Land and Water Resource Management Plan







Price County, Wisconsin 2020 - 2029 Price County Land and Water Resource Management Plan

April 2019

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Cover Photo: Price County Farm, Shoreline Restoration Project, and Big Falls County Park

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Summary

Introduction

The Price County Land and Water Resource Management Plan was first developed in 2000, and then updated in 2004 and 2009. Goals and objectives in this plan will guide county resource conservation and protection work in Price County for the next 10 years. The purpose of this plan is to guide citizens, county government, and state and federal agencies in their efforts to conserve and protect natural resources while supporting sustainable economic and recreational use of these resources.

The plan emphasizes protection of these resources through information and education, voluntary installation of conservation practices, forest and town road erosion control, and inventory efforts designed to establish baseline information. The plan will also provide the basis for seeking funding from various private, local, state, and federal sources. It includes a strategy to implement the NR 151 agricultural performance standards. It is organized into four sections.

Introduction

This section describes the plan development process and requirements and public involvement.

Resource Assessment

Provides information about topography, climate, population, land use, soils, agriculture, geology, groundwater, surface water, forestry, and wildlife. It also reports natural resource concerns that were identified during the planning process.

Goals, Objectives, and Activities

Details an implementation strategy for each of three plan goals. The strategies identify objectives and activities and outline educational activities.

Implementation

A Land Conservation Department workplan lists partner agencies, staff and funding needs, and describes how plan accomplishments will be evaluated for each activity. This section also includes potential funding sources and more detail regarding program evaluation.

Public Participation

Citizen Advisory Group

An open local advisory meeting was convened on March 21, 2019, inviting a number of natural resource professionals and the general public. This group looked at a planning range of ten years while reviewing the draft Plan and expressing their resource concerns.

A draft of the plan was presented to the Price County Land Conservation Committee on March 21, 2019.

A public hearing will be held for the Price County Land and Water Resource Management Plan in on May 23, 2019. The plan will be presented to the Price County Board of Supervisors at their June, 2019 meeting.

3. Assessment of water quality, soil erosion, and other nonpoint sources of water pollution

Price County is located in North Central Wisconsin, approximately sixty miles south of Lake Superior. Most of the topography within the county is rolling, with some steeper slopes in the southeastern portion.

Public Opinion Survey

A public opinion survey was conducted as part of the planning process during the last planning cycle. Below are some of the key results, which are still expressed as citizen concerns today:

- Nutrient management on lakes and rivers (septics, fertilizers, sludge) is a primary concern.
- Safe disposal of appliances, tires, and hazardous waste.
- Loss of agriculture and forest land due to parcelization, increasing land costs.
- Surface and ground water quality
- Invasive Species Control
- Shore land property development and restoration
- Protect and enhance wildlife habitat



Land Resources

More than forty percent of the land area within the boundaries of Price County is public land, and about eighty percent of the land is forested.

Most productive soils are located in the central and southern portions of the county. The majority of the farming takes place in the southern areas of the county. There are numerous wetland and organic,

mucky soils with severe limitations for septic systems scattered throughout the county.

Price County has not experienced severe erosion of cropland soils due to the nature of the soils and the small area of cropland relative to the total area of the county. There is some soil erosion from road construction site activities throughout the county.

The Price County Land Conservation Committee established the tolerable soil loss rate as the county's soil and water conservation standard. Price County has exceeded this goal by having average soil erosion rates significantly below tolerable soil loss values that average 4.3 tons/acre/year.



Groundwater resources

Groundwater nitrate tests indicate that Price County has good groundwater quality.
According to the University of

Wisconsin – Stevens Point Groundwater Laboratory, about one percent of the wells had nitrate concentrations above the human consumption advisory level of 10 mg/l.



Surface water resources

Approximately 1.8 percent of the surface area is covered by water. Ninety percent of the county lies in the Upper Chippewa River Basin. The remaining ten percent is in

the Upper Wisconsin River Basin.

The vast majority of the surface water in Price County is believed to be in good condition. Natural influences shape the water's color, nutrient content, and pH.

Human influences such as agriculture, forest harvesting practices, industrial and municipal use of water, shoreland development, and the building of dams have had some impact on Price County waters.

There are 311 natural lakes (9,565 acres) and 78 constructed impoundment lakes (5,058 acres). There are 143 rivers and streams totaling about 687 miles, with 239 miles designated as trout streams.



Forestry and Wildlife Forest resources and wildlife are abundant and important to the region. It is estimated that

nearly one-half of the forestland in the county is held by private landowners. Forest resources are increasingly popular for a variety of uses. With increased use and development of forested areas, there are potential user conflicts, motorized access concerns, and impacts to wildlife habitat.

4. Summary of work plan

The following goals were developed to address concerns identified in the planning process:

GOAL 1: Land Resource Focus Manage nutrient and sediment inputs to preserve and improve both ground and surface water quality.

GOAL 2: Water Resource Focus Protect and enhance rivers and streams to preserve their ecological, recreation, and scenic values. Protect and improve the natural lake environment. GOAL 3: Forestry / Wildlife Focus Manage forestry and wildlife resources to encourage stewardship and minimize conflicts between users, while minimizing negative land impacts.

An implementation strategy with objectives and activities developed for each goal is found in Chapter 3. The work plan (Appendix B) summary table is included on the following page.

The Price County Land Conservation Department currently has 2.1 FTEs. Employee time and costs of project implementation are outlined in the work plan.

5. Progress tracking

Progress tracking involves evaluating progress toward meeting the goals of the land and water resource management plan as outline in the work plan. Plan evaluations will assess whether the objectives and activities of the plan are being accomplished. Evaluation measures are listed for each plan objective in the work plan tables.

Chapter I. Introduction



Healthy land and clean water are important to almost every economic activity undertaken in Price County. Industrial and residential development, farming,

forestry, and recreation are critically tied to the county's land and water resources.

The plan emphasizes protection of these resources through information and education, voluntary installation of conservation practices, forest and town road erosion control, and inventory efforts designed to establish baseline information. It includes a strategy to implement the agricultural performance standards. The plan will be implemented for the next ten years. A progress report and an updated workplan will be developed each year.

Plan Development and Approval Process



Public Involvement

The focus of the plan update was to review and update plan goals,

objectives, and activities and to develop a strategy to implement the NR151 Agricultural Performance Standards. Public input that came from farmers, lake homeowners, local government, concerned citizens, and agencies whose work involves land and water quality protection in Price County assisted with plan development. Stakeholders were asked to attend a local advisory meeting to provide input. A public hearing was held to approve the final plan.

Plan Requirements

This plan was developed to meet the requirements of the County Land and Water Resource Management Planning Program. The program was created through amendments to Chapter 92.10 of the Wisconsin Statutes in Wisconsin Act 27 (the 1997-1999 Biennial Budget Bill). The goal of the amendment was to create a planning process that would:

- rely on a locally led process for plan development and implementation;
- allow for maximum flexibility with various program grants and funding sources;
- encourage comprehensive watershed based efforts without excessive planning;
- reward innovation and cost effectiveness;
- require the seamless integration of programs and funding sources;
- make use of a wide variety of implementation tools; and
- ensure meaningful program evaluation and accountability.

Related State Regulations

The Department of Natural Resources (DNR) established agricultural and nonagricultural performance standards and prohibitions to reduce runoff and protect water quality in NR 151. County land and water resource management plans are the local mechanism to implement the NR151 runoff standards. The Department of Agriculture, Trade and Consumer Protection (DATCP) identified conservation practices that farmers must follow to meet the DNR standards in ATCP 50. ATCP 50 also codified specific standards for the approval of the Land and Water Resource Management Plans. Appendix A contains the Agricultural Performance Standards Implementation Strategy for Price County.

DNR Participation

ATCP 50 requires counties to consult with DNR and identify how DNR will assist landowners to achieve compliance with performance standards and prohibitions.. Through this input and review, the DNR helped to identify key problem areas and set goals and objectives.

Landowner Notification

As a requirement of the land and water resource management planning program, the Price County Land and Water Conservation Committee must notify landowners and land users if soil erosion rate determinations are made, and provide an opportunity for these individuals to comment. Erosion rates for individual fields were not assessed in the preparation of this plan. Landowners were notified of the Price County Land and Water

Resource Management Plan contents in the notice for the public hearing. Landowners may receive individual determinations involving conditions on their property through a) conservation plans, b) compliance status reports, and c) compliance status letters authorized under the NR 151 implementation strategy, and notices issued under NR 151.09 or NR 151.095.

Resource Information

This plan is not intended to contain an exhaustive inventory of land and water resources in Price County. Instead, it draws upon existing inventory information, as listed in the reference section of this document. It also sets forth action plans and activities to expand the information base that already exists.

Public Hearing and Review

A public hearing was held for the Price County Land and Water Resources Management Plan in May, 2019 Comments on the draft plan will be read into the public record and incorporated into the final plan. The plan will be brought before the Price County Board of Supervisors in June, 2019. The land and water resource plan must be submitted to the Department of Agriculture, Trade, and Consumer Protection and the Department of Natural Resources for review.

Related plans

Price County Land Use Plan

The Price County Board of Supervisors discontinued a project to complete a land use plan for Price County in 2003. There are no current plans to restart this planning process.

Headwaters Basin Plan

The Department of Natural Resources completed the Headwaters Basin Plan in

2002. The Headwaters Basin includes the Upper Wisconsin Basin. About ten percent of Price County (in the southeast corner) is in the Upper Wisconsin Basin. Price County is not included in any of the resource information lists such as population, land use, exotic species locations, threatened and endangered species, lake information, or dams. Although Price County is largely ignored in this basin plan, plan concerns were considered.

The concerns identified in the Headwaters Basin Plan and addressed in the Price County Land and Water Resource Management Plan include:

- Shoreline development pressures
- Stream/river habitat protection and restoration
- Resource inventory
- Stormwater and construction site erosion
- User conflicts
- Forest planning
- Information and education

Farmland Preservation Plan

The Price County Farmland Preservation Plan was adopted in 1986. The soil and water conservation standard for the Price County Farmland Preservation Program and other county programs is currently for each crop field to achieve a soil loss at or below the tolerable soil loss rate. The soil conservation standard for the Farmland Preservation Program and other county programs will be updated to reflect the updated NR151 Agricultural Performance Standards.

Price County Forest 15 Year Plan

The Price County Forest Plan follows the purpose and direction of the County Forest Law as stated in Wisconsin Statute 28.11, with the purpose of the County Forest Law being: "to provide the basis for a

permanent program of county forests and to enable and encourage the planned development and management of the County Forests for optimum production of forest products together with recreational opportunities, wildlife, watershed protection and stabilization of stream flow, giving full recognition to the concept of multiple use to assure maximum pubic benefits; to protect the public rights, interests and investments in such lands; and to compensate the counties for public uses, benefits and privileges these lands provide; all in a manner which will provide a reasonable revenue to the towns in which such lands lie." This plan was last updated in 2006.

Wisconsin River TMDL Report

The DNR, together with many partners throughout the basin, are working to improve water quality of the Wisconsin River, its reservoirs and tributaries. The Total Maximum Daily Load (TMDL) study and implementation plan will provide a strategic framework and prioritize resources for water quality improvement in the Wisconsin River Basin.

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

This report will serve as a basis for setting agricultural phosphorus targets, set water quality objectives, set priority farm objectives, in the plan. This information will be used to help set priority farm inspections, and/or NR 151 compliance efforts in Price County. The Wisconsin River TMDL (portion relevant to this plan can be found in Appendix E) study area spans Wisconsin's central corridor from the headwaters in Vilas County to Lake Wisconsin in Columbia County, covering 9,156 square miles, approximately 15 percent of the state.

Price County Ordinances

Shoreland Zoning

Price County shoreland requirements are in Section 530 of the Price County Ordinances. The Price County Board of Supervisors updated the Shoreland Zoning Ordinance most recently in April of 2016.

The ordinance regulates land in the shoreland zone – within one thousand feet from the ordinary high water mark of lakes, ponds or flowages and within three hundred feet from the ordinary high water mark of rivers and streams. The ordinance establishes requirements for planned residential unit developments, back lot development, sanitary systems, lot dimensions, stairways, and filling and grading, among other provisions. Restrictions on removal of shore cover within 35 feet of the ordinary high water mark are established, and permit conditions include minimizing soil disturbance, establishing temporary ground cover, and using other practices to prevent erosion. The Land Conservation Department develops mitigation plans for shoreland cutting violations. The zoning administrator is authorized to issue citations. Daily fines are established in the ordinance. The zoning administrator refers violations to the district attorney or corporation counsel for prosecution. Copies of the ordinance are available from the zoning administrator, Price County

Nonmetallic Mining

Normal Building, Phillips, WI.

The Price County Board of Supervisors passed the Price County Ordinance for Non-Metallic Mining Reclamation in June of 2001. The ordinance requires that nonmetallic mining operations be permitted, operate according to standards, submit reclamation plans for approval, and provide financial assurance for

reclamation plan completion. About 40 facilities have been permitted each year in Price County. Price County has the authority to issue citations and collect fines under this ordinance. Price County may submit enforcement orders to a district attorney, corporation counsel, municipal attorney or the attorney general for enforcement. The Land Conservation Department may review reclamation plans for the nonmetallic mining ordinance.

Land Conservation Department Activities

The Land Conservation Department provides services and administers programs aimed at conserving land and water resources and improving woodland management in Price County.

Program administration

The Wildlife Damage Program uses state funds to reimburse agricultural producers for wildlife crop damage. The Hunters Against Hunger program provides venison for local food pantries. Because of considerable staff time demands, Wildlife Damage Program technical assistance has been a contracted service through USDA-APHIS since 2004.

