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# **Forest County Land and Water Resource Management Plan**

**2006-2011**

Effective January 1, 2006 to December 31, 2011



Prepared by: North Central Wisconsin Regional Planning Commission

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A – Summary of the Headwaters State of the Basin Report – 2002

B – Outstanding and Exceptional Resource Waters

C – Priority Farm Waiver from DATCP

D – LWRM plan guidelines Appendix D2 letter to DNR Water Basin Leader

E – Public Hearing Notice

F – NR 151 Performance Standards and Prohibitions Fact Sheets

G – Conservation Practices and Cost-Share Rates

# PLAN SUMMARY

## Chapter 1

### Introduction

The Forest County Land and Water Resource Management (LWRM) plan was developed to assist the county in managing and protecting the land and water resources throughout Forest County.

The goals and objectives in this plan will help resolve local natural resource problems as identified by the Citizens Advisory Committee (CAC). These goals and objectives will also provide the basis for various private, local, state, and federal agencies to coordinate implementation of their programs of land and water management.

### Public Participation

The Forest County Land Conservation Committee (LCC) directed the Land Conservation Department (LCD) to gather a diverse group of agencies, associations, and individuals to assist in the development of this land and water resource management plan. The Technical Advisory Committee (TAC) and the CAC were established to assist the LCC and the LCD to create this 2006-2011 Forest County LWRM Plan.

The Citizens Advisory Committee (CAC) had members belonging to various groups throughout the county. On June 19, 2006 the CAC meet to review the 2000-2005 Work Plan goals, objectives, and actions, to verify if any of the Work Plan contents should still exist. Two members provided input prior to the meeting.

The CAC revised some of the actions, and added two goals:

- Slow the spread of invasive species.
- Create a comprehensive plan (§66.1001 WI Statutes).

The Technical Advisory Committee (TAC) consisted of federal, state, and local staff. Each TAC member provided feedback on the CAC revised actions and new goals.

The Public Hearing was held at 7:00 p.m. on August 8, 2006, and the LCC met directly after the public hearing. Changes to the Work Plan were made during the public hearing. The Chair approved Work Plan changes when consensus was reached among the attendees.

## **Current Land Use Issues**

Overall, there are no major or widespread water quality problems regarding Forest County surface waters. Pollution of surface waters is generally minimal because the county is relatively undeveloped and there is little municipal or industrial waste. The streams exhibit good water quality with the majority supporting cold water fish communities and warm sport fish communities. There are 5 lakes, 4 creeks and 8 rivers that have been designated as outstanding resource waters (ORW) in Forest County. There are 24 water bodies in Forest County that are designated as exceptional resource waters (ERW). Attachment B lists all ORW and ERW waters.

Generally, the main sources of pollution that degrade water quality in the county are related to overdevelopment of lakeshores, poor forestry practices, failing septic systems, construction site erosion, and non-metallic mining. There are also a few point sources of water discharge that may affect the water quality, but have not deteriorated the receiving waters according to each water body not appearing on the 303(d) Impaired Waters list from the DNR. These point sources originate from Wabeno Sanitary District #1, Laona Sanitary District #1, and Crandon Seepage Cells Discharge.

## **Performance Standards and Prohibitions Implementation Strategy**

### Agricultural Performance Standards

A voluntary educational approach will continue to be used to achieve erosion control standards in Forest County. One-on-one contacts with landowners and operators who request technical assistance is the most common method used to promote soil conservation in Forest County. NRCS has created a Work Plan activity (goal 6, objective C, activity 1) to work with each farm.

### Non-Agricultural Standards

A voluntary educational approach will continue to be used to achieve erosion control standards in Forest County. One-on-one contacts with landowners and contractors are the most common method used to promote construction erosion control. Forest County Zoning has created a Work Plan activity (goal 7, objective B, activity 2) to implement control of all construction erosion using Best Management Practices (BMPs).

### Land Disturbance Activities Subject to Stormwater Management and Erosion Control

All activities directly related to the planting, growing and harvesting of agricultural crops are not considered land disturbance activities under this section. Land disturbance activities to the shoreland zone are regulated by the Forest County Zoning and Shoreland Protection Ordinance. Forest County also requires new businesses to address erosion control and stormwater management through administrative review permits and conditional use permits.

### Standards for Stormwater Management and Erosion Control

Stormwater runoff, soil erosion, siltation, or sedimentation from all land disturbing and development activities shall meet standards in NR 151 and 216 and COMM 60 and 20-21, Wis. Adm. Code and/or shall be controlled in accordance with Technical Guidelines as developed by the U.S. Department of Agriculture, Natural Resources Conservation Service, or the Wisconsin Department of Natural Resources.

NR 151 Performance Standards and Prohibitions Fact Sheets are in Attachment F.

### **Major 2000-2005 Work Plan Accomplishments**

#### **Goal 1: Protect shoreland areas by minimizing impacts from land disturbing activities.**

- Existing educational materials were distributed through lake associations to shoreland owners.
- Best Management Practices on shoreland sites were used to restore riparian habitat with grants and other cost-sharing programs.
- Best Management Practice information was made available to riparian owners at the library.
- Neighboring county workshops were advertised to landscapers and contractors in Forest County about shoreline restoration practices.
- Shoreland restoration site workshops were established as needed.

#### **Goal 2: Reduce phosphorus loading to surface waters.**

- Lawn fertilizers as water pollution displays were established at local fairs.
- Landowners were informed on proper nutrient management.

#### **Goal 3: Reduce erosion from construction sites.**

- The Zoning office held educational workshops about the impacts of construction erosion on water quality.

#### **Goal 4: Protect forestlands from land degrading land practices and activities.**

- All of the action items listed to reduce illegal garbage dumping were accomplished, but large amounts of illegal dumping are still occurring.
- Unauthorized ATV use still exists, but both action items listed were mainly accomplished.
- All four actions listed to encourage sound forestry practices on private and public lands were implemented.
- Staff from various agencies have worked with towns and industry on proper road and culvert design to prevent erosion problems.

#### **Goal 5: Encourage increased enforcement and education of shoreland ordinances and regulations.**

- A contact list was provided to landowners of agencies that regulate shorelands and wetlands.

**Goal 6:** Reduce the impacts from mining practices on our groundwater and surface water resources.

- An inventory of non-metallic mine sites throughout the county is complete.

### **Priority Farm Strategy**

Agricultural land management is usually the focus of Land and Water Resource Management plans, because bare soil erodes fast. Forest County's largest crop is timber. Cleared forestland, usually on slopes steeper than most productive farmland exists on, is the land based focus of this plan as shown in Work Plan goal 5: "Protect forestlands from land degrading activities." The LCD will concentrate on the water quality management areas of, and highly erodible lands draining to, outstanding and exceptional resource waters.

A general approach to providing information to all farms will occur with Work Plan activities. As problems become apparent from specific farms, then individual attention will be given to that farm to bring them into compliance.

It is a state requirement that every county prepares a Soil Erosion Control Plan. In 1997 the Forest County Board approved a resolution asking the Department of Agriculture Trade and Consumer Protection (DATCP) to grant them a waiver from preparing this strategy plan. Forest County was granted a waiver from DATCP to release them from their obligation to develop a Soil Erosion Control Plan because Forest County has relatively small amounts of cropland, and the magnitude and extent of cropland erosion is small. See Attachment C for a copy of the waiver.

### **High Priority 2006-2011 Work Plan Activities**

The Work Plan is organized with the most important goals first. Objectives are prioritized under each goal, and actions are listed by highest priority in the Work Plan too.

**Goal 1:** Promote well planned development to minimize negative impacts on land & water resources.

- Pursue Department Of Administration (DOA) Comprehensive Planning grant program to fund county planning efforts.

**Goal 2:** Slow the spread of invasive species.

- Establish a town ordinance to mandate boat washing prior to and after launching on Lake Metonga.

**Goal 3:** Protect shoreland areas by minimizing impacts from land disturbing activities.

- Seek grants or other funding sources to offer cost sharing on shoreline restoration practices.
- Develop a habitat restoration web page for riparian property owners to use.



**Goal 4:** Encourage increased enforcement and education of shoreland ordinances and regulations.

- Establish educational handout explaining shoreland zoning, and post it online.

**Goal 5:** Protect forestlands from land degrading activities.

- Support increased enforcement by creating a recreational officer position.
- Support forestry groups such as Wisconsin Productivity Council, Trees for Tomorrow, Wisconsin Woodland Owners, and Forestry Industry Safety Training Alliance (FISTA).
- Work with towns and industry to design proper road and culvert design to prevent erosion.

**Goal 6:** Reduce phosphorus loading to surface waters.

- Educate landowners through mailings and newspaper articles on septic system maintenance.
- Set up information displays at local stores selling lawn fertilizer.

