

Wisconsin Land and Water Conservation

2002 Annual Progress Report



NRCS Photo

Summarizing Wisconsin's achievements in reducing polluted runoff and conserving land and water resources.

Land and Water Resource Management Plans

Priority Watershed and Lake Projects

- ◆ Wisconsin Department of Natural Resources
- ◆ Wisconsin Department of Agriculture, Trade, and Consumer Protection

2002 Annual Progress Report to the Land and Water Conservation Board

Wisconsin Land and Water Conservation Board

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Introduction

This report to the Wisconsin Land and Water Conservation Board summarizes progress made throughout Wisconsin in 2002 on implementing land and water conservation programs funded or administered by the Department of Agriculture, Trade, and Consumer Protection (DATCP) and the Department of Natural Resources (DNR). The report is submitted in part to meet the requirements under s. 281.65(4)(o) and s. 92.14(12), Wis. Stats..

Most of the data used in the report were submitted by county land conservation staff and others who implement the following programs locally:

- Priority Watershed and Lake Projects
- Land and Water Resource Management Plans
- Farmland Preservation Program
- Conservation Reserve Enhancement Program

The first section of the report highlights water quality accomplishments achieved through the Priority Watershed and Lake Program. This program cost shares best management practices (BMPs) to control polluted runoff in selected watersheds and lakes. The majority of the data for this section came from reports submitted annually by local units of government, mostly counties, that implement the projects. Financial data was provided by the DNR Bureau of Community Financial Assistance.

The second section features progress made through Land and Water Resource Management plans and other DATCP administered programs. Each county land conservation committee submitted an annual report of their land and water resource management plan activities and accomplishments. This report summarizes the counties' individual reports.

The Information and Education section combines the communication and outreach activities and accomplishments achieved by counties through their Land and Water Resource Management plans and Priority Watershed and Lake projects.



Priority Watershed and Lake Projects

In 2002 Wisconsin continued implementation of 51 projects encompassing 7,130 square miles. Another 35 projects have been completed since the program began in 1978. There are 47 counties, 2 lake management districts and one tribal government that provide technical and administrative assistance to these projects. During 2002, there were 1,831 landowners participating in the active priority watershed and lake projects out of a total of 6,756 landowners that have participated since these 51 projects began.

See the inside back cover for a map of the Priority Watershed projects.

CRITICAL SITES

Projects selected after 1993 are required to address sites that are critical to achieve planned water quality goals. Approximately 1,700 critical sites were identified in 25 priority watershed projects. About 78% had been resolved as of the end of 2002.

Status of Critical Sites			
Type of Site	Remaining Sites	Resolved Sites	
		(No.)	(%)
Livestock-related	39	276	88
Upland soil erosion	324	978	75
Streambanks / shorelines	12	61	84
Other	9	5	36

POLLUTANT LOAD REDUCTIONS

Project plans identify key pollutant sources and establish pollutant load reduction goals along with water resource improvement goals. While pollutant load reduction goals are unique to each project, most projects have identified the following as important targets:

Phosphorus/COD from Barnyards

Most projects set goals and installed BMPs to reduce phosphorus delivery from livestock facilities. Forty-four projects set goals to reduce phosphorus from barnyards and two projects set goals for reduction of

Progress toward meeting barnyard P or COD reduction goals:

- ✓ 10 (22%) met or exceeded goals
- ✓ 21 (46%) achieved 50-99% of goals
- ✓ 15 (33%) achieved less than 50% of goals

chemical oxygen demand (COD). Reduction goals ranged from 10 to 90 percent of the loading depending on the degree of severity of this pollution source in the watershed.

Phosphorus from Other Sources

Several projects estimated phosphorus (P) reduction from a variety of sources other than barnyards or feedlots.

- 3 grantees/projects reported a total of 2,816 lbs. of P removed through milkhouse waste controls
- 6 grantees (5 projects) reported a total of 95,557 pounds of P reduced through manure management BMPs such as manure storage, nutrient management and reduced winter spreading on critical acres
- 7 grantees (6 projects) reported a total of 66,219 pounds reduced annually from cropland erosion controls
- 1 grantee/project reported 923 pounds per year reduced from streambank, shoreland and wetland controls
- 1 project reported a total reduction of 76,235 pounds/year of applied phosphorus to cropland.

