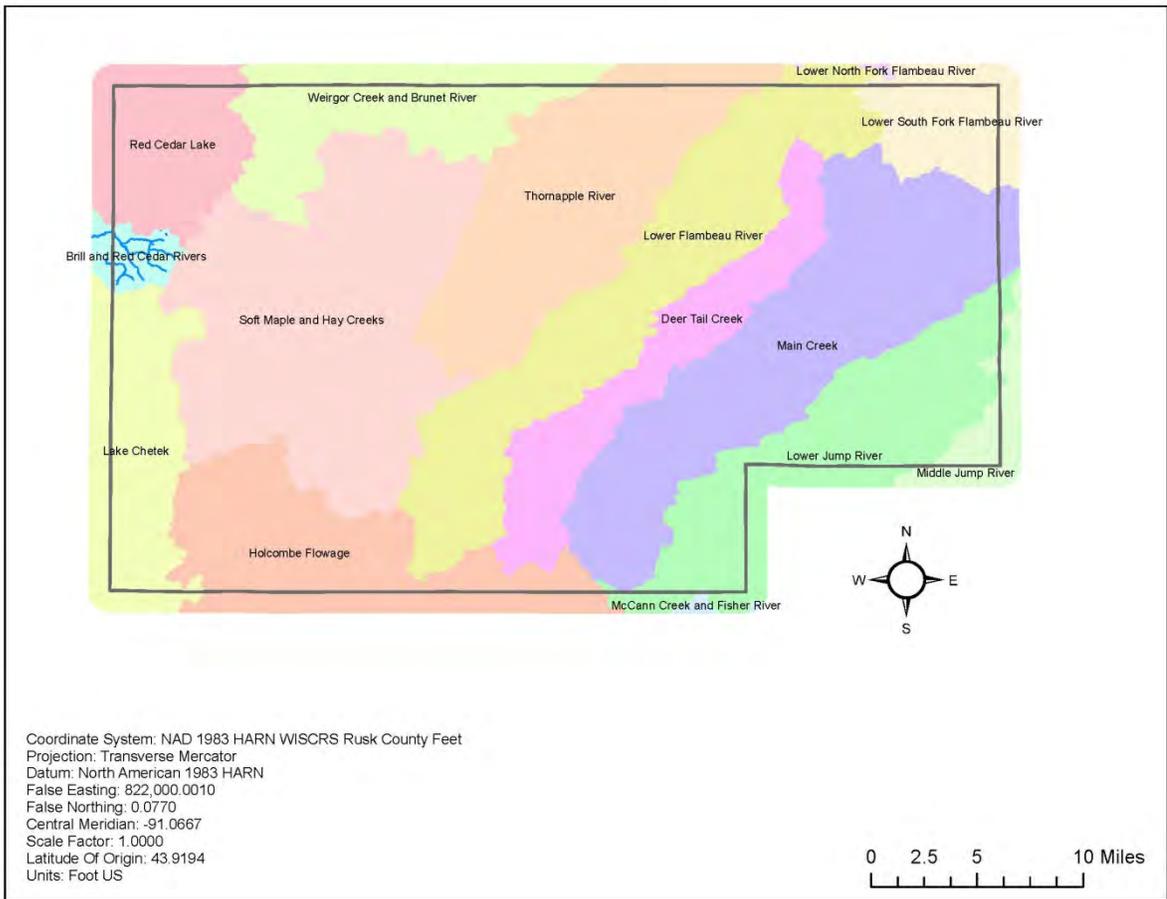
The Lower Chippewa River basin has approximately 300 lakes larger than 10 acres. There are also 79 named lakes and numerous unnamed lakes less than 10 acres. Lakes between 10 and 50 acres in size comprise over 80% of the 378 named lakes. Many of these lakes are a result of the glacial history of the basin. More than 80% of the natural lakes in the basin result from glaciers that pushed down from the north, into Barron, Washburn and Chippewa Counties.

The Lower Chippewa River basin has 69 flowages, which provide approximately 71% of the total acres of lake resources in the basin. Approximately 46% of these are larger than 100 acres, and 28% are larger than 500 acres. Barron and Chippewa Counties contain over 50% of the number and total acres of flowages in the basin. In Clark and Pierce County, flowages are the only lake resources present. Flowages also provide a majority of the lake resources in Dunn and Eau Claire Counties. Many of the smaller flowages (less than 50 acres) were created as shallow water impoundments for waterfowl production.

Six flowages on the Chippewa River within the Lower Chippewa Basin are the result of hydropower dams. Numerous flowages on basin streams and tributaries were created when dams were constructed for millponds, logging, and smaller sources of hydropower. Many of these dams remain in place, although they are no longer being used for their original purpose

The Lower Chippewa River Basin has an abundant, diversified and unique river and stream resource. Streams in the basin range from high-gradient “coulee” type streams in the westernmost portion of the basin to low-gradient sand-dominated streams in the central and eastern parts of the basin. These small streams support some of the state's finest cold water trout fisheries and excellent yet under-appreciated warm water sport fisheries. In addition to the abundant and diversified small streams, there are several major rivers in the basin. “Big rivers”, including the Chippewa, Red Cedar, Hay and Eau Claire Rivers, are complex and dynamic river resources.

**Lower Chippewa River Sub Watersheds  
Brill and Red Cedar – LC10**

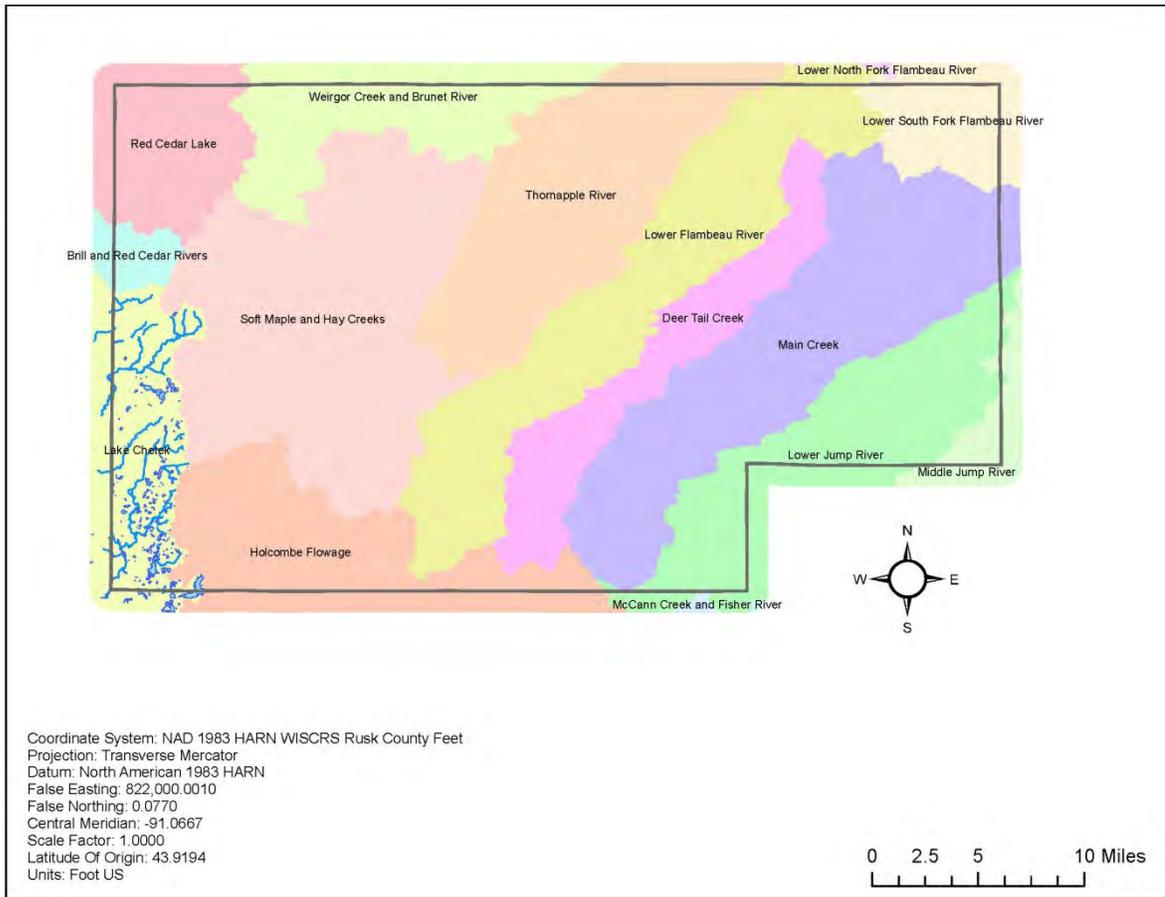


The Brill and Red Cedar Rivers watershed is 297.68 mi<sup>2</sup>. Land use in the watershed is primarily forest (51.50%), agricultural (32.96%) and a mix of wetland (7.71%) and other uses (7.83%). This watershed has 264.90 stream miles, 6,282.34 lake acres and 15,832.05 wetland acres.

The Brill and Red Cedar Rivers watershed in northeastern Barron County and southeastern Washburn County, with small sections in Rusk and Sawyer Counties, is the drainage area for the Red Cedar River. The northern half of this watershed is mostly wooded, while the southern half is mostly agricultural land.

The Barron County and Rusk County sections are mostly pitted outwash with areas of end moraine and ground moraine present. Land use in these sections is mostly agricultural.

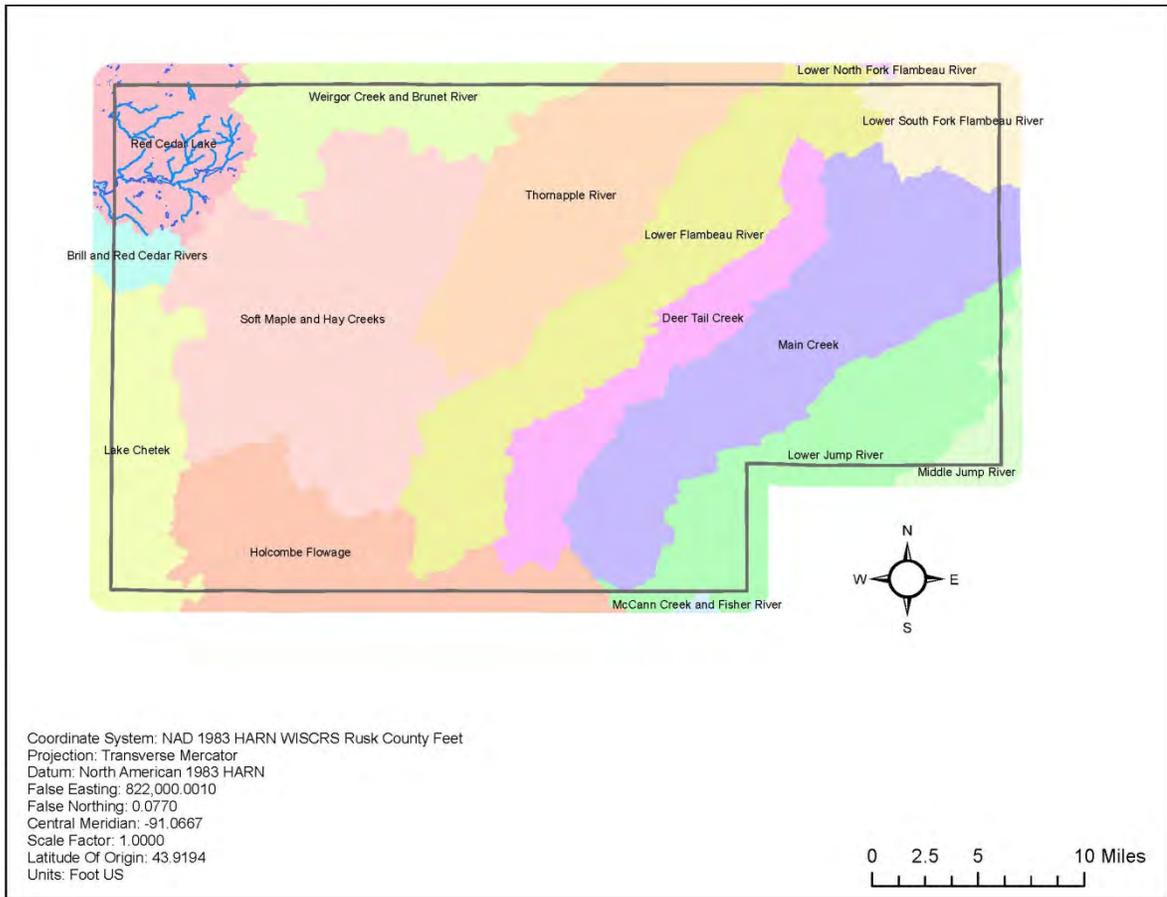
## Lake Chetek – LC08



The Lake Chetek watershed is 212.00 mi<sup>2</sup>. Land use in the watershed is primarily forest (47.49%), agricultural (35.59%) and a mix of wetland (9.49%) and other uses (7.43%). This watershed has 270.25 stream miles, 2,008.86 lake acres and 10,678.22 wetland acres.

The Lake Chetek watershed, located in Barron, Rusk, and Chippewa Counties, is approximately 135,683 acres in size and consists of 270 miles of streams and rivers, 2,009 acres of lakes and 10,678 acres of wetlands. The watershed is dominated by forests (46%) and agriculture (26%), and is ranked high for nonpoint source issues affecting lakes and groundwater and is ranked medium for nonpoint source issues affecting streams.

## Red Cedar Lake – LC11



The Red Cedar Lake watershed is 140.01 mi<sup>2</sup>. Land use in the watershed is primarily forest (78.53%), wetland (8.02%) and a mix of agricultural (7.94%) and other uses (5.51%). This watershed has 167.65 stream miles, 6,893.24 lake acres and 7,428.58 wetland acres.

The Red Cedar Lake Watershed includes the headwater area of the Red Cedar River. It covers the adjoining corners of Barron, Rusk, Sawyer, and Washburn counties. A small portion of the Lac Courte Oreilles Indian Reservation lies within the Red Cedar Lake Watershed. Much of this watershed is forested, with county forest land a large component of the watershed. The north central portion of the watershed consists of glacial pitted outwash and contains numerous small to large lakes. The area is mostly forested with some agricultural land. The southeastern part of the watershed is in the rocky, hilly area known as the Blue Hills. The area consists of glacial end moraines and ground moraine. It is underlain by quartzite bedrock and is steep-sloped and forested. There are few lakes present in this area.

The Red Cedar Lake Watershed lies in two ecological landscapes: the North Central Forest and the Forest Transition.

The North Central Forest Ecological Landscape occupies much of the northern third of Wisconsin. Its landforms are characterized by end and ground moraines with some pitted outwash and bedrock controlled areas. Kettle depressions and steep ridges are found in the northern portion. Soils consist of sandy loam, sand, and silts. The vegetation is mainly forest, with many wetlands and some

agriculture. Lake Superior greatly influences the northern portion of the Ecological Landscape especially during the winter season, producing greater snowfall than in most areas in Wisconsin. The historic vegetation was primarily hemlock-hardwood forest dominated by hemlock, sugar maple, and yellow birch. There were some smaller areas of white and red pine forest scattered throughout the Ecological Landscape, and individual white pine trees were a component of the hemlock-hardwood forest.

Currently, forests cover approximately 80% of this Ecological Landscape. The northern hardwood forest is dominant, made up of sugar maple, basswood, and red maple, and also including some scattered hemlock and white pine pockets within stands. The aspen-birch forest type group is also relatively abundant, followed by spruce-fir. A variety of wetland community types also are present.

The Forest Transition Ecological Landscape lies along the northern border of Wisconsin's Tension Zone, through the central and western part of the state, and supports both northern forests and agricultural areas. The central portion of the Forest Transition lies primarily on a glacial till plain that was deposited by glaciation. The eastern and western portions are on moraines of the Wisconsin glaciation.

The growing season in this part of the state is long enough that agriculture is viable, although climatic conditions are not as favorable as in southern Wisconsin. Soils are diverse, ranging from sandy loam to loam or shallow silt loam, and from poorly drained to well-drained. The historic vegetation of the Forest Transition was primarily northern hardwood forest. These northern hardwoods were dominated by sugar maple and hemlock, and contained some yellow birch, red pine and white pine. Currently, over 60% of this Ecological Landscape is non-forested. Forested areas consist primarily of northern hardwoods and aspen, with smaller amounts of oak and lowland hardwoods. The eastern portion of the Ecological Landscape differs from the rest of the area in that it remains primarily forested, and includes some ecologically significant areas. Throughout the landscape, small areas of conifer swamp are found near the headwaters of streams, and associated with lakes in kettle depressions on moraines.