**Goal 7:** Reduce erosion from construction sites.

- Hold spring educational workshops.

**Goal 8:** Reduce mining practice impacts on ground and surface waters.

- Stay informed & be ready to act on proposals.

## **Regulations**

Forest County has reviewed local, state, and federal regulations relating to land and water resource management for implementing this plan. The regulations that cover land or water resources are briefly described in Chapter 7 of this plan.

## **Progress Tracking, Evaluation, & Coordination**

The Forest County Land & Water Resource Management Plan is intended to be a working document. This plan will be reviewed annually by the Land Conservation Committee to track progress in accomplishing the goals and actions of this plan. The methods that will track the progress of the Work Plan are described in Chapter 8. Coordination among many agencies will be necessary to effectively complete Work Plan actions.

## Conclusion

The Forest County Land and Water Resource Management Plan provides a framework for local/state/federal conservation program implementation efforts. It is a working document that will utilize existing partnerships to achieve the goals and objectives identified within this plan. The availability of funding for staff and cost sharing will determine the progress in achieving the goals and objectives of this plan. Ultimately, implementation of this plan will protect and improve the valuable natural resources of Forest County as well as maintain the vision of preserving Forest County's abundant rural character.



# PLAN DEVELOPMENT AND PUBLIC PARTICIPATION

## Chapter 2

### Introduction

At the root of the county Land and Water Resource Management (LWRM) plan concept is the cooperation and coordination of all agencies and groups within the county and coordination between adjacent counties. The Department of Agriculture, Trade, and Consumer Protection (DATPC) requires that each county Land Conservation Department (LCD) have a 5-year Land & Water Resource Management (LWRM) plan (Ch.92, WI Statutes) to coordinate LCD activities. The Forest County Land Conservation Committee (LCC) contracted with North Central Wisconsin Regional Planning Commission (NCWRPC) to assist the LCD with facilitating the LWRM planning process.

Chapter ATCP 50 implements Wisconsin's soil and water resource management program under Ch. 92, WI Stats. The department of agriculture, trade and consumer protection administers the soil and water resource management program (Ch. ATCP 50) in cooperation with county land conservation committees, the land and water conservation board, the department of natural resources and other state and federal agencies. The program has the purposes specified under Sec. 92.14 (2), WI Statutes.

The first Forest County Land & Water Resource Management (LWRM) Plan was approved in July 2000.

The 2006 LWRM Plan will review accomplishments from the 2000 LWRM Plan, compile some significant legislative changes that have occurred since 2000, and create a revised Work Plan based upon Citizen Advisory Committee comments.

The new legislative changes and planning efforts since 2000 include:

- Wisconsin Administrative Rules NR 151 and ATCP 50 – October 2001
- Wisconsin Administrative Rule NR 216 – August 2004
- Headwaters Basin Integrated Management Plan (DNR) – December 2002
- Regional Comprehensive Plan (NCWRPC) – December 2003

These new legislative changes and planning efforts since 2000 were accomplished through lengthy public participation processes, that ultimately provided for overwhelming support for the protection and wise use of Forest County's natural resources. This plan compiles the data from these publicly supported plans and rules. Forest County thanks the citizens who participated in these various planning processes, which added value to this Land and Water Resource Management Plan.

## **Public Participation**

The focus of this plan's development process was to identify and prioritize land and water resource issues and to develop a Work Plan to address those issues.

To assist with the development of this plan, a technical advisory committee was formed of resource professionals representing: Forest County Land Conservation Department, Forest County Forestry Department, Forest County Zoning Department, Natural Resources Conservation Service, & Department of Natural Resources.

The Citizens Advisory Committee (CAC) had members belonging to various groups throughout the county. On June 19, 2006 the CAC meet to review the 2000-2005 Work Plan goals, objectives, and actions, to verify if any of the Work Plan contents should still exist. Two members provided input prior to the meeting.

The CAC revised some of the actions, and added two goals:

- Slow the spread of invasive species.
- Create a comprehensive plan.

The Technical Advisory Committee (TAC) consisted of federal, state, and local staff. Each TAC member provided feedback on the CAC revised actions and new goals by phone, mail, and in person at the June 23, 2006 meeting.

The Citizens Advisory Committee (CAC) met a second time on July 20, 2006. Before the meeting each CAC member received an un-numbered, un-lettered copy of the existing Work Plan with additional CAC created goals and TAC created objectives added at the end. Each CAC member prioritized each goal, and subsequent objective, by consecutively numbering them in the blanks provided. All CAC member lists were tallied in the meeting. Opportunities were provided in the meeting to collectively make changes to the priorities, and thereby verify that the resulting tabulation accurately represented their priorities.

The Technical Advisory Committee (TAC) met a second time on July 24, 2006. TAC members revised Work Plan actions to better reflect department coordination over the next 5 years.

The public hearing was held at 7:00 p.m. on August 8, 2006, and the LCC met directly after the public hearing. Changes to the Work Plan were made during the public hearing. The Chair approved Work Plan changes when consensus was reached among the attendees.

Changes were made to the Work Plan during the public hearing. Under goal 2, objective B, activity 2 was added to encourage the national forest to manage the forest to curtail the spread of invasive species. Goal 3, objective C, activities 2-3, the lead responsible agency was changed from LCD to Zoning, and activity 3 was added to have LCD assist lake associations/groups to apply for DNR lake grants. Goal 4, objective A, to encourage volunteerism within the Zoning office was removed. Goal 5, objective B, activity 4 was added to mandate USFS to manage the national forest land for multiple use and sustainable forestry to promote forest health, control

invasive species, and reduce forest fires. Zoning became a co-lead for goal 6, objective A, activity.1.

The following list shows who attended the public hearing:

Ted Frank	Logging Industry
Tom Thielke	Co. Board Rep. & Lake Prop. Owner
Jim Hausinger	ATV Club
Diane Hausinger	ATV Club
Les Schramm	Citizens Adv.
Harold Resch	Citizens Adv.
Rolland Yocum	Citizen
Richard Krawze	Logging Ind.
Matt Jensen	Logging Ind.
Tom Blake	DNR
Mike Hess	Citizen
Milk Monte	Citizen
Ronald P. Skallerud	Citizen
Linda Skallerud	LCC Member
Del Baumgartner	Citizen
David Ziolkowski	County Forest Administrator
Shirley Mills	County Supervisor
Mary Torgerson	Forestry/LCC Staff
Fred Heider	NCWRPC Planner
Cindy Gretzinger	County LCD Administrator
Erhard Huettl	LCC Chair

# RESOURCE ASSESSMENT

## Chapter 3

### Introduction

This chapter briefly summarizes the land and water resources within Forest County. This type of information provides a general background on how trends may impact the land and water resources in the county. Developing an understanding of these characteristics and their changes will help direct future planning efforts in the appropriate directions. This chapter is not intended to contain an exhaustive inventory of land and water resources in Forest County. Instead, it drew upon existing inventories and information from previously prepared reports.

### Location/Geography

Forest County is located northeastern Wisconsin. The only urban area is the City of Crandon, which is the county seat. The county is bounded on the north by Upper Peninsula of Michigan and the Brule River, which forms the Wisconsin – Michigan Boundary; on the east by Florence and Marinette Counties; on the south by Oconto and Langlade Counties; and on the west by Oneida and Vilas Counties. See Map 1.

### Previous Reports Summarized

Plans that describe Forest County's natural resources are summarized below.

[Forest County Land & Water Resource Management Plan 2000 – 2005](#)  
(Contact the Forest County LCD or NCWRPC to access this plan.)

The 2000 Land & Water Resource Management Plan was created to coordinate available programs and funding sources to:

- Guide resource management planning;
- Compile existing conditions of the land and water resources in Forest County;
- Identify land and water resource problems and priorities;
- Develop a multi-year work plan to address land and water resource problems;
- Strengthen partnerships with landowners, and other agencies, municipalities, and organizations;
- Integrate efforts with other county basin level Natural Resource Management Plans;
- Coordinate with township and county comprehensive land use planning efforts;
- Develop effective information and education strategies that will strengthen and maintain community support for the planned Land and Water Management goals and objectives; and
- Track progress toward the achievement of the plan's goals and objectives.

This plan contains county-wide descriptions of land and water resources, and was used as a starting point for the 2006-2011 LWRM plan.

Map 1 - Location

County Forest Comprehensive Land Use Plan 2006 – 2020  
(Contact the Forest County Forestry Department to access this plan.)

This plan incorporates or references all county forest policies, pertinent county ordinances, planning documents, and the needs and actions to occur from 2006 to 2020.

Specific flora and fauna within the county forest are described in this plan.