Sediment or Soil Loss from Upland Erosion

Forty-six projects set goals to reduce sediment delivery or soil loss from uplands (croplands). The

Progress toward meeting upland sediment or soil loss reduction goals:

- ✓ 13 (32%) met or exceeded goals
- ✓ 9 (22%) achieved 50-99% of goals
- ✓ 19 (46%) achieved less than 50% of goals

reduction goals ranged from 20-80% of the loading. Five projects did not report data. One project did not report a sediment reduction goal but reported 3,298 tons/year reduced through BMP installation.

Streambank/Shoreline Erosion

Forty projects set streambank or shoreline erosion control goals ranging from 10-100% of the loading. Two projects did not report data. Four projects didn't report goals in their plans, but reported a total of 1,800 tons/year of sediment reduced through streambank BMPs.

Progress toward meeting streambank/shoreline erosion goals:

- ✓ 12 (32%) met or exceeded goals
- ✓ 7 (18%) achieved 50-99% of goals
- ✓ 19 (50%) achieved less than 50% of goals

Gully Erosion

Eighteen projects identified gully erosion control as a goal with reduction ranges from 10-75% of the loading values. An additional 3,920 tons/year were controlled by 5 projects that did not report gully erosion control goals but installed gully erosion control BMPs.

Progress toward meeting gully erosion goals:

- ✓ 9 (50%) met or exceeded goals
- ✓ 4 (22%) achieved 50-99% of goals
- ✓ 5 (28%) achieved less than 50% of goals

Winter-spread Manure on Critical Acres

Fifteen projects identified reduction in winter-spreading of manure on critical acres as pollution reduction goals. The target amount of reduction ranged from 10-100% of the loading.

Progress toward winter spreading goals:

- ✓ 4 (27%) met or exceeded their goals
- ✓ 6 (40%) achieved 50-99% of their goals
- ✓ 4 (27%) achieved less than 50% of their goals

An annual reduction in winter-spreading on an additional 209 acres was achieved in two projects that did not report goals for this parameter.

Other Pollutant or Resource Goals

In addition to the pollutant load reduction goals listed above, many projects established resource improvement or reductions in pollutants from specific sources as project goals. Some highlights include:

- ✓ 11 grantees (9 projects) reported a total of 68,592 acres under nutrient management
- ✓ 24 grantees (18 projects) reported a total of 840 acres of wetland restoration and 5 grantees/projects reported restoration on an additional 58 wetland sites
- ✓ 18 grantees (17 projects) reported a total of 325,815 feet of streambanks or shorelines that were stabilized and a lake project reported 75,700 square feet of shoreline erosion control established
- ✓ 3 grantees/projects reported a total of 85,473 feet of streambank or shoreline habitat restoration
- ✓ 8 grantees (7 projects) reported a total of 43 milkhouse waste systems installed



Photo by USDA NRCS

DNR RUNOFF MANAGEMENT FUNDING

DNR cost shares Priority Watershed and Lake project BMPs and easements primarily with state funding. Additional funding for cropping practices in 2002 came from federal grants under s. 319 of the Clean Water Act and the Coastal Management Program. DATCP provides staff funding and support.

Two other grant programs—Targeted Runoff Management (TRM) and Urban Nonpoint Source & Storm Water (UNPS&SW)—help fund the control of both urban and rural polluted runoff. In 2002, DNR administered the following:

- ✓ 21 rural and 14 urban TRM projects
- ✓ 49 planning and 52 construction UNPS & SW projects.

During 2002, DNR provided over \$10 million in reimbursements to local units of government for the installation of BMPs and urban planning and design through all grant sources. The reimbursements shown in the grant expenditure table represent 70 percent of the TRM and Priority Watershed, and 50 to 70 percent of the UNPS&SW project costs.