### **Upper Chippewa River Basin**

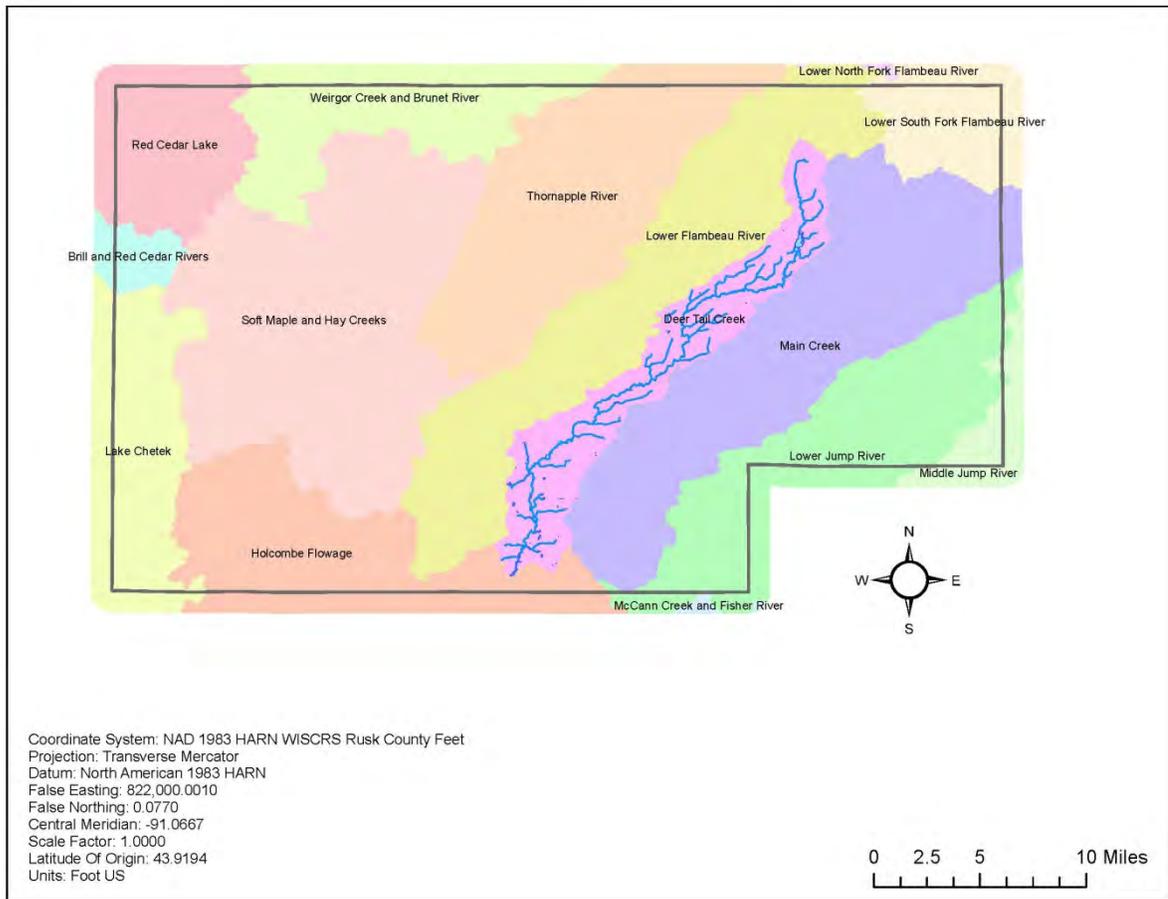
The Upper Chippewa Basin is located in west-central and northwestern Wisconsin. The main stem Chippewa River is formed by the confluence of the West Fork Chippewa River (rising from Chippewa Lake, southeastern Bayfield County) and East Fork Chippewa River (rising from the wetlands of the Town of Knight in Iron County).

Despite its proximity to Lake Superior, the Chippewa Basin feeds the Mississippi, and was once navigable for 50 miles upstream from the Mississippi by Durand, flowing northeast to Eau Claire.

Hydrologically, the "Upper Chippewa Basin" is divided from the Lower Chippewa Basin for management purposes, includes portions of Iron, Ashland, Sawyer, Rusk, Price, Vilas, Chippewa, and Taylor County. Over 3,000 stream and river miles flow through the basin and with 156,200 acres of freshwater lakes, 22,711 acres of flowages and more than 150 acres of freshwater springs.

Today the river provides significant habitat, recreation, navigation, and is a significant resource for northwest Wisconsin people. Over 40 lakes in the basin host confirmed stands of Wild Rice, a critical natural resource protected by state and tribal governments. Sport fisheries including musky, walleye, smallmouth bass, and more are found throughout the water rich region.

## Deer Tail Creek – UC06



The Deer Tail Creek watershed is 63.02 mi<sup>2</sup>. Land use in the watershed is primarily forest (45.01%), agricultural (29.07%) and a mix of wetland (18.82%) and other uses (7.10%). This watershed has 81.83 stream miles, 164.78 lake acres and 9,252.67 wetland acres.

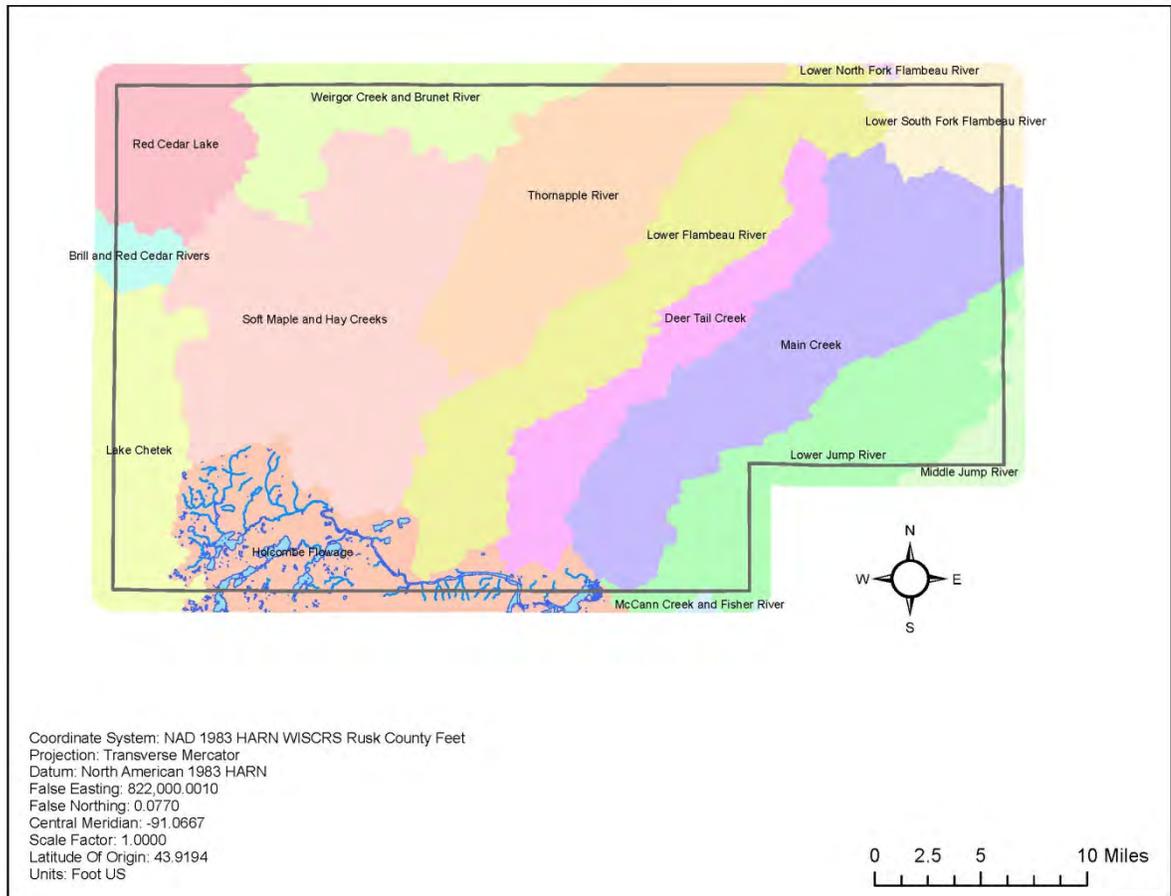
Deer Tail Creek is a low gradient, warm water drainage stream originating in northeastern Rusk County and flowing southwesterly to its mouth on the Chippewa River near the Holcombe Flowage. Its hydrology is flashy, with flow ranging from near zero to approximately two cubic feet per second. Near its headwaters this creek flows through forest and wetlands. But along its middle reaches pasture and agriculture dominate. More than 300 acres of wetlands border the stream. One dam exists on Deer Tail Creek north of Glen Flora. This five foot head dam impounds 71-acre McGee Lake, the only lake in the watershed. Deer Tail Creek flows past two villages, Tony and Glen Flora, and receives treated wastewater at both sites.

The North Central Forest Ecological Landscape occupies much of the northern third of Wisconsin. Its landforms are characterized by end and ground moraines with some pitted outwash and bedrock controlled areas. Kettle depressions and steep ridges are found in the northern portion. Soils consist of sandy loam, sand, and silts. The vegetation is mainly forest, with many wetlands and some agriculture. Lake Superior greatly influences the northern portion of the Ecological Landscape especially during the winter season, producing greater snowfall than in most areas in Wisconsin. The historic vegetation was primarily hemlock-hardwood forest dominated by hemlock, sugar maple, and yellow birch. There were some smaller areas of white and red pine forest scattered

throughout the Ecological Landscape, and individual white pines trees were a component of the hemlock-hardwood forest.

Currently, forests cover approximately 80% of this Ecological Landscape. The northern hardwood forest is dominant, made up of sugar maple, basswood, and red maple, and also including some scattered hemlock and white pine pockets within stands. The aspen-birch forest type group is also relatively abundant, followed by spruce-fir. A variety of wetland community types also are present.

### **Holcombe Flowage – UC01**



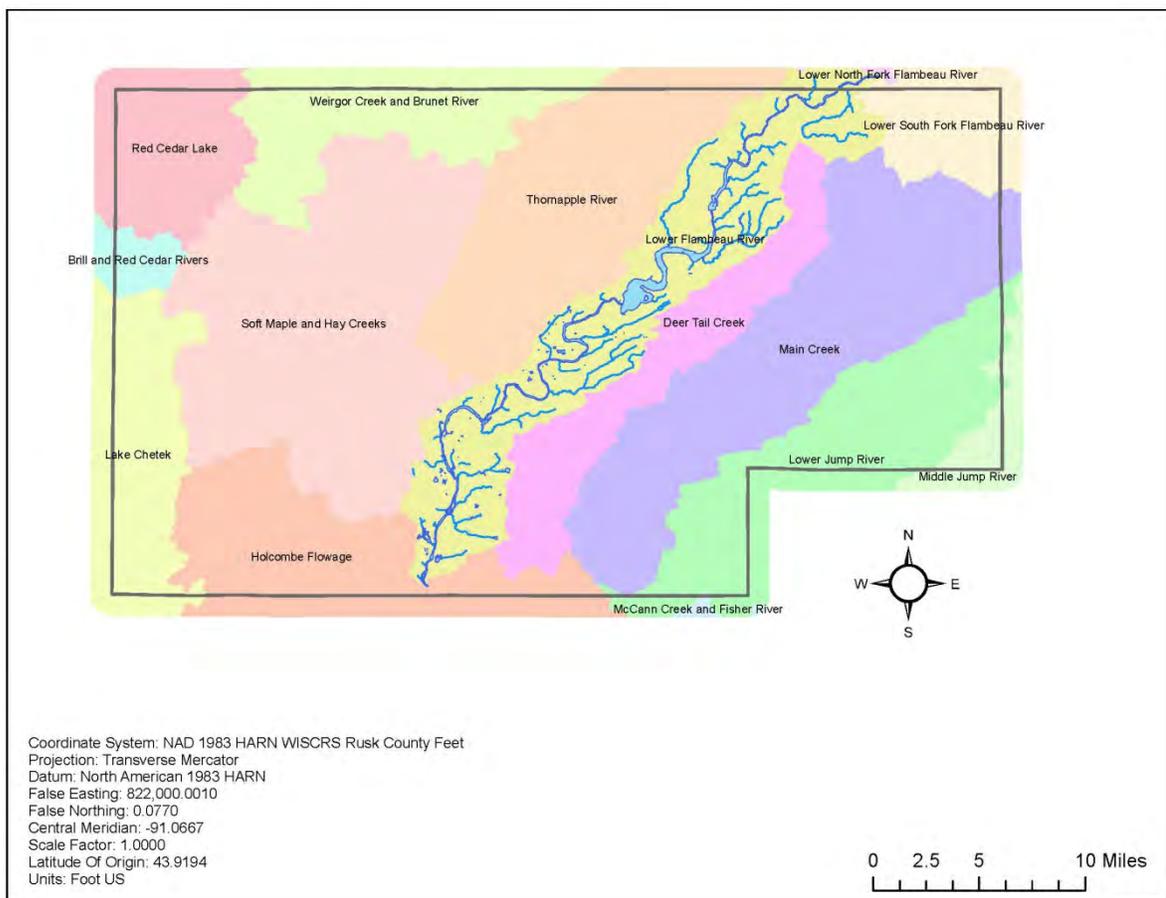
The Holcombe Flowage watershed is 170.38 mi<sup>2</sup>. Land use in the watershed is primarily forest (54.82%), wetland (24.08%) and a mix of agricultural (15.19%) and other uses (5.91%). This watershed has 216.07 stream miles, 6,687.77 lake acres and 19,889.41 wetland acres.

The Holcombe Flowage Watershed is the southwestern-most watershed in the Upper Chippewa River Basin. Approximately 70% of the watershed is wooded, with the remainder open woodland and agriculture. The watershed is divided into roughly equal parts between Rusk and Chippewa Counties, and contains the Holcombe Flowage in its eastern tip. The flowage is an impoundment formed by the Northern States Power Company dam on the Chippewa River near the town of Holcombe. Holcombe Flowage supports a very good sport fishery, although fish consumption advisory exists for walleye due to mercury. Shore vegetation consists of upland woods and wetlands with heavy development around the entire perimeter of the flowage. The flowage is fed by the Chippewa, Flambeau and Jump rivers, and Main, Deertail, Cranberry, and Birch creeks.

The Holcombe Flowage Watershed is primarily located in the North Central Forest Ecological Landscape which occupies much of the northern third of Wisconsin. The North Central Forest Ecological Landscape occupies much of the northern third of Wisconsin. Its landforms are characterized by end and ground moraines with some pitted outwash and bedrock controlled areas. Kettle depressions and steep ridges are found in the northern portion. Soils consist of sandy loam, sand, and silts. The vegetation is mainly forest, with many wetlands and some agriculture. Lake Superior greatly influences the northern portion of the Ecological Landscape especially during the winter season, producing greater snowfall than in most areas in Wisconsin. The historic vegetation was primarily hemlock-hardwood forest dominated by hemlock, sugar maple, and yellow birch. There were some smaller areas of white and red pine forest scattered throughout the Ecological Landscape, and individual white pine trees were a component of the hemlock-hardwood forest.

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### **Lower Flambeau River – UC07**

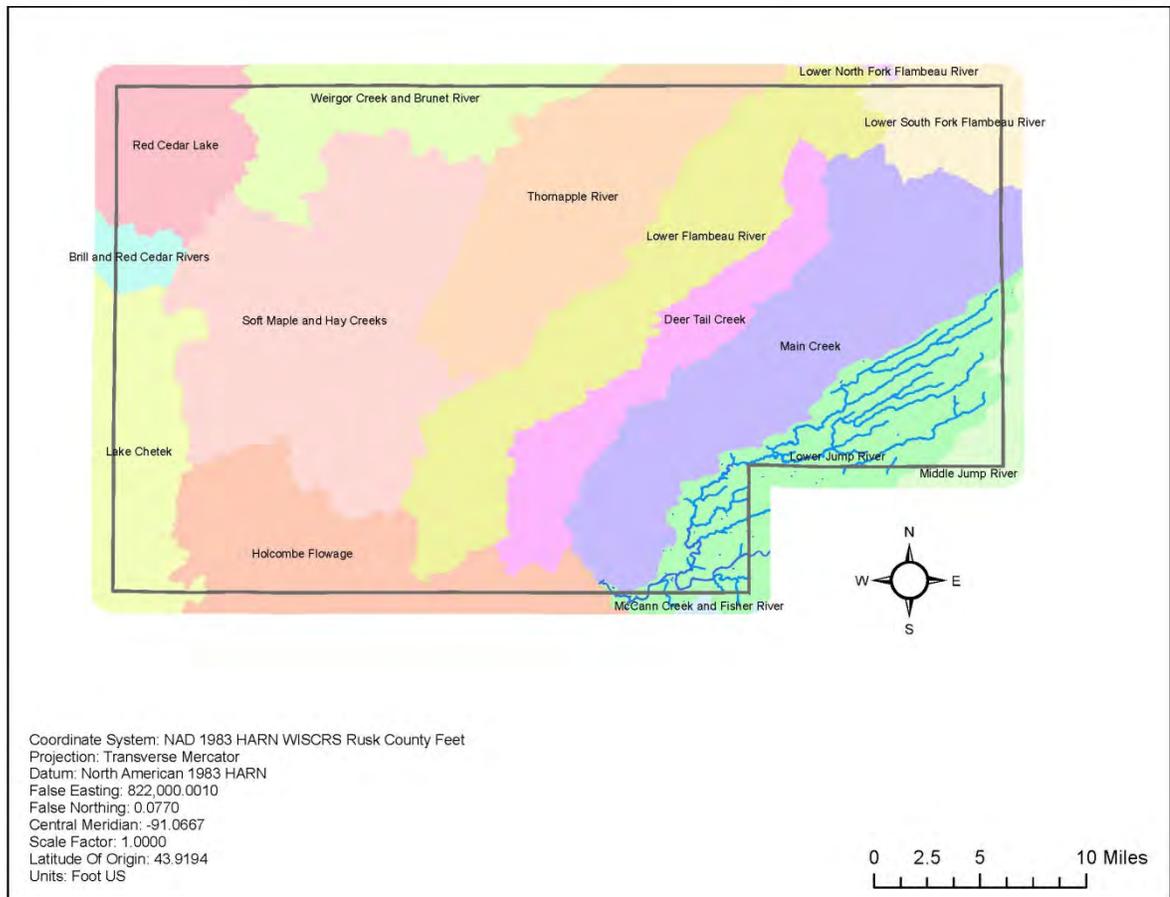


The Lower Flambeau River watershed is 128.62 mi<sup>2</sup>. Land use in the watershed is primarily forest (58.88%), wetland (20.16%) and a mix of agricultural (14.10%) and other uses (6.86%). This watershed has 152.37 stream miles, 252.03 lake acres and 13,319.28 wetland acres.