The purpose of the County Forest Law as stated in § 28.11, WI Stats., is generally to provide the basis for the planned development and management of the county forests for optimal production of forest products together with recreational opportunities, wildlife production, watershed protection and stabilization of stream flow, to assure maximum public benefits, and to compensate the counties for the 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.

Forest County Outdoor Recreation Plan 2006 – 2011  
(Contact the Forest County Forestry Department or NCWRPC to access this plan.)

This plan was developing during the same time as the LWRM plan.

The primary purpose of this recreation plan is to provide continued direction in meeting the current and future recreation needs of the County. This direction takes the form of an inventory and analysis of outdoor recreational facilities followed by establishing recommendations to meet identified needs.

Headwaters State of the Basin Report – 2002  
(Access this plan online at: [http://dnr.wi.gov/org/gmu/upwis/imp/headwaters\\_i.pdf](http://dnr.wi.gov/org/gmu/upwis/imp/headwaters_i.pdf))

The Headwaters Integrated Basin Plan comprises a six county area in the northeastern portion of Wisconsin including the counties of Forest, Florence, Lincoln, Langlade, Oneida and Vilas. The Headwaters Basin includes 42 watersheds from five basins. The five basins are the Green Bay, Lake Superior, Upper Chippewa, Wolf River and Upper Wisconsin. The basin plan provides a snapshot of the current condition of land and water resources in the basin and identifies priority resource issues and concerns. Attachment A contains the major resource issues, concerns, and recommendations identified in the plan as they relate to the Forest LWRM plan.



Map 2 – Existing Land Use

## Land-Use

As its name implies, the majority of Forest County is forest covered, and sparsely populated. Forest County has a total land area of 669,863 acres; of land of that total: 91% is forested, 3% is water, 5% is agricultural use, and the remaining 2% of the land area is recreational, residential, commercial, and industrial development as shown on Map 2.

The following is a brief description of the major land uses and their trends in Forest County.

### Agriculture

According to the 2002 Census of Agriculture produced by USDA, there are approximately 33,630 acres of agricultural land in Forest County, or 5% of the land area. In 2002, there were 164 farms – one farm had over 1,000 acres, about 15 farms had over 500 acres, and the average farm had 205 acres. Land in farms as of 2002 was about 45 percent woodland, 42 percent cropland, about 8 percent pasture, with the remaining 5 percent in other uses. Most agricultural production in the county creates cattle & calves, layers 20 weeks old & older, horses & ponies, pheasants, elk, forage crops, corn for silage, oats, and cut Christmas trees. A short growing season limits cropping.

A brief description of **Soil Erosion from Cropland** is described at the end of this chapter.

### Forestry

Forest County is characterized by well developed forests with a mixture of hardwoods and conifer stands, which covers 91 percent or 592,600 acres of the county. The Nicolet National Forest owns 52 percent of the forestland in Forest County. Twenty two percent of the forestland is owned by the forest industry owners. Private landowners own 21% of the forestland, and the remaining 5% of the forestland is owned by Forest County, WDNR, and the Tribal lands.

### Residential Development

Most of the residential development occurs in the city of Crandon, and the unincorporated "rural centers" in the towns of Laona and Wabeno. Unincorporated crossroad settlements (Alvin, Argonne, Armstrong Creek, Blackwell, Carter, Cavour, Hiles, Mole Lake, and Newald), and settlement around the lakes, are where most other residents live.

### Commercial & Industrial Development

Commercial and industrial development in Forest County is a relatively small land use. In march 2005 the economy of Forest County was dominated by several prominent industries: government, amusement & gambling, education, wood products manufacturing, nursing & residential care, food service & drinking places, truck transportation, and food & beverage stores.

**Brownfields** are usually defined as abandoned, idle, or under utilized industrial or commercial facilities where expansion or redevelopment is complicated by environmental contamination. Wisconsin's Land Recycling Law exempts purchasers, municipalities, lenders, and

representatives from certain parts of the Spill Law (Hazardous Substance Discharge Law §144.76 WI Stats.) and some other legislative changes have clarified the responsibilities of each party to the clean up process. Both the WDNR and DATCP have brownfield redevelopment grant programs.

**Basin & Watersheds**

There are 12 watersheds contained completely or partially within Forest County as shown in Map 3. The eastern continental divide directs flow of surface water in Forest County into two major bodies of water, Green Bay and the Mississippi River. The vast majority of the surface water flows east and Southeast to Green Bay. The secondary drainage system in Forest County consists mainly of surface runoff and hillside seepage into basins and depressions. Some of these areas have drainage outlets.

A watershed ranking process was developed by DNR to rank watersheds based on the extent of nonpoint source pollution, the effect on water quality and the ability to manage the pollution sources. In some cases the data was not sufficient to produce a ranking. Table 1 lists the Forest County watersheds and their WDNR rankings.

<b>Table 1</b>	<b>Non-point Source Pollution DNR Watershed Rank</b>			
<b>Watershed</b>	<b>Overall Ranking</b>	<b>Stream Ranking</b>	<b>Lake Ranking</b>	<b>Groundwater Ranking</b>
Lower North Branch of Oconto River (GB05)	Low	Low	Not Ranked	Low
Upper Peshtigo River (GB11)	Low	Low	Not Ranked	Low
Otter Creek and Rat River (GB12)	Low	Low	Not Ranked	Low
Pine River (GB16)	Medium	Low	Medium	Low
Popple River (GB17)	Low	Low	Not Ranked	Low
Brule River (GB18)	Low	Low	Low	Low
Deerskin River (UW46)	Medium	Low	High	Low
Lily River (WR19)	Not Ranked	Not Ranked	Not Ranked	Low
Upper Wolf River & Post Lake (WR20)	Not Ranked	Not Ranked	Not Ranked	Low

Source: Headwaters Basin Plan, 2002.

The rankings are used by DNR as a basis to award nonpoint source pollution grants to local units of government for nonpoint source pollution planning and/or cost sharing of best management practices for agricultural and urban land use.

## **Surface Water**

The character of surface and groundwater features in Forest County have been strongly influenced by glacial impact of the terrain. The lakes, many of which lie in kettle holes, vary slightly in altitude ranging from 1600 to 1660 feet above sea level. The combination of these kettle lakes, extensive wetland areas, and interconnecting streams are characteristic of a glacially deranged drainage system. Also typical of the glacial terrain are the numerous seepage lakes found primarily in the Northwestern and Southwestern corners of the County. This type of lake has no surface outflow and depends on underground movement of water through the highly permeable glacial soils for drainage. The combined surface water resources in Forest County constitute 824 lakes with a total surface area of 22,324 acres, and over 317 streams with in excess of 700 miles of waterway. Two of these streams, the Pine and Popple Rivers, have been designated as "wild" under the Wisconsin Wild River Act (§30.26, WI Stats.) and have been an important recreational resource in the County. See Map 3.

Overall, there are no major or widespread water quality problems regarding Forest County surface waters that can be controlled within Forest County. Pollution of surface water generally occurs from mercury deposition, the source of which is coal fired power plant emissions and automobile road run-off. Pollution of surface water generally is minimal because the county is relatively undeveloped and there is little municipal or industrial waste. The streams exhibit good water quality with the majority supporting cold water fish communities and warm sport fish communities.

Mercury deposition in surface water is a contamination concern in Forest County. Mercury contamination comes from coal fired power plant exhaust, & motor vehicle road run-off.

## **Impaired Waters – 303(d) Waters**

The DNR maintains a list of surface waters that do not meet specific water quality standards outlined by section 303(d) of the Clean Water Act. The DNR is required to update the list every two years. A current list of impaired waters exists on the DNR website under: 303(d) List of Impaired Waters.

In 2004 there were 7 waterbodies in Forest County on the 303(d) list. All seven of these waterbodies are listed due to fish consumption advisories for mercury contamination.

## **Outstanding/Exceptional Resource Waters**

The DNR has given special designations to water resources throughout the state of Wisconsin that have the highest water quality and fisheries in the state and therefore deserve special protection. No discharge is allowed to these waters unless its quality equals or surpasses the quality of the receiving water body. A list of outstanding resource waters (ORW) & exceptional resource waters (ERW) are listed in Attachment B and shown on Map 3.

Outstanding resource waters (ORW) in Forest County include 6 lakes, 4 creeks, and 8 rivers.

Surface waters which provide valuable fisheries, may be classified as exceptional resource waters. All the following surface waters are designated as exceptional resource waters:

Exceptional resource waters (ERW) in Forest County include 19 creeks, and 5 rivers. This designation means that the waterway provides valuable fisheries, hydrologically or geologically unique features, outstanding recreational opportunities, unique environmental settings, and a waterbody that is not significantly impacted by human activities. This list also includes all Class I trout streams listed in Wisconsin Trout Streams publication 6-3600 (80).