CY 2002 Grant Expenditures

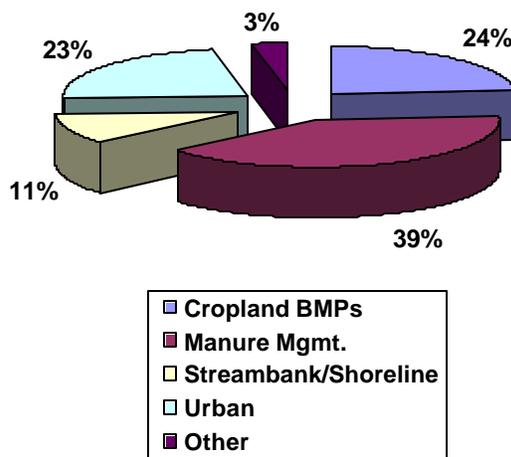
Grant Source	Active Projects	State Share Reimbursed
Priority Watersheds & Lakes	51	\$5,476,540
(federal)	*	\$2,152,207
Targeted Runoff Management	35	\$1,118,723
Urban Nonpoint Source	101	\$1,644,628
Total	187	\$10,392,098
*cropping BMP funding for priority watersheds		

Distribution of BMP Expenditures

The majority of expenditures through the DNR-administered grant programs described above fund the installation of rural and urban BMPs. The pie chart shows how the state share of expenditures are distributed among the categories of BMPs. Some examples of BMPs in these categories include:

- ✓ reduced tillage, high residue management, grassed waterways and strip-cropping to curb soil erosion from croplands,
- ✓ barnyard systems and manure storage facilities to properly manage livestock manure,
- ✓ buffers, fencing, and stream crossings to protect streambanks and shorelines,
- ✓ detention ponds and infiltration systems to control urban storm water, and
- ✓ other practices, such as pesticide management and well abandonment to protect groundwater.

Distribution of BMP Expenditures



Wisconsin Land and Water Resource Management Program

This report summarizes progress made throughout Wisconsin in 2002 on implementing the land and water resource management (LWRM) plans funded by the Department of Agriculture, Trade, and Consumer Protection (DATCP). The activities reported by the counties may also have been funded by the counties, the Department of Natural Resources (DNR), the Natural Resources Conservation Service (NRCS), other federal agencies, and private sources. County Land Conservation Committees (LCC) and land conservation department (LCD) staff are responsible for implementing the LWRM plans.

Counties reported the progress they made in 2002 towards land and water resource goals included in their LWRM plan. For the required 2002 annual reports, county reports varied in content and format. Beginning with the 2003 annual report, counties will submit the required reports in a standardized format.

LWRM PROGRAM FINANCIAL REPORT

DATCP allocated \$9,741,160 in 2002 for staffing and support to the counties (including \$86,634 to the Oneida Tribe of Wisconsin). Counties spent \$9,730,488, or 99.9% of the allocated amount. DATCP also allocated an additional \$29,302 in GPR for other projects, of which \$24,896 was spent (84.9%).

Counties also received allocations for cost-sharing practices from DATCP. Including extensions from 2001, DATCP allocated \$5,078,809 in bonding for cost sharing in 2002. Counties spent \$2,698,985 of this amount, with an additional \$1,409,380.81 extending into 2003 to complete projects, totaling \$4,108,365.81 (80.9%) of the allocated amount spent or encumbered.

SOIL CONSERVATION

Counties and landowners continued to make progress towards keeping soil on the land. Statewide, 49 counties reported conducting the Transect survey to measure the rate of soil erosion. Forty-four counties reported 5,789,653 cropland acres were at or below tolerable soil loss. The remaining counties did not report on soil erosion control.

In addition, counties reported writing or updating conservation plans. Some counties reported both the number of conservation plans and the number of acres, while other counties reported only one or the other. Totals reported by the counties included 4554 conservation plans and plans covering 235,752 acres. The actual number of conservation plans written or updated-and the number of acres under the plan-are both significantly higher than what was reported.

Rotational grazing and proper pasture management protects the trout stream that runs through the pasture. Class I trout stream in Columbia County, WI.



Photo by USDA NRCS

Farmland Preservation Program

The Farmland Preservation Program (FPP) identifies and protects agricultural areas against unplanned development. The program is designed to preserve agricultural land and open spaces by promoting orderly land use planning and development, by promoting soil and water conservation, and by providing tax relief to farmers in the program. The FPP continues to be a major force in maintaining soil conservation on the land.

In 2002, approximately 8.2 million of Wisconsin's 16.2 million acres of farmland were protected through the program. Farmers can enroll in the program by claiming under the exclusive agricultural zoning on their property or by signing an individual farmland preservation agreement. About 21,000 farmland owners received farmland preservation tax credits totaling \$16.6 million. The average credit was \$797 per claimant. Statewide, 37% of

Wisconsin's potentially eligible farmers claimed the credit. The participation rate ranged from a high of 86.5% in Iowa County to a low of 4.2 % in Oconto County.