Financial and technical assistance

State funds¹ are available to landowners for implementation of the Land and Water Resource Management Plan through the Land Conservation Department (LCD). The department encourages landowner participation, administers the programs, and designs and inspects practices for this funding and other federal and state program.

¹ Department of Agriculture, Trade, and Consumer Protection

Technical assistance is provided to landowners for shoreland and wetland restoration and to business, homeowners, and governments for road and construction site erosion control. Best Management Practices to protect water quality, technical information, and assistance are also made available for woodland owners.

Technical review for state and local regulatory programs

Environmental review and technical assistance is provided to other county departments such as forestry and parks, dams, zoning, and highway. The LCD develops mitigation plans for the zoning office when there are violations of shoreland buffer requirements and provides assistance for review and design of reclamation plans for nonmetallic mines.

Educational activities

Educational activities that emphasize protection of land and water resources are provided for lake associations, schools, and landowners. The department participates in UWEX-sponsored, Eco Trek, an environmental education program for seventh graders. Conservation poster and speaking contests are held each year. Classroom presentations are given to various grade levels upon request. The department presents information at the county fair and assists with a statewide conservation camp each year. A rural landowners seminar is held in cooperation with the UWEX basin educator and Resource Conservation and Development.

Environmental services

These services include an annual sale of trees and shrubs for wildlife habitat improvements on small acreage. The LCD also sponsors an annual Cleansweep Program that collects significant quantities of household hazardous waste from residents.

Chapter II. Resource Assessment



The land, waters, and forests of Price County are part of an integrated ecosystem, related closely to one another and with the

lands, waters, and forests of the surrounding counties. This plan recognizes the interconnected nature of the County's natural resources and seeks to manage them in a way that maintains the integrity of the natural environment and habitats.

Price County was once a richly wooded climax white pine and hardwood forest, with wild rivers and abundant wetlands. The county was formed in 1879 out of parts of Chippewa and Lincoln Counties.

The county is located in North Central Wisconsin, approximately 60 miles south of Lake Superior. It is the 6th largest county in Wisconsin with a surface area of 1,275.5 square miles (816,322 acres) and is ranked 22nd in water acreage for the state. Approximately 1.8 percent of the surface area is covered by water. Ninety percent of the county lies in the Upper Chippewa River Basin. The remaining ten percent is in the Upper Wisconsin River Basin.

The watershed drainage system consists of 12 watersheds and portions of 3 watersheds. The major rivers are the North and South Forks of the Flambeau, the Elk River, and the North and South Forks of the Jump River. There are 38 large dams and 55 small dams in Price County according to the Wisconsin Department of Natural Resources Dam Search.

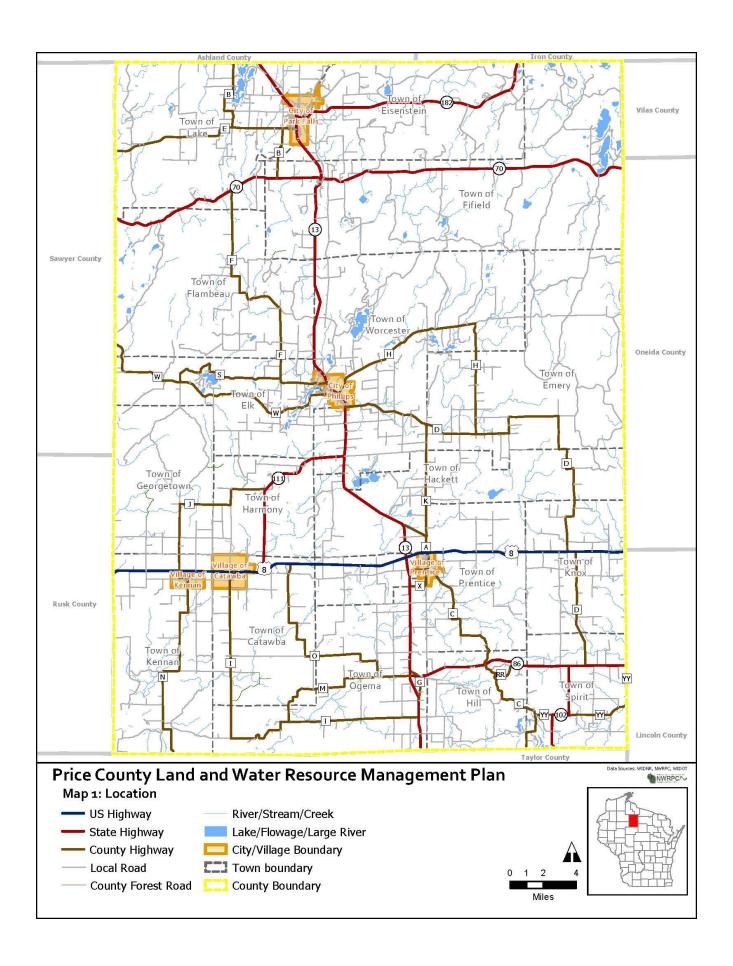
Topography and Climate

Most of the topography within the county is rolling, with some steeper slopes in the southeastern portion. The elevation ranges between 1450 and 1700 feet above sea level. The topography is of glacial origin and includes the two highest points in Wisconsin (Tim's Hill: 1,952.9 ft. and Pearson's Hill: 1,950.4 ft).² Glacial deposits are generally oriented northeast to southwest.

Warm summers and cold winters characterize Price County, with an annual mean summer temperature of 68 degrees F and an annual mean winter temperature of 16 degrees F. Average precipitation is 33-34 inches with groundcover snow for approximately 100-120 days. The average growing season is 85 days.³

² United States Geological Survey

³ United States Weather Service



Population and Development



Overall resident population numbers have changed little in the past century. In 1920, the population of Price County was more than 16,000. Between 1920 and

1990 the population varied between 14,000 and 15,600. Price County's 2003 population was estimated to be 15,889 and in 2008, it was estimated to be 15,581. The 2016 American Community Survey estimated Price County's population to be 13,707.

Price County is generally rural. The 2016 population density was about 11 people per square mile compared to a statewide average of 99 per square mile. According to 2016 population estimates, the cities of Park Falls (2,218), Phillips (1,437), and the villages of Catawba (112), Kennan (119), and Prentice (608) make up 32.8 percent of the county's population. From 2000 to 2016 population generally declined in incorporated areas and increased slightly in unincorporated areas.

Total resident population figures do not capture the significance of seasonal housing and nonresident land users in Price County. The 2016 U.S. Census Bureau's American Community Survey reported 11,029 housing units in Price County. Of these, about 60.5% are occupied households. The remaining housing units are seasonal or unoccupied.

The number of Zoning Department permits issued annually has increased over in the past decade, while annual land use and sanitary permits have steadily increased. Land use permits and sanitary permits both indicate new housing construction or upgrades.

Increased residential development negatively affects county water resources unless adequate protective measures are installed. Homes built near water often



impact the shoreland buffer of vegetation. Buffers provide habitat, hold soil in place, intercept and filter runoff water, and provide natural beauty.

Wetland functions and values are lost when wetlands are filled to build roads and driveways, and establish lawns.

When the protective cover of vegetation is removed during home and road construction, there are dramatic increases in soil loss and resulting sedimentation of water resources. Poor road construction or inadequate drainage can lead to ongoing erosion problems. Increased quantities and rates of runoff result from densely developed residential areas because of the increase in impervious surfaces such as roads, roofs, and driveways. This additional runoff increases sediments carried in runoff, increases erosion along streambanks, and causes flooding on adjacent property. These impacts occur whether development is adjacent to water bodies or elsewhere in the watershed.

Land Resources and Use

More than forty percent of the land area within the boundaries of Price County is public land as shown in the land ownership map. There are a significant number of nonresident landowners. Table 1 summarizes land data for Price County. The land cover map illustrates the predominance of forested and wetland area. Land ownership and cover will influence land use and water resource management decisions within the county.

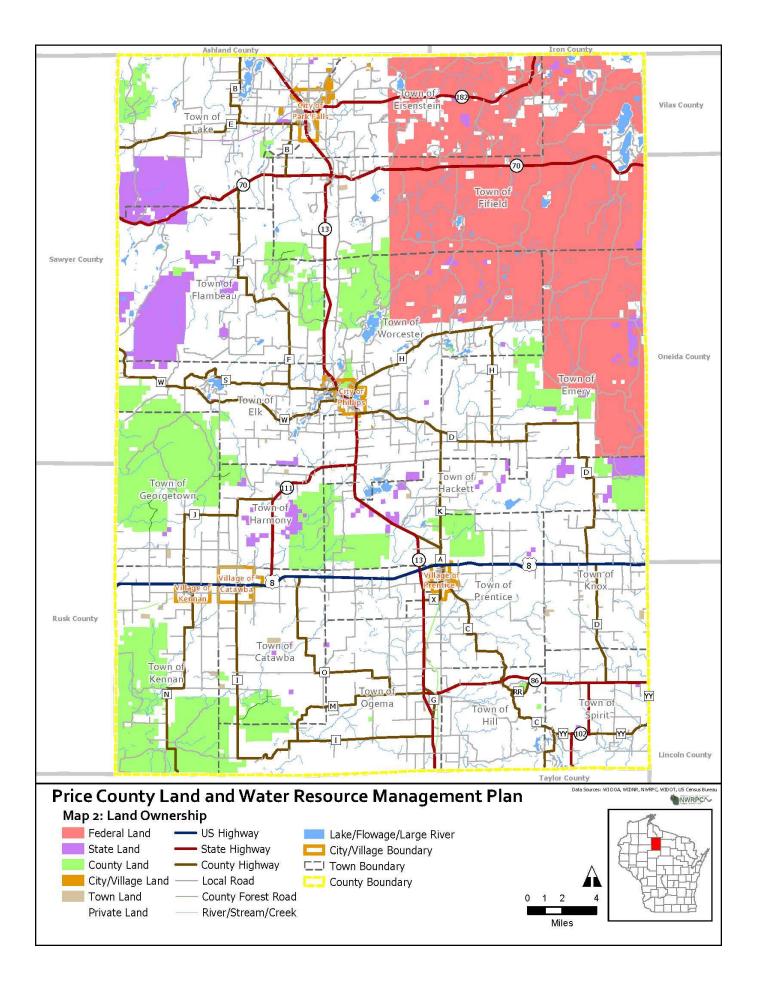
Price County completed a draft lakes classification as part of the state "Smart Growth" requirements. A land use plan provides a comprehensive approach to foster and guide growth within the county. The County Board of Supervisors rejected further planning efforts. There are no current plans to complete a land use plan for Price County.

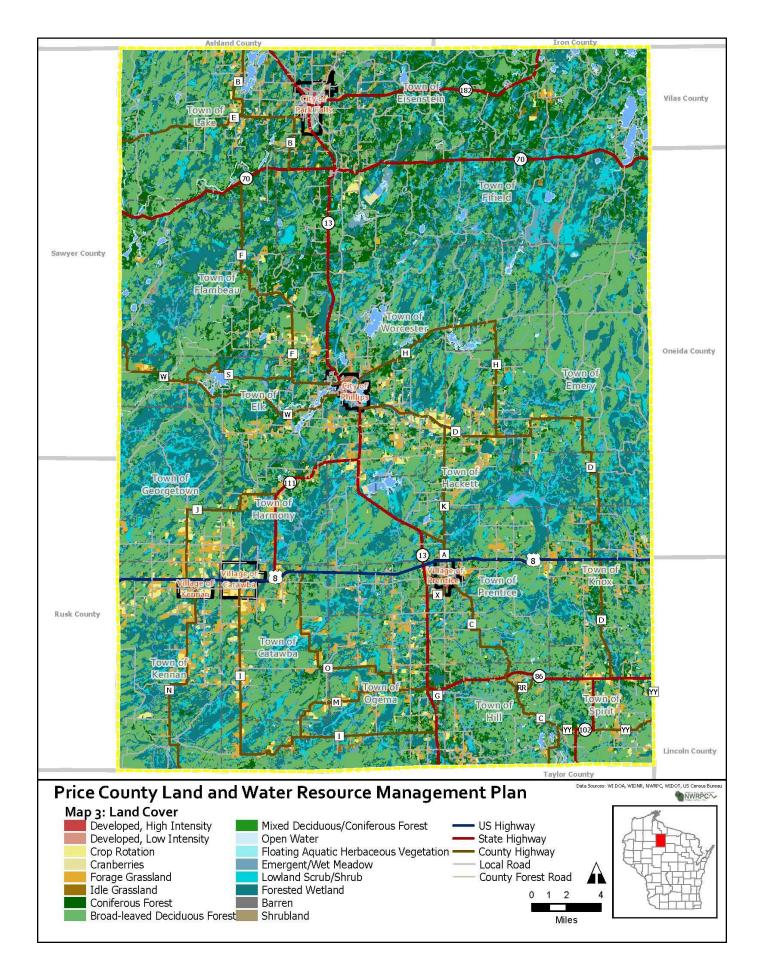
Table 1: Price County Land Data Summary

Cover Type	Square Miles	Acres	Percent
Forest	635	405,712	49.64%
Wetland	529	337919	41.35%
Agricultural Grassland	56	35,686	4.37%
Dairy Rotation/Agricultural Crop	24	15,837	1.94%
Open Water	21	13345	1.63%
Urban/Developed	12	7863	0.96%
Shrubland	1	641	0.08%
Barren	0	307	0.04%
Total Area:	1,278	817,310	100%

-

⁴ Wisconsin Department of Natural Resources, 2016 Land Cover Data (Wiscland)





Soils



The general soils map shows the soil associations in Price County. Each association has a distinctive pattern of soils, relief, and drainage. An association typically consists of one or more major soils and some minor soils. The general soils map can be used to compare the suitability of large areas for general land uses. Because of its scale, the map is not suitable for planning the management of a farm or field or for selecting a site for a road, building, or other structure. The soils in any one association differ

from place to place in slope, depth, drainage, and other characteristics that affect management.