The Lower Flambeau River Watershed is located primarily in Rusk County and is approximately 82,319 acres in size. It contains 152 miles of streams and rivers, 252 acres of lakes and 13,319 acres of wetlands.

This watershed is predominately forested (56%) except around the city of Ladysmith where significant amounts of agricultural land (14%) adjoin the Flambeau River. Ladysmith, the largest city in the Upper Chippewa River Basin and the only municipal area in this watershed, maintains a wastewater treatment plant that discharges effluent into the Flambeau River.

**Lower Jump River – UC02**



The Lower Jump River watershed is 135.71 mi<sup>2</sup>. Land use in the watershed is primarily forest (48.30%), agricultural (26.66%) and a mix of wetland (19.33%) and other uses (5.71%). This watershed has 194.20 stream miles, 104.73 lake acres and 21,271.42 wetland acres.

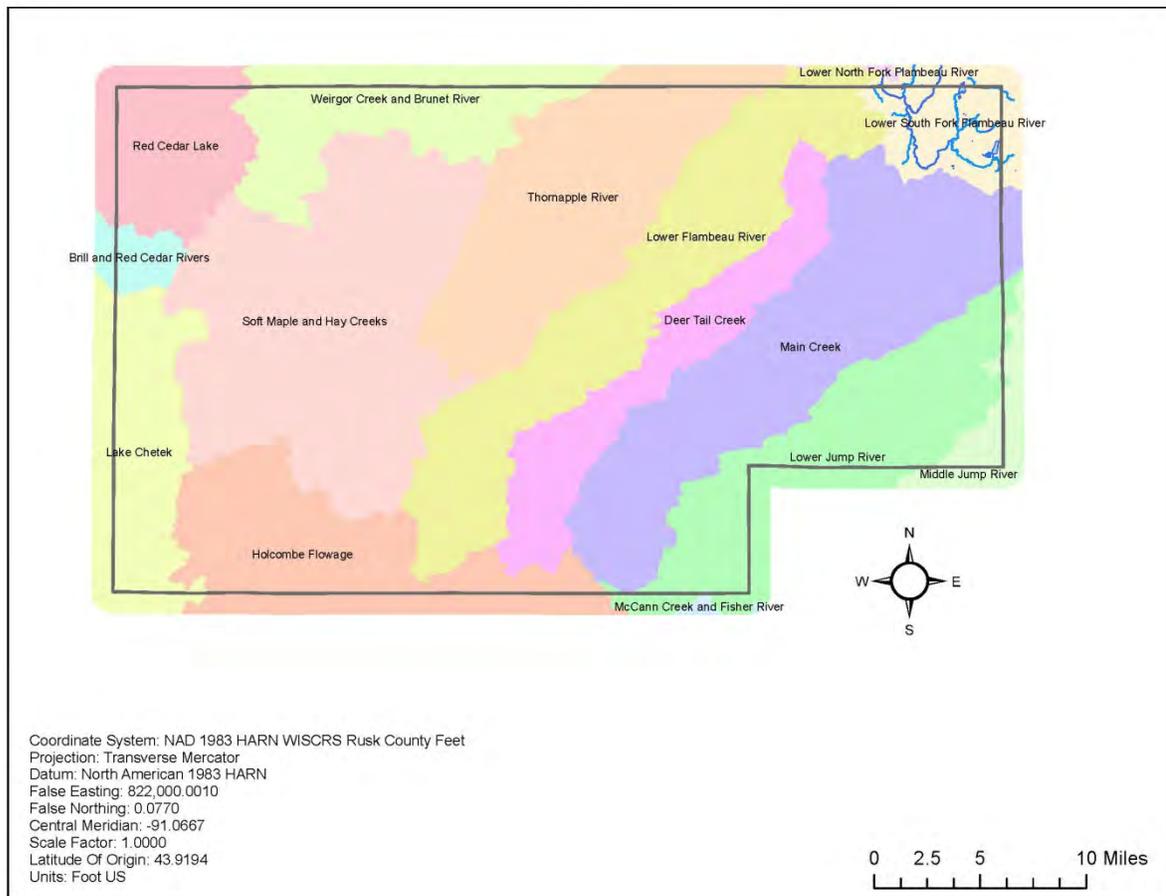
The streams in the Lower Jump River watershed have extremely variable flows. Many of the streams, especially in Taylor County, frequently go dry. The watershed supports some agricultural usage, especially the downstream sections, and row cropping presents a potential nonpoint source threat. Shoulder Creek and lower Alder Creek in particular have the potential to be affected by nonpoint source pollution. Virtually no lakes exist in the watershed. The downstream section of the watershed in Taylor County is more heavily agricultural than the upstream area. Streambank degradation is probably not a major issue for the streams in this watershed.

The North Central Forest Ecological Landscape occupies much of the northern third of Wisconsin.

Its landforms are characterized by end and ground moraines with some pitted outwash and bedrock controlled areas. Kettle depressions and steep ridges are found in the northern portion. Soils consist of sandy loam, sand, and silts. The vegetation is mainly forest, with many wetlands and some agriculture. Lake Superior greatly influences the northern portion of the Ecological Landscape especially during the winter season, producing greater snowfall than in most areas in Wisconsin. The historic vegetation was primarily hemlock-hardwood forest dominated by hemlock, sugar maple, and yellow birch. There were some smaller areas of white and red pine forest scattered throughout the Ecological Landscape, and individual white pines trees were a component of the hemlock-hardwood forest.

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### **Lower South Fork Flambeau River – UC08**

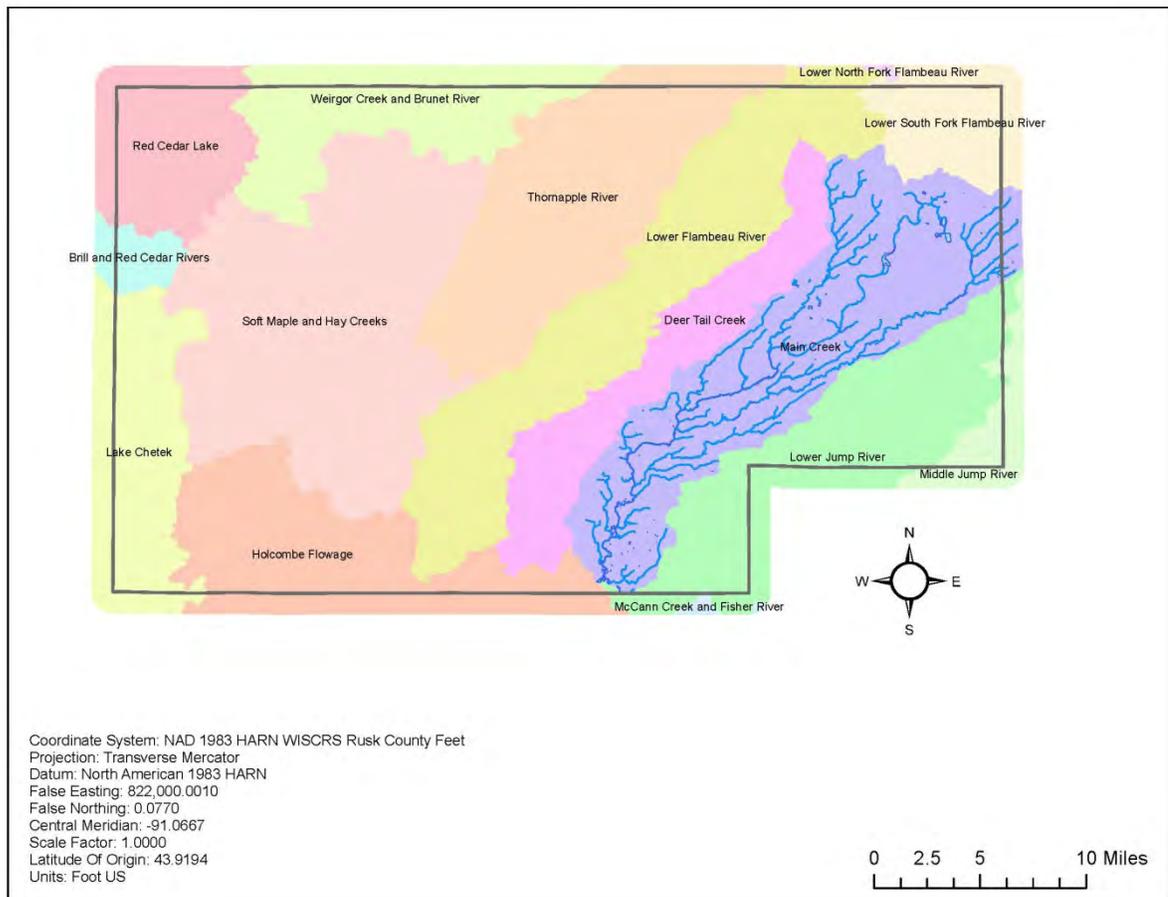


The Lower South Fork Flambeau River watershed is 200.15 mi<sup>2</sup>. Land use in the watershed is primarily forest (49.35%), wetland (44.78%) and a mix of agricultural (3.43%) and other uses (2.43%). This watershed has 187.09 stream miles, 607.14 lake acres and 42,848.94 wetland acres.

This watershed consists of mostly agricultural lands with extensive wetlands, including the Million Acre Swamp. Little development occurs in this watershed. The lower South Fork of the Flambeau

River passes through the Flambeau River State Forest before joining the North Fork of the Flambeau. The South Fork of the Flambeau was approved by the Natural Resources Board in January 1993 for classification as an Outstanding Resource Water under NR 102. The only point source in the watershed is the Flambeau Correctional Center which discharges to a wetland draining to Hackett Creek, but does not appear to impact the creek, which is considered a good quality trout stream. This watershed contains a number of trout streams that are tributaries to the South Fork of the Flambeau: Hackett, Price, Nelson, Smith, and Mt. Pelee creeks. These streams appear to be meeting their potential from a fisheries standpoint (Lealos 1993). Streams in this watershed other than the Flambeau, have not been surveyed for endangered resources

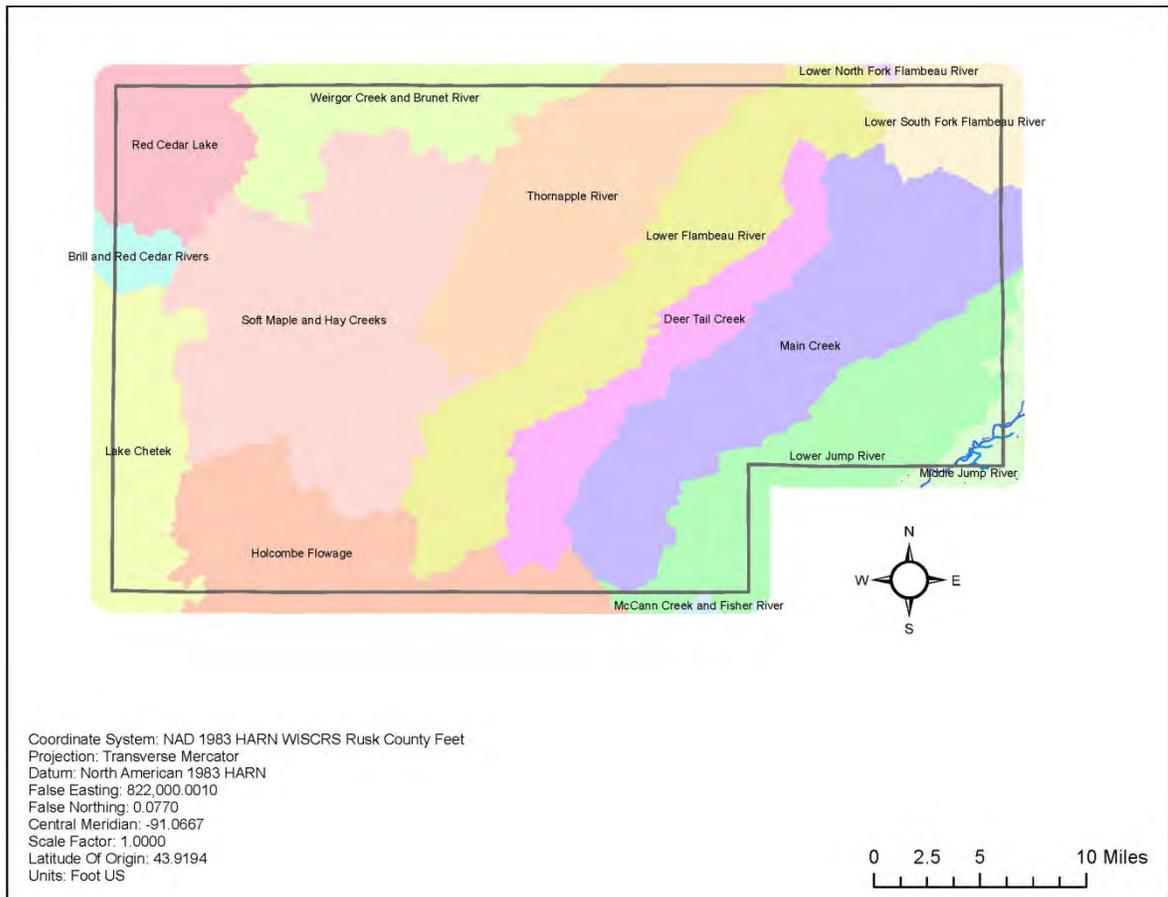
### Main Creek – UC05



The Main Creek watershed is 157.26 mi<sup>2</sup>. Land use in the watershed is primarily forest (46.98%), agricultural (25.89%) and a mix of wetland (20.39%) and other uses (6.72%). This watershed has 219.28 stream miles, 160.14 lake acres and 23,722.27 wetland acres.

The Main Creek watershed is a mixture of agricultural and wooded land with dairy farming the primary agricultural activity. Dairy farming is declining in the northern portions of the watershed, yet areas of active farming remain as sources of polluted runoff. Farming is more stable and intensive in the southern portion of the watershed, where sources of polluted runoff are also more widespread. Nonpoint source impacts have been identified for nearly all the streams in the watershed. Streambank pasturing and barnyards are frequently identified sources of polluted runoff. Cropland erosion is a problem in some areas, especially in the southern portion of the watershed.

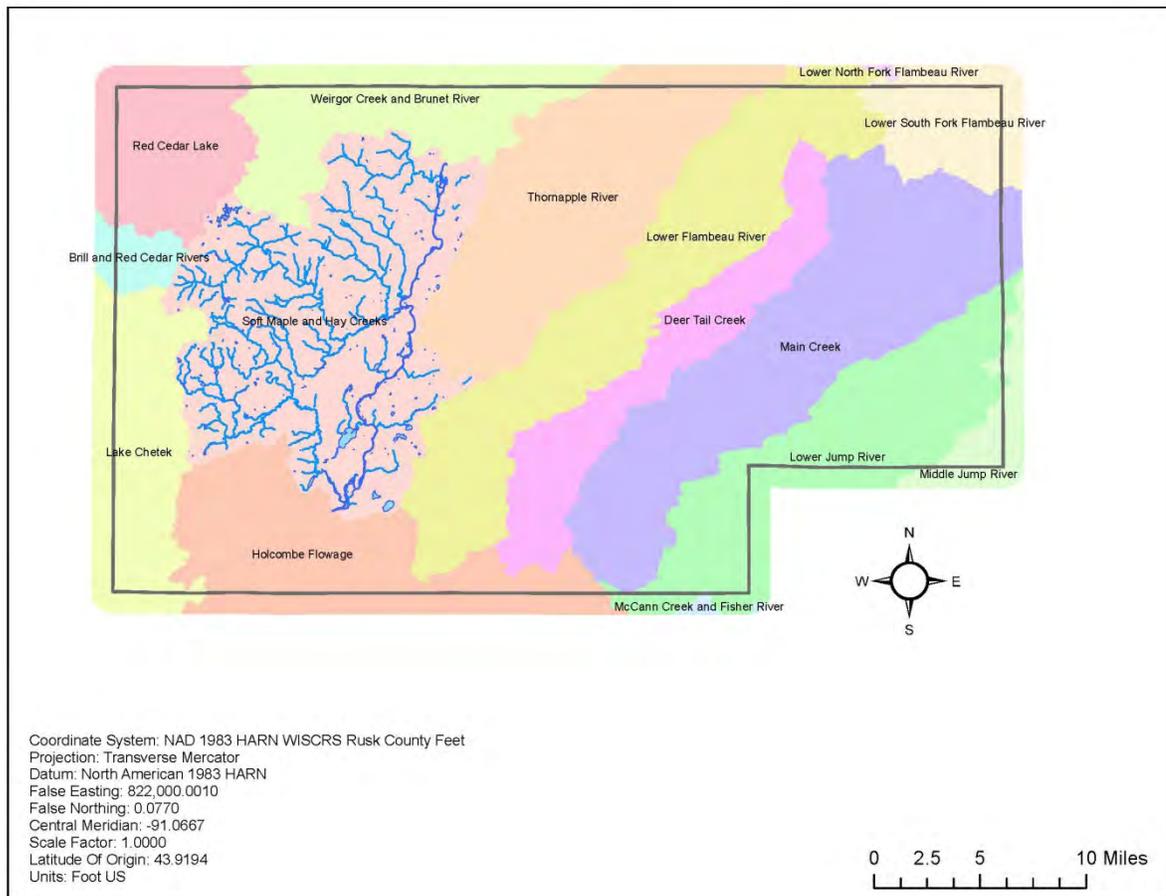
## Middle Jump River – UC03



Middle Jump River watershed is 229.88 mi<sup>2</sup>. Land use in the watershed is primarily forest (61.03%), wetland (23.06%) and a mix of agricultural (11.39%) and other uses (4.52%). This watershed has 262.64 stream miles, 803.21 lake acres and 44,314.18 wetland acres.