## **Groundwater**

Groundwater resources supply most of the water needs in Forest County. It is readily available in quantities necessary to meet domestic agricultural, municipal and industrial needs. The depth to groundwater below the surface depends on the general topography, elevation above the permanent streams level, and the lithology of the underlying bedrock and glacial deposits.

The areas that have sandy soils and shallow depth to groundwater are more susceptible to groundwater contamination. Contamination of groundwater reserves can result from such sources as percolation of water through improperly placed or maintained landfill sites, private waste disposal located near the water table, leaks from sewer pipes, and seepage from mining operations into the aquifer. Runoff from livestock yards, urban areas, and improper application of agricultural pesticide or fertilizers can also add organic and chemical contaminants in locations where the water table is necessary to ensure adequate amounts of suitable water to domestic, agricultural, and industrial users.

## **Geology & Soils**

Forest County can be classed as belonging to the Northern Highlands geomorphic region. This area is the southern extension of the Canadian Precambrian Shield, which is a complex of igneous and metamorphic rocks more than 600 million years ago. Outcrops are widely distributed throughout the county, particularly along rivers and streams.

Thousands of years ago continental glaciers moved across the county in a southwesterly direction forming drumlins, eskers, and other glacial features. Several types of deposits such as till were formed as well as sorted and stratified water-laid deposits. Most of the county's lakes are water filled kettles, which were formed by the glacier. The present stream courses and soils were also influenced by glacial action.

A wide variety of soils exist in Forest County. They range from droughty sands to wet, poorly drained organic soils, from steep, stony morainic soils to those on level outwash plains. Complete soils information can be obtained by reviewing the "Soils Survey of Forest County, Wisconsin" as published by the U.S. Department of Agriculture – NRCS.

## Soil Erosion from Cropland

Croplands are concentrated near Armstrong Creek, Crandon, Freedom, Laona, and Wabeno in Forest County with scattered cropland elsewhere. Concern regarding soil erosion is generally low because the limited amount of cropland and low erosion rates. The Northern Wisconsin Cropland Study (1999) identified 5 percent of non-federal rural county land as cropland, 3 percent as surface waters, 90 percent as forest, and 2 percent as residential, commercial or industrial land.

In 1999 a transect survey was conducted in Forest County to evaluate soil erosion. The survey calculated the "T", or the allowable soil loss, of the soils. Cropland Transect Survey data indicates that 28% of the fields have a "T" of three, 65% have a "T" of four, and 7% have a "T" of five. The approximate average "T" is 3.8 per acre. The report also indicates that 46% of the cropland are on slopes of 0-2%, 27% are on slopes of 3-4%, 23% are on slopes of 5-7%, 2% are on slopes of 8-10% and 2% are on slopes greater than 10%. The report indicates present crop rotations are also erosion limiting by nature. The majority of the cropland is in forage production, which reduces the likelihood of erosion. The following is the breakdown of rotations: 78% forage production, 7% small grains, 7% idle conservation cover and 8% row crops/specialty crops.

It is a state requirement that every county prepares a Soil Erosion Control Plan. In 1997 the Forest County Board approved a resolution asking the Department of Agriculture Trade and Consumer Protection (DATCP) to grant them a waiver from preparing this plan. Forest County was granted a waiver from DATCP to release them from their obligation to develop a Soil Erosion Control Plan because Forest County has relatively small amounts of cropland, and the magnitude and extent of cropland erosion is small. See the Land Conservation Department for a copy of the waiver.

A voluntary educational approach will continue to be used to achieve erosion control standards in Forest County. One-on-one contacts with landowners and operators who request technical assistance is the most common method used to promote soil conservation in Forest County.

Conservation plans, which plan individual crop fields to the tolerable soil loss rate or "T", are prepared for participants in the Farmland Preservation Program. Participation is through voluntary 10-25 year individual agreements due to no exclusive agricultural zoning in Forest County. The County Land Conservation Department manages agreements for cropland within mapped areas identified in the 1982 Forest County Farmland Preservation Plan.

Map 3 – Surface Water

# PERFORMANCE STANDARDS AND PROHIBITIONS

## Chapter 4

### Performance Standards and Prohibitions

The County land and water resource management plans are the local mechanism to implement performance standards and prohibitions (NR 151 – summary in Attachment F). Through Wisconsin Act 27, the Wisconsin Legislature amended state statutes to allow county land & water conservation committees to develop implementation strategies for addressing local water quality priorities related to controlling erosion, sedimentation, and nonpoint source water pollution.

The Technical Advisory Committee recommended that the Performance Standards continue to be implemented on a voluntary basis, and that a memorandum of understanding shall be created so that enforcement is handled by the DNR.

To better identify roles between the LCD and the DNR, a Memorandum of Understanding between the DNR and Forest County will be completed in 2007 and details will be on file at the Forest County LCD.

### Agricultural Performance Standards

Agricultural land management is usually the focus of Land and Water Resource Management plans, because bare soil erodes fast. Forest County's largest crop is timber. Cleared forestland, usually on slopes steeper than most productive farmland exists on, is the land based focus of this plan as shown in Work Plan goal 5: "Protect forestlands from land degrading activities." The LCD will concentrate on the water quality management areas of, and highly erodible lands draining to, outstanding and exceptional resource waters.

For the **priority farm strategy**, a general approach to providing information to all farms will occur with Work Plan activities. As problems become apparent from specific farms, then individual attention will be given to that farm to bring them into compliance.

#### Cost-share program funding to minimize nonpoint source pollution

The program is designed to conserve Wisconsin's soil and water resources, reduce soil erosion, prevent nonpoint source pollution and enhance water quality. The LCD offers a cost-share program for county landowners through ATCP 50 grant funding. The primary emphasis of the program continues to be to restore native vegetation to shoreland property in order to reestablish riparian buffer areas. Forest County shoreland zoning also has an element within the ordinance to not mow vegetation within particular shoreland buffer areas. Healthy buffer zones reduce nonpoint source pollution and impede soil erosion.



Animal waste is generally not a pollution concern due to the relatively low number of livestock operations. However, the county does help monitor farms and offers cost-share funding to individuals to help bring problem farms into compliance.

### **Non-Agricultural Performance Standards**

A voluntary educational approach will continue to be used to achieve erosion control standards in Forest County. One-on-one contacts with landowners and contractors are the most common method used to promote construction erosion control. Forest County Zoning has created a Work Plan action to implement control of all construction erosion using Best Management Practices (BMP's).

#### Land Disturbance Activities Subject to Stormwater Management and Erosion Control

All activities directly related to the planting, growing and harvesting of agricultural crops are not considered land disturbance activities under this section. Land disturbance activities to the shoreland zone are regulated by the Forest County Zoning and Shoreland Protection Ordinance. Forest County also requires new businesses to address erosion control and stormwater management through Administrative Review permits and Conditional Use permits.

#### Standards for Stormwater Management and Erosion Control

Stormwater runoff, soil erosion, siltation, or sedimentation from all land disturbing and development activities shall meet standards in NR 151 and 216 and COMM 60 and 20-21, Wis. Adm. Code and/or shall be controlled in accordance with Technical Guidelines as developed by the U.S. Department of Agriculture, Natural Resources Conservation Service, or the Wisconsin Department of Natural Resources.

# 2000-2005 WORK PLAN ACCOMPLISHMENTS

## Chapter 5

This chapter is a summary of how each of the Work Plan goals was accomplished. Actions for each goal are described. Knowing what has occurred helps to determine which actions to continue with when creating the next 5-year Work Plan.

### **Goal 1: Protect shoreland areas by minimizing impacts from land disturbing activities.**

Distribute educational materials through lake associations and interested persons. Soil books and maps received in fall of 2005. Information is also available on line. Information has been distributed to public agencies such as DNR, Forest Service, County Government agencies, LCC members, certified soil testers in county and Industrial Forest Land Owners. Zoning website up and operating.

Continued to work with various lake associations to exchange information to promote protection of critical habitats through meetings with landowners and providing technical assistance. We have 83% of critical habitat protected. We have an inventory. We continue to support the development of a lakes classification system.

Received a \$30,000 grant from DATCP for shoreline projects. Have held Clean Boat Workshops about aquatic invasive species.

Workshop held. Educational information provided to schools, libraries as became available. Pictures of before and after restoration projects made available.

### **Goal 2: Reduce phosphorus loading to surface waters.**

County zoning has established policy for inspection and repair of failing systems. Policy working well with ½ of permits being upgraded.

Promoted best management practices through information mailings.

Monitored 25% of the Farmland Preservation participants.

### **Goal 3: Reduce erosion from construction sites.**

Continue to provide education to landowners, contractors etc regarding the impact of construction erosion on water quality and the practices available to reduce erosion.