Most productive farm soils are located in the central and southern portions of the county. In the southern third of the county the soils are generally heavier than in the northern portion of the county. Tim's Hill, in the southeastern part of the county, is an exception to this rule. Most farming takes place in the southern half of the county due to slightly longer growing seasons.

There are numerous wetland and organic, mucky soils with severe limitations for septic systems scattered throughout the county. Severe limitations for sewage disposal systems occur in poorly drained and clay soils as well. Additional soil type information relative to onsite disposal is available from certified soil testers in the county.

Soil Association Types

<u>Auburndale -Almena (s8717):</u> Silt Loam; 0%-5% representative slope

Magnor-Cable-Auburndale (s8719): Silt loam; 0%-5% representative slope

Magnor-Freeon (s8713): Silt loam; 0%-5% representative slope

Monico-Goodwit-Champion (s8703): Silt Loam; 0%-5% representative slope

<u>Pence-Champion (s8703):</u> Silt loam; 15%-45% representative slope

<u>Pence-Newot (s8718):</u> Sandy loam; 15%-45% representative slope

Pence-Newot-Newood-Amery (s8720): Sandy Loam; 5%-15% representative slope

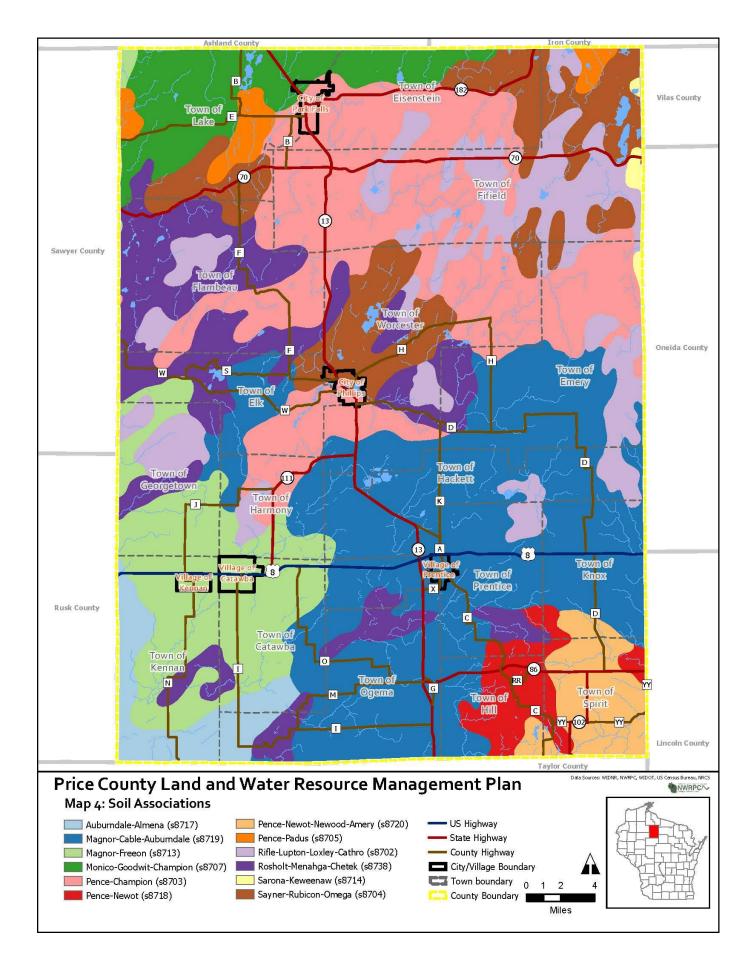
Pence-Padus (s8705): Fine sandy loam; 15%-45% representative slope

Rifle-Lupton-Loxley-Cathro (s8702): Muck; 0%-5% representative slope

Rosholt-Menahga-Chetek (s8738): Sandy loam; 0%-5% representative slope

Sarona-Keweenaw (s8714): Loamy fine sand; 5%-15% representative slope

Sayner-Rubicon-Omega (s8704): Loamy sand; 5%-15% representative slope



Agriculture



Price County does not experience severe erosion of cropland soils due to the nature of the soils and the small area of cropland

relative to the total area of the county. There is some soil erosion from road and construction activities scattered throughout the county.

Cropland is concentrated in the southern and central portions of Price County with scattered cropland elsewhere. The 1992-93 land cover/use records of the Northern Wisconsin Cropland Study identified 6.4 percent of nonfederal rural county land as cropland, 4.9 percent as pasture, 80 percent as forest, and 8.7 percent as minor

uses or wetland. There were 40,000 acres of cropland and 31,700 acres of pastureland in Price County.

The acres of productive cropland have remained about the same from 39,745 acres in 1992 to about 40,000 acres in 1997, and 39,444 in 2012⁵ The number of farms has changed from 385, to 370, to 472 in 2012 during that same period. It is estimated there are about 200 active farms in the county. Of these, 59 are dairies, 2 are commercial beef operations/feedlots, and 85 are small-scale beef or other types of farms. There are also other small scale "hobby" farmers and various grain farming in the county as well.

Table 2: Agricultural Resources in Price County^a

Item	Acres
Corn: Grain and Silage	6,287
Oats	792
All other crops	32,365
Total Cropland	39,444
Pastureland	13,994
Total	13,994 92,295

^aWisconsin Agricultural Statistics Service. 2012.

^bIncludes alfalfa hay, all other dry hay, alfalfa haylage and green chop, and all other haylage and green chop.

⁵ USDA Census of Agriculture. 2012.

Soil Loss Inventories

Price County maintains some records of crop field information and management practices in the Field Office Computer System (FOCS) database and hard copy files. Crop fields and completed farm plans have been entered into the database. Where rotations are unknown, an average rotation is assigned.

The Price County Land Conservation Department assessed the five townships with the highest agricultural concentration (Kennan, Catawba, Lake, Spirit, and Hill) for erosion and soil loss in 1993. A total of 16,064 acres were surveyed.

The Price County Land Conservation Department survey shows a weighted average annual soil erosion rate of 0.86 tons/acre, while the NRI survey estimated 1.2 tons/acre for cultivated soil (Table 4). The Natural Resource Conservation Service (NRCS) reported results of the expanded Natural Resources Inventory (NRI) in 1995.

Table 3: Average Soil Erosion Rates for Cultivated Cropland

Cultivateu	Cropianu	
Survey	Annual Soil	Acres
	Loss	Evaluated
	(Tons/Acre)	
LCD	0.86	16,064
NRI	1.2	4,833
State	3.2	NA
Average		

Soil Erosion Goals

The Price County Land Conservation Committee has established the tolerable soil loss rate as the county's soil and water conservation standard. This standard for agricultural cropland is consistent with the state's "T by 2000" goal. Price County has met this goal by having average soil erosion rates significantly below tolerable

soil loss values that average 4.3 tons/acre/year in Price County.

The county's conservation standard for the Farmland Preservation Program must be updated to reflect the NR 151 agricultural performance standards. The revised standard and procedure are included in Appendix I.

Cropland Soil Erosion Control

Price County adopted a Farmland Preservation Program policy in 1986. Conservation plans, which plan individual crop fields to the tolerable soil loss rate, are prepared for participants in the Farmland Preservation Program. Participation is voluntary for individual 10 to 25 year agreements. One quarter of plan participants are reviewed for compliance annually, and conservation plan revisions are made as needed. The County currently manages four agreements for the Farmland Preservation Program. These agreements included about 804.92 acres.



A variety of conservation practices are available for the control of cropland soil erosion. Producers in Price County tend to use

several years of hay in crop rotations. Conservation tillage is used on a limited basis. Technical assistance is provided for implementation of conservation practices such as crop rotation, rotational grazing, conservation tillage, and manure storage. The county encourages participation in the Federal Conservation Reserve Program.

The Land Conservation Department completed an agricultural shoreland buffer zone identification project in 1998. Buffer zones are sensitive areas along shores of lakes, rivers, and streams. The purpose of the buffer zone project was to address agricultural impacts in riparian buffers. The project identified ownership of each 40-acre agricultural parcel that included land with buffer zone areas. These landowners were identified and contacted about soil erosion concerns or violations of proposed state animal waste prohibitions within the buffer zone.

A voluntary educational approach will continue to be used to achieve erosion control standards in Price County. Areas will be targeted for conservation practices in the future using the following criteria:

- the total amount of erosion occurring;
- the extent to which current estimated erosion rates for cropland fields exceed the soil erosion standards;
- the off-site damages, including water degradation caused by soil erosion;
- the extent to which the soil erosion is preventable;
- the cost of preventing erosion;
- the feasibility of implementing the erosion control strategy; and
- other factors to be identified by the Land Conservation Committee.

Other Sources of Nonpoint Source Water Pollution

Other potential sources of nonpoint water pollution:

Sediment:

- ✓ Motorized vehicle use along streambanks and in waterways
- ✓ Forestry practices
- ✓ Stormwater runoff from developed areas

Nutrients:

- ✓ Excess agricultural fertilizer use
- ✓ Excess residential fertilizer use
- ✓ Animal herds/feedlot operations
- ✓ Improper manure storage
- ✓ Inadequate municipal and septic wastewater treatment

⁶ Land within 300 feet of a stream; and land within 1000 feet of a river or a lake.

Water Resources

Geology and Groundwater



Groundwater resources in Price County are influenced by its geology. The county is underlain by Precambrian bedrock. The folding of this

rock formation produced a mountain range that eventually eroded with repeated glaciation until a low rolling plain of 1,400-1,600 foot elevation emerged.

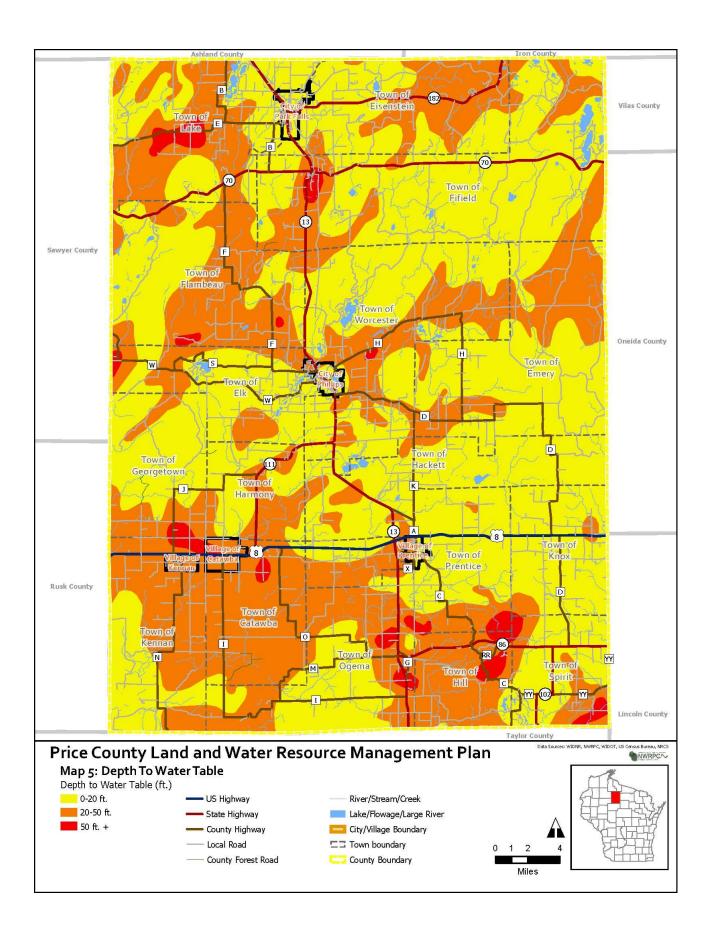
Figure 1 on the following page shows general glacial geology. Glacial drift forms a near continuous mantle covering the county an average of 100 feet thick, with a range of 0-200 feet thick. Gently rolling ground moraine predominates. This type of glacial till formation consists of clay, silt, sand, gravel, and boulders. Natural lakes are scarce and tend to be shallow. Swamp and lowland along relatively flat gradient streams are normal, but in some places erosion to bedrock has occurred. The ground moraine has northeast-oriented hills (drumlins) in the Jump River area with closely spaced streams paralleling the drumlins in the southwest part of the county.

Hills and ridges of an end moraine exist in the southeast part of the county, which contains deeper lakes. Pitted outwash

Table 4: Nitrate (mg/l as N) For Price County

County			
Dance	Numb	Perce	Cummony
Range	er	nt	Summary
Not	454	48%	Minimum:
Detected	434	4070	No Detect
2	365	38%	
2.1-5.0	92	10%	Median:
2.1-3.0	92	10%	0.1
5.1-10.0	28	3%	Average: 1
10.1-20.0	11	1%	
20.1	1	<1%	Maximum:
20.1	1	<1%	37
			Exceeds
>10mp/l N	12	1%	Health
_			Standard
Total	951		
Samples:	931		

Source: UWSP Groundwater Laboratory plains are found in the northeast, northwest, and central parts of the county. Swamps and lakes are found throughout the end moraine and pitted outwash plains.



Lakes and Rivers



The vast majority of the surface water in Price County is believed to be in good condition. Natural

influences shape the water's color, nutrient content, and pH. Human influences such as agriculture, forest harvesting practices, industrial and municipal use of water, shoreland development, and the building of dams have had some impact on Price County waters.

There are 311 natural lakes (9,565 acres) and 78 constructed impoundment lakes (5,058 acres) which total 14,622 acres or about 1.8 percent of the surface area of the county. Figure 3 shows the number of lakes in various size categories. Butternut Lake, in the northern part of the county, is the only lake over 1,000 acres. There are 335 lakes of 50 acres or less. All of the lakes over 500 acres have public access while only 19 percent of all county lakes have public access.