The Middle Jump River watershed contains the North Fork of the Jump River, the downstream portion of the South Fork Jump, and nine miles of the Jump River after the two forks meet. This watershed has only one lake of any size, Cranberry Lake at the head of the North Fork Jump. The watershed has many miles of streams, most of which are small forage fish streams. The intermittent flow conditions of these streams are characteristic of the drainage patterns in this geographical area. The watershed is largely public and private wild land and is quite rocky in places. It also contains a significant amount of wetlands. Much of the watershed which extends into Taylor County is in the Chequamegon National Forest. The two municipalities in the watershed are Kennan and Catawba. Both of which are sewers. The North Fork of the Jump River begins at Cranberry Lake which receives discharge from a large commercial cranberry operation. Spring Creek is a short feeder stream into one of the impoundments. Most of the other streams in the watershed are quite small, and little is known about them. Hobbles Creek is the longest stream in the watershed other than the Jump River. Hobble supports a warm water sport fish community. Needles Creek has the potential for to be affected by a gravel pit operation.

## Soft Maple and Hay Creeks – UC17



The Soft Maple and Hay Creeks Watershed is located in Rusk County and is 113,122 acres in size. It contains 266 miles of streams and rivers, 1050 acres of lakes and 14,185 acres of wetlands. The watershed is dominated by forest (56%), agriculture (22%) and wetlands (12%) and is ranked high for nonpoint source issues affecting streams and groundwater. Water quality degradation by cattle and barnyard runoff is a problem in this watershed. The only point source discharge to surface water in the watershed is from the Village of Weyerhaeuser, which discharges to a tributary to Soft Maple Creek.

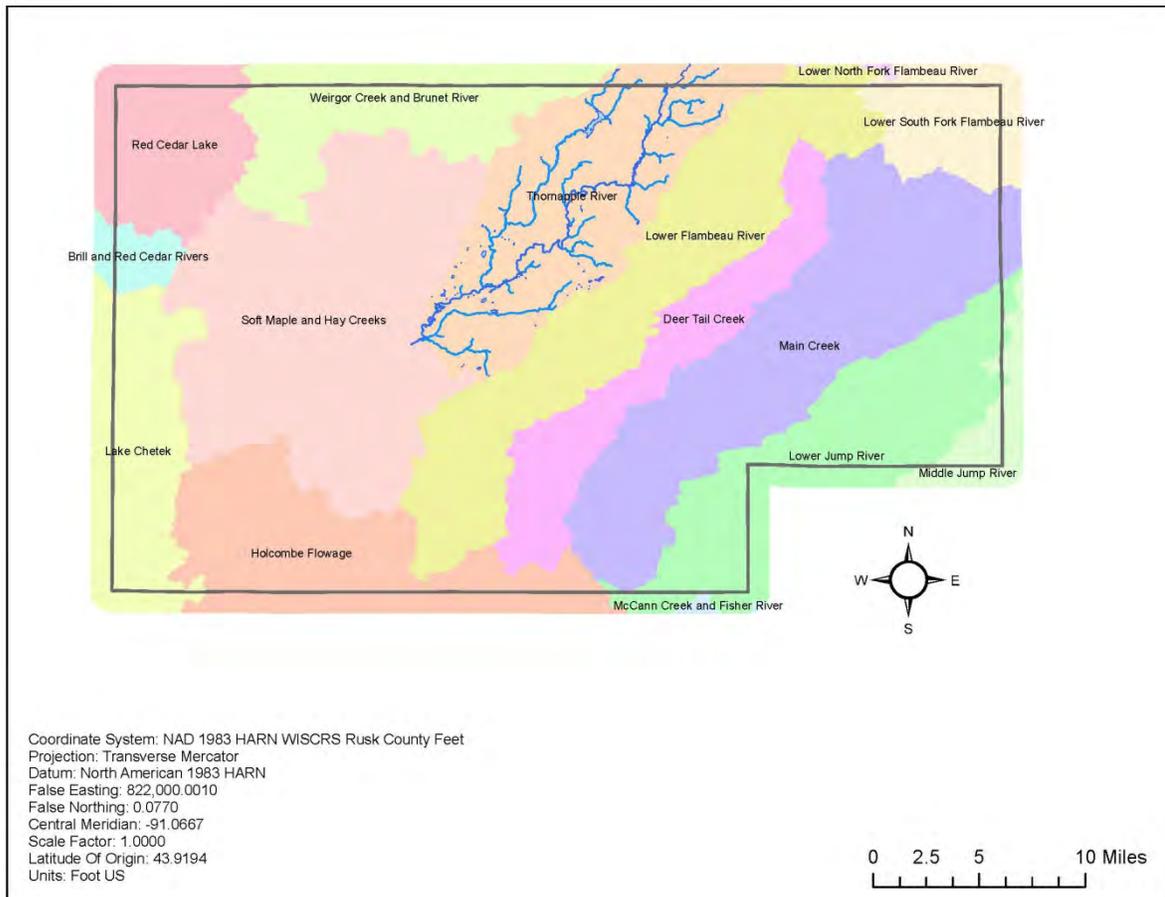
Alder Creek is located in the Soft Maple and Hay Creeks watershed which is 176.75 mi<sup>2</sup>. Land use in the watershed is primarily forest (56.28%), agricultural (19.09%) and a mix of wetland (18.47%) and other uses (6.16%). This watershed has 266.14 stream miles, 1,050.89 lake acres and 14,185.57 wetland acres.

Becky Creek is a cold water stream that flows out of the Blue Hills in the northwest portion of the Soft Maple and Hay Creek Watershed. Becky Creek is 8.0 miles in length with a drainage area of 10.74 sq. miles. Its designated use is a cold water fishery for its entire length. The mouth of Becky Creek is located in northeast Atlanta Township with its headwaters located in southern Murry Township. The creek flows directly into the Chippewa River. Becky Creek's watershed does not include any Indian County. Becky Creek is located within one of 11 sub watersheds that make up the Soft Maple and Hay Creek Priority Watershed. In the management plan for the priority watershed project, stream bank pasturing, county and township road maintenance and construction, riparian habitat degradation, upland sediment delivery, manure and nutrient runoff are identified in

the watershed plan as sources of pollutants impacting Becky Creek. A description of the population, soils, topography, geology and other physical characteristics of the Soft Maple and Hay Creek Watershed is contained in Chapter 2 of Nonpoint Source Control Plan for the Soft Maple and Hay Creek Priority Watershed Project.

Sediment may affect the fish community in a variety of ways that are deemed objectionable. In the downstream segment, mile 0 to mile 1.0, the sedimentation has reduced the depth of the water. This often causes the stream to widen, causing more sediment to enter the stream. The wide and shallow stream cross section allows more sunlight to enter the stream, elevating the temperature to where it may have a detrimental effect on the cold water trout fishery. The substrate also does not provide suitable conditions for spawning and deeper, cooler holes are filled and lost. In addition, the eroding banks eliminate shading, food sources and cover. The loss of overhanging grasses eliminates the stream's natural capacity to trap sediment along its edges and naturally narrow and deepen the water. In the impaired segment near mile 4.6, the trampled banks cause similar effects on the fish community, including making the stream wider, shallower and warmer. Presently, one mile of Becky Creek is classified as a Class I cold water stream with the remainder being class III. Although class I, class II and class III trout fisheries all fall within the cold water designated use, in the early 1980's the entire length of Becky Creek was considered a class I trout fishery.

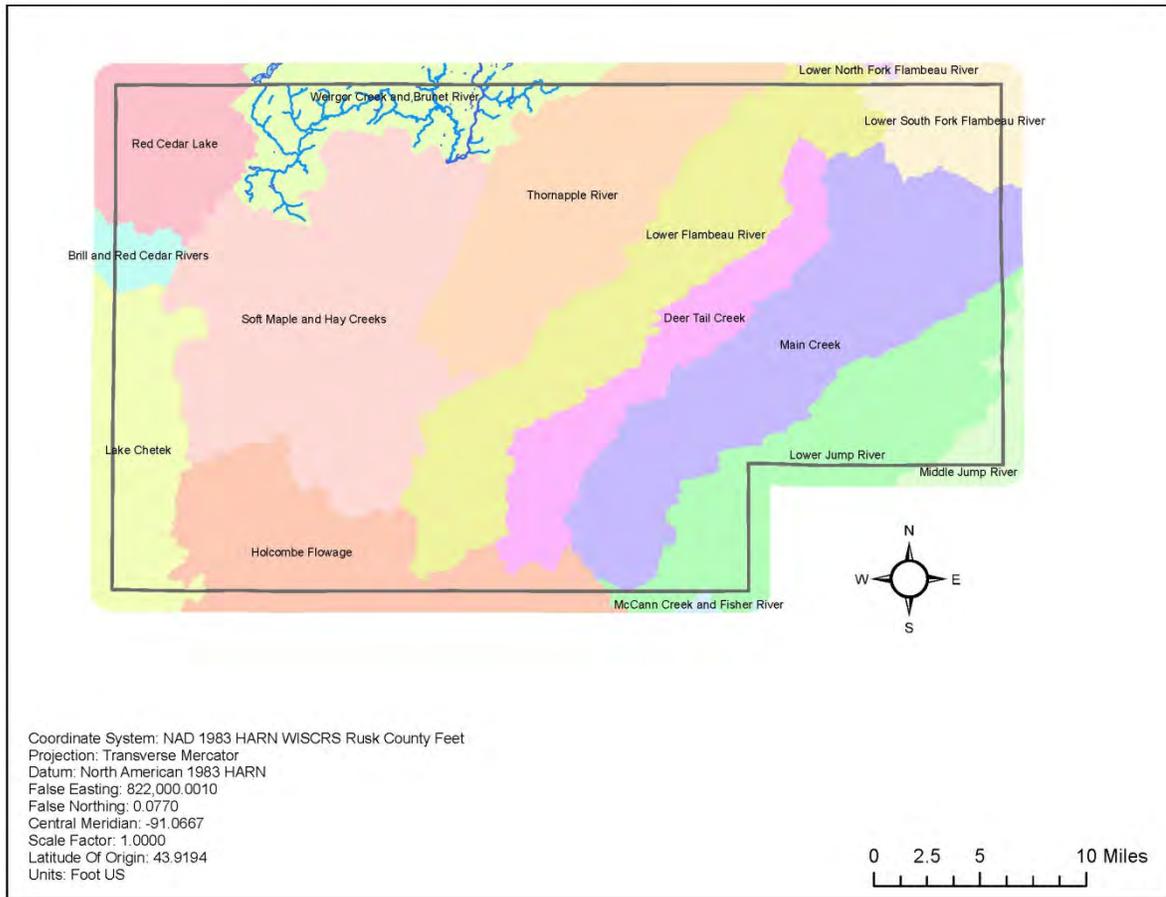
## Thornapple River – UC18



The Thornapple River watershed is 229.97 mi<sup>2</sup>. Land use in the watershed is primarily forest (57.64%), wetland (33.96%) and a mix of agricultural (5.28%) and other uses (3.12%). This watershed has 244.30 stream miles, 193.31 lake acres and 38,871.25 wetland acres.

The Thornapple River Watershed extends from eastern Sawyer County into the middle of Rusk County. It is 147,183 acres in size and forest covers 61% of the watershed. The area supports little agriculture, is largely undeveloped, and consists primarily of forest and wetlands. There are no towns or point source discharges in the watershed. There has been very little fisheries management activity. The most recent water quality information for streams dates from the 1970s. Macroinvertebrate surveys from 1979 in the Thornapple River, Little Thornapple, and Twin Creek, indicated good to excellent water quality with an absence of organic pollution.

## Weirgor Creek and Brunet River – UC19



The Weirgor Creek and Brunet River watershed is 324.00 mi<sup>2</sup>. Land use in the watershed is primarily forest (64.68%), wetland (23%) and a mix of agricultural (8.49%) and other uses (3.83%). This watershed has 407.41 stream miles, 2,240.99 lake acres and 39,377.08 wetland acres.

The 207,356 acre Weirgor Creek and Brunet River Watershed is located in Sawyer and Ruck counties and is largely forested. It supports potato and rutabaga farming, as well as livestock operations. Impact from agriculture appears minimal, but this has been poorly documented. Forestry is the primary industry in the watershed and a potential nonpoint source problem. The Big Weirgor and Brunet River watershed contains 13 trout streams, and of these, 11, are listed as Class I. Exceptional and Outstanding Resource Waters

## ***Chapter 4: Environmental Issues and Concerns***

### **Public Input**

A survey was distributed to gather public opinion on land and water conservation priorities. Facebook Pages Insights indicates the online survey invitation reached at least 550 people. A list of results is located in the Appendix; pages 71-76.

### **Local Work Group**

The Land Conservation Committee convened an open local advisory meeting inviting a number of natural resource professionals and the general public. An invitation to the local advisory committee meeting and public hearing was emailed, posted in the Ladysmith News, posted on the Rusk County website, and posted on the LWCD Facebook Page inviting anyone to assist in assessing the quality of the county's natural resources. The following is a list of the natural resource issues and concerns discussed by the Local Work Group:

- Groundwater Pollution
- Surface water pollution
- Land fragmentation and loss of wildlife habitat
- Invasive species
- Farmers/farmland
- Student and general public outreach
- Ag waste management
- Nutrient management planning
- Cost-share grant programs
- Erosion Control

## ***Chapter 5: Goals and Objectives***

The goals, objectives, and action items will be reviewed by the LWCC annually to evaluate implementation progress and to recommend needed changes to update the Work Plan as a result of annual work planning and a five year review before the LWCB.

### **Goal 1: Protect and improve the quality of surface waters**

#### **Objectives:**

- 1. Reduce sediment delivery and phosphorus delivery**

### **Goal 2: Improve surface water quality by implementing erosion control and other stormwater management standards and practices**

#### **Objectives:**

- 1. Ensure erosion control and stormwater management standards are met**
2. Encourage practices that treat stormwater as an asset

### **Goal 3: Conserve and protect productive agricultural lands**

#### **Objectives:**

- 1. Preserve productive farmland**
2. Enroll highly erodible lands into CREP/CRP

### **Goal 4: Protect groundwater quality and quantity**

#### **Objectives:**

- 1. Seal/protect direct conduits to groundwater to prevent contamination**
2. Identify and protect springs

### **Goal 5: Administer ordinances under LWCD jurisdiction and permits issued by LWCD**

#### **Objectives:**

- 1. Administer the county animal waste storage and nutrient management ordinance**
2. Assist in administering non-metallic mining ordinance
3. Provide technical assistance to Zoning Administrator for potential livestock facility siting ordinance

### **Goal 6: Maintain, protect and improve surface water resources**

#### **Objectives:**

- 1. Work with landowners and agencies to minimize soil erosion and protect water quality**
2. Protect aquatic ecosystems from non-native invasive species

### **Goal 7: Establishment of point/nonpoint nutrient trading program**

#### **Objectives:**

- 1. Establish local trading workgroup and begin pilot nutrient trading program**

### **Goal 8: Demonstrate program effectiveness**

#### **Objectives:**

- 1. Monitor countywide erosion potential**
2. Assess water quality
3. Inform County Board and citizens of LWCD progress
4. Inform DATCP of progress

**Goal 9: Spend local and state cost-share and staffing dollars effectively**

**Objectives:**

1. Prioritize cost-share dollars for high return practices
2. **Use LWRM plan as a tool to acquire additional cost-share and staffing dollars from other sources**
3. Maintain appropriate records

**Goal 10: Improve forest management on private lands**

**Objectives:**

1. Provide technical assistance for forestry BMP
2. Inform public of resources available for forest management
3. **Provide tools for woodland management**
4. Provide support for wildlife related programs

## ***Chapter 6: Agricultural Performance Standards and Prohibitions***

Effective October 1, 2002, NR 151 set forth state minimum performance standards and prohibitions for farms and urban areas. These performance standards and prohibitions were designed to achieve water quality standards by limiting nonpoint source water pollution. It is the landowner's responsibility to meet the agriculture performance standards and prohibitions. The role of the Rusk County Land Conservation Department is to assist landowners in planning, designing, installing and approving management plans and practices to meet NR 151 standards. The Department of Natural Resources has developed ten components to NR 151 implementation that identify DNR's role and their expectations of counties for each implementation component. The following is a list of the Agricultural Performance Standards and prohibitions.

### **Performance Standards**

The Rusk County Land Conservation Department will assist landowners in meeting the agricultural performance standards for sheet, rill, and wind erosion, manure storage facilities, clean water diversions, and nutrient management.

#### **NR 151.02 Sheet, rill and wind erosion**

All land where crops or feed are grown shall be cropped to achieve a soil erosion rate equal to, or less than, the "tolerable" (T) rate established for that soil.

#### **NR 151.03 Tillage setback**

The purpose of this standard is to prevent tillage operations from destroying stream banks and depositing soil directly in surface waters.