Encouraged the enforcement of shore land ordinance and to continue to support their efforts.

**Goal 4: Protect forestlands from land degrading activities.**

Continue to educate landowners and land management agencies to properly construct and maintain forestry roads by using BMP's.

**Goal 5: Encourage increased enforcement and education of shoreland ordinances and regulations.**

Encouraged zoning to enforce current zoning regulations.

A contact list was provided to landowners of agencies that regulate shorelands and wetlands.

**Goal 6: Reduce mining practice impacts on ground and surface waters.**

An inventory of non-metallic mine sites throughout the county is complete.

# 2006-2011 WORK PLAN

## Chapter 6

The goals in the Work Plan were selected to focus on over the next five years by the Citizens Advisory Committee (CAC). Many of the existing goals came from the original Work Plan because the CAC decided that they were still important. These goals, ranked in order of priority, were further defined in the Work Plan by identifying specific objectives and actions to address the resource concerns listed as goals.

The Land Conservation Department (LCD) staff along with agency partners will implement the action items listed in the Work Plan as staff and funding become available.

The estimated costs listed in the *Estimated LCD Staff Hours/Cost Needed* column are annual hours projected to be used by existing staff. Costs listed are annual costs based upon salary and fringe benefits of LCD staff. Publication production costs for Work Plan activities are coming from other departments and therefore are not listed.

The *Estimated DATCP Cost Share Needed* column is only one of three cost share programs where funding is available to complete Work Plan activities. The DNR and NRCS also have cost share programs that will be used during implementation of this Work Plan.

There are other general activities that are not listed in this Work Plan, but are regularly performed by LCD staff such as: Work with area and state conservation associations to coordinate a multi-county and/or state approach to conservation programming; Plan and coordinate the public information and educational programs of the LCC such as speaking and poster contest, Trees for Tomorrow scholarship, Conservation Youth Camp, and recognition of outstanding conservation land managers and educators; Administer the Wildlife Damage program; Attend and participate in Lumberjack RC&D meetings; Attend and participate in North Central Area Association meetings; Support and attend Wisconsin Association Land Conservation Employees (WALCE) meetings; Attend Forest County Association of Lakes (FCAL) meetings; Attend Wisconsin Association Lakes (WAL) state convention; Attend Wisconsin Land Water Committees Association (WLWCA) state convention.

To better identify roles between the LCD and the DNR, a Memorandum of Understanding between the DNR and Forest County will be completed in 2007 and details will be on file at the Forest County Land Conservation Department.

Insert: WORK PLAN

# REGULATIONS

## Chapter 7

### Regulation Types

Forest County has relied on the following state regulations for the protection of natural resources:

- Department of Natural Resources – Chapter 30, Wisconsin Statutes – Navigable Waters
- Department of Natural Resources – Wisconsin Pollution Discharge Elimination System Permits
- Department of Natural Resources – Performance Standards - Administrative Code NR 151
- Department of Natural Resources – NR216 Stormwater Discharge Permits and Construction Site Erosion Control
- Department of Natural Resources – Chapter 29.601, Wisconsin Statutes – Noxious Substances

Forest County constantly updates the following local regulations as new information becomes available:

- Forest County Zoning Code
- Forest County Subdivision Code

### Enforcement Process

A landowner that is out of compliance with state performance standards and prohibitions and refuses technical and financial assistance from the Forest County Land Conservation Department will be notified by mail that they are subject to enforcement actions. They will receive a multi-agency communication from the Land Conservation Department and Department of Natural Resources. A copy of the enforcement letter will be sent to the Department of Agriculture, Trade and Consumer Protection. Landowners who are in violation of the Forest County Zoning or Subdivision Code will be referred to the Forest County Corporation Counsel. Landowners who are in violation of the soil erosion control standards will be referred to the Department of Natural Resources in Rhinelander.

A Memorandum of Understanding between the DNR and Forest County will be completed in 2007 and details will be on file at the Forest County Land Conservation Department.

# MONITORING AND EVALUATION

## Chapter 8

### Introduction

This chapter addresses both water quality monitoring and briefly summarizes the plan for progress and evaluating the effectiveness of the Land and Water Resource Management Plan.

The Forest County LWRM plan is intended to be a working document that will be reviewed annually by the LCC and LCD to track progress in accomplishing the goals and actions of the Work Plan. Monitoring and evaluation of specific resource issues can be accomplished in many different ways. Some of the methods to track the progress of the LWRM plan are:

#### **1. Performance Standards and Prohibitions Monitoring and Evaluation**

GIS technology will be used as a tool to track and monitor landowner compliance with the performance standards and prohibitions. In addition, all data regarding landowner compliance with the performance standards and prohibitions will be kept in hard copy format in the landowner file.

#### **2. Water Quality Monitoring**

Citizen volunteers are monitoring lakes through the Self-Help monitoring program. There are 21 lakes monitored for clarity. Twelve lakes are monitored by 20 volunteers for chemistry (phosphorus and chlorophyll). Eight lakes are monitored by 12 volunteers for Eurasian Watermilfoil. Five lakes are monitored by 7 volunteers for Curly leaf pondweed. Forest County supports this monitoring program and will continue to encourage lake associations and lake property owners to voluntarily participate in this program.

#### **3. Phosphorus Loading**

Nutrient loading can adversely affect water quality by promoting excessive plant growth. In order to reduce nutrient loading by animal waste, all newly installed barnyard systems will be evaluated to ensure compliance with the Waste Water Treatment Strip Standard, which requires phosphorus reduction. The Wastewater Treatment Strip and BARNY spreadsheet will be used to determine compliance with the standard.

#### **4. Nutrient Management**

In cooperation with DATCP, Forest County will monitor and measure nutrient management progress by tracking Nutrient Management Plan Checklists with the acres and planner and performing periodic plan review to monitor compliance with soil test levels.

#### **5. Annual Reporting/Spotchecks**

As required, Forest County will report to DATCP and DNR on progress towards implementation of the performance standards and prohibitions as well as other soil and water resource activities. In addition, DATCP and NRCS conduct annual engineering and conservation planning spotchecks to ensure compliance with all applicable technical standards.

All the methods can relate to each other in that phosphorus loading will be noticed when monitoring water quality. If there is phosphorus loading, then the Nutrient management can be looked at and improved on. If self help monitoring and evaluation is not working, then more volunteers will be necessary to increase water quality testing. Nutrient management will be accomplished by monitoring steps 1 thru 5.



# **INFORMATION AND EDUCATION STRATEGY**

## **Chapter 9**

Information and education strategies are an integral part of this plan and Forest County's conservation programs. Educational opportunities for youth and property owners need to be developed to create an awareness of the importance of resource protection and enhancement. Many of the objectives in the Work Plan emphasize information and educational strategies like posting information on the Internet, creating new brochures, holding workshops, continuing the poster contest, and using existing brochures. Many information and education activities are outlined within the Work Plan. As plan implementation proceeds and as Work Plan delineated groups meet to determine how best to solve a resource concerns, then the LCD will further define how to create additional information and education strategies.

# COORDINATION

## Chapter 10

### Coordination

The LCD staff seeks input from and works closely with a diverse group of agencies, associations, and organizations involved in resource management and protection in Forest County. These agencies and groups include: United States Department of Agriculture – Farm Service Agency (FSA), Natural Resource Conservation Service (NRCS), and United States Forest Service (USFS); Wisconsin Department of Agriculture, Trade, & Consumer Protection (DATCP); Wisconsin Department of Natural Resources (DNR) staff such as Water Resources Management Specialists, Fisheries Biologists, Water Regulations and Zoning Specialists, Water Program Management staff, Watershed Management Staff, & Forestry staff; Army Corp of Engineers, University of Wisconsin – Extension; Forest County Forestry, Zoning, Highway, & Sheriff departments; Forest Industry Safety and Training Alliance, Inc. (FISTA); Forest County Lakes Associations; Forest County ATV Clubs; & Oneida County Land & Water Conservation Department.

Each agency, organization, association, and individual has its individual resource issues, programs, and plans; but cooperatively we can work together for the greater good of Forest County's land and water resources. Plans from other agencies that relate to this plan were reviewed and documented in Chapter 3 Resource Assessment – Previous Reports Summarized.

# GLOSSARY

## Chapter 11

**303(d) Waters** – Also called **List of Impaired Waters**. This list identifies waters that are not meeting water quality standards, including both water quality criteria for specific substances or the designated uses. It is used as the basis for development of Total Maximum Daily Loads (TMDLs) under the provisions of section 303(d)(1)(C) of the Clean Water Act, U.S. Environmental Protection Agency (EPA). EPA requires that the DNR update its list every 2 years.