PRICE COUNTY WATER RESOURCES

40
35
30
25
20
15
10
50-199
200-499
500-999
1000 +

Lake Class (Acres)

Figure 1: Lake Size and Number in Price County

Note: There are 335 lakes in Price County that are less than 50 acres of water surface area. The graph shows numbers of lakes above 50 acres in size.

There are six different lake types in Price County, as shown in Table 5. Drainage lakes have inlet and/or outlet flow. Hard water drainage lakes have high levels of nutrients and fertility and consequently are good fisheries. Butternut Lake is an example. Nuisance algal blooms sometimes occur on this type of fertile lake. Soft water drainage lakes occupy the largest surface water area. They include over 5,000 acres of river and stream impoundments in the county.

Seepage lakes have little or no outflow and are fed by groundwater. Hard water seepage lakes are usually dark. Soft water seepage lakes are usually slightly acidic, clear to light brown, and relatively infertile. Acid bog lakes are highly acidic, dark, and have low fertility. Spring ponds are usually shallow and are fed with groundwater. They have good clarity with silt and detritus in the bottom.

Limited water quality data was collected in the 1960's and 70's to determine relative quantities of nutrients in some lakes. Lake quality data showed few signs of potential pollution problems then, and nitrates and phosphates (generally the limiting nutrient for algal blooms) were generally found at low levels. There were signs that artificial enrichment or eutrophication had taken place in some instances.

Lake associations have a wide range of types and level of activity. Some are working to advance the water quality agenda to higher levels while others work to remain viable. The Land Conservation Department will continue to support and encourage them to become stronger advocates for waterways issues.

Price County Waterways Assn.

Price County Waterways Associations

Ongoing Department of Natural Resource monitoring efforts are encouraged. Lake associations are also encouraged to participate in the self-help monitoring program. Those with Self-Help Monitoring are indicated with (SHM) after their name above. Lakes without lake associations also participate in the self-help monitoring program including Lac Sault Dore, North Spirit Lake, Schnur, and Stone Lake and the Wilson Creek Flowage.

There are 143 rivers and streams with a total length of about 687 miles, with 239 miles designated as trout streams. The buffer zone areas of continuous flow streams and rivers and lake shorelines are indicated in Table 6. If all intermittent streams, beaver dam water shoreline, and ponds created between 1983 and 1999 are taken into account, the buffer zone area is increased to 242,588 acres, or 379 square miles (about one-quarter of the county).

⁸ Price County Land Information Office

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¹ DNR. 1983.

Table 5: Lake Types in Price County^a

Lake Type	Number	Size Range, acres	Ave Size (acres)	Total Acreage
Hard Water Drainage	12	0.4-1,006.2	99.9	1,198.9
Soft Water Drainage	86	0.1-879.3	117.4	10,094.8
Hard Water Seepage	3	1.0-72.0	24.7	74.1
Soft Water Seepage	141	0.1-110.5	10.8	1,528.9
Acid Bog	127	0.1-512.4	13.3	1,688.2
Spring Ponds	20	0.1-6.7	1.9	38.0
Total	389			14,622.9

^a DNR. 1983.

Table 6: Shoreland Buffer Zone Area

Water Bodies	Number	River Miles	Shoreland Miles ^a	Buffer Zone Width, feet	Buffer Zone Area, Acres
Lakes	389	-	420	1,000	50,909
Rivers	6	177.5	355	1,000	18,527
Streams	137	509.5	1,019	300	43,030
Totals	-	687	1794	-	112,466

^a DNR. 1983

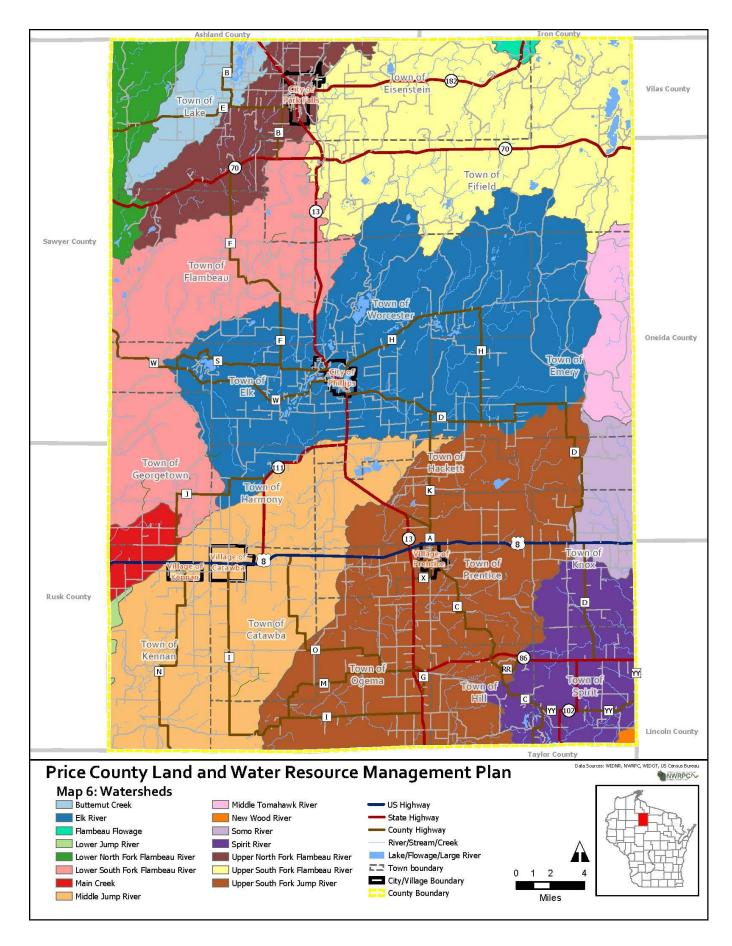
Watersheds

Water drainage areas or watersheds are defined to address point and nonpoint contributions to waters of the state. A watershed approach is used to assess uses of water, inventory nonpoint sources of pollution, and implement control measures to protect and improve water quality.

management of land and water resources on a watershed basis. Watersheds of Price County are found in the map on the following page. The Upper Chippewa Basin spans 4,680 square miles along the Chippewa River down to Holcombe Flowage. This area includes much of Price, Sawyer, and Rusk Counties, as well as portions of Washburn, Bayfield, Ashland, Iron, Vilas, Oneida, Taylor, and Chippewa Counties. The basin includes forest and wetlands, with some agriculture in southern portions. The basin is divided into 23 watersheds with portions of 11 in Price County. These 11 watersheds account for about 90 percent of the area of Price County. The drainage of this basin flows generally from northeast to southwest toward the Chippewa River, with a downhill gradient of about 15 feet/mile.

Hydropower is a significant use of water resources in this basin.

County land and water resource management plans are to address



The Upper Wisconsin Basin occupies the southeast ten percent of the county and drains southeast toward the Wisconsin River. The Northern sub-basin of the Wisconsin River drains 2,352 square miles; includes portions of Oneida, Vilas, Forest, Lincoln, Langlade, Taylor and Price Counties; and contains 2,177.5 river miles. Watersheds of the North sub-basin in Price County are the New Wood, Spirit, Somo, and Middle Tomahawk River. Streams exhibit good water quality. There are no major or widespread water quality problems in the Northern sub-basin of the Wisconsin River.

Most of the sub-basins of the Upper Wisconsin and the Upper Chippewa lie in the Northern Lakes and Forests Ecoregion. Predominant land uses are forestry and recreation. Both of these rivers discharge to the Mississippi River. Table 7 lists the fifteen major watersheds in the county by sub-basin, from largest to smallest.

Table 7: Watersheds of Price County by Drainage Basin^a

Upper Chippewa River Basin
North Fork, Flambeau, Sub-basin
Upper North Fork, Flambeau River
Butternut Creek
Lower North Fork, Flambeau River
Flambeau Flowage
South Fork, Flambeau, Sub-basin
Elk River
Upper South Fork, Flambeau River
Lower South Fork, Flambeau River
Main Creek
Jump River, Sub-basin
Upper South Fork Jump River
Middle Jump River
Lower Jump River
Upper Wisconsin River, Sub-basin
Spirit River
Middle Tomahawk River
Somo River
New Wood River

^a DNR. 1983.

^b Price County Land Information Office.

Water Classifications



The DNR classifies all surface water bodies into categories. The categories are cold water communities.

warm water sport fish communities, warm water forage fish communities, limited forage fish communities, and limited aquatic life. The first three classes apply to protection measures defined by the Clean Water Act of 1972.

Trout streams and trout stream segments are classified as cold water communities. An official listing of trout streams and regulations is published yearly by the DNR. The remainder of the streams and lakes not named in this publication are classified by default as warm water sport fisheries, unless specified as some other classification. Price County has many coldwater communities.

Outstanding Resource Waters (ORWs) include rivers with excellent water quality; and lakes with excellent water quality, deep water that stratifies, and extreme sensitivity to phosphorus loading. Outstanding Resource Waters include the North and South Fork of the Flambeau River, Cochran Lake, and Tucker Lake.9 Exceptional Resource Waters (ERWs) provide valuable fisheries, hydrogeologically or geologically unique features, outstanding recreational opportunities, unique environmental settings, and are not significantly impacted by human activities. Exceptional resource waters include Class 1 Trout Streams. Price County has 29 streams, or stream

segments that are designated as Class 1 Trout Streams. 10

Segments of the Jump and Flambeau Rivers, listed as potential candidates for inclusion in the National Wild and Scenic Rivers registry, are also shown on this map. The criteria for selection include: free-flowing with no dam structures in the designated segment, scenic beauty, and free of significant point and nonpoint discharges.

Basin Plans:

The DNR basin water quality management plans for the Upper Chippewa (1996) and Upper Wisconsin (Headwaters Basin 2002) provide management recommendations to improve and protect lakes and streams within the basin. The basin management plans also evaluate lakes, rivers, and streams and rank them. Sensitivity to phosphorus loading (a limiting nutrient for algae blooms), and other problems and threats are assessed, along with the probability of a positive response to nonpoint source pollution controls. The rankings were used to evaluate the potential for large or smallscale priority watershed projects. Although the Priority Watershed Program is being phased-out on a statewide basis, data and rankings from the plans may assist with implementation of the LWRM plans. Table 8 shows the rankings available for watersheds in Price County.

Groundwater rankings are also included on Table 8. The basin plan explains that the rankings are based upon limited data that includes susceptibility to contamination, potential for improvement through nonpoint source controls, and data documenting groundwater problems.

⁹ NR 102.10

¹⁰ Wisconsin Trout Streams. May 2005.

Northern Rivers Initiative:

The Department of Natural Resources Northern Rivers Initiative ranked 1,494 streams and stream segments for 20 northern counties in a process that began in 1999. Stream segments were ranked according to their outstanding ecological, recreational, and cultural values. A total of 61 streams were ranked in Price County. The top-ranking Price County streams are listed on Table 9. The goal of the Northern Rivers Initiative is to safeguard stream corridors in northern

Wisconsin from the growing pressures that threaten them. The range of protection alternatives considered included voluntary conservation through landowner stewardship, education, technical assistance, and acquisition. The priority list for Price County will be used to guide efforts for education, inventory, and technical assistance.

The lakes, rivers, and wetlands of the county are impacted by land use practices in the watersheds that drain them. They are also impacted by factors from beyond the boundaries of the county such as airborne mercury contamination.

DNR provides a listing of impaired water bodies on its 303(d) list. This list is shown in Table 10. In Price County, the vast majority of impairment comes from outside the county via air transport of mercury toxins. The only water impairments dominated by sediments are portions of the Flambeau River. Most of the lakes and rivers in Price County are listed by the Department of Natural Resources as having insufficient data for any determinations involving quality classification.

Table 8: Watershed Ranking^a

Watershed Name	Stream Rank	Lake Rank	Groundwater Rank
Lower Jump River	#	#	Medium
Middle Jump River	#	#	Medium
Upper South Fork, Jump River	Medium	Low	Medium
Main Creek	High	Low	Medium
Lower South Fork, Flambeau River	#	Low	Low
Elk River	#	Low	Low
Upper South Fork, Flambeau River	#	Low	Low
Lower North Fork, Flambeau River	#	Low	Low
Butternut Creek	#	Medium	Low
Upper North Fork, Flambeau River	Low	Low	Low
Flambeau Flowage	#	#	Low
Spirit River	Low	Low	Low
Middle Tomahawk River	#	Low	Low

Somo River ^b	#	Low	Low
New Wood River	Low	Med	Low

^{# =} Insufficient Data for Ranking.

a DNR. 1996 and 2002.

Table 9: Northern Rivers Initiative – Price County Top Ranked Streams¹¹

Stream	Segment	Rank	Rank in 20
			Counties
Flambeau River	Crowley Dam to	1	16
	Big Falls Flowage		
South Fork Flambeau River	ALL	2	34
South Fork Jump River	ALL	3	146
Hay Creek (T40N R01E)	ALL	4	180
North Fork Jump River	ALL	5	197
Elk River	ALL	6	232
Springstead Creek	ALL	7	267
Foulds Spring	ALL	8	388
Pine Creek	ALL	9	475
Sieverson Creek	ALL	10	579

^b Although the Spirit River Watershed was ranked as a low priority by DNR, anticipated high priority farms for the agricultural performance standards strategy implementation exist in this watershed.

¹¹ DNR. 2004.