All landowners receiving the credit must meet county soil and water conservation standards. Of the 4,516 farms on which counties reported having conducted FPP compliance checks this year, none were found to be in violation of the soil conservation requirement.

Conservation Reserve Enhancement Program

Wisconsin's Conservation Reserve Enhancement Program (CREP) is a cooperative effort with the USDA Farm Service Agency (FSA) and Natural Resources Conservation Service (NRCS); DATCP and DNR; and Wisconsin counties primarily through county land conservation committees (LCC). Wisconsin's CREP goal is to enroll 100,000 acres into riparian buffers, filter strips, wetland restorations, grassed waterways, and grassland habitat to improve water quality and grassland habitat for endangered grassland birds and other wildlife. Landowners can choose to enroll in either 15-year agreements or perpetual easements.

During 2002, 48 participating counties made significant progress towards implementing CREP and achieving CREP goals. Soil conservation practices on lands enrolled in CREP during 2002 included 22,977 acres of buffers, 10,256 acres of grassland projects, and 2,293 acres of wetlands restored. This resulted in 340 miles of stream or shoreline adequately buffered, 31,300 pounds of phosphorus annually reduced from runoff, 16,500 pounds of nitrogen annually reduced from runoff, 14,800 tons of sediment annually reduced from runoff, and

Progress towards meeting CREP Goals

- ✓ 9.3% of miles of buffers goal
- ✓ 5.1% of phosphorus reduction goal
- ✓ 5.4% of nitrogen reduction goal
- ✓ 4.4% of sediment reduction goal

3,600 acres of grassland habitat established.

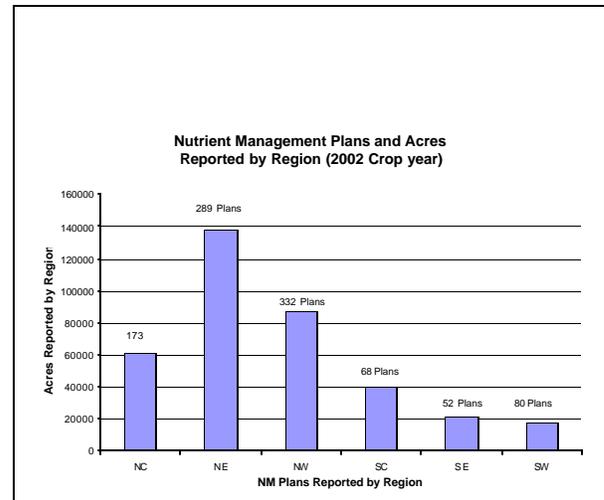
¹ From CREP 2002 Annual Report

NUTRIENT MANAGEMENT

Nutrient management is a key practice producers adopt to protect and improve land and water resources. All acres under a nutrient management plan must also be cropped to a soil erosion rate of "T" or less.

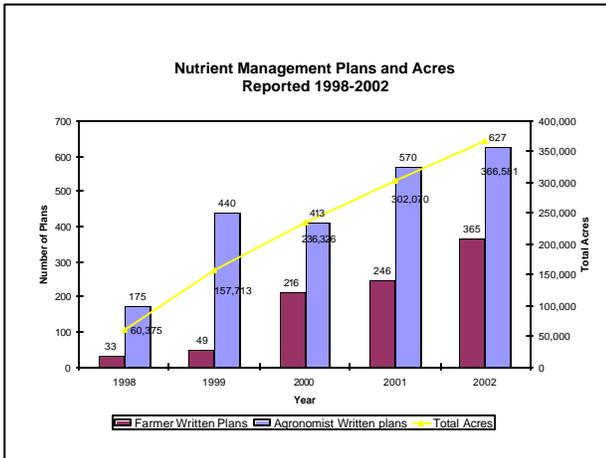
Since 1995, Wisconsin farmers have developed and reported 4,018 nutrient management plans on approximately 1.3 million acres. The presentation and usability of today's plans has improved over the past few years and should allow easier implementation.

In 2002, 50 counties reported nutrient management planning on 366,581 new acres. The acreage reported has increased by 18% from 2001's 302,070 acres. This is with three fewer counties than the 53 counties reporting in 2001. However, reporting counties are up from 38 counties in 2000, 36 counties in 1999, and 21 counties in 1998. Changes are primarily due to cost-share availability.