**Animal Waste Management Program** – This regulatory program, administered by the DNR via NR 243, seeks to identify and correct animal waste-related water quality problems.

**ATCP 50** – The chapter of Wisconsin's Administrative Code that implements the Land and Water Resource Management Program as described in Chapter 92 of the State Statutes. It identifies those conservation practices that may be used to meet performance standards.

**Best Management Practices (BMPs)** – The most effective conservation practice or combination of conservation practices for reducing nonpoint source pollution to acceptable levels.

**Chapter 92** – Portion of Wisconsin Statutes outlining the soil and water conservation, agricultural shoreland management, and animal waste management laws and policies of the State.

**Conservation Plan** – A record of decisions and intentions made by land users regarding the conservation of the soil, water and related natural resources of a particular unit of land.

**Conservation Reserve Enhancement Program** – An add-on to the CRP program, which expands and builds on CRP's success in certain areas of the state.

**Conservation Reserve Program (CRP)** – A provision of the federal Farm Bill that takes eligible cropland out of production and puts it into grass or tree cover for 10-15 years.

**Cooperator** – A landowner or operator who is working with, or has signed a cooperative agreement with, a county LCC.

**County Conservationist** – County Land Conservation Department head, responsible for implementing programs assigned to the LCD and for supervising LCD staff.

**Critical Sites** – Those sites that are significant sources of nonpoint source pollution upon which best management practices shall be implemented as described in s. 281.65(4)(g) 8.am., WI Stats.

**Department of Administration (DOA)** – The state agency responsible for establishing the comprehensive planning grant program

**Department of Commerce (COMM)** – The state agency responsible for establishing statewide standards for erosion control at building sites for the construction of public buildings and places of employment.

**Department of Agriculture, Trade and Consumer Protection (DATCP)** – The state agency responsible for establishing statewide soil and water conservation policies and administering the state’s soil and water conservation programs. The DATCP administers state cost-sharing funds for a variety of LCC operations, including support for staff, materials and conservation practices. Referred to in the LWRM plan guidelines as the “department”.

**Department of Natural Resources (DNR)** – The state agency responsible for managing state owned lands and protecting public waters. DNR also administers programs to regulate, guide and assist LCCs, LCDs and individual land users in managing land, water, fish and wildlife. The DNR administers state cost-sharing funds for priority watershed project, Targeted Runoff Management (TRM) grants, and Urban Nonpoint Source Construction and Planning grants.

**District Conservationist (DC)** – NRCS employee responsible for administering federal conservation programs at the local level.

**Environmental Protection Agency (EPA)** – The agency of the federal government responsible for carrying out the nation’s pollution control laws. It provides technical and financial assistance to reduce and control air, water and land pollution.

**Environmental Quality Incentives Program (EQIP)** – Federal program to provide technical and cost-sharing assistance to landowners for conservation practices that provide water quality protection.

**Farm Service Agency (FSA)** – USDA agency that administers agricultural assistance programs including price supports, production controls and conservation cost-sharing.

**Farmland Preservation Program (FPP)** – A DATCP land-use program under Chapter 91, Wisconsin Statutes, that helps preserve farmland through local planning and zoning, promotes soil and water conservation and provides tax relief to participating landowners.

**Forest Industry Safety and Training Alliance Inc. (FISTA)** – This group creates training opportunities for loggers. This term is used in the Work Plan.

**Forestry** – Forest County Forestry Department. This term is used in the Work Plan.

**Geographic Information System (GIS)** – A computerized system of maps and layers of data about land including soils, land cover, topography, field boundaries, roads and streams. Such geographically based data layers improve the ability to analyze complex data for decision making.

**Impaired Waters List** Same as the 303(d) list.

**Land and Water Conservation Board (LWCB)** – Composed of 3 local elected officials, 4 appointed by the Governor (1 shall be a resident of a city with a population of 50,000 or more, 1 shall represent a governmental unit involved in river management, 1 shall be a farmer and 1 shall be a member of a charitable corporation, charitable association or charitable trust) and leaders from DNR, DATCP, and DOA. The LWCB oversees the approval of county land and water management plans (s.92.04, stats.).

**Land and Water Resource Management Plan (LWRM plan)** – A locally developed and implemented multi-year strategic plan with an emphasis on partnerships and program integration. The plan includes a resource assessment, identifies the applicable performance standards and related control of pollution from nonpoint sources, identifies a multi-year description of planned activities, establishes a progress tracking system, and describes an approach for coordinating information and implementation programs with other local, state and federal agencies, communities and organization (s. ATCP 50.12).

**Land Conservation Committee (LCC)** – The unit of county government empowered, by Chapter 92 of the Wisconsin Statutes, to conserve and protect the county’s soil, water and related natural resources. Referred to in the LWRM guidelines as the “committee”.

**Land Conservation Department (LCD)** – The department of county government responsible for administering the conservation programs and policies of the LCC.

**List of Impaired Waters** – Also called **303(d) Waters**. This list identifies waters that are not meeting water quality standards, including both water quality criteria for specific substances or the designated uses. It is used as the basis for development of Total Maximum Daily Loads(TMDLs) under the provisions of section 303(d)(1)(C) of the Clean Water Act, U.S. Environmental Protection Agency (EPA) EPA requires that the DNR update its list every 2 years.

**May** – The term “may” in the guidelines represents suggested components in a LWRM plan.

**Natural Resources Conservation Service (NRCS)** – Part of USDA, NRCS provides soil survey, conservation planning and technical assistance to local land users.

**Nonpoint Source Pollution (NPS)** – Pollution from many small or diffuse urban and rural sources. Livestock waste finding its way into a stream and causing water pollution is an example of non-point source pollution.

**Nonpoint Source Pollution Abatement Program** – A DNR water quality program under Chapters 120 and s. 281, Wisconsin Statutes, that provides technical assistance and cost-sharing to landowners to develop and maintain management practices to prevent or reduce nonpoint source water pollution in designated watersheds.

**NR 151** – DNR’s administrative code that establishes runoff pollution performance standards for non-agricultural facilities and transportation facilities and performance standards and prohibitions for agricultural facilities and practices designed to meet water quality standards.

**Nutrient Management Plan** – The Nutrient Management Plan means any of the following: (a) A plan required under s. ATCP 50.04 (3) or 50.62 (5) (f). (b) A farm nutrient plan prepared or approved, for a landowner, by a qualified nutrient management planner.

**ORW/ERW** – DNR classifies streams as outstanding resource waters (ORW) and exceptional resource waters (ERW) as listed in NR 102.10 and NR102.11. ORW waters have excellent water quality and high-quality fisheries and do not receive wastewater discharges. ERW waters have excellent water quality and valued fisheries but may already receive wastewater discharges.

**Priority Farms** – Farms identified by the county for having excessive runoff from soil erosion and/or manure resulting in existing or potential water quality problems.

**Shall** – The term “shall” in the guideline represents components of a LWRM plan that are required in law and rule.

**Soil and Water Resource Management Program (SWRM)** – DATCP program that provides counties with funds to hire and support Land Conservation Department staff and to assist land users in implementing DATCP conservation programs (ATCP 50).

**Soil Loss Tolerance (“T”)** – Erosion rate in tons per acre per year of soil field could lose and still maintain productivity.

**Soil Survey** – NRCS conducts the National Cooperative Soil Survey and publishes soil survey reports. Soils data is designed to evaluate the potential of the soil and management needed for maximum food and fiber production.

**United States Department of Agriculture (USDA)** – Branch of federal government with responsibilities in the areas of food production, inspection, and storage. Agencies with resource conservation programs and responsibilities, such as FSA, NRCS, and Forest Service and others are agencies of the USDA.

**University of Wisconsin-Extension (UWEX)** – The outreach of the University of Wisconsin system responsible for formal and informal educational programs throughout the state.

**Watershed** – The geographic area that drains to a particular river, stream or water body providing its water supply.

**Wetlands Reserve Program (WRP)** – A provision of the federal Farm Bill that compensates landowners for voluntarily restoring and protecting wetlands on their property.

**Wildlife Habitat Incentives Program (WHIP)** – Federal program to help improve wildlife habitat on private lands.

**Work Plan** – A 5-year plan of federal/state/local agency activities based upon Citizens Advisory Committee developed goals and objectives.

**Zoning** – Forest County Planning & Zoning Department. This term is used in the Work Plan.

# **ATTACHMENT A**

**Summary of the Headwaters State of the Basin Report – 2002**

## Summary of the Headwaters State of the Basin Report – 2002

This attachment contains major resource issues concerns and recommendations identified in the Headwaters Basin plan that relate to the LWRM plan. The major resource issues listed below are addressed with specific Work Plan actions.