1. No crop producer may conduct a tillage operation that negatively impacts stream bank integrity or deposits soil directly in surface waters.
2. No tillage operations may be conducted within 5 feet of the top of the channel of surface waters. Tillage setbacks greater than 5 feet but no more than 20 feet may be required for this standard.
3. Crop producers shall maintain the area within the tillage setback in adequate sod or self-sustaining vegetative cover that provides a minimum of 70% coverage.

#### **NR 151.04 Phosphorus index**

1. All crop and livestock producers shall comply with this section.
2. Croplands, pastures, and winter grazing areas shall average a phosphorus index of 6 or less over the accounting period and may not exceed a phosphorus index of 12 in any individual year within the accounting period.

#### **NR 151.05 Manure storage facilities**

All livestock producers building new manure storage facilities, substantially altering manure storage facilities, or choosing to abandon their manure storage facilities shall comply with this section.

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 the groundwater standards.

Closure of a manure storage facility shall occur when an operation where the facility is located ceases operations, or manure has not been added or removed from the facility for a period of 24 months. The owner or operator may retain the facility for a longer period of time by

demonstrating all of the following conditions are met:

1. The facility is designed, constructed and maintained in accordance with an accepted standard.
2. The facility is designed to store manure for a period of time longer than 24 months.
3. Retention of the facility is warranted based on anticipated future use.

Manure storage facilities in existence as of October 1, 2002, that pose an imminent threat to public health or fish and aquatic life or are causing a violation of groundwater standards shall be upgraded, replaced or abandoned in accordance with this section.

#### **NR 151.055 Process wastewater handling**

All livestock producers shall comply with this section

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

#### **NR 151.06 Clean water diversions**

All livestock producers within a water quality management area shall comply with this section. A water quality management area, as defined by NR 151 is the area within 1,000 feet from the ordinary high water mark of navigable waters that consist of a lake, pond or flowage, except that for a navigable water that is a glacial pothole lake, the term means the area within 1,000 feet from the high water mark of the lake; the area within 300 feet from the ordinary high water mark of navigable waters that consist of a river or stream; and a site that is susceptible to groundwater contamination, or that has the potential to be a direct conduit for contamination to reach groundwater.

Runoff shall be diverted away from contacting feedlot, manure storage areas and barnyard areas within water quality management areas except that a diversion to protect private well is required only when the feedlot, manure storage area or barnyard area is located upslope from the private well.

#### **NR 151.07 Nutrient management**

All livestock and crop producers that apply manure or other nutrients directly or through contract to agricultural fields shall comply with this section.

Manure, commercial fertilizer and other nutrients shall be applied in conformance with a nutrient management plan. The nutrient management plan shall be designed to limit or reduce the discharge of nutrients to waters of the state for the purpose of complying with state water quality standards and groundwater standards.

Effective for all farms on January 1, 2005 if the farm is located in:

1. Watersheds containing outstanding or exceptional waters.
2. Watersheds containing impaired waters.
3. Source water protection areas.

\*Effective for all other farms on January 1, 2008.

#### **NR 151.08 Manure management prohibitions**

All livestock producers shall comply with this section.

1. No overflow of manure storage facilities.
2. No unconfined manure pile in a Water Quality Management Area.
3. No direct runoff from a feedlot or stored manure into the waters of the state.
4. No unlimited access by livestock to waters of the state.

## NR 151 Local Implementation Strategy

The Rusk County Land Conservation Department has developed information and education strategy as well as a priority farm identification process to inform landowners of the agricultural performance standards and prohibitions. The strategy also describes the methods for compliance determination, enforcement, and appeals.

The following is a description of the procedures that the Rusk County Land Conservation Department may use to assist landowners in meeting the Chapter NR 151 Agricultural Performance Standards and Prohibitions. This implementation strategy is based on Land Conservation Department staff and funding availability.

### Information and Education

The LWCD, along with UWEX and WDNR, will initiate an information and education campaign to inform all Rusk County farmers of the requirements of Chapter NR151. This effort has been implemented through local press releases, social media and open community events and will serve as a means to initiate voluntarily NR151 compliance. The LWCD will make direct contact with landowners during farm visits.

### Priority Farm Identification

With over 1,000 farming operations in Rusk County, it is essential that a prioritization process be implemented to address the requirements of Chapter NR151. The LWCD has developed the following priority farm identification strategy:

- First Priority - Farms where a valid complaint has been received regarding the violation of the agricultural performance standards or prohibitions.
- Second Priority – Farms applying for Farmland Preservation Agreements.
- Third Priority – Farms applying for an Animal Waste and Manure Management Ordinance Permit.
- Fourth Priority – Farms that receive cost-share assistance under the Soil and Water Resource Management grant program
- Fifth Priority – Farms located in watersheds draining to 303(d) waters.

### Compliance Determination

On-site evaluations will be the primary means of determining compliance with Chapter NR 151 requirements. The information in the evaluation form will be tracked using the county geographic information system (GIS). Landowners that have gone through the evaluation process will receive the following:

- A copy of the evaluation report with a landowner signature page.
- A letter with instructions on appeal procedures if the landowner contests the evaluation.
- Recommendations for measures needed to achieve compliance.
- A schedule for achieving compliance with the standards.
- The availability and source of cost-share funds for installing recommended practices.

### Compliance determinations will be completed based on the following priorities:

- For any landowner who voluntarily requests a determination.
- For any new farmland preservation program participants.
- For any farm that is requesting a permit under Rusk County's Animal Waste and Nutrient Management ordinance.
- For any farm that receives a validated complaint regarding a violation of the agricultural performance standards and prohibitions.

## **Enforcement**

Enforcement of actions associated with NR 151.09 and NR 151.095 will be coordinated with the WDNR. If a landowner continues to remain in noncompliance with the state performance standards and/or prohibitions, or should a landowner refuse technical and/or financial assistance from the Land & Water Conservation, the LWCD will forward all information corresponding to the infraction(s) to the WDNR and will notify the landowner(s) by registered mail that they are subject to an enforcement action pursuant to NR 151.09 and NR 151.095.

## **Appeals**

Any person aggrieved by a decision of the Rusk County Land Conservation Department may file a written appeal of the decision to the Rusk County Land Conservation Department, Courthouse, 311 E Miner Avenue, STE N121 Ladysmith, WI within 30 days of the department's decision. A hearing on the appeal shall be commenced within 60 days of the date of the appeal.

## **Cost-share Assistance**

Cost-share funds will be made available to landowners through the County's Soil and Water Resource Management Program. Cost-share funds will be available for installing best management practices by DATCP.

The LWCD will continue to provide cost-share assistance to landowners installing best management practices through its SWRM grant program.

To receive financial assistance, landowners must enter into a cost-share agreement with the LWCD. Cost-share agreements are binding documents that secure funds for installing BMPs. The administration of the cost-share programs is the responsibility of the Rusk County LWCD. The department maintains participating landowner files in accordance with approved methods and practices for accounting and recording keeping. The department is also responsible for the monitoring of BMPs installed with cost-share assistance to ensure proper operation and maintenance during the expected life of the practice.

## Best Management Practices

The following is a list of BMPs listed in ATCP50 that are eligible to receive cost-share assistance under the Rusk County SWRM grant program:

- manure storage systems
- manure storage system closure
- barnyard runoff control systems
- access roads and cattle crossings
- animal trails and walkways
- contour farming
- cover and green manure crop
- critical area stabilization
- diversions
- feed storage runoff control systems
- field windbreaks
- filter strips
- grade stabilization structures
- heavy use area protection
- livestock fencing
- livestock watering facilities
- milking center waste control systems
- nutrient management
- pesticide management
- prescribed grazing
- relocating or abandoning animal feeding operations
- residue management
- riparian buffers
- roofs
- roof runoff systems
- sediment basins
- sinkhole treatment
- streambank and shoreline protection
- stream crossing
- strip-cropping
- subsurface drains
- terrace systems
- underground outlets
- waste transfer systems
- wastewater treatment strips
- water and sediment control basins
- waterway systems
- well decommissioning
- wetland development or restoration

## ***Chapter 7: Coordination with other Resource Management Plans and Partners***

The Land Conservation Department will utilize plans and programs from county, state, and federal sources.

The Rusk County Land Conservation Department will make efforts to coordinate program implementation with other cooperating agencies. This will be especially important when assisting landowners who wish to be in compliance with NR 151 requirements.

## ***Chapter 8: Evaluation and Monitoring***

The Land Conservation Department has developed a strategy to evaluate and monitor the goals of the plan including sediment delivery, animal waste and nutrient delivery, crop damage, and protection of wetlands and uplands.

### **Sediment Delivery**

Like most counties in the state, Rusk County is in the process of land records modernization. The development of Geographic Information System (GIS) capabilities greatly enhances evaluation and monitoring capabilities. GIS will be used to locate farms that have been evaluated for compliance with NR151 Standards. The evaluation will be linked with parcel identification numbers for future compliance monitoring purposes.

### **Animal Waste and Nutrient Delivery**

The Rusk County Land Conservation Department will use the GIS to locate and detail the number of animal waste storage facilities that were installed during the year. The GIS will also be used to locate crop acres that have manure-spreading restrictions and nutrient management plans. Also, the GIS will locate properly abandoned manure storage facilities.

An annual accomplishment report submitted to the Wisconsin DATCP and DNR will show the number of manure storage facilities that were built, the number of cropland acres with a conservation plan and the number of acres that have a nutrient management plan. The report will also indicate the number and type of best management practices that were installed through the Soil and Water Resource Management Program.

### **Nonmetallic Mining Reclamation Database**

Rusk County LWCD will coordinate with Rusk County Zoning to use the GIS database as a current inventory of all active reclamation permits issued by the department. This database can be used to locate and detail each of the nonmetallic mines in the county, both active and reclaimed. Yearly photo documentation, active acres per year, approved reclamation plan and overall site maps will be in this database. Another database will track the type and amount of financial assurance for each of the permitted sites.

An annual report submitted to the Wisconsin DNR will summarize the number of currently active permits, newly issued permits, total affected acres, and total acres reclaimed for the year.

### **Water Resources Inventory**

It is the goal of the LWCD to increase what is known about Rusk County's surface and groundwater resources. Increasing the inventory database of these resources will help natural resource managers make better decisions to solve water quality problems. Annual accomplishment reports submitted to the Wisconsin DATCP and DNR will summarize the number and location of stream and groundwater samples. The Land Conservation Department has a detailed inventory database for applied conservation practices, streamflow, and storm drains in Rusk County.

## **Chapter 9: Information and Education Strategy**

The Land and Water Resource Management Plan will set goals, take actions, and evaluate an information and education strategy.

Successful implementation of the LWRM plan will depend heavily on the success of an information and education program. This program must be well coordinated and organized to effectively impact change in the way people use their land. To accomplish this task, it is important that the LWCD form strong alliances with agencies, departments and individuals who have the knowledge and ability to educate and teach landowners.

### **Goals**

The focus of the information and education program will be to:

- Create awareness among Rusk County farmers and landowners regarding the agricultural performance standards and prohibitions.
- Create awareness among farmers and landowners regarding the services provided by the LWCD and other cooperating agencies.
- Create awareness among landowners regarding the availability of cost-share assistance programs and who to contact regarding those programs.
- Inform citizens about rural and urban sources of runoff pollution.
- Inform municipalities and contractors regarding construction site erosion control and stormwater runoff management.
- Advise farmers and landowners regarding the role and purpose of BMPs.

### **Actions**

The following activities will be utilized as a means of creating public awareness and providing information to Rusk County citizens:

<u>Activity</u>	<u>Number</u>
Landowner Contacts	100 per year
Newsletters	1 per year
Workshops	2 per year
Social Media Posts	50 per year

### **Evaluation**

The information and education program will be evaluated annually to determine the level of effectiveness achieved. As part of the LWCD annual accomplishment report, all information and education activities will be summarized for each reporting year. The LWCD, NRCS and UWEX will evaluate levels of effectiveness for these activities. Effectiveness will be measured by:

- Number of cost-share agreements
- Assistance requested
- BMP adoption and maintenance

The evaluation of information and education activities will be reviewed annually. Adjustments in program delivery will be made accordingly based on the evaluation results.

The following pages outline the resource goals, objectives, and actions the Land & Water Conservation Committee plan to address within the next ten years. All high priority activities are highlighted in bold and shaded. **Goal #1**

Objectives	Actions	Who (Lead agency first)	When	Staff & other costs (LCD costs only)	Anticipated annual outcomes	I & E tools
<b>Reduce sediment delivery and phosphorus delivery.</b>	<b>Conduct county-wide transect survey</b>	LWCD	Annually	100 staff hours (\$4,000)	Transect survey completed [identifies erosion hot spots; can indicate year-to-year variations in erosion hot spot locations and amounts]	LWCD Website
	<b>Inventory FPP participant farms for conservation compliance</b>	LWCD	Annually	150 staff hours (\$6,000)	10 farms certified in compliance	LWCD Website, UWEX
	<b>Write conservation plans to “T”</b>	LWCD, NRCS	Annually	150 staff hours (\$6,000)	10 conservation plans written	LWCD Website, UWEX
	Install agricultural BMPs to reduce soil erosion as identified	LWCD, NRCS, DNR, DATCP	Annually	400 staff hours (\$16,000) \$60,000 cost-share	100% of cost-share funding available is spent in the county	LWCD Website, NRCS standards
	Conduct farmer training nutrient management workshops	LWCD, DATCP, UWEX	Annually	50 staff hours (\$2,000)	10 farmers trained to write their own NM plans	LWCD Website, UWEX
	<b>Write nutrient management plans</b>	LWCD, NRCS	Annually	100 staff hours (\$4,000) \$20,000 cost-share	NM plans written for 800 acres annually	LWCD, UWEX
	Encourage CRP/CREP enrollment of sensitive lands	LWCD, NRCS, FSA, UWEX	Annually	10 staff hours (\$400)	100 acres enrolled in CRP	LWCD Website
	Promote conservation practices that reduce sediment delivery to surface waters	LWCD, NRCS	Annually	40 staff hours (\$1,600)	5 farmers convert to no-till; 5,000 new acres of residue management, 1,000 new acres under cover crop	LWCD Website, NRCS, UWEX

<b>Goal #2</b>						
<b>Improve surface water quality by implementing erosion control and other stormwater management standards and practices</b>						
<b>Objectives</b>	<b>Actions</b>	<b>Who (Lead agency first)</b>	<b>When</b>	<b>Staff &amp; other costs (LCD costs only)</b>	<b>Anticipated annual outcomes</b>	<b>I &amp; E tools</b>
Ensure erosion control and stormwater management standards are met	Implement stormwater and erosion control management into Rusk County ordinances	LWCD, Zoning	Annually	500 staff hours (\$20,000)	Review plat plans, issue erosion control permits and conduct inspections	LWCD Website
	Conduct workshops on stormwater management	LWCD, County Highway Department	Annually	75 staff hours (\$3,000)	Hold a workshop for construction contractors and other interested parties	LWCD Website, DNR website, Transportation department website
	Coordinate activities with MS4s	LWCD, City and Village water utilities	Annually	75 staff hours (\$3,000)	Hold yearly MS4 meetings to improve county wide coordination	LWCD, Partner websites
	Integrate GIS tracking of permitted sites	LWCD, LIO	Annually	250 hours (\$10,000)	Erosion control permits are geolocated to facilitate inspection	LWCD Website
Encourage practices that treat stormwater as an asset	Encourage rain gardens, native plantings, and constructed wetlands into site landscaping plans.	LWCD, UWEX, DNR	Annually	100 hours (\$4,000)	Hold annual workshop with master gardeners, landscaping companies etc., on rain barrels, rain gardens, and constructed wetlands.	LWCD Website

<b>Goal #3</b>						
<b>Conserve and protect productive agricultural lands</b>						
<b>Objectives</b>	<b>Actions</b>	<b>Who (Lead agency first)</b>	<b>When</b>	<b>Staff &amp; other costs (LCD costs only)</b>	<b>Anticipated annual outcomes</b>	<b>I &amp; E tools</b>
<b>Preserve productive farmland</b>	<b>Update the Rusk County Farmland Preservation Program (FPP) plan</b>	<b>LWCD, Zoning, UWEX, DATCP</b>	<b>2016-2017</b>	<b>200 staff hours (\$8,000)</b>	<b>FPP plan updated</b>	LWCD Website, UWEX website, DATCP website
	Pursue Agricultural Enterprise Area (AEA) designation on prime farmlands in the county	LWCD, Zoning, UWEX, DATCP	2016-2017	40 staff hours (\$1,600)	One AEA designated	
	<b>Monitor compliance on 25% of FPP participants</b>	<b>LWCD, UWEX, NRCS</b>	<b>Annually</b>	<b>100 staff hours (\$4,00)</b>	<b>Compliance monitoring completed on 25% of FPP participants</b>	
Enroll highly erodible lands into CREP/CRP	Encourage CRP/CREP enrollment of sensitive lands	LWCD, NRCS, FSA, UWEX	Annually	10 staff hours (\$400)	Erodible lands enrolled in CRP	LWCD Website

<b>Goal #4: Protect groundwater quality and quantity</b>						
<b>Objectives</b>	<b>Actions</b>	<b>Who (Lead agency first)</b>	<b>When</b>	<b>Staff &amp; other costs (LCD costs only)</b>	<b>Anticipated annual outcomes</b>	<b>I &amp; E tools</b>
Seal/protect direct conduits to groundwater to prevent contamination	Conduct well decommissioning field day	UWEX, LWCD, NRCS	Annually	50 staff hours \$2,000	Field day attended by 10 landowners	LWCD Website Announcements in local papers
	Decommission wells as identified	LWCD, NRCS	Annually	50 staff hours \$2,000 \$5,000 cost-share	3 wells decommissioned	LWCD Website
Identify and protect springs in Rusk County	Identify & map springs in Rusk County	LWCD, WGNHS, USGS,	Annually	50 staff hours \$2,000	Springs are identified and voluntarily protected	LWCD Website, WGNHS, USGS
	Inform landowners about detrimental effects of grazing, tiling, cropping, spraying, drainage, and building ponds on springs and groundwater			50 staff hours \$2,000		
	Encourage preservation of spring recharge areas during the plan review process			Included in plan review process		
	Encourage use of buffers to protect springs			Included in plan review process		

Goal #5 Administer ordinances under LWCD jurisdiction and permits issued by LWCD						
Objectives	Actions	Who (Lead agency first)	When	Staff & other costs (LCD costs only)	Anticipated annual outcomes	I & E tools
Administer the county animal waste storage and nutrient management ordinance	Educate landowners about the Animal Waste Prohibitions	LWCD, UWEX, NRCS	Annually	100 staff hours \$4,000	Host 1 open meeting with interesting landowners on Animal Waste Prohibitions	LWCD Website, NRCS, DNR website, UWEX website
	Conduct spot checks of nutrient management plans	LWCD	Annually	100 staff hours \$4,000	5 nutrient management plans inspected	LWCD Website, NRCS, DNR website, UWEX website
	Issue manure storage permits	LWCD	Annually	50 staff hours \$2,000	1 new storage facilities permitted; 1 facility properly abandoned	LWCD Website
Assist in administering non-metallic mining ordinance	Assist in issue non-metallic mining permit as required	LWCD, Zoning	Annually	50 staff hours \$2,000	Permit application meets requirements of non-metallic mining ordinance	LWCD Website, Annual mailing to permit holders
	Verify mine reclamation plan is compliant				All existing non-metallic mines are visited	
Provide technical assistance to Zoning Administrator for potential livestock facility siting ordinance	Ensure permit application complies with technical requirements of local ordinance	Zoning, LWCD, DATCP	Annually	100 staff hours \$4,000	1 new facilities permitted	Zoning website, LWCD Website, DATCP

<b>Goal #6</b>						
<b>Maintain, protect and improve Rusk County surface water resources</b>						
<b>Objectives</b>	<b>Actions</b>	<b>Who (Lead agency first)</b>	<b>When</b>	<b>Staff &amp; other costs (LCD costs only)</b>	<b>Anticipated annual outcomes</b>	<b>I &amp; E tools</b>
Work with landowners and agencies to minimize soil erosion and protect water quality.	Maintain and evaluate shoreland buffers and shoreland restoration	LWCD, Lakes association, DNR	Annually	100 staff hours (\$4,000)	Monitor 2 restoration sites each year for compliance to county operation and maintenance contracts, effectiveness in erosion protection, and recovery of near shore wildlife habitat.	LWCD Website
	Provide technical assistance and cost-share funding for shoreland restoration, erosion control, and near shore habitat recovery	LWCD, Lakes association, DNR	Annually	150 staff hours (\$6,000)	Install 2 shoreline protection BMPs to reduce erosion and improve near-shore habitat recovery	LWCD Website
	Prioritize project sites with significant erosion impacts.	LWCD, Lakes association, DNR	Annually	100 staff hours (\$4,000)	Partner with individuals, municipalities, and lake organizations to investigate / identify 3 culverts or ditches annually that may allow sediment to travel to adjacent waterways.	LWCD Website
Protect aquatic ecosystems from non-native invasive species.	Disseminate information about terrestrial invasive species ID, prevention, management, and control	LWCD, UWEX, DNR	Annually	100 staff hours (\$4,000)	Host presentation/workshop about aquatic invasive species ID, prevention, management, and control.	LWCD Website, UWEX, DNR
	Train citizens and volunteer groups to identify aquatic and terrestrial invasive species.	LWCD, UWEX, DNR	Annually	50 staff hours (\$2,000)	Coordinate 1 annual program to train individuals.	LWCD Website, UWEX, DNR

<b>Goal #7 Establishment of point/nonpoint nutrient trading program</b>						
<b>Objectives</b>	<b>Actions</b>	<b>Who (Lead agency first)</b>	<b>When</b>	<b>Staff &amp; other costs (LCD costs only)</b>	<b>Anticipated annual outcomes</b>	<b>I &amp; E tools</b>
<b>Establish local trading workgroup and begin pilot nutrient trading program</b>	<b>Host meetings among prospective trading partners</b>	LWCD, DNR, Farm Bureau	Annually	100 staff hours (\$4,000)	2 meetings among potential trading partners. Potential win-win outcomes identified.	LWCD Website, DNR, Newspaper articles
	Coordinate between potential trading partners and DNR/EPA to establish parameters for verifiable reductions	LWCD, DNR, Farm Bureau	Annually	100 staff hours (\$4,000)	Partner agencies determine how to verify pollutant reductions.	LWCD Website, DNR, Newspaper articles
	Select pilot projects for nutrient trading	LWCD, DNR, Farm Bureau	Annually	50 staff hours (\$2,000)	Primary and backup sites selected for pilot project.	LWCD Website, DNR
	Install monitors and BMPs to verify pollutant reductions	LWCD, DNR, Farm Bureau	Annually	125 staff hours (\$5,000) \$5000 cost-share	Monitoring site installed and monitoring begun prior to BMP installation	LWCD Website, DNR, Newspaper articles
	Review trading pilot and assess program continuation	LWCD, DNR, Farm Bureau	Annually	75 staff hours (\$3,000)	Final report completed, with estimated pollutant reductions identified.	LWCD Website, DNR

<b>Goal #8</b>						
<b>Demonstrate program effectiveness</b>						
<b>Objectives</b>	<b>Actions</b>	<b>Who (Lead agency first)</b>	<b>When</b>	<b>Staff &amp; other costs (LCD costs only)</b>	<b>Anticipated annual outcomes</b>	<b>I &amp; E tools</b>
Monitor county-wide erosion potential	Conduct county-wide transect survey	LWCD	Annually	Included under Goal 1, Objective 1, Action 1	Transect survey completed [identifies erosion hot spots; can indicate year-to-year variations in erosion hot spot locations and amounts]	Publish results on LWCD Website
Assess water quality	Support citizen-based monitoring	LWCD, Citizen Monitors, Local TU chapter	Annually	125 staff hours (\$5,000)	Better informed citizens	LWCD Website, local TU chapter Newspaper article
	Install county monitoring equipment priority streams	LWCD, High School Biology class	Annually	225 staff hours (\$9,000) \$2000 (equipment)	Continuous water quality information on priority streams	LWCD Website, High school demonstrations
Inform County Board and citizens of LWCD progress	Report to County Board	LWCD	Annually	25 hours (\$1,000)	Support for department's programs	LWCD website, Newspaper article
Inform DATCP of progress	DATCP report	LWCD	Annually	25 hours (\$1,000)	Support for department's programs	LWCD website, Annual report

<b>Goal #9</b>						
<b>Spend local and state cost-share and staffing dollars effectively</b>						
<b>Objectives</b>	<b>Actions</b>	<b>Who (Lead agency in bold)</b>	<b>When</b>	<b>Staff &amp; other costs (LCD costs only)</b>	<b>Anticipated annual outcomes</b>	<b>I &amp; E tools</b>
Prioritize cost-share dollars for high-return practices	Calculate practice effectiveness prior to offering cost-share	LWCD	Annually	250 staff hours (\$10,000)	Cost-share is spent to maximize soil and water quality improvements	LWCD Website
<b>Use LWRM plan as tool to acquire additional cost-share and staffing dollars from other sources</b>	<b>Apply for additional grants based on LWRM plan priorities and proven accomplishments.</b>	<b>LWCD</b>	<b>Annually</b>	<b>1,000 staff hours (\$40,000)</b>	<b>Grants are to help further attain the LWCD's goals.</b>	<b>LWCD Website</b>
Maintain appropriate records	Monitor contracts to ensure practices are maintained appropriately for the life of the contract.	LWCD, NRCS	Annually	250 hours (\$10,000)	Contracts requiring a practice to be sustained for 10 years are still effectively sustained after 10 years.	LWCD Website, DATCP, NRCS

<b>Goal #10</b>						
<b>Improve forest management on private lands</b>						
<b>Objectives</b>	<b>Actions</b>	<b>Who (Lead agency in bold)</b>	<b>When</b>	<b>Staff &amp; other costs (LCD costs only)</b>	<b>Anticipated annual outcomes</b>	<b>I &amp; E tools</b>
Provide technical assistance for forestry BMPs	Evaluate & correct erosion, stability, and location problems on existing forest roads, recreational trails, landings, and crossings	Forestry, <b>LWCD</b> NRCS	Annually	25 staff hours (\$1,600)	1 forest roads located to reduce erosion; 1 landing re-sited to less environmentally-sensitive area	LWCD Website, Forestry Website
Inform public of resources available for forest management	Educate farmers about forest management during farm visits	Forestry, <b>LWCD</b> , NRCS	Annually	50 staff hours (\$1,6000)	MFL plans developed	LWCD website, Forestry website
<b>Provide tools for woodland management</b>	<b>Provide tree planter to landowners</b>	<b>LWCD, DNR, Forestry</b>	<b>Annually</b>	<b>Maintain planter (\$300)</b>	<b>Rent planter to 5 people</b>	<b>LWCD website, Ladysmith News</b>
	<b>Conduct tree &amp; shrub sale</b>	<b>LWCD, DNR, NRCS</b>	<b>Annually</b>	<b>100 staff hours (\$4,000)</b>	<b>Sell 5,000 trees</b>	<b>LWCD Website, Ladysmith News</b>
Provide support for wildlife- related programs	Administer Wildlife Damage Abatement Claims Program	<b>LWCD, DNR, WDATCP</b>	Annually	50 staff hours (\$1,6000)	25 program participants	LWCD Website, FSA newsletter, DNR bulletin
	Administer deer donation program	<b>Deer donors, LWCD, local meat processors</b>	Annually	25 staff hours (\$1,600)	5,000 pounds venison distributed	LWCD Website, Hunters for the Hungry

## ANNUAL RUSK COUNTY WORK PLAN

SUMMARY OF ESTIMATED ANNUAL COSTS TO ACCOMPLISH GOALS IN WORK PLAN			
GOAL	ESTIMATED STAFF HOURS	ESTIMATED SALARY & FRINGE	ESTIMATED COST-SHARE
1 – Protect and improve the quality of surface water resources	1,000	\$40,000	
2 – Improve surface water quality by implementing erosion control and other stormwater management standards and practices	1,000	\$40,000	
3 – Conserve and protect productive agricultural lands	350	\$14,000	
4 – Protect groundwater quality and quantity	200	\$8,000	
5 – Administer ordinances under LWCD jurisdiction and permits issued by LWCD	400	\$16,000	
6 – Maintain, protect and improve Rusk County surface water resources	500	\$20,000	
7 – Establishment of point/nonpoint nutrient trading program in Rusk County	450	\$18,000	
8 – Demonstrate program effectiveness	400	\$16,000	
9 – Spend local & state cost-share & staffing dollars effectively	1,500	\$60,000	
10 – Improve forest management on private lands	250	\$10,000	
• Soil and Water Resource Management Grant – Staff and Support			\$110,000
• Land and Water Resource Management Implementation Grant – (Bond Funding)			\$60,000
• Land and Water Resource Management Implementation Grant – (SEG Funding)			\$20,000
• WDNR Targeted Resource Management Grant – Small-scale projects			\$50,000
❖ Estimated total annual cost to accomplish goals in plan	<b>6,050 hours</b>	<b>\$242,000</b>	<b>\$240,000</b>

# Rusk County Agricultural Performance Standards and Prohibitions Verification Checklist

Property Description(s): \_\_\_\_\_

Attach an Air Photo, Plat map or other drawing to clearly delineate the area investigated with this checklist on this visit.

Landowner(s): \_\_\_\_\_

Date Evaluated: \_\_\_\_\_ Acreage (Nutrient Management): \_\_\_\_\_

LWCD Staff Member: \_\_\_\_\_

Use with the *Agricultural Performance Standards and Prohibitions Procedures* to complete information for all criteria inventoried. The Agricultural Performance Standards and Prohibitions are established in *NR 151 and ATCP 500, Wisconsin Administrative Code*.

Agricultural Performance Standard or Prohibitions	Complaint (Yes or No)		Note
	Y	N	
<b>Sheet, rill and wind erosion</b>	<b>Y</b>	<b>N</b>	
1. Cropland soil erosion must meet tolerable rate (T) calculated by RUSLE 2.			
<b>Manure Storage Facilities</b>	<b>Y</b>	<b>N</b>	
2. A new manure storage facility must be constructed according to NRCS Standards.			
3. An existing storage facility that has been substantially altered must be altered according to NRCS Standards.			
4. An operation has ceased where a manure storage facility is located. The manure storage facility must be abandoned according to NRCS Standards. <b>If not abandoned to NRCS Standards,</b> The facility must meet NRCS Standards. The facility must be designed to store manure for longer than 24 months. The retention of the facility must be warranted based on anticipated future use.			
5. Manure has not been added or removed from a facility for a period of 24 months. The manure storage facility must be abandoned according to NRCS Standards. <b>If not abandoned to NRCS Standards,</b> The facility must meet NRCS Standards. The facility must be designed to store manure for longer than 24 months. The retention of the facility must be warranted based on anticipated future use.			
6. A manure storage facility poses an imminent threat to public health or fish and aquatic life or is causing a violation of groundwater standards. The manure storage facility must be upgraded, replaced or closed according to NRCS Standards.			
<b>Clean Water Diversions</b>	<b>Y</b>	<b>N</b>	
7. Runoff shall be diverted away from contacting feedlot, manure storage areas and barnyard areas within a Water Quality Management Area (WQMA).			
<b>Nutrient Management</b>			
The application of manure, commercial fertilizer and other nutrients shall conform with a nutrient management plan according to the following phasing: a. All new cropland as of October 1, 2003 b. All existing cropland as of January 1, 2005 that is located within watersheds containing waters, exceptional waters, or source water protections areas. c. All other existing cropland as of January 1, 2008.			
<b>Manure Prohibitions</b>	<b>Y</b>	<b>N</b>	
9. No overflow of manure storage facilities.			
10. No unconfined manure pile in a Water Quality Management Area (WQMA).			
11. No direct runoff from a feedlot or stored manure into the waters of the state.			
12. No unlimited access by livestock to waters of the state in a location where high concentrations of animals prevent the maintenance of adequate sod or self-sustaining vegetative cover.			

<b>Tillage Setback</b>	<b>Y</b>	<b>N</b>	
13. Tillage operations are not conducted within 5 feet of the top of the channel of surface waters.			
14. Tillage operations do not negatively impact streambank integrity or deposit soil directly into surface waters.			
15. Tillage setback area maintained in adequate sod or self-sustaining vegetative cover that provides a minimum 70% coverage.			
<b>Phosphorus Index</b>			
16. Croplands, pastures, and winter grazing areas shall have a phosphorus index value of 6 or less over the 8 year accounting period.			
17. Cropland, pastures, and winter grazing areas shall not exceed a phosphorus index value of 12 in any individual year.			
18. Manure or other nutrients are not being mechanically applied to surface waters.			
<b>Process Wastewater Handling</b>			
19. Process wastewaters (i.e, milkhouse wastewater and/or feed leachate) are not significantly discharged to waters of the state.			

**Rusk County**  
**Land & Water Conservation Department**

**Bidding, Installation, and Payment Procedures for Land and Water Resource Management Program**

The following procedures have been developed by the Rusk County LWCD for project bidding, installation, and payment of practices installed under Rusk County's Land and Water Resource Management Program. These procedures will apply to all conservation practices approved by the LWCD that are estimated by Department staff to cost \$15,000.00 or more. These procedures are the policy of the LWCC and will be adhered to when conducting landowner reimbursement activities for the Land and Water Resource Management Program. However, if deemed appropriate the Department may require conservation practices that cost between \$5,000.00 and \$15,000.00 to follow these procedures.

**Bidding**

1. If deemed appropriate, the LWCD will conduct a site showing of the project(s) with prospective bidders. In cases where a site showing has not been scheduled by the LWCD, bidders are responsible for viewing the construction site on their own with permission from the landowner.
2. Design plans and bid schedules will be available at the LWCD and from the landowner of the proposed project(s).
3. Contractors must submit all bids on forms provided by the LWCD. The landowner and the contractors will be notified of the deadline date for accepting bids. All bids must be sealed and returned to the LWCD by the deadline date. After the deadline date, a letter listing the contractors and their bids will be sent to the landowner and to the contractors that bid.
4. The lowest bid price will be the official cost when the project is constructed according to plans. Authorized changes from the plan will result in the adjustment of the bid price. Revision of the plan will be cost shared on the basis of the additional cost as agreed upon by the landowner, contractor, and LWCD. This amount will be recorded on a Contract Change Order Form. Additional work will not be cost shared without a signed change order.
5. It is the right of the landowner to specify their involvement in the installation of any practice. The landowner may do any part of the practice but must specify this on the bid schedule form or submit their own complete bid as a prime contractor.
6. All bid invitations will include the following:
  - a. Completed set of plans and specifications for each job
  - b. Specified date for contractor site review
  - c. Specified date for return of all bids
  - d. Bid form, which will include a breakdown of items and quantities included within a practice, which will require a unit and total price bid.
7. The Prime Contractor will be responsible for bidding and completing all items noted on the bid form, and specified in this plan.
8. A bid form will be completed for each practice, sealed and mailed to the LWCD. The LWCC will review the bids. Upon acceptance of a bid, the landowner and contractor will agree upon a starting and completion date for the practice. A contract to complete construction will be signed by both parties. If construction is not completed according to the specified dates in the contract the landowner will have the option to have an alternate contractor complete the construction, unless uncontrollable circumstances are encountered.
9. It is the policy of the LWCC to cost-share on the basis of the lowest submitted bid or combination of bids. If the landowner selects a contractor(s) other than the low

bidder(s), it is the responsibility of the landowner to pay the difference of the bid(s) at their own expense. Only contractors who have submitted a bid are eligible for consideration.

10. All bids received from a contractor must be within 15% of the total estimated costs prepared by the Department for the bid to be eligible for consideration. The LWCC reserved the right to accept or reject any or all bids.
11. All contractors who submit bids must retain Liability and Worker's Compensation Insurance. A minimum of \$100,000.00 liability insurance coverage is required before any project will be awarded to a contractor. No construction will begin until certificates of insurance have been filed with the LWCD

### **Installation**

1. All cost shared practices will be surveyed, designed, constructed, and certified complete in accordance with the NRCS - FOTG Standards and Specifications.
2. The LWCD staff and NRCS staff will inspect construction of all cost shared practices. The job inspector will reject any materials and supplies that do not meet the standards or specifications as stated in the FOTG.
3. It is the responsibility of the contractor to verify that materials and supplies used for installation of a cost shared practice meets Technical Guide standards and specifications. The contractor must provide sales slips, batch slips, invoices, specification tags, etc., that clearly show that the materials and supplies meet the Field Office Technical Guide standards and specifications.
4. Initial practice layout and staking of elevations will be done by the LWCD prior to the start of construction. Any further checking of practice layout or elevations will be the responsibility of the contractor during construction. However, if the contractor is not capable of checking practice layout or elevations the Department will assist. The accuracy of final grades prior to pouring concrete, setting pipe, etc., is the responsibility of the contractor.
5. Notification, location, and protection of public utilities such as buried phone lines and gas lines are the responsibility of the landowner. The landowner shall clearly mark the location of such utilities prior to the start of construction. The landowner shall contact Diggers Hotline or affected utilities prior to the start of construction. The contractor is responsible for knowing the location of any utilities marked by the landowner and should take precautions when working near them.
6. All required permits must be received by the landowner before any construction begins.
7. Project will not be considered complete until all seeding, fertilizing, and mulching is done.

### **PAYMENT**

1. Payments cannot be processed on the project until itemized receipts for all expenditures are turned into the Land Conservation Department Office. The Department will verify that the landowner has paid their portion of project expenses prior to county disbursement of funds. Cost sharing checks will be issued to the landowner and/or contractor depending upon project payment by the landowner. Names of the landowner and contractor will be jointly registered on the payment check unless the landowner has properly documented that they have paid 100% of project costs, in which only the landowners name will be registered on the payment check. A cancelled check, or bills marked "paid" and signed and dated by the contractor shall serve as verification of payment.
2. The Department will review landowner payments, approves cost based on the approved low bid and any subsequent change orders, Final costs will be determined by multiplying the bid unit price of the approved low bid by the actual number of units installed.

3. All required seeding, fertilizing, and mulching must be completed before the project can be certified for payment. Payments will not be made to the landowner until the protective fences are installed according to current NRCS Standards and Specifications around the barnyard, filter strip, diversion, dam, and other practices if the project design and/or contract require protective fencing.
4. All bills for cost-shared practices must be delivered to the Land Conservation Department Office by the last workday of each month in order to receive payment within 30 days.

**SPECIAL CONSIDERATIONS OF NOTE**

- Cattle must be removed from the construction site during stake out and construction.
- The landowner shall remove all fences before construction begins.
- The landowner shall remove manure piles from the work area before construction begins.
- The landowner shall provide areas to obtain material for fill and top-dressing.

# Implementation Strategy for NR 151 - Agricultural Nonpoint Performance Standards

## **Component 1: Plan the Implementation Approach**

A. Develop and adopt a systematic and comprehensive strategy to implement agricultural nonpoint source pollution control standards and prohibitions under NR 151. To be consistent with this statewide program, the local strategy should describe the methodology to be used for carrying out activities under components three through ten (below) including:

- Conducting information and education activities;
- Systematically selecting and evaluating parcels for compliance with standards and prohibitions;
- Documenting and reporting compliance status;
- Providing or arranging for the provision of technical assistance;
- Making cost sharing available as needed to install or implement BMP's;
- Issuing required notices and conducting enforcement activities;
- Tracking and reporting program activities and progress;
- Monitoring compliance

### *Notes:*

- 1 *For counties choosing to implement this component, the strategy must a) be defined in the county Land and Water Plan per ATCP 50.12(2)(1), Wis. Administrative Code, and b) ensure that compliance with the standards and prohibitions is achieved, per § 92.10(6)(a)5 Wis. Stats. and ATCP 50.12(2)(i) Wis. Admin. Code.*
- 2 *The systematic selection of parcels will ensure that a prescribed amount of evaluations will regularly occur (e.g. annually). This will, in turn, ensure that realistic projections concerning timeframes and needed financial resources can be made and routinely updated on a statewide basis. In order to be systematic, a strategy for selecting and evaluating parcels and subsequently implementing standards does not rely only on voluntary participation.*

## **Component 2: Define Level of Agencies' Commitment to NR151 Workload**

Consider communicate and document the level of agency (county, state and federal) commitment (staff participation, financial resources, etc.) towards NR 151 workload, including but not limited to carrying out the activities under components 3 through 10.

## **Component 3: Conduct Information and Education Activities**

A. Develop information and education materials designed to achieve the following objectives:

- Educate landowners about Wisconsin's agricultural performance standards and prohibitions, applicable conservation practices, and cost share grant opportunities;
- Promote implementation of conservation practices necessary to meet performance standards and prohibitions;
- Inform landowners about procedures and agency roles to be used statewide and locally for ensuring compliance with the performance standards and prohibitions; and
- Establish expectations for compliance and consequences for non-compliance.

*Note: The DNR and DATCP have agreed that they will take the "lead" role in developing I&E materials for statewide use, and will look to the counties to take the lead role in providing that information to landowners.*

B. Deliver information and education materials (via news media, newsletters, public information meetings and one-on-one contacts) as outlined in the County LWRM Plan

## **Component 4: Determine Current Compliance**

### **A. Records Inventory**

*(Note: The records inventory is a review of existing records of landowners throughout the county who may already be in compliance based upon past and/or present program participation. This step is intended to take less than 90 days and would be conducted before the onset of systematic onsite evaluations. Onsite evaluations for these operations are optional, except for those where O & M periods may have expired.)*

1. Compile records of existing State and/or Federal program participants who have previously signed contracts to install conservation practices to control soil erosion and nonpoint sources of pollution.
2. From records, evaluate which parcels are subject to which standards and prohibitions.  
*(Note: For the purposes of this document, the term "parcel" may be defined as a cropped field, an agricultural or livestock facility or a group of fields (e.g. tax parcel or FSA tract) and is defined by the county based on how they organize and manage geographic data.)*
3. Based on above evaluations, determine which landowners are currently already meeting standards and prohibitions as a result of:
  - a) Having installed or implemented BMP's under an existing state or federal cost share agreement;
  - b) Maintaining compliance with Wisconsin Farmland Preservation Program and federal farm program conservation provisions; and/or
  - c) Maintaining compliance with state animal waste regulations (e.g. NR 243, WPDES, etc.)

### **B. Onsite Evaluations**

*(Note: Onsite evaluations would occur after the countywide records inventory has been completed, beginning with targeted sites and/or in high-priority areas, as defined in the county's LWRM Plan.*

*Also, it is not necessary to complete on-site evaluations of the entire before proceeding with the components that follow.)*

1. Compile list of parcels for which on-site evaluations will be conducted, according to systematic methodology outlined in the county Land & Water Plan.
2. Contact owners of selected parcels and schedule site evaluations.
3. Conduct onsite evaluations:
  - a) Determine and document the extent of current compliance with each of the performance standards and prohibitions.
  - b) Where non-compliant, determine costs and eligibility for cost sharing.

*Note: Cost share requirements are based upon whether or not the evaluated cropland or livestock facility is new or existing and whether or not corrective measures entail eligible costs. See NR 151.09(4)(b-c) and 151.095(5)(b-c).*

## **Component 5: Prepare Report and Notify Landowners of Compliance Status**

- A) Following completion of records review and or on-site evaluation, prepare and Issue NR 151 Status Report to owners of the evaluated parcels. This Report will convey, at a minimum, the following information:

- Current status of compliance of individual parcels with each of the performance standards and prohibitions.
- Identify corrective measure options and rough cost estimates to comply with each of the performance standards and prohibitions for which a parcel is not in compliance.
- 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. *(If public funds are used, applicable technical standards must be met.)*
- Signature lines indicating landowner agreement or disagreement with report findings.
- Process and procedures to contest evaluation results to county and or state.  
(Optional) A copy of performance standards and prohibitions and technical design standards

*Note: A cover letter (signed jointly by the DNR and LWCD) which describes the ramifications and assumptions related to the Status Report would be attached.*

B) Keep and maintain evaluation and compliance information as public record.

*Note: The primary objective of this step is to ensure subsequent owners are made aware of (and have access to) NR 151 information pertinent to their property. Local authority may determine the method that will work best for maintaining these records and for ensuring relevant information is conveyed to subsequent owners*

### **Component 6 Secure Funding and Technical Assistance /Issue NR 151 Notice**

A) Voluntary Component

1. Receive request for cost-share and/or technical assistance from landowner.

*(Note: Landowners will be prompted to voluntarily apply for cost sharing based on information provided in a NR 151 Compliance Status Report.)*

2. Confirm cost-share grant eligibility and determine availability of cost share & technical assistance.
3. Develop and issue cost-share contract (including BMP's to be installed or implemented, estimated costs and project schedule and notification requirements under NR 151.09(5-6) and/or 151.095(6-7).
4. The DNR will assist in developing proper notification language ...

B) Non-voluntary Component

In the event that a landowner chooses not to voluntarily apply for public funding to install or implement corrective measures that entail eligible costs, or to voluntarily install or implement corrective measures that do not entail eligible cost, issue Landowner Notification per NR 151.09(5-6) and/or 151.095(6-7).

If eligible costs are involved, this notification shall include an offer of cost sharing.

If no eligible costs are involved, or if cost sharing is or was already made available, the notification will not include an offer of cost sharing.

*Note: The Notification referenced above will be designed by the DNR and contain:*

- a) A description of the performance standard or prohibition being addressed;*
- b) The compliance status determination made in accordance with NR 151;*
- c) The determination as to which best management practices or other corrective measures are needed and which, if any, are eligible for cost sharing;*
- d) The determination that cost sharing is or has been made available, including a written offer of cost sharing when appropriate;*
- e) An offer to provide or coordinate the provision of technical assistance;*
- f) A compliance period for meeting the performance standard or prohibition;*
- g) An explanation of the possible consequences if the owner or operator fails to comply with provisions of the notice; and*
- h) An explanation of state or local appeals procedures.*

## **Component 7: Administer Funding and Technical Assistance / Re-evaluate Parcel**

- A) If cost sharing is involved, finalize and execute cost-share agreement including schedule for installing or implementing BMP(s).
- B) Provide technical services and oversight: Provide conservation plan assistance.
- Review conservation plans prepared by other parties.  
Provide engineering design assistance.  
Review engineering designs provided by other parties.  
Provide construction oversight.  
Evaluate and certify installation of conservation practices.
- C) After corrective measures are applied, conduct evaluation to determine if parcel is now in compliance with relevant performance(s) standard or prohibition(s).
- If site is compliant, update "NR 151 Status Report" (see per component 5.A.) and issue "Letter of NR151 Compliance".

*Note: A Letter of NR 151 Compliance serves as official notification that the site has been determined to now be in compliance with applicable performance standards and prohibitions. This letter would also include an appeals process if a landowner wishes to contest the findings. When and where counties are not operating under a local ordinance, the issuance of a Letter of NR 151 Compliance would likely be a joint effort with the DNR in order to give it the significance and standing that it merits.*

If not compliant, seek non-regulatory remedies or initiate enforcement action.

*Note: Follow-up measures at this stage will differ depending on the circumstances, including whether or not failure to comply is the fault of the landowner. If this is the case, then non-regulatory remedies will likely be sufficient. If not (e.g. there is an intentional breach of contract) then enforcement action may be necessary.*

## **Component 8: Enforcement**

- A. If a landowner refuses to respond appropriately to a Notice under 6.8., or is in breach of a cost share contract under component 7.A., then prepare and issue "Notice of NR 151 Violation" letter, or other appropriate notice per local ordinance, pursuant to NR 151.09(5) or (6), or 151.095(6) or (7).

*Note: Enforcement, which really first begins with this letter, will be pursued in circumstances where: (a) there is a breach of contractual agreement including failing to install, implement or maintain BMP's according to the provisions of the agreement OR the landowner has failed to comply with a notice issued under component 6.8.; AND (b) non-regulatory attempts to resolve the situation have failed.*

- B. Schedule enforcement conference.
- C. Participate in enforcement conference.
- D. Initiate enforcement action:
- Refer cases to DNR for enforcement
  - Enforce through separate county ordinance, which incorporates standards.
  - Enforce through financial sanctions "available through State program (e.g. FPP).  
Enforcement through the local District Attorney

### **Component 9: Ongoing Compliance Monitoring**

- Conduct periodic evaluations to verify ongoing compliance (similar to FPP monitoring).
- Respond to public complaints alleging noncompliance.
- Ensure new owners are made aware of (and have access to) NR 151 compliance information that may pertain to the property they have just acquired.

### **Component 10: Annual Reporting**

- A) Maintain and convey a record of annual site evaluations which shows their location and compliance status.
- B) Report estimated timeframe and staff resources needed to complete remaining site evaluations in the County
- C) Maintain a record of estimated costs of corrective measures for each parcel that has been evaluated and for which corrective measures have been estimated.
- D) Maintain and convey a record showing parcels where public cost sharing has been applied to implement standards and prohibitions, the amount and source of those funds, and the landowner share.
- E) Maintain and convey a record and location of parcels receiving notifications under component 5.B. and violation letters under Component B.A.
- F) Maintain and convey a record of the annual cost of technical and administrative assistance needed to administer agricultural performance standards and prohibitions, as established in NR151.
- G) Other reports as may be required in ATCP50.
- H) Compile locally-developed reports into regional and statewide NR 151 Progress Reports.

*Note: Program partners will jointly develop reporting forms. State agencies will provide reporting forms and guidance to counties on how these forms should be filled out. State agencies will assume responsibility for compiling county reports into statewide reports.*

# Wisconsin's Runoff Rules

## what farmers need to know

January 2013 DNR Pub. No. WT 756 REV 1/13



**F**arms, like all major industries, must follow environmental requirements to control runoff from fields, pastures and livestock facilities. Otherwise this pollution can harm our lakes, streams, wetlands and groundwater.

Wisconsin adopted administrative rules in 2002 (NR 151), with revisions effective in 2011 that set statewide performance standards and prohibitions for all Wisconsin farms. All farmers must comply with these standards and prohibitions. Cost-share funding may be available to assist with compliance. Some state and local programs may require compliance whether or not cost-share funds are available.

This fact sheet explains the basic information that farmers need to know about these rules and how to comply with them. It is recommended that farmers contact their county land conservation staff for further details on these rules and their impact on farm operations.

### Agricultural Standards and Prohibitions:

#### ALL FARMERS MUST:

- Ⓜ *Meet tolerable soil loss (“T”) on cropped fields and pastures.*
- Ⓜ *Annually develop and follow a Nutrient Management Plan (NMP) designed to keep nutrients and sediment from entering lakes, streams, wetlands and groundwater. Farmers may hire a certified crop advisor or prepare their own NMP if they have received proper training.*
- Ⓜ *Use the phosphorous index (PI) standard to ensure that their NMP adequately controls phosphorous runoff over the accounting period.*
- Ⓜ *Avoid tilling within 5 feet of the edge of the bank of surface waters. This setback may be extended up to 20 feet to ensure bank integrity and prevent soil deposition.*

#### Additional Standards:

#### FARMERS WITH LIVESTOCK MUST:

- Ⓜ *Prevent direct runoff from feedlots or stored manure from entering lakes, streams, wetlands and groundwater.*
- Ⓜ *Limit access or otherwise manage livestock along lakes, streams and wetlands to maintain vegetative cover and prevent erosion.*
- Ⓜ *Prevent significant discharges of process wastewater (milkhouse waste, feed leachate, etc.) into lakes, streams, wetlands, or groundwater.*

#### FARMERS WHO HAVE, OR PLAN TO BUILD, MANURE STORAGE STRUCTURES MUST:

- Ⓜ *Maintain structures to prevent overflow and maintain contents at or below the specified margin of safety.*
- Ⓜ *Repair or upgrade any failing or leaking structures to prevent negative impacts to public health, aquatic life and groundwater.*
- Ⓜ *Close idle structures according to accepted standards.*
- Ⓜ *Meet technical standards for newly constructed or significantly altered structures.*

#### FARMERS WITH LAND IN A WATER QUALITY MANAGEMENT AREA (300 feet from streams, 1,000 feet from a lake, or in areas susceptible to groundwater contamination) MUST:

- Ⓜ *Avoid stacking manure in unconfined piles.*
- Ⓜ *Divert clean water away from feedlots, manure storage areas, and barnyards located within this area.*

Photos: Jeffrey J. Strobel, Duane Popple and Lynda Schweikert

### Farmland Preservation Tax Credit:

A farmer must comply with applicable state standards to receive the Farmland Preservation Tax Credit, even if cost sharing is not available. Farmers may be considered in compliance by entering into a schedule of compliance.

This requirement applies to farmers whose land is located in a certified farmland preservation zoning district (i.e. exclusive agriculture), or for farmers who signed a farmland preservation agreement after standards were in effect for that county. Farmers should contact their county land conservation staff for more information regarding applicable standards and compliance documentation.

### Implementation and Financial Assistance:

Under DNR rules, a landowner is normally entitled to cost sharing if the landowner is required to implement best management practices on “existing cropland” or an “existing” livestock facility or operation in order to comply with a DNR performance standard. Cropland or livestock facilities brought into service after the effective date of the standard are considered “new” and must meet standards and prohibitions without cost-share funding. Farmers with existing cropland or livestock facilities may be eligible for state or federal cost sharing and are encouraged to contact their county land conservation staff or USDA Natural Resources Conservation Service (NRCS) office for information about current funding sources, rates and practices eligible for cost sharing.

Farmers also should work with their land conservation staff to determine how these performance standards and prohibitions may affect their participation in various federal, state and local programs, such as Farmland Preservation. You can find a directory of land conservation offices and related agencies at <http://datcp.wi.gov/Environment> under “Land and Water Conservation.”

### Permits and Licensing:

Farmers may be required to meet NR 151 Standards in order to obtain local and state permits. For livestock siting and manure storage ordinance permits, for example, nutrient management plans and other requirements may be imposed on livestock operations without providing cost sharing. Contact your local officials for additional information.

Farmers with 1,000 or more animal units must operate under a Wisconsin Pollutant Discharge Elimination System (WPDES) permit and do not qualify for state cost sharing to meet permit requirements. Contact your DNR Service Center for more information about WPDES permits.

For more information about runoff management in Wisconsin and topics found in this brochure please visit:

[runoffinfo.uwex.edu](http://runoffinfo.uwex.edu)

Wisconsin Department of Natural Resources (WDNR), Wisconsin Department of Agriculture, Trade, and Consumer Protection (DATCP), in cooperation with: USDA Natural Resources Conservation Service (NRCS), University of Wisconsin-Extension (UWEX), County Land Conservation Departments (LCD).

The cooperating agencies are EEO/Affirmative Action employers and provide equal opportunities in employment and programs including Title IX and ADA requirements. The Wisconsin Department of Natural Resources provides equal opportunity in its employment programs, services and functions, under an Affirmative Action Plan. If you have any questions, please write to Equal Opportunity Office, Department of Interior, Washington, D.C. 20240. This publication is available in alternative format (large print, Braille, audiotape etc.) upon request. Please call 608/267-7494 for more information.



Wisconsin Land and Water Conservation Association, Inc.  
wlwca.org

## Appendix:

Please rank the issues as very unimportant to very important.

	Very unimportant	Unimportant	Neither unimportant nor important	Important	Very Important	Total	Weighted Average
1	0.00%	0.00%	7.84%	35.29%	56.86%	51	4.49
	0	0	4	18	29		
2	0.00%	0.00%	5.88%	52.94%	41.18%	51	4.35
	0	0	3	27	21		
3	0.00%	3.92%	7.84%	49.02%	39.22%	51	4.24
	0	2	4	25	20		
4	0.00%	1.96%	11.76%	52.94%	33.33%	51	4.18
	0	1	6	27	17		
5	0.00%	1.96%	15.69%	54.90%	27.45%	51	4.08
	0	1	8	28	14		
6	0.00%	1.96%	15.69%	54.90%	27.45%	51	4.08
	0	1	8	28	14		
7	0.00%	1.96%	17.65%	50.98%	29.41%	51	4.08
	0	1	9	26	15		
8	0.00%	7.84%	9.80%	54.90%	27.45%	51	4.02
	0	4	5	28	14		
9	0.00%	7.84%	13.73%	49.02%	29.41%	51	4
	0	4	7	25	15		
10	1.96%	1.96%	17.65%	50.98%	27.45%	51	4
	1	1	9	26	14		
	2.08%	2.08%	22.92%	39.58%	33.33%	48	4
	1	1	11	19	16		
	1.96%	0.00%	29.41%	35.29%	33.33%	51	3.98
	1	0	15	18	17		
	1.96%	5.88%	17.65%	41.18%	33.33%		

Mismanagement of livestock manure	1	3	9	21	17	51	3.98
	0.00%	4.00%	18.00%	56.00%	22.00%		
How to balance development and conservation	0	2	9	28	11	50	3.96
	0.00%	5.88%	15.69%	56.86%	21.57%		
Destruction of wetlands	0	3	8	29	11	51	3.94
	2.00%	2.00%	26.00%	42.00%	28.00%		
Forest fragmentation of the Blue Hills	1	1	13	21	14	50	3.92
	0.00%	4.08%	22.45%	51.02%	22.45%		
Management of forests and woodlots	0	2	11	25	11	49	3.92
	5.88%	3.92%	17.65%	50.98%	21.57%		
Lack of recycling programs	3	2	9	26	11	51	3.78
	0.00%	8.00%	30.00%	46.00%	16.00%		
Excessive erosion from cropland	0	4	15	23	8	50	3.7
	0.00%	3.92%	31.37%	56.86%	7.84%		
Soil erosion from construction sites	0	2	16	29	4	51	3.69
	0.00%	12.00%	38.00%	26.00%	24.00%		
Siting of large-scale livestock facilities	0	6	19	13	12	50	3.62
	1.96%	9.80%	31.37%	39.22%	17.65%		
Overuse/shortage of parks and natural areas	1	5	16	20	9	51	3.61
	1.96%	3.92%	41.18%	39.22%	13.73%		
Urban storm water management	1	2	21	20	7	51	3.59
	2.00%	8.00%	32.00%	46.00%	12.00%		
Lack of natural resource education programs	1	4	16	23	6	50	3.58
	7.84%	11.76%	31.37%	21.57%	27.45%		
Access to hunting lands	4	6	16	11	14	51	3.49
	3.92%	5.88%	43.14%	33.33%	13.73%		
Housing development in rural areas	2	3	22	17	7	51	3.47
	2.04%	8.16%	38.78%	42.86%	8.16%		
Loss of prime agricultural lands of development	1	4	19	21	4	49	3.47
	1.96%	13.73%	43.14%	29.41%	11.76%		
Abandoned/unused wells	1	7	22	15	6	51	3.35
	2.04%	10.20%	51.02%	24.49%	12.24%		
Overgrazing of pastures	1	5	25	12	6	49	3.35
	9.80%	9.80%	37.25%	35.29%	7.84%		
Growth of urban areas	5	5	19	18	4	51	3.22

**Please rank the following groups to spend the least time to the Most time.**

	Least time	Less time	Average time	More time	Most time	Total	Weighted Average
	0.00%	4.00%	40.00%	38.00%	18.00%		
1 Farmers/farmland owners	0	2	20	19	9	50	3.7
	1.96%	3.92%	37.25%	41.18%	15.69%		
2 Student outreach (schools, FFA, 4-H, etc.)	1	2	19	21	8	51	3.65
	0.00%	9.80%	41.18%	29.41%	19.61%		
3 Aquatic invasive species	0	5	21	15	10	51	3.59
	0.00%	5.88%	45.10%	37.25%	11.76%		
4 Public outreach	0	3	23	19	6	51	3.55
	3.92%	7.84%	58.82%	19.61%	9.80%		
5 Waterfront property owners	2	4	30	10	5	51	3.24
	11.76%	21.57%	35.29%	27.45%	3.92%		
6 State and local politicians	6	11	18	14	2	51	2.9
	7.84%	21.57%	50.98%	13.73%	5.88%		
7 Lake associations	4	11	26	7	3	51	2.88
	5.88%	19.61%	60.78%	9.80%	3.92%		
8 Small community urban	3	10	31	5	2	51	2.86

**Please rank the following areas very unimportant to very important.**

	Very unimportant	Unimportant	Neither unimportant nor important	Important	Very important	Total	Weighted Average
	0.00%	0.00%	4.00%	36.00%	60.00%		
1 Rivers	0	0	2	18	30	50	4.56
	0.00%	0.00%	6.00%	34.00%	60.00%		
2 Lakes	0	0	3	17	30	50	4.54
	0.00%	0.00%	4.00%	46.00%	50.00%		
3 Streams	0	0	2	23	25	50	4.46
	0.00%	0.00%	12.00%	52.00%	36.00%		
4 Farms	0	0	6	26	18	50	4.24
	0.00%	2.04%	22.45%	42.86%	32.65%		
5 Natural areas	0	1	11	21	16	49	4.06
	0.00%	4.08%	24.49%	38.78%	32.65%		
6 Wetlands	0	2	12	19	16	49	4
	4.08%	10.20%	28.57%	48.98%	8.16%		
7 Urban communities	2	5	14	24	4	49	3.47

**Please rank the following programs and/or services very unimportant to very important.**

	Very unimportant	Unimportant	Neither unimportant nor important	Important	Very important	Total	Weighted Average
	0.00%	2.00%	20.00%	46.00%	32.00%		
1 Agricultural waste management	0	1	10	23	16	50	4.08
	0.00%	2.00%	22.00%	48.00%	28.00%		
2 Educational programs	0	1	11	24	14	50	4.02
	0.00%	2.00%	30.00%	46.00%	22.00%		
3 Nutrient management planning	0	1	15	23	11	50	3.88
	0.00%	2.00%	28.00%	56.00%	14.00%		
4 Cost/share grant programs	0	1	14	28	7	50	3.82
	0.00%	4.00%	30.00%	46.00%	20.00%		
5 Erosion control	0	2	15	23	10	50	3.82
	0.00%	2.04%	34.69%	53.06%	10.20%		
6 Resource inventories	0	1	17	26	5	49	3.71
	2.00%	6.00%	32.00%	40.00%	20.00%		
7 Maps for property owners (soils, surface water, etc.)	1	3	16	20	10	50	3.7
	2.00%	6.00%	30.00%	50.00%	12.00%		
8 Wildlife damage program	1	3	15	25	6	50	3.64
	0.00%	12.00%	26.00%	50.00%	12.00%		
9 Storm water management	0	6	13	25	6	50	3.62
	0.00%	4.00%	50.00%	36.00%	10.00%		
10 Nonmetallic mining	0	2	25	18	5	50	3.52

Please rank the areas of concern as very unimportant to very important.

	Very unimportant	Unimportant	Neither unimportant nor important	Important	Very important	Total	Weighted Average
	0.00%	0.00%	7.84%	39.22%	52.94%		
1 Water quality (ground and/or surface)	0	0	4	20	27	51	4.45
	0.00%	1.96%	15.69%	33.33%	49.02%		
2 Water availability	0	1	8	17	26	51	4.29
	0.00%	0.00%	15.69%	43.14%	41.18%		
3 Invasive species	0	0	8	22	21	51	4.25
	0.00%	2.00%	12.00%	54.00%	32.00%		
4 Pesticide management	0	1	6	27	16	50	4.16
	0.00%	2.00%	12.00%	56.00%	30.00%		
5 Industrial pollution	0	1	6	28	15	50	4.14
	1.96%	3.92%	13.73%	43.14%	37.25%		
6 Recreation	1	2	7	22	19	51	4.1
	2.04%	0.00%	10.20%	63.27%	24.49%		
7 Wildlife	1	0	5	31	12	49	4.08
	0.00%	0.00%	13.73%	66.67%	19.61%		
8 Forestry	0	0	7	34	10	51	4.06
	0.00%	1.96%	19.61%	49.02%	29.41%		
9 Air quality	0	1	10	25	15	51	4.06
	0.00%	1.96%	19.61%	54.90%	23.53%		
10 Runoff pollution	0	1	10	28	12	51	4
	0.00%	4.00%	20.00%	48.00%	28.00%		
Urban water pollution	0	2	10	24	14	50	4
	0.00%	0.00%	27.45%	47.06%	25.49%		
Animal waste management	0	0	14	24	13	51	3.98
	0.00%	1.96%	27.45%	49.02%	21.57%		
Irrigation/water management	0	1	14	25	11	51	3.9
	0.00%	0.00%	28.57%	53.06%	18.37%		

<b>Soil quality/soil health</b>	0	0	14	26	9	49	3.9
	0.00%	0.00%	25.49%	60.78%	13.73%		
<b>Soil erosion</b>	0	0	13	31	7	51	3.88
	1.96%	5.88%	23.53%	41.18%	27.45%		
<b>Wetlands</b>	1	3	12	21	14	51	3.86
	0.00%	2.00%	30.00%	50.00%	18.00%		
<b>Nutrient management</b>	0	1	15	25	9	50	3.84
	0.00%	6.00%	20.00%	64.00%	10.00%		
<b>Agricultural land conservation</b>	0	3	10	32	5	50	3.78
	2.00%	6.00%	26.00%	46.00%	20.00%		
<b>Threatened/endangered species</b>	1	3	13	23	10	50	3.76
	1.96%	3.92%	31.37%	43.14%	19.61%		
<b>Lakeshore corridors</b>	1	2	16	22	10	51	3.75
	0.00%	7.84%	29.41%	45.10%	17.65%		
<b>Land disposal of organic waste</b>	0	4	15	23	9	51	3.73
	0.00%	7.84%	25.49%	54.90%	11.76%		
<b>Mined land reclamation</b>	0	4	13	28	6	51	3.71
	0.00%	7.84%	29.41%	47.06%	15.69%		
<b>Rural land use</b>	0	4	15	24	8	51	3.71
	0.00%	5.88%	29.41%	54.90%	9.80%		
<b>Storm water management</b>	0	3	15	28	5	51	3.69
	0.00%	5.88%	33.33%	52.94%	7.84%		
<b>Flooding</b>	0	3	17	27	4	51	3.63
	0.00%	3.92%	43.14%	41.18%	11.76%		
<b>Grazing lands</b>	0	2	22	21	6	51	3.61
	0.00%	6.12%	40.82%	40.82%	12.24%		
<b>Biological diversity</b>	0	3	20	20	6	49	3.59
	1.96%	7.84%	39.22%	45.10%	5.88%		
<b>Urban land use</b>	1	4	20	23	3	51	3.45

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Rusk County  
WISCONSIN

LAND CONSERVATION  
DEPARTMENT

October 2, 2015

Dear Community Leader:

Local leadership in natural resources management is a vital component to successfully managing and protecting our natural resources. Wisconsin's Land Conservation Departments provide the vital link between balancing local needs and priorities with state funding programs and funding opportunities, and also challenges local stakeholders to work together to take responsibility for addressing resource needs.

In 1997, Wisconsin Act 27 and in 1999, Wisconsin Act 9 amended Chapter 92 of the Wisconsin Statutes, requiring counties to develop Land and Water Resource Management Plans. The land and water resource management plans are intended to be action oriented, flexible and reflect the resource management needs identified through public input and focuses on coordinated implementation. The Rusk County LWCD is in the process of revising this plan.

You are invited to attend and participate in a local workgroup meeting. The purpose of the meeting is to review the proposed draft Work Plan and to seek input from the group on any additional resource concerns.

Please review the attached draft Work Plan and be prepared to make any comments, deletions, or additions. Also, be prepared to share with the group any additional resource concerns that you might have. Please bring the Work Plan with you for the meeting.

The meeting will take place Monday, October 12, from 6 - 8 pm in the LEC room of the Rusk County Courthouse.

I am looking forward to seeing you at the meeting. If you have any questions, feel free to call me at 715-532-2162

Sincerely,

*John J. Krell*

John J. Krell  
Rusk County Conservationist

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311 E Miner Ave • Ladysmith, Wisconsin 54848 • (715) 532-2162

NOTICE OF PUBLIC HEARING  
RUSK COUNTY LAND & WATER RESOURCE MANAGEMENT PLAN

Notice is hereby given that on October, 12 at 6:00pm, in LEC room of the Rusk County Courthouse, 311 E Miner Ave, Ladysmith, WI, the Land & Water Conservation Committee will hold a public hearing at which time and place all interested persons may appear and will be given an opportunity to be heard in support of or in opposition to the proposed revision to the Rusk County Land and Water Resource Management Plan, which outlines the goals and implementation strategies of the Land & Water Conservation Committee for the next five years.

Request may be examined by any interested person during regular business hours at the Rusk County Land & Water Conservation Department office. A DRAFT will also be available online at [ruskcounty.org](http://ruskcounty.org)

All interested persons are invited to attend said hearing and be heard. Written comments will be accepted by the Land & Water Conservation Department until 4:30 pm, on October 30, 2015.

**Land & Water Resource Management Plan Revision**

The Rusk County Land Conservation Department is currently in the process of revising the County Land and Water Resource Management Plan (LWRM) that will be in effect for the next ten years.

The LWRM Plan outlines goals, objectives, and actions for Rusk County Land & Water Conservation. The complete LWRM Plan, which was last revised in 2008, can be found on the Land Conservation Department webpage at [www.ruskcounty.org](http://www.ruskcounty.org) or by calling 715-532-2162

If you are interested in providing input, please review the Work Plan and provide comments. Feel free to submit comments by mail, email, or by telephone at the following: 715-532-2162

Citizens Advisory Committee Work Group Meeting  
Agenda

Monday, October 12, 2014  
Rusk County Courthouse- LEC Room  
6 – 8pm

1. Call meeting to order.
2. Introductions.
3. Review of draft revision to Land and Water Resource Management Plan.
4. Individuals may identify other resource concerns/issues.
5. Consensus to any significant changes to the Work Plan.
6. Adjourn.