The 2002 season involved 150 private agronomists developing 627 plans on 271,948 acres. Compared to 2001, the number of 2002 agronomists planners increased by 5% and their acres increased by 13%. Over the last three years growth has continued, but at a slower rate. As of October 2000, 689 individuals in Wisconsin hold certifications through the American Society of Agronomy or National Association of Independent Crop Consultants.

Farmers developed 365 plans on 94,633 acres for the 2002 growing season. This is a 28% increase in plans developed by farmers and a 31% increase in their acres from 2001. Comparing



2002 to 2000, both the number of farmer-developed plans and their acreage have increased by more than 40%.



ANIMAL WASTE

Helping to control animal waste from farms is a major activity of land conservation departments. Statewide, 29 counties reported installing 432 practices to prevent or reduce barnyard runoff. In addition, 31 counties reported constructing or closing 166 manure storage facilities.

SHORELAND MANAGEMENT

In the northern region of the state, agriculture is less prominent, and protecting lakes and shoreline is a major concern. Twenty-three counties—primarily in the northern third of the state—reported spending significant staff resources on shoreland management issues, including development of shoreland zoning ordinances. These counties also conducted extensive information and education campaigns related to shoreline protection. Activities included holding shoreline protection workshops, participating in lake fairs, and distributing folders containing resource information on shoreland protection to new shoreland landowners. These counties also trained volunteer lake monitors to help assist county and state staff with water quality monitoring.

OTHER CONSERVATION PRACTICES

- Statewide, 26 counties reported decommissioning 241 wells.
- 34 counties reported selling trees.
- 32 counties reported working on erosion control ordinances and other erosion control activities.
- 30 counties reported soil erosion zoning activities, including 23 working on shoreland zoning.
- 20 counties reported working on non-metallic mining issues.
- 35 counties reported clean water diversion practices:
 - 157 diversions installed
 - 117,220 ft
 - 162.5 acres

Information and Education

Counties reported that information and education activities are an integral part of their conservation efforts, with a wide variety of activities taking place in 2002. The information and education activities range from general conservation awareness—through radio, newspaper, and newsletter articles—to targeted workshops for specific audiences on nutrient management and erosion control. This summary includes activities reported through both the Land and Water Resource Management (LWRM) plans and the Priority Watershed and Lake Program (PW).

GENERAL CONSERVATION

Sixty-eight counties² reported general conservation education activities that included newspaper articles, radio shows, press releases and fair displays. These activities are important in building awareness about conservation in the general public. These activities often spurred requests for information by landowners interested in Land Conservation Department (LCD) activities and programs. Tens of thousands of bulletins were distributed across Wisconsin for soil stewardship week and several thousand landowners received targeted newsletters.

WATER MONITORING/ACTIVITIES

Twenty-five counties³ reported water quality/water monitoring activities that included volunteer monitoring programs, drinking water education programs, river clean up days, storm drain stenciling and workshops. In one county, over 1,200 students participated in biological and chemical testing of stream water.

STREAMBANK/ShORELINE PROTECTION

Twenty-one counties⁴ reported streambank/shoreline protection information and education activities that included attending lakes association meetings, presentations to lake owners, demonstrations, distributing resource folders to new shoreland landowners on how to protect the shoreline and lake water quality, workshops on buffers, and other programs. Workshops included over 270 participants who

learned about shoreland protection and restoration.

UPLAND SOIL EROSION CONTROL/SOIL EROSION CONTROL

Twenty-two counties⁵ reported upland soil erosion control activities or general soil erosion control activities that included soil erosion control workshops for developers and construction workers, conservation tillage demonstrations, and other soil erosion control activities. These activities helped spur participation in CREP throughout the state, which currently has installed approximately 23,000 acres of buffers.

NUTRIENT MANAGEMENT

Twenty counties⁶ reported nutrient management educational activities that included workshops and demonstration plots. Workshops across the state resulted in at least 365 farmer-written nutrient management plans.

MISCELLANEOUS

- 30 counties reported conservation education targeted towards youth. Most of these educational activities were targeted at grades four through six.
- 11 counties with priority watershed projects reported miscellaneous educational activities.
- 10 counties only reported information and education activities through the priority watershed project.
- 4 counties submitted their required annual report, but did not include an information and education component.

² 40 counties with Priority Watershed Projects and 50 counties through the LWRM plans (22 were also PW counties)