### Fisheries

- Education – Promote education/information about area waters, fish species and survey results to the general public.
- Volunteer water quality monitoring – Expand efforts in self help monitoring. This includes: adding more lakes, expanding the type of monitoring being done, promote public understanding of lake ecology.
- Exotics – Provide awareness to the public concerning exotics and participate in long-term solutions to prevent their spread.
- Shoreline Development – Increase public awareness, increase enforcement of water regulations and zoning, work with lake associations, governmental entities or others to promote shoreline preservation and restoration.
- Bioaccumulation of contaminants (mercury) – Continue to monitor fish from lakes for mercury and provide information to the public.
- Implement Baseline monitoring strategy – Collect information on lakes and streams to establish baseline conditions.
- Identify critical habitat – Identify and protect critical fish habitat through stream surveys, Sensitive Area Designations or the Northern Rivers Strategy.
- Stream Habitat Restoration/Streambank Protection – Identify sites suitable for stream habitat restoration or streambank protection.

### Aquatic Habitat Protection

- Staffing – Work with Region and Bureau staff to secure additional positions and funding for aquatic habitat efforts.
- Shoreline Protection and Restoration – Restore and protect shoreline vegetative buffer zones, continue to research and document the impacts of shoreline development and provide assistance to counties on water classification systems and shoreland zoning issues.
- Wetlands – Evaluate wetlands in need of protection, restoration or enhancement.

### Watershed, Wastewater and Stormwater

- Stormwater and Construction Site Erosion – Priority issue that needs to be addressed but has no staff.
- WPDES Permit Issuance – Ensure permits are issued in a timely manner.
- Total maximum daily loads - Continue to develop TMDL modeling and monitoring program on impaired waters.
- Nonpoint source priority watershed program – Pursue funding through the Targeted Runoff Management Program for protection projects and data collection.
- Nonmetallic mining – In cooperation with County government, monitor the effects of nonmetallic mining on water resources and document water quality improvements as a result of reclamation.



- Education – Provide educational information to the general public on watershed, wastewater and stormwater issues.

#### Drinking Water Groundwater

- Wellhead Protection – Encourage the development of Wellhead Protection Plans.
- Groundwater Contamination – Educate the general public and well drillers on practices that minimize the potential for groundwater contamination.

#### Forestry

- Lack of knowledge by individuals using forests – Work with partners to encourage private landowners to work with professional foresters on forest management issues. Provide forestry information and education to the general public regarding silvicultural practices.
- Lack of Forest Management Planning on non-industrial private forests – Work with private landowners to develop integrated resource management plans for their property.
- Conflicting demands on public owned forestlands – Identify and address conflicting demands on public land.

# **ATTACHMENT B**

**Forest County Outstanding and Exceptional Resource Waters**

## Forest County Outstanding and Exceptional Resource Waters

Waterbody Name	Portion Within ORW/ERW Classification	Status
Brule Creek	All	ORW
Brule River	Florence Co. line up to Brule Lake	ORW
Butternut Lake	All	ORW
Elvoy Creek	All	ORW
Franklin Lake	All	ORW
Jones Creek	All	ORW
Little Rice Lake	All	ORW
Lucerne Lake (Stone)	All	ORW
Metonga Lake	All	ORW
Otter Creek (North Otter Creek)	All	ORW
Peshtigo River	All	ORW
Pine River	All	ORW
Popple River	All	ORW
S. Branch Pine River	All	ORW
S. Branch Popple River	All	ORW
Unnamed headwater branch to Popple River	All	ORW
Wolf River	From the outlet of Pine Lake to the Oneida county line	ORW
Armstrong Creek	All	ERW
Bills Creek	All	ERW
Camp 20 Creek	All	ERW
Camp 8 Creek	All	ERW
Gliske Creek	All	ERW
Gruman Creek	All	ERW
Huff Creek	County line upstream to USFS Rd 2454	ERW
Indian Creek (S24 T34N R15E	All	ERW
Johnson Creek	All	ERW
Knowles Creek	All	ERW
Lilypad Creek	USFS Rd 2169 to Lilypad Lake	ERW
Little Popple River	USFS Rd 2166 to Popple River	ERW
McDonald Creek	S Br Pine River to USFS Rd 2177	ERW
Middle Branch Peshtigo River	All	ERW
N Branch Oconto River	All	ERW
N Branch Peshtigo River	All	ERW
N Branch Popple River	All	ERW
Ninemile Creek	Headwaters to upper Ninemile Lake	ERW
Rock Creek	All	ERW
Rocky Siding Creek	All	ERW
Spencer Creek	All	ERW
Stoney Creek	All	ERW
W Branch Armstrong Creek	All	ERW
Wilson Creek	All	ERW

Source: WDNR website accessed June 2006.

# **ATTACHMENT C**

**Priority Farm Waiver from DATCP**



State of Wisconsin  
Tommy G. Thompson, Governor



Department of Agriculture, Trade and Consumer Protection

Ben Brancel, Secretary

December 29, 1998

Nancy Hollands  
639 W Kemp St  
Rhineland, WI 54501-3879

Dear Nancy:

On December 22, 1998, the Department of Agriculture, Trade and Consumer Protection, after consulting with the Land and Water conservation Board, granted waivers releasing Forest, Oneida, Vilas, and Florence Counties from the obligation to develop a soil erosion control plans. I am enclosing a copy of the waiver.

This waiver releases the counties from the obligation to prepare cropland soil erosion control plans, but would not release them from other (recently expanded) obligations under s. 92.10, Stats. Until recently, counties were only required to prepare soil erosion control plans containing the items 1 - 5. listed under s. 92.10(6)(a), Stats. The enactment of 1997 Wis. Act 27, added items related to nonpoint source pollution. This amendment converted the "soil erosion control plans" to "land and water resource management plans." Currently, these plans must:

1. Specify maximum acceptable rates of soil erosion (predates Act 27).
2. Identify the parcels and locations of the parcels where soil erosion standards are not being met (predates Act 27).
3. Identify land use changes or management practices which would bring each area of land into compliance with standards adopted by the land conservation committee (predates Act 27).
4. Specify procedures to be used to assist landowners and land users in controlling soil erosion (predates Act 27).
5. Establish priorities for controlling soil erosion (predates Act 27).
6. Identify causes, other than soil erosion, of nonpoint source water pollution (new in Act 27).
7. Describe all proposed county activities related to nonpoint source water pollution (new in Act 27).

In fall 1997, the county boards in Forest, Oneida, Vilas, and Florence Counties approved resolutions asking the department to grant them waivers. The resolutions found that cropland soil erosion was not a high priority problem in those counties. The department granted these waivers based on these county board resolutions, and based on the fact that these counties have relatively small amounts of cropland, the magnitude and extent of cropland erosion is small, and soil survey information is not available in these counties.

If you have any questions, feel free to contact me at (608) 224-4605.

Sincerely,

Sue Porter  
Land and Water Resources Bureau

c: Forest Co. LCC Chair,  
Erhard Huettl,  
RR 1 Box 805,  
Wabeno, WI 54566

Oneida Co. LCC Chair,  
Tony Lorbetske,  
4330 Camp Four Rd.,  
Rhineland, WI 54501

Vilas Co. LCC Chair,  
Joseph Wisniewski,  
4080 Deerskin Rd.,  
Pelps, WI 54554

Florence Co. LCC Chair,  
Sherry Schomer,  
RT1 Box 307B,  
Niagara, WI 54151

STATE OF WISCONSIN  
DEPARTMENT OF AGRICULTURE, TRADE AND CONSUMER PROTECTION  
2811 Agriculture Drive, P.O. Box 8911  
Madison, WI 53708-8911

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IN THE MATTER OF COUNTY SOIL	)	DATCP DOCKET NO. 98-G- 12
EROSION CONTROL PLANS FOR	)	LWCB DOCKET NO. 98-32-21-000-W
FOREST, ONEIDA AND VILAS COUNTIES	)	WAIVER

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The State of Wisconsin Department of Agriculture, Trade and Consumer Protection ("department"), having consulted the State of Wisconsin Land and Water Conservation Board ("LWCB"), makes the following findings and conclusions and enters the following order under s. ATCP 50.12(2)(b), Wis. Adm. Code:

FINDINGS

(1) Under s. 92.10, Stats., and s. ATCP 50.12(1), Wis. Adm. Code, counties are required to prepare county soil erosion control plans for department approval by January 1, 1999. A county must comply with this requirement in order to continue receiving soil and water resource management grants from the department. The department must review and approve county plans in consultation with the LWCB.

(2) Under s. ATCP 50.12(1)(b), Wis. Adm. Code, the department may waive the filing of a county soil erosion control plan if the department, after consulting the LWCB, finds that cropland soil erosion is not a high priority problem in that county. The department's finding may be based on a county board finding that cropland soil erosion is not a high priority problem, or on other information which the department considers relevant.