Table 10: Impaired (303(d) Listed) Waters in Price County 12

Waterbody	Impairment Indicator	Pollutant
Bass Lake	Contaminated Fish Tissue	Mercury
Blockhouse Lake	Excess Algal Growth	Total Phosphorus
Crowley Flowage	Contaminated Fish Tissue,	Mercury
	Chronic Aquatic Toxicity,	
	Contaminated Sediment	
Lac Sault Dore (Soo Lake)	Impairment Unknown,	Total Phosphorus
	Excess Algal Growth	
Long Lake	Contaminated Fish Tissue	Mercury
Musser Lake	Contaminated Fish Tissue	Total Phosphorus and
		Mercury
Newman Lake	Contaminated Fish Tissue	Mercury
Park Falls Flowage, Lower	Contaminated Fish Tissue,	Mercury
	Chronic Aquatic Toxicity,	
	Contaminated Sediment	
Pike Lake Chain	Excess Algal Growth	Total Phosphorus
Pixley Flowage	Contaminated Fish Tissue	Mercury
Sailor Creek Flowage	Contaminated Fish Tissue	Mercury
Solberg Lake	Contaminated Fish Tissue	Total Phosphorus and
		Mercury
Upper Pixley Flowage	Contaminated Fish Tissue	Mercury
Wilson Lake	Impairment Unknown	Total Phosphorus
North Spirit Lake	Contaminated Fish Tissue	Mercury
Spirit Lake	Contaminated Fish Tissue	Mercury

¹² DNR. Updated 2018

Forestry and Wildlife Resources

Forest resources and wildlife are abundant and important to the region. Price County is over 80 percent forested (including forested wetland). Of the forestland included in Table 12 below, 40% is held by public agencies, 50% is owned by individual landowners, and 10% is industrial and corporate forest. This table does not include the forested wetland in the county.

Forest resources are increasingly popular for a variety of uses. Use of forestry products and forested land values have increased dramatically in the past ten years. With increased use and development of forested areas, there are potential user conflicts, motorized access concerns, and impacts to wildlife habitat. Protection of forest ecology and the use of best management practices will protect water quality into the future.

Table 11: Forestry Resources of Price County 13

Timberland	Square Miles	Acres	Percent of Total County
			Area ^a
Federal	200.5	128,300	15.7
State	32.3	20,700	2.6
Price County Forest	106.4	68,100	8.6
Other County/Municipal	18.9	11,100	1.5
Total Public Timberland*	358.1	228,200	28.4
Industrial and Corporate Forest	87.9	56,300	7
Privately Held Timberland ¹³	444.5	284,460	34.9
Total Timberland ^a	890	568,960	70.3

Excludes Forested Wetlands

¹³ Price County Forestry Department (2019)

Chapter III – Goals, Objectives, and Activities

GOAL 1: Land Resource Focus

Manage nutrient and sediment inputs to preserve and improve both ground and surface water quality.

GOAL 2: Water Resource Focus

Protect and enhance rivers and streams to preserve their ecological, recreation, and scenic values. Protect and improve the natural lake environment.

GOAL 3: Forestry/Wildlife Focus

Manage forestry and wildlife resources to encourage stewardship and minimize conflicts between users, while minimizing negative land impacts.

The objectives listed beneath each goal describe steps to reaching the goals. The activities listed will help to achieve the objectives and the goals. Annual progress monitoring will measure the degree to which each goal has been reached.

Information and Education Strategy



Information and education (I and E) activities were identified as high priorities by the workgroup and citizens survey respondents. These activities will be critical to reaching each of the land and water resource goals. The plan stresses the importance of building citizen awareness of land and water issues, including the land/water/forest connection,

developing protection strategies, and providing financial resources to address resource concerns. New educational messages and opportunities may be developed as the plan is implemented. Education activities will be evaluated and may be modified each year.

The Information and Education strategy will emphasize not only adult education, but also environmental education in the schools by providing teachers with educational materials and opportunities for hands-on experiences. Targeted information and education tools are used for each of the identified goals.

Common Educational Tools

Newsletter articles

Newspaper articles

Advertising – newspaper, radio

Conservation column

Clearinghouse for information/brochures/videos

Outdoor classroom presentations

Poster and speech contests

Slide shows (train the trainer)

Student/volunteer presentations/seminars

Staff presentations

Displays at county fair, sport shows, and other events

Radio public service announcements and interviews

Cable television

Direct mail and mailing inserts

Workshops

County web site

Field trips and service projects for youth

Seminars, shows, fairs (cosponsor with environmental groups)

Tours and demonstrations of best management practices

Questionnaires

Overall Activities

The activities that are important to the overall function of the department, rather than a single goal, are listed below.

- 1. Coordinate LCD activities with other county departments, neighboring counties, and state and federal agency partners.
- 2. Implement changing state and federal regulations locally.
- 3. Provide input to federal, state, and local policies and programs.
- 4. Assist other agencies and departments with activities consistent with the LCD's mission and goals such as nonmetallic mining reclamation plan review, land use planning, forest management planning, and ordinance revisions.

GOAL 1 - Land Resources Management



Manage Nutrient and sediment inputs to preserve and improve both ground and surface water quality.

Objectives

- A. Complete on-site reviews and certify NR151 Agricultural Performance Standards compliance on Price County Farms.
- B. Reduce or maintain soil loss on Price County cropland below "tolerable" levels.
- C. Reduce sediment and nutrient delivery from farms, households, roads, businesses, and construction sites.
- D. Dispose of hazardous agricultural and household chemicals properly.
- E. Collect, manage, and share land resource data efficiently and effectively.
- F. Ensure stormwater runoff is not polluting surface or groundwater.

Activities¹⁴

- 1. Implement the Agricultural Performance Standards Strategy (as outlined in Appendix A) by providing inventory, outreach, technical assistance, and cost sharing. (A, B, C, E)
- 2. Update farmland preservation standards according to the state agricultural performance standards. (A, B, C)
- 3. Monitor longevity and functionality of 20% of installed cost share practices annually. (A, B, C)
- 4. Continue annual Clean Sweep Hazardous Waste collection in cooperation with Northwest Regional Planning Commission. (D)
- 5. Assist town and county road departments with erosion control and stormwater management along roadways. (C, F)

Education Activities¹⁵

- ✓ Promote nutrient management planning including farm conservation plans.
- ✓ Promote proper well abandonment efforts through news releases, radio, and/or tax bills. Establish and target high priority areas. Host demonstration projects on completed wells.
- ✓ Sponsor a workshop for town board members, contractors, and others on best management practices for construction site erosion control, stormwater management, road construction and repair, and/or the replacement of culverts.
- ✓ Assist with the development of a land use library
- ✓ Develop a resource list with summaries and locations of resource materials.
- ✓ Maintain a Land Conservation Department web site (potential student intern project)

¹⁴ Activities in bold are priority activities with highest priorities starting at the top. Remaining activities were not selected as priorities.

¹⁵ Activities in bold are priority activities with highest priorities starting at the top. Remaining activities were not selected as priorities.

GOAL 2 - Water Resources Management



Protect and enhance rivers and streams to preserve their ecological, recreation, and scenic values. Protect and improve the natural lake environment.

Objectives

- A. Maintain or improve lake and stream water quality.
- B. Preserve and restore shoreland habitat for wildlife, water quality, and natural beauty. RESTORE 3 SITES ANNUALLY
- C. Promote no net loss of wetland habitats. RESTORE TEN ACRES ANNUALLY
- D. Maintain or improve fisheries habitat.
- E. Identify and reduce nonpoint source pollution of lakes and streams. Establish Outstanding and Exception Resource Water Watersheds as priorities.
- F. Maintain high quality groundwater.

Activities 16

- 1. Inventory and prioritize sites of concern and natural (intact) shoreline buffer zones along shorelines of lakes and rivers. Work with volunteer groups when possible. (A, B, C, D, E)
- 2. Support Price County Waterways Associations by presenting information and assisting with grant application and administration and other waterway projects and activities. (A-F)
- 3. Develop plans to assist the zoning office and/or the Department of Natural Resources with mitigation of shoreland buffer violations. (B, D)
- 4. Identify and promote tools for shoreland protection including acquisition, conservation easements, and cooperation with land trusts. (A–E)
- 5. Seek landowners interested in shoreland restoration projects. Target those properties with the highest potential for success. Involve school groups if possible. (B, D)
- 6. Promote wetland protection and restoration and provide technical assistance and cost sharing for 2-3 sites annually. (C, F)

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¹⁶ Activities in bold are priority activities with highest priorities starting at the top. Remaining activities were not selected as priorities.

Education Activities¹⁷

- ✓ Develop and distribute packets of information to new waterfront property owners. Include information about stormwater/runoff management, native plant restoration possibilities without cost sharing, land protection opportunities, etc.
- ✓ Organize countywide workshop(s) for shoreland owners/lake association members, realtors, and government officials.
- ✓ Distribute shoreland restoration and shoreland buffer zone packets for landowners, realtors, and zoning enforcement referrals. Include benefits of wetlands for wildlife and water quality, impacts of loss of shoreland habitat, and restoration techniques.
- ✓ Invite schools to participate in shoreland restoration and/or other natural resource activities.

¹⁷ Activities in bold are priority activities with highest priorities starting at the top. Remaining activities were not selected as priorities.

GOAL 3 - Forest Resources Management



Forestry and wildlife resources are managed to encourage stewardship, protect surface and groundwater quality, and minimize conflicts between users.

Objectives

- A. Improve forest habitat and management practices for small privately held woodlots to reduce impacts on surface and groundwater.
- B. Preserve forest environmental and ecological values for multiple users.
- C. Protect critical plant and animal habitats including large blocks of forested land.
- D. Address multiple-use and minimize user conflicts.
- E. Provide assistance to the Price County Forestry Department through erosion control plans and site evaluations.
- F. Assist the Forestry Department in following their forestry management plan.

Activities¹⁸

1. Promote and provide technical assistance to woodland landowners regarding forestry best management practices for water quality. (A)

- 2. Encourage landowners of large wooded acreage to maintain and properly manage their land by investigating and sharing information on appropriate programs and methods. (Such programs as Forest Legacy, Managed Forest Law, conservation easements, etc. may be applicable.) (A, B, C)
- 3. Assist in forest restoration on abandoned farmland. Explore options for maintaining forest openings for habitat diversity when desired. (A, B, C)
- 4. Assist with resolving forest user conflicts and provide input related to soil and water impacts of various uses. (D)
- 5. Conduct annual tree and shrub sale. (A, B, C)

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¹⁸ Activities in bold are priority activities with highest priorities starting at the top. Remaining activities were not selected as priorities.

Education Activities¹⁹

- ✓ Sponsor Trees for Tomorrow and Woodland Leaders scholarships for teachers and community members.
- ✓ Provide educators with presentations, educational materials, and student scholarships for conservation camp.
- ✓ Assist in coordinating workshops for landowners, government officials, and/or loggers to learn about tree planting, forestry best management practices, and/or conservation for rural landowners.
- ✓ Publicize and promote existing forest management cost-sharing programs to encourage forest stewardship on private woodland.
- ✓ Identify sites for demonstration of forestry best management practices for water quality.

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¹⁹ Activities in bold are priority activities with highest priorities starting at the top. Remaining activities were not selected as priorities.

Chapter IV. Plan Implementation

Work Plan and Budget

The details of the work plan are included in Appendix B. The work plan lists partners, staff and funding needs, and evaluation methods for each activity. A summary of estimated staff and funding needs to implement priority plan activities is included in Table 12 below. While there is an identified need for 3.0 full time equivalent staff positions (FTEs), the Land Conservation Department currently has 1.9 FTEs. Additional costs to implement the plan are projected to be \$150,000 over the first two years of implementation.

Table 12: Summary of LCD Budget Needs for Plan Implementation

Summary Table				
Goal	Staff	Staff	Funds	Funds
	Hours	Hours	Needed	Needed
	Avail.	Avail.	2009	2010
	2009	2010		
Overall Activities	750	750	\$15,000	\$15,000
Goal 1. Land	1800	1800	\$60,000	\$60,000
Resources				
Goal 2. Water	1200	1200	\$120000	\$20,000
Resources				
Goal 3.	200	200	\$5,000	\$5,000
Forestry/Wildlife				
TOTAL	3950	3950	\$90,000	\$90,000

Conservation Partners



Partner agencies and organizations are an integral component to the success of the plan.

Partners include:

Department of Agriculture, Trade & Consumer Protection (DATCP)

USDA Farm Service Agency

USDA Forest Service

USDA Natural Resources Conservation Service

Price County Lake Organizations

Price County Zoning Department

Price County Forestry Department

Northwest Regional Planning Commission

Department of Natural Resources

Upper Chippewa Basin Citizen Partner Team

Price County School Districts

Price County UW-Extension

Price County Unit of the Wisconsin Town's Association

Woodland Owner's Association

Ducks Unlimited

Whitetails Unlimited

Appendix B lists partner roles for each individual activity planned, but hours are not itemized. The Price County Land Conservation Department is the coordinating agency for projects unless otherwise indicated.

This land and water resource management plan would provide the framework for a mutual agreement with the State of Wisconsin and the United States Department of Agriculture. The Land Conservation Department has considered a memorandum of understanding with the Price County Zoning Department and Committee. In the future, cooperative agreements better defining roles and responsibilities of all natural resource management agencies may be developed.

Funding



The development of the Price County Land and Water Resource Management Plan provides Price County with the opportunity to outline local priorities and obtain funding to implement solutions for resource problems.

DATCP will provide a base of funding needed to implement components of this plan. Additional funding sources will be sought. Local, state, and federal agencies, environmental organizations, educators, agricultural groups, lake associations, business interests and concerned citizens are encouraged to support the land and water resource management activities presented in this plan.

Potential funding sources

Private sources
Private Foundations
Individual Contributions
Volunteer Hours
Lake and River Organizations

Conservation Organizations

Ducks Unlimited

Pheasants Forever

Whitetails Unlimited

Wisconsin Waterfowler's Association

Local government sources

Lake District

Price County Land Conservation Department Budget

State government sources

Cooperative Educational Services Administration CESA 9 (Tomahawk) and CESA 12 (Ashland)

Department of Natural Resources

Targeted Runoff Management Funds

Stewardship Grants

Lakes Planning Grants

Lakes Protection Grants

River and Stream Planning and Protection Grants

DNR Wildlife Sources

Pheasant Stamp

Segregated Funds (general license)

Wisconsin Waterfowl Stamp

Turkey Stamp

Trout Stamp (Inland)

Department of Agriculture, Trade, and Consumer Protection

Land and Water Resource Management Funds

University of Wisconsin - Extension

Wisconsin Environmental Education Board Grants Program

Wisconsin Geologic and Natural History Survey

Wisconsin Groundwater Resource Center

Federal sources

Environmental Protection Agency

Environmental Education Grants

319 (Clean Water Act) Grants

Five Star Grants

United States Department of Agriculture

Farm Service Agency Conservation Reserve Program (CRP)

National Forest Service

Natural Resources Conservation Service Environmental Quality Incentives Program (EQIP) Farmland Protection Program Forestry Incentive Program (FIP) Wildlife Habitat Incentives Program (WHIP) Wetland Reserve Program (WRP)

Rural Development Administration

U.S. Fish and Wildlife Service
North American Waterfowl Conservation Act (NAWCA)
Pittman Robertson Funds

Review and Evaluation

Water Quality Monitoring

Recommendations related to improving water quality data for the land and water resource management plan are stated below.

- The Department of Natural Resources should invest resources in monitoring lakes and rivers in Price County as recommended in the Basin Plans.
- The Department of Natural Resources and Price County should support efforts of lake groups and other organizations to pursue funding for lake and river management projects.
- The Department of Natural Resources and Price County should encourage and support self-help monitoring programs.

A partial list of current efforts to monitor water resources is included below.

Table 13: Water Quality Monitoring Efforts

Program	Resource	Responsible Agency
Self-Help Lakes Monitoring	Lakes	DNR, Lakes Organizations
Lakes Planning Grant Studies	Lakes	DNR, Lakes Organizations
Aquatic Invasive Species Grants	Lakes	DNR, Lake Organizations
Water Quality Appraisals	Lakes/Streams	DNR
Chemical Measurements	Lakes/Streams	DNR, USGS
Habitat Assessments	Streams	DNR, USGS
Biological Assessments	Lakes/Streams	DNR

Habitat Monitoring

State and federal agencies that emphasize fish and wildlife habitat restoration and protection have ongoing efforts to monitor habitats and species. Some of these efforts are listed below. The LCD does not intend to carry out habitat monitoring activities for the implementation of this plan. Instead, it will support habitat restoration efforts and utilize monitoring data from other sources.

Table 14: Habitat Monitoring Efforts

Resource Responsible Agency USFWS, DNR

Rare, threatened, and endangered plant and animal species DNR Christmas bird count Audubon

Sandhill crane count Intl. Crane Foundation

Frog and toad survey

Breeding bird survey

DNR

Deer count

Woodcock/grouse survey

DNR

Pheasant count Sportsmen's Alliance/DNR

Breeding waterfowl survey USFWS

Inventories

Inventories track changes in land use or land management practices that affect water quality or habitat. Several methods are currently used by resource agencies to track these changes.

Table 15: Inventory Efforts

Inventory Method Resource/Source Responsible Agency
National Resource Inventory Land Use NRCS
LandSat Photos Land Cover DNR
CRP Acres Cropland FSA
Location and Rank Animal waste facilities LCD

Additional inventory activities are part of the implementation of this plan:

Goal I

The Land Conservation Department will inventory agricultural facilities for compliance with the agricultural performance standards.

Goal II

Inventory and prioritize sites of concern and natural (intact) shoreline buffer zones along shorelines of lakes and rivers. Work with volunteer groups when possible.

Plan Evaluation

The Land Conservation Department's annual report will outline accomplishments compared to LWRM plan goals and objectives. The review will also select fiscal and resource priorities for the upcoming year using the land and water resource management plan as a guide. The results will be a progress report for the previous year and a work plan for the next two calendar years. Progress tracking methods for each activity are listed in Appendix B.

Measures of success and/or evaluation methods are relatively straightforward for most of the objectives. However, evaluating the success of the information and education objectives poses special challenges. Without an extensive investment of time and money, it is often difficult to measure if an educational technique is effective. Did a particular event such as a

workshop change an attitude or behavior; did information in a brochure or video lead to the change; or did an individual act independently of the information and education program?

Measures of success will vary by activity. Most activities are geared toward meeting objectives in a few general categories:

Promoting the availability of financial and technical assistance;

Teaching best management practice techniques;

Increasing understanding about the importance of protecting natural resources; and Convincing people to change behaviors to protect natural resources.

The first two categories are relatively easy to evaluate. Effectiveness of promotional techniques will be tracked by simply asking people how they heard about the program when they sign up for an activity or inquire about a management practice. Knowledge of management techniques gained from workshops and other activities will be evaluated with questionnaires prior to and after events. Assessing understanding and behavioral change that result from educational activities is more difficult. Activities in these categories usually seek to reach a relatively broad audience, and many factors influence an individual's values and behaviors.

Simple tracking units for information and education activities are suggest by DATCP. These units are lists in Table below.

Table 16: Tracking Information and Education Activities

Practice / Activity	Unit of Measurement	
Nutrient Management plans	# plans written	
Soil erosion control workshops	# trained	
Shoreland Information packets	# distributed	
Community Presentations	# attendees	
Youth Conservation Field Day	# students	
Classroom Presentations	# students	
Envirothon	# participants	
Speaking / Poster Contest	# of entries	
Soil Stewardship week	# of bulletins distributed	
Teacher scholarships	# given	
Student scholarships	# given	
Soil/Land Judging Contests	Y/N	
Conservation Awards / Recognition Program	Y/N	
Lake Fairs	Y/N	

Appendix A

STATE NONPOINT SOURCE POLLUTION CONTROL STANDARDS & PROHIBITIONS
AND IMPLEMENTATION STRATEGIES

Performance Standards and Prohibitions

Performance standards and prohibitions are a vital component of County Land and Water Resource Management Plans. The WDNR and DATCP have developed performance standards for agriculture and non-agriculture nonpoint pollution sources. In October 2002 after long deliberation and many public hearings new state runoff rules took effect. WDNR rule (NR 151) sets performance standards for runoff and to protect water quality. The DATCP rule (ATCP 50) identifies conservation practices available to maintain compliance with the WDNR standards. Specifically the DATCP rule sets the requirements that a nutrient management plan (NMP) must meet to comply with state law. The prohibitions listed in § 281.16(3) Wisconsin Statute are:

- No direct runoff from feedlots or stored manure into waters of the state
- No unlimited livestock access to Shoreland areas where high concentrations of animals prevent the maintenance of adequate or self-sustaining sod cover
- No overflow of manure storage structures
- No manure stacking in confined piles within a water quality management area (WQMA)

Other standards outlined in the newest rules are:

- If you grow agricultural crops you must meet (T) on cropped fields and follow a nutrient management plan by 2005 (for high priority areas e.g. impaired water, or outstanding (ORW) and exceptional waters (ERW) and by 2008 for all others
- If you raise, feed or house livestock starting in 2005 (for high priority areas) and 2008 (for all others) you must follow a NMP when applying or contracting to apply manure to limit entry of nutrients into waters of the state
- If you have a plan to build, or want to repair (or upgrade) a failing or leaking manure storage structure, that poses an imminent health threat to the public, or violates groundwater standards, the manure storage structure must comply with current NRCS Manure Structure Standards.
- Abandoned manure storage structures shall be closed according to accepted standards
- Meet technical standards for a newly constructed, or substantially-altered, manure storage structure
- If you have land in a WQMA, you must divert clean water away from feedlots, manure storage areas and barnyards located within this area

Performance Standards and Prohibitions Incorporated into County Ordinances Several of the Performance Standards and Prohibitions are currently not incorporated into Price County Ordinances. However, the following current and proposed ordinances will prove to be essential in meeting the state's non-agricultural and agricultural standards and prohibitions:

- Nonmetallic Mining (NR 235 / non-agricultural standards)
- Shoreland and Floodplain Zoning (NR 115, NR 116, NR 216, NR 151, ATCP 50)

- Construction Site Erosion Control (NR 216 / non-agricultural standards)
- Stormwater Management (NR 216 / non-agricultural standards)
- Manure Storage (NR 151, ATCP 50 / agricultural prohibitions and standards)

Working together with other county departments, future ordinances will need to be enacted to strengthen the implementation of other performance standards and prohibitions.

NR 151 Local Implementation Strategy

The Price 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 Price 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 LCD will distribute information and educational material prepared by the DNR. The information may be distributed via news media, newsletters, public information meetings, and one-on-one contacts. The LCD will make direct contact with landowners during farm visits.

The educational materials will be designed to meet 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;
- Establish expectations for compliance and consequences for non-compliance;

Priority Farm Identification

The LCD 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 that receive cost-share assistance under the Soil and Water Resource Management grant program
- Third Priority Farms located in watersheds draining to 303(d) waters.

Criteria for selecting priority farms for on-site visits

- 1) In a Water Quality Management Area (within 1000 feet of a lake or flowage or within 300 feet of a navigable stream.)
- 2) In watershed of outstanding and exceptional resource waters or 303(d) listed (impaired) waters.
- 3) In watershed of recreational impoundment.
- 4) Land drains to a lake or stream (rather than internally drained). Proximity and slope to a lake or stream (closer and greater slope = higher priority)

- 5) Livestock facilities with potential evidence of performance standards violations (staff observations or complaints)
- 6) High potential for groundwater contamination such as a high groundwater table and/or highly permeable soils.
- 7) Livestock producers without nutrient management plans
- 8) Crop producers without nutrient management plans

Additional criteria considered, but not used

Low number of animal units directly on water. These landowners with a few horses or cows are less likely to have the experience managing appropriately for water quality. Because of the number of contacts required, the Price County LCD will target these landowners with an educational program that will focus on performance standards compliance.

Procedure for records and map inventory review

- 1. Develop a list of crop farms and livestock farms in Price County.
- 2. Based available map and file information, identify priority level of farm using criteria in list above. Update farm list in priority order.
- 3. From parcel records, evaluate which standards and prohibitions are likely to apply.
- 4. If possible based on above evaluations, determine which landowners are currently already meeting standards and prohibitions as a result of:
 - a. Installed or implemented BMPs under an existing state or federal cost share agreement; and/or
 - b.Maintaining compliance with state animal waste regulations (e.g. NR 243, WPDES, etc.).

Note: It is expected that most landowners identified as priorities above will require on-site visits.

B. Onsite evaluations procedure

- 1. Compile list of priority farm parcels for on-site evaluations based upon the priority list completed in step A2 above. On-site evaluations may also result from identification by complaint.
- 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).

4. Establish priority list for follow-up enforcement based upon the number and extent performance standard violations.

3. Document and report compliance status

A) NR151 status report

Following completion of records review and on-site evaluation, prepare and issue NR 151 status report, developed by DNR and filled in by the LCD, to owners of the evaluated parcels. This report will convey the following information at a minimum:

- Current status of compliance of individual parcels with each of the performance standards and prohibitions.
- 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 government, 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.)
- A timeline for completing corrective measures, if necessary.
- 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 LCD) describing the ramifications and assumptions related to the status report will be attached.

Note: Cost sharing will be encouraged for voluntary compliance, regardless of status on priority list. Cost-effective practices such as fencing, watering facilities, nutrient management planning, and well abandonment will be emphasized.

B) Maintain public records

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. The method for maintaining these records and for ensuring relevant information is conveyed to subsequent owners will be discussed with the Price County Corporation Counsel.

4. Provide or arrange for the provision of technical assistance
Make cost sharing available as needed to install or implement BMPs

Voluntary component (Cooperative)

- 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 availability of cost-share & technical assistance.
- 3. Develop and issue cost-share contract (including BMPs to be installed or implemented, estimated costs, project schedule, and notification requirements under NR 151.09(5-6) and/or 151.095(6-7).

Note: The DNR will assist in developing proper notification language.

Non-voluntary component (Non-Cooperative)

In the event that a landowner chooses not to install corrective measures either with or without cost sharing, issue landowner notification per NR 151.09(5-6) and/or 151.095(6-7). LCD will issue this notice jointly with DNR.

- 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 of 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 appeals procedures.
- 5. Administer funding and technical assistance
- **A) Execute cost share agreement.** If cost sharing is involved, finalize and execute cost-share agreement including schedule for installing or implementing BMP(s). Potential practices and cost share rates are included as Appendix H.
- 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

Note: Price County LCD does not develop conservation plans. These will be referred to the NRCS.

Re-evaluate parcel. 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 component 3.A.) and issue "Letter of NR151 Compliance."

Note: A letter of NR 151compliance 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 it is not the fault of the landowner, 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 under Component

6. Issue required notices and conduct enforcement activities

A. Notify DNR of enforcement action needed

If a landowner refuses to respond appropriately to a notice under 4.B., or is in breach of a cost share contract under component 5.A., the LCD will notify DNR who will prepare and issue "Notice of NR 151 Violation" letter.

Note: Enforcement begins with this letter. It will be pursued in circumstances where:

- a. a breach of contractual agreement including failure to install, implement, or maintain BMPs according to the provisions of the agreement occurs OR the landowner has failed to comply with a notice issued under component 4.B, AND
- b) (b) non-regulatory attempts to resolve the situation have failed.
- c) The county will not develop or create the forms or documents. The LCD will participate in filling out the document with a joint signature with the DNR.
- A. Schedule enforcement conference.

If landowner is found to be out of compliance, the LCD will notify the DNR to set up the enforcement conference.

B. Participate in enforcement conference.

The LCD will participate in an enforcement conference formally initiated by DNR.

C. Initiate enforcement action

Refer cases to DNR for enforcement

7. Monitoring compliance

- Conduct periodic evaluations to verify ongoing compliance. Landowners will be asked to complete a self-certification form annually and return it to the LCD. The LCD will also complete spot checks on 5-10 percent of sites on an annual basis.
- Respond to public complaints alleging noncompliance. LCD will respond to complaints by investigating allegations with file review, telephone confirmation, and/or an on-site visit. If the review demonstrates significant violation of the agricultural performance standards, staff will proceed with the strategy for compliance. This process will begin with documentation (Step 3), proceed to technical assistance (Step 4), administering funding (Step 5) then to enforcement actions (Step 6) if necessary.
- Noncompliance that threatens public health and safety will be immediately referred for enforcement action through appropriate county and state entities.

- 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. This may be accomplished through a query of the county tax parcel database.
- 8. Tracking and reporting program activities and progress
 - A. Maintain and convey a record of annual site evaluations showing their location and compliance status.
 - B. Maintain a record of estimated costs of corrective measures for each evaluated parcel.
 - C. 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.
 - D. Maintain and convey a record and location of parcels receiving notification under component 3.A. and violation letters under component 6.A.
 - E. 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.

Note: The LCD will provide the above information to the Department of Agriculture, Trade, and Consumer Protection.

Appendix BTable B-1: Planned activities and performance measures by category

CATEGORY	PLANNED ACTIVITIES WITH BENCHMARKS	PERFORMANCE MEASUREMENTS
(goal and objective from LWRM plan can	If applicable identify focus areas, e.g. HUC 12	(examples in italics)
be added in each category)	watershed code	
	(examples of types of "planned activities" in italics)	
Cropland		
Cropland, soil health and/or	Provide technical assistance and design practices. 500 hours staff	# of staff hours expended for training, design and installation
nutrient management	time Cost share of 6 fencing and managed grazing systems within	Type and units of practice(s) installed
	priority watersheds listed in goal number 1.	Amount of cost-share dollars spent
	Cost share 1 waterway and provide nutrient management	# lbs of sediment reduced (using any approved method)
	education to landowners.	# lbs of P reduced (using any approved method)
	Focus will be on farms within UC03, UC04, and	# acres of cropland in compliance with a performance standard
	UC09 watersheds.	(e.g. soil erosion, tillage setback)
Livestock		
Livestock	Install livestock practices.	# of staff hours expended for design and installation
	2 new storage facilities 1 storage facility closure	Type and units of practice(s) installed
	1 storage facility closure 1 heavy use protection system	Amount of cost-share dollars spent
	2 access roads/cattle crossings	# lbs of sediment reduced (using any approved method)
		# lbs of P reduced (using any approved method)
	Provided 500 hours of technical assistance including design and project oversight	# of livestock facilities in compliance with a performance standard
Water quality		
Water quality/quantity (other than	Inventory and prioritize shoreline buffer zones along	Number of sites inventoried and prioritized.
activities already listed in other	shorelines of lakes and rivers.	Number of restorations designed and installed.
	Inventory 1600 feet of shoreline annually.	
categories)	Abandon 8 non-compliant wells	Number of wells abandoned
	Install 2 stream bank protection projects.	
	Provided 300 hours of technical assistance including	
	design and project oversight	
Forestry		
Forestry	Provide technical and educational assistance to	Type and units of practice(s) installed
·	foresters and loggers regarding the importance of	# lbs of sediment reduced (using any approved method)
	BMPs relating to sedimentation and nutrient loading	# lbs of P reduced (using any approved method)
	as a result of logging operations.	

Invasives

Invasives			
Invasive species	Treat 3 sites annually for control of terrestrial invasive species. (local wild parsnip and Japanese knotweed hotspots) Assist lake and river associations with grants and sponsor cooperative efforts.	Control of invasive species on sites. Number of associations helped and public awareness raised.	
	Provide information and publications to groups about identification and control.		
Wildlife			
Wildlife-Wetlands-Habitat (other than forestry or invasive species)	Restore 5 acres of wetland annually. Provide information to landowners/associations about the value of wetlands Tree and plant sales	Acres of wetland restored/preserved	
Urban			
Municipality issues Assist town and county road departments with erosion control and storm water management along roadways.		Number of plans developed, reviewed and installed.	
Watershed			
Watershed strategies	Attend 5 association meetings and provide information.	Number of meetings attended and number of practices installed. Number of partnership development activities accomplished	
	Provide technical assistance to 3 associations. (i.e. permitting, design work, tree drops, etc.) Assist the local municipality in adaptive management strategies for P reduction in the watershed.	Number of practices designed and installed. # lbs of P reduction	
Other			
Other	Assist in technical review of Non-metallic mining reclamation plans and project oversight in regard to runoff. Conduct a Clean Sweep Hazardous Waste Collection	Number of plans reviewed Number of inspections Number of participants	
	The state of the s	The state of the s	

Pounds collected

Table B-2: Planned activity related to permits and ordinances

Permits and Ordinances	Plans/application reviews anticipated	Permits anticipated to be issued
Feedlot permits		No permitting in Price Co
Manure storage construction and transfer systems		No permitting in Price Co
Manure storage closure		No permitting in Price Co
Livestock facility siting		No permitting in Price Co
Nonmetallic/frac sand mining		Permit Issuance done by Zoning
Stormwater and construction site erosion control	Assist with 5 permits	Permits issued by WDNR
Shoreland zoning	5 restoration plans	Permits issued by Zoning
Wetlands and waterways (Ch. 30)	8	Permits issued by WDNR
Other		

Table B-3: Planned inspections

Tuble B 0.1 fullified hispections			
Inspections	Number of inspections planned		
Total Farm Inspections	25		
For FPP	2		
For NR 151	25		
Animal waste ordinance	No Ordinance in Price Co		
Livestock facility siting	No Ordinance in Price Co		
Stormwater and construction site erosion control	20		
Nonmetallic mining	10 to ensure stormwater practices are		
	followed		

Table B-4: Planned outreach and education activities

Activity	Number
Tours	1
Field days	1
Trainings/workshops	5
School-age programs (camps, field	3
days, classroom)	
Newsletters	
Social media posts	
News release/story	5
-	

Table B-5: Staff Hours and Expected Costs (staff can be combined or listed individually)

Staff/Support	Hours	Costs
County Conservationist	1250	\$57,404
Technician	2080	\$53,207
Support Costs	625	\$18,380
SWRM Bonding	N/A	\$50,000
USFWS	N/A	\$5,000
WI-DNR	N/A	\$15,000

Appendix C.

Roles and Responsibilities

The Price County Land Conservation Department will work with many agencies and organizations to accomplish the goals, objectives, and activities outlined in the land and water resource management plan. A brief description of roles and responsibilities for some of them is provided here.

Natural Resources Conservation Service (NRCS)

NRCS is a federal agency of the United States Department of Agriculture, once called the Soil Conservation Service (SCS). Capabilities of this agency are planning, engineering, and advising landowners on how to install conservation practices. NRCS has assigned a District Conservationist to Price and Taylor Counties. In addition, conservation specialists in engineering, soils, biology, agronomy, and other areas of expertise are available for consultation and backup.

NRCS does conservation work in accordance with a mutual agreement between USDA, the State of Wisconsin, and each local Land Conservation Committee. NRCS can notify landowners of possible local, state, or federal cost-share programs available, as well as inform them of any rules or regulations that may apply.

Programs in Price County:

- Forestry Incentive Program cost sharing for forestry projects.
- Environmental Quality Incentive Program technical and financial assistance for livestock conservation practices to protect soil and water resources.
- Wetland Reserve Program restore wetlands previously altered for agricultural use.
- Wildlife Habitat Incentives Program develop or improve fish and wildlife habitat on private lands.
- Conservation Reserve Program reduce erosion, increase wildlife habitat, improve water quality, and increase forestland.
- USDA Farmland Protection Program funds for state, federal, tribal, or local government purchase of development rights on prime agricultural land.

Farm Service Agency (FSA)

The FSA is part of the U.S. Department of Agriculture. The FSA office administers programs for the farming community within each county.

- Conservation Reserve Program (CRP) This program is a ten to fifteen-year set aside program for highly erodible land. The contracts are selected through a national bid process.
- Average Crop Revenue Election (ACRE) This program is an alternative to DCP and
 offers eligible producers a state-level revenue guarantee, based on the 5-year state
 Olympic average yield and the 2-year national average price

- Direct and Counter-cyclical Payment Program (DCP) This program provides payments to eligible producers enrolled in 2008-2012. Payments are based on yields per acre and acres enrolled.
- Non-insured Assistance Program (NAP) This program provides assistance for producers that grow crops that are not insurable.
- Supplemental Revenue Assistance Payments (SURE) This program provides benefits for farm revenue due to natural disasters.
- Price Support (PS) This program issues loans on feed grains grown by the producers. Loan deficiency payments, made when the posted county grain price falls below the loan rate, are also a part of price support program.
- FSA also delivers any dairy, disaster, or livestock programs that are created.

<u>University of Wisconsin – Extension (UWEX)</u>

Price County UW-Extension extends the knowledge and resources of the University of Wisconsin to the people of Price County. Extension agents and educators provide people with unbiased, research-based information, resources, and opportunities to help them make informed decisions dealing with policy and quality of life issues including land use management programs.

The agents provide leadership and instruction by working with adults and youth to help them understand information to effectively meet their individual and collective needs. Program goals are accomplished through appropriate uses of individual instruction, group teaching, media, and through serving as an educational advisor to program-related groups and organizations.

Department of Natural Resources (DNR)

The Department of Natural Resources provides a variety programs that will assist with the implementation of this plan.

Department of Agriculture, Trade & Consumer Protection (DATCP)

DATCP provides a combination of technical assistance and financial assistance to the Price County Land Conservation Department. DATCP provides staffing grants to the county, as well as cost share grants, necessary for our program to operate.

Lake Management

The lake management program is responsible for protecting and maintaining lake quality. The lake management program ensures that an adequate water quality database exists and provides for ongoing demonstration of lake protection and improvement practices.

Non-Point Source Program

The Department of Natural Resources Non-Point Source Water Pollution Abatement Program (NPS Program) was established to reduce the degradation of Wisconsin's lakes, streams, groundwater and wetlands from both urban and rural non-point sources. It has been recently redesigned, and existing projects are scheduled to close by 2009. A new version of the program (Targeted Resource Management) will address targeted, small-scale, non-point projects.

Forestry

The Forestry Program encourages forest landowners to practice sustainable management of their forestland to produce, enhance, and protect all forest resources. These resources include timber, fish and wildlife, threatened and endangered species, natural communities, soil and water, recreation, and aesthetics.

Wildlife

The Wisconsin Department of Natural Resources Wildlife Program works with people to protect and manage Wisconsin's wildlife populations and their habitats and promote wildlife enjoyment and appreciation.

Fisheries

The Wisconsin Department of Natural Resources fisheries team manages the public fisheries in Price County and provides technical assistance on private waters. Responsibilities include administration of state and federal funds to improve fisheries and recreational opportunities. Typical tasks include habitat management, fish stocking, surveying, and education.

Price County Zoning Administration

The Price County Zoning Department regulates land uses through statutory authority and enforcement of ordinances including:

- Shoreland zoning regulations
- Wetland regulations
- Floodplain regulations
- Sanitary codes (septic system regulation)
- Comprehensive zoning (outside of shoreland areas), and
- Subdivision control.

Price County Forestry Department

The Forestry Department manages the natural resources of the 93,000-acre county forest. This department is also responsible for the management of the following activities on Price County forestlands.

- Timber sales (establishment and administration)
- County parks
- Recreational trails
- Wildlife enhancement projects

Price County Land Conservation Department

The Price County Land Conservation Department (LCD) works with landowners, local organizations, state and federal agencies to protect and enhance our land, water and related resources. The LCD develops and encourages adoption of local programs aimed at conserving our soil, water and related natural resources. The LCD provides administrative, technical and educational assistance for state and local natural resource programs such as:

- Farmland Preservation Program
- Non-point Pollution Program
- Nutrient Management Program
- Shoreland Management Program
- Other Soil and Water Resource Management Programs
- Wildlife Damage Program
- Environmental Education Programs
- Wildlife Habitat and Tree Planting Program

Price County Land Information Office

The land information office provides information on land use and ownership in Price County.

Component 2	Component 3	Component 4	Component 5
Define level of Agencies' Commitment to NR151 Workload	Conduct Information and Education Activities	Determine Current Compliance	Prepare Report and Notify Landowner of Compliance Status
Commitment to	DNR's Expectations of Counties Help identify statewide and regional I&E needs. Customize I&E materials to meet local needs Educate landowners about NR 151 and compliance requirements during routine farm visits. *Identify staff training needs on technical/policy issues. Assist DNR & DATCP with training of others in subjects where have expertise DNR Role *Coordinate & provide training and guidance for staff	DNR's Expectations of Counties Review records to identify and document parcels that are required to be incompliance (cost share records, FPP certifications, etc.) Use on-site evaluations in priority areas to identify and document compliance (or noncompliance) with Performance Standards & Prohibitions (PS&P). DNR Role Help establish records review criteria. Help access DNR data bases as appropriate. Collaborate with County (including site visit) on compliance	of Compliance
	prepare and disseminate I&E materials Maintain & improve web resources and better	high priority sites, such as those that may receive Notice of Noncompliance (NON) under NR 151.09/.095 or are otherwise	DNR Role Identify critical compliance data elements with counties
	Define level of Agencies' Commitment to NR151 Workload DNR's Expectations of Counties Clearly define county commitment to NR 151 workload in LWRMP, MOU or annual work plan. Evaluate need for MOU or interagency work planning and negotiate as appropriate. DNR Role Participate in developing NR 151 portion of LWRMP. Participate in developing MOU and/or participate in interagency annual work planning. Identify DNR contact people for each county Continue to work with NRCS & other agencies to get their help with standards	Define level of Agencies' Commitment to NR151 Workload DNR's Expectations of Counties Clearly define county commitment to NR 151 workload in LWRMP, MOU or annual work plan. Evaluate need for MOU or interagency work planning and negotiate as appropriate. DNR Role Participate in developing NR 151 portion of LWRMP. Participate in developing MOU and/or participate in interagency annual work planning. Identify DNR contact people for each county Continue to work with NRCS & other agencies to get their help with standards implementation DNR Role Continue to work with NRCS & other agencies to get their help with standards implementation Conduct Information and Education Activities DNR's Expectations of Counties Lequite lentify statewide and regional I&E needs. Customize I&E materials to meet local needs Educate landowners about NR 151 and compliance requirements during routine farm visits. *Identify staff training needs on technical/policy issues. Assist DNR & DATCP with training of others in subjects where have expertise DNR Role *Coordinate & provide training and guidance for staff Help identify, prepare and disseminate I&E materials Maintain & improve web	Define level of Agencies' Commitment to NR151 Workload DNR's Expectations of Counties Clearly define county commitment to NR 151 workload in LWRMP, MOU or annual work plan. Evaluate need for MOU or interagency work planning and negotiate as appropriate. DNR Role DNR Role DNR Role DNR Role Educate landowners about NR 151 and compliance requirements during routine farm visits. Participate in developing NR 151 portion of LWRMP. Participate in developing MOU and/or participate in interagency annual work planning. Identify DNR contact people for each county Continue to work with NRCS & other agencies to get their help with standards implementation DNR Role Standards & prohibitions Portorion of LWRMP. *Coordinate & provide training and guidance for staff disseminate L&E materials Maintain & improve web resources and better DNR's Expectations of Counties Review records to identify and document parcels that are required to be incompliance (cost share records, FPP certifications, etc.) Use on-site evaluations in priority areas to identify and document compliance (or non-compliance) with Performance Standards & Prohibitions (PS&P). DNR Role DNR Role Statewide and regional L&E needs. Review records to identify and document parcels that are required to be incompliance (cost share records, FPP certifications, etc.) Use on-site evaluations in priority areas to identify and document compliance (or non-compliance) with Performance Standards & Prohibitions (PS&P). DNR Role DNR Role DNR Role DNR Role Standards & Prohibitions Collaborate with County (including site visit) on compliance determination for high priority sites, such as those that may receive Notice of Noncompliance (NON) under NR improve web resources and better

Component 6	Component 7	Component 8	Component 9	Component 10
Secure Funding and	Administer Funding	Enforcement	Ongoing Compliance	Annual Reporting
Technical Assistance /	and Technical	2	Monitoring	Timuut reporting
Issue NR 151 Notice	Assistance / Re-			
	evaluate Parcel			
DNR's Expectations	DNR's Expectations	DNR Expectations of	DNR Expectations of	DNR Expectations of
of Counties	of Counties	Counties	Counties	Counties
Seek and administer	Administer funding	Enforce existing local	This is a county	Collect, evaluate for
cost-share funds from	and technical assistance	ordinances.	responsibility except	accuracy and submit
variety of sources.	assistance	Inform DNR if the	for parcels regulated under a NR 243	annual reporting information on
Use Priority	Re-evaluate parcels	compliance schedule	permit.	performance
Watershed funds to	that are brought into	in a NR 151 is	permit.	standards
greatest effect in	compliance and	actually violated.	At a minimum, check	implementation to
accordance with NR	inform landowner of		compliance	DNR & DATCP.
151 policy for priority	compliance status and	Provide support to	periodically as part of	This is the basis for
watersheds.	maintenance	DNR in stepped	ongoing programs.	statewide reporting to
	responsibility.	enforcement		the Land & Water
Make adequate cost-	3.5.1.1	DAM D. I	DAM D. I	Conservation Board
share offers to achieve	Maintain compliance status information	DNR Role	DNR Role	and the State
compliance	(hopefully data base).	Initiate and carry out	This is a state	Legislature.
Identify where and	(noperuny data base).	stepped enforcement	responsibility for	DNR Role
when NR 151 NONs	For NR 151 NONs,	of violators	parcels regulated	DIVICION .
are needed and	keep DNR informed	or violators	under a NR 243	Develop and maintain
communicate this to	of landowner's		permit.	data submittal forms
DNR if DNR will be	progress in meeting			
issuing NON.	the compliance			Develop and maintain
	schedule in the			data base
Provide DNR with	Notice.			C
information it needs to issue the NR 151	DNR Role			Compile and report statewide information
NON to landowner.	DINK KOIE			statewide illioillation
Review draft NONs.	Send reminders to			Provide training on
	landowners that are			reporting.
DNR Role	likely to miss			
	compliance deadlines			
Provide guidance with	unless prodded.			
TRM grant proposals.	5 6 1 11			
Confirm findings that	Draft and send letters of satisfaction where			
will be included in the	the conditions of a			
NON, if needed.	NR 151 NON have			
(Findings include:	been met.			
compliance status;				
status as existing vs.	Seek continuing			
new; adequacy of cost	appropriations for			
share offer.)	performance			
G 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	standards			
Serve as liaison with DATCP to evaluate	implementation			
adequacy of cost-				
share offers using				
non-DNR \$\$.				
Draft and issue NON,				
if needed.				

Appendix D

Revenue Sources for Cost-Sharing

The following table lists all conservation practices currently listed in ATCP 50 and indicates whether bonding funds may be used for the installation of the practice or activity.

PRACTICE or ACTIVITY	ATCP 50	Funding	Units of
	Reference	Source	Measurement
Land taken out of agricultural production	50.08(3)	Bonding	Acres
(list on cost-share contract the practice to be installed			
or the eligible existing practice)			
Riparian land taken out of agricultural production	50.08(4),	Bonding	Acres
(list on cost-share contract the practice to be installed	50.42(1)		
or the eligible existing practice)			
Manure storage systems	50.62	Bonding	#
Manure storage closure	50.63	Bonding	#
Barnyard runoff control systems	50.64	Bonding	#
Access road or cattle crossing	50.65	Bonding	Linear Ft.
Animal trails and walkways	50.66	Bonding	Linear Ft.
Contour farming	50.67	GPR	Acres
Cover and green manure crop	50.68	GPR	Acres
Critical area stabilization	50.69	Bonding	#
Diversions	50.70	Bonding	Linear Ft.
Field windbreaks	50.71	Bonding	Linear Ft.
Filter strips	50.72	Bonding	Acres
Grade stabilization structures	50.73	Bonding	#
Heavy use area protection	50.74	Bonding	Acres
Livestock fencing	50.75	Bonding	Linear Ft.
Livestock watering facilities	50.76	Bonding	#
Milking center waste control systems	50.77	Bonding	#
Nutrient management	50.78	GPR	Acres
Pesticide management	50.79	GPR	#
Prescribed grazing	50.80		

PRACTICE or ACTIVITY	ATCP 50	Funding	Units of
	Reference	Source	Measurement
a. management plan		GPR	#
b. fencing (not permanent)		GPR	Linear Ft.
c. fencing (permanent)		Bonding	Linear Ft.
d. establishing permanent pastures (seeding)		Bonding	Acres
Relocating or abandoning animal feeding operations	50.81	Bonding	#
Residue management	50.82	GPR	Acres
Riparian buffers	50.83		
a. installation (including land out of production)		Bonding	Acres
b. maintenance		GPR	Acres
Roofs	50.84	Bonding	#
Roof runoff systems	50.85	Bonding	#
Sediment basins	50.86	Bonding	#
Sinkhole treatment	50.87	Bonding	#
Streambank and shoreline protection	50.88	Bonding	Linear Ft.
Strip-cropping	50.89	GPR	Acres
Subsurface drains	50.90	Bonding	#
Terrace systems	50.91	Bonding	Linear Ft.
Underground outlet	50.92	Bonding	#
Waste transfer systems	50.93	Bonding	#
Wastewater treatment strips	50.94	Bonding	Linear Ft.
Water and sediment control basins	50.95	Bonding	#
Waterway systems	50.96	Bonding	Acres
Well decommissioning	50.97	Bonding	#
Wetland restoration	50.98	Bonding	Acres
Engineering services provided in connection with a	50.34(4)	Bonding	
completed cost-share practice for which bond			
revenue			
may be used (also refer to 50.40(7)).			
Other cost-effective practices with DATCP's	50.40(3)(a	GPR1	
written approval	<u> </u>		

Appendix E

Price County Land and Water Resource Management Plan Citizens Advisory Committee Meeting Agenda

Thursday March 21, 2019 Price County Normal Building Conference Room B 11am – 1pm

- 1. Call meeting to order.
- 2. Introductions.
- 3. Review of draft revision to Land and Water Resource Management Plan.
- 4. Prioritize resource concerns/issues.
 - Student and general public outreach
 - Erosion Control
 - Ag waste management
 - Nutrient management planning
 - Cost-share grant programs
 - Surface water pollution
 - Land fragmentation and loss of wildlife habitat
 - Invasive species
 - Groundwater Pollution
 - Farmers/farmland
- 5. Suggestions for any significant changes to the Work Plan.
- 5. Adjourn

Appendix F

Price County and the WI DNR Wisconsin River TMDL

Figure E-1: Wisconsin River TMDL and Price County Location

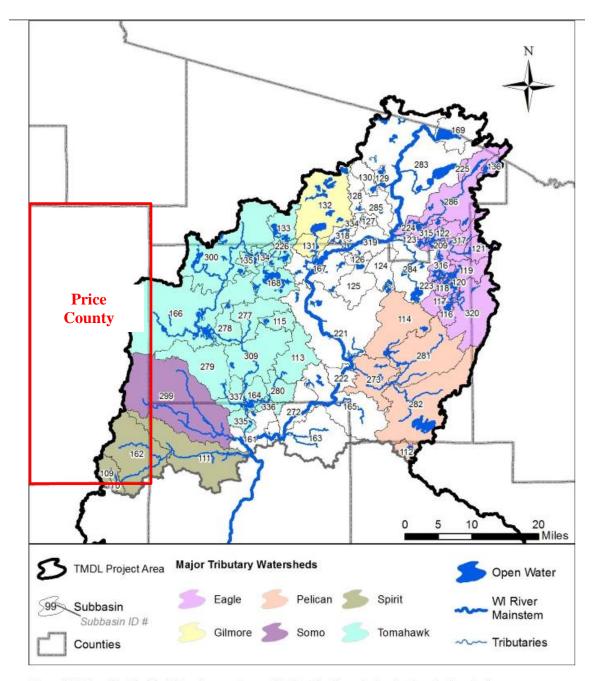


Figure 1.4 Map of subbasin delineations and associated subbasin codes for the headwaters basin. Subbasin codes can be used to find TMDL allocations in Appendices J and K.

Ave. Annual Phosphorus Load = 8.4 tons | Lincoln, Price and Taylor Counties | 159.7 square miles |

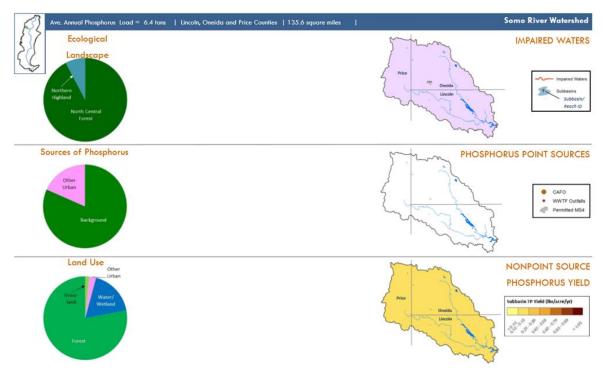
| Spirit River Watershed | Impaired Waters | Impaired Waters | Impaired Watership | Impaired Water

NONPOINT

PHOSPHORUS YIELD

Figure F-2: Wisconsin River TMDL & Spirit River Watershed

Figure F-3: Wisconsin River TMDL & Somo River Watershed



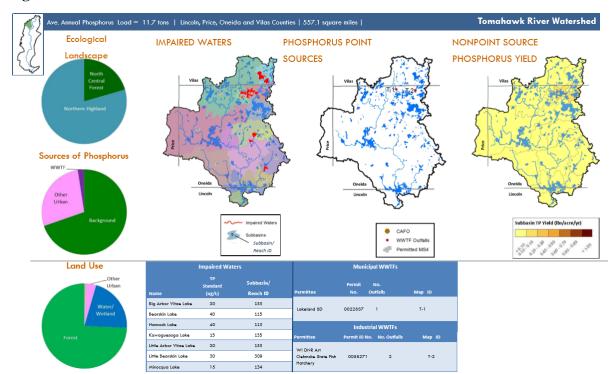


Figure F-4: Wisconsin River TMDL & Tomahawk River Watershed

Table F-1: Agricultural Total Phosphorus targets by TMDL Subbasin

	Baseline TP	Translated TMDL Allocations			
Subbasin Baseline TP (lb/acre/year)		Current Criteria		Recommended SSC	
	(lb/acre/year)	Reduction	TP Target	Reduction	TP Target
	Reduction	(lb/acre/year)	Reduction	(lb/acre/year)	
109	2.1	79%	0.4	63%	0.8
110	2.0	79%	0.4	63%	0.7
111	2.2	79%	0.4	63%	0.8
162	3.4	79%	0.7	63%	1.2
166	1.7	79%	0.3	63%	0.6
299	3.4	79%	0.7	63%	1.2

^{*}Subbasin codes are associated with those shown in the subbasin figures E1 through E4. Total phosphorus targets are shown both for the TMDL under existing criteria and the recommended site specific criteria (SSC).