(3) The County Boards of Forest, Oneida and Vilas Counties have adopted resolutions, finding that cropland soil erosion is not a high priority problem in those counties (see resolutions attached).

(4) The Northern Wisconsin Cropland Survey, dated February 1995, surveyed cropland in Forest, Oneida and Vilas Counties, and found no acreage exceeding the tolerable soil loss level.

(5) Based on findings (3) and (4), it does not appear that cropland soil erosion is a high priority problem in Forest, Oneida and Vilas Counties. Those counties are not priority soil erosion control counties under s. 92.10(3), Stats.

(6) There is no compelling need for Forest, Oneida and Vilas Counties to prepare a soil erosion control plan under s. 92.10(6)(a)1. to 5., Stats., or s. ATCP 50.12, Wis. Adm. Code. However, those counties should comply with ss. 92.10(6)6. and 7., which are newly created by 1997 Wis. Act 27.

(7) The LWCB reviewed this matter at its meeting on December 1, 1998, and endorsed the department's proposed findings, conclusions and order as contained in this document.

#### CONCLUSIONS

(1) Under s. ATCP 50.12(1)(b), the department may waive the filing of county soil erosion control plans by Forest, Oneida and Vilas Counties.

(2) Based on the findings above, the department should issue a waiver that exempts Forest, Oneida and Vilas Counties from filing cropland soil erosion control plans under s. 92.10(6)(a)1. to 5., Stats., and s. ATCP 50.12, but does not exempt them from their other responsibilities under s. 92.10(6), Stats.

ORDER

NOW, THEREFORE, IT IS ORDERED, pursuant to s. ATCP 50.10(1)(b), Wis. Adm. Code, that:

(1) The department waives the filing of cropland soil erosion control plans under s. 92.10(6)(a)1. to 5., Stats., and s. ATCP 50.12, Wis. Adm. Code, by Forest, Oneida and Vilas Counties.

(2) The waiver under sub. (1) does not exempt the counties from the requirements under s. 92.10(6)(a)6. or 7. Nor does it exempt them from any other requirements which have been imposed or may be imposed under ch. 92, Stats., or ch. ATCP 50, Wis. Adm. Code.

Dated this 22 day of Dec, 1998

STATE OF WISCONSIN  
DEPARTMENT OF AGRICULTURE,  
TRADE AND CONSUMER PROTECTION

By Ben Brancel  
Ben Brancel, Secretary



# **ATTACHMENT D**

**LWRM plan guidelines Appendix D2 letter to DNR Water Basin Leader**

## Fred Heider

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**From:** Fred Heider [fheider@ncwrpc.org]  
**Sent:** Thursday, April 27, 2006 11:17 AM  
**To:** Thomas Bashaw  
**Cc:** Terry Lohr  
**Subject:** Oneida Co & Forest Co LWRM plan request for assistance.

Dear Thomas Bashaw:

I invite you to serve on two Technical Advisory Committees for two counties that are revising their Land and Water Resource Management (LWRM) plans. Both Forest and Oneida counties are initiating work on the 2006-2011 updates to their 2000-2005 Land and Water Resource Management Plans, developed under the requirements of Chapter 92.10 WI State Statutes and ATCP 50.12(2)(c)(d). These requirements and the accompanying guidance stress the importance of coordinating with DNR to identify water resource priorities and issues.

Both LWRM plans will be complete by August, for a final adoption in October 2006. We would like your participation or feedback to prepare background materials for the Citizens Advisory Committee, and to possibly create Work Plan goals, objectives & actions. This letter is a request for your assistance at eight Technical Advisory Committee meetings, considering that the Headwaters Basin covers both Forest and Oneida Counties.

At the first Technical Advisory Committee meeting we would like to meet with you (or a member of your staff) to discuss the items listed below. All three of us (NCWRPC, Oneida Co. LWCD, & Forest Co LCD) have a copy of the basin's most recent integrated management plan - Headwaters Basin Integrated Management Plan December, 2002 PUBL WT 662 2002.

- County-specific assessment or information and any monitoring data that you may have gathered subsequent to the finalization of your report;
- A sublist of 303d and ORW/ERW waters are of particular interest to DNR for immediate work;
- A list of the basin's nonpoint source priorities. This includes the NPS ranking table of watersheds and subwatersheds as well as those individual waterbodies listed in rivers and lakes tables that have NPS concerns that may help us better target our work efforts and obtain funding for that work.
- A list of the other Headwaters basin priority issues identified by DNR and/or its basin partnership group.

Please contact me early in May, so I can coordinate both county Technical Advisory Committees to first meet in May. I know this is fire season, so I'm requesting a brief email or phone call stating that you or another person will be available for these meetings from May through July of 2006.

Thank you for your time,

**Fred Heider, Planner**  
North Central Wisconsin Regional Planning Commission (NCWRPC)  
210 McClellan St Ste 210  
Wausau WI 54403-4820  
715-849-5510 x310  
fheider@ncwrpc.org  
www.ncwrpc.org

# **ATTACHMENT E**

## **Public Hearing Notice**

## **NOTICE OF PUBLIC HEARING**

**NOTICE IS HEREBY GIVEN THAT THE** Forest County Land Conservation Committee will hold a public hearing on Tuesday, August 8, 2006, at 7:00 p.m. at the Forest County Courthouse in the County Board Room on the following:

Provisions of the Wisconsin Open Meeting Law will govern.

### **Forest County Land and Resource Management Plan**

In accordance with Wisconsin Act 27, Chapter 92 of the Wisconsin Statutes was amended, requiring counties to develop land and water resource management plans.

Copies of the foregoing document are available for public inspection during normal business hours at the Forest County Land Conservation Department, 200 East Madison Street, Crandon, WI 54520.

Anyone having interest may attend and be heard. Interested parties who are unable to attend may send written comments to the undersigned.

Dated this 21<sup>st</sup> day of July, 2006

Cindy Gretzinger, County Conservationist  
Forest County Land Conservation Department  
200 East Madison Street  
Crandon WI 54520

# **ATTACHMENT F**

**NR 151 Performance Standards and Prohibitions Fact Sheets**

**INSERT: Performance Standards and Prohibitions Sheets**

# **ATTACHMENT G**

## **Conservation Practices and Cost-Share Rates**

**Conservation Practices and Cost-Share Rates**

<b>Tech Guide Practice Code</b>	<b>Practice</b>	<b>SWRM Grant (1,3)</b>	<b>EQIP (2)</b>
560	Access Road	70%	75%
362	Diversion	70%	75%
329A	Residue Management No-Till		\$15-3 yrs/acre
329B	Residue Management Mulch-Till		\$10-3 yrs/acre
585B	Contour Buffer Strips		\$10/acre
330	Contour Farming		\$9/acre
585	Stripcropping		\$13.50/acre
340	Cover Crop/Green Manure		75%
342	Critical Area Planting	70%	75%
382	Fencing/Exclusion	70%	\$1.85/foot
386	Field Border		75%
393	Riparian Filter Strips	70%	75%
395	Fish Stream Improvement		75%
490	Forest Site Prep		75%
410	Grade Stabilization Structure	70%	75%
412	Grassed Waterways	70%	75%
422	Hedgerow Planting		75%
468	Lined Waterway or Outlet		75%
472	Use Exclusion		\$10/acre
313	Manure Storage	70%	50%
635	Waste Water Treatment Strip	70%	
484	Mulching		75%
590	Nutrient Management		\$7-3 yrs/acre
500	Obstruction Removal		75%
595	Pest Management-Field Crops		\$2-3 yrs/acre
			\$4-3 yrs/acre
516	Pipeline		75%
558	Roof Runoff Management	70%	75%
528A	Prescribed Grazing-Cropland		\$105/acre
	Prescribed Grazing-Pasture		\$60/acre
350	Sediment Basin-Nonbarnyard		75%
	Sediment Basin-Barnyard	70%	50%
574	Spring Development		75%
313	Stacking Pad	70%	50%
580	Streambank Stabilization	70%	75%
606	Subsurface Drain		75%
600	Terraces	70%	75%
612	Tree/Shrub Establishment		65%
614	Watering Facility Trough/Tank	70%	75%
620	Underground Outlet	70%	75%
638	Water/Sediment Control Basin		75%
642	Well		75%
360	Closure of Waste Impoundment	70%	
575	Animal Trails and Walkways	70%	75%
642	Well Abandonment	70%	75%
657	Wetland Restoration	70%	
380	Windbreak/Shelterbelt Establishment	70%	75%

(1) Payment not to exceed \$5000

(2) Payments not to exceed limits stated in NRCS EQIP Manual

(3) Any SWRM funded practice over \$10,000 will be eligible to piggy back county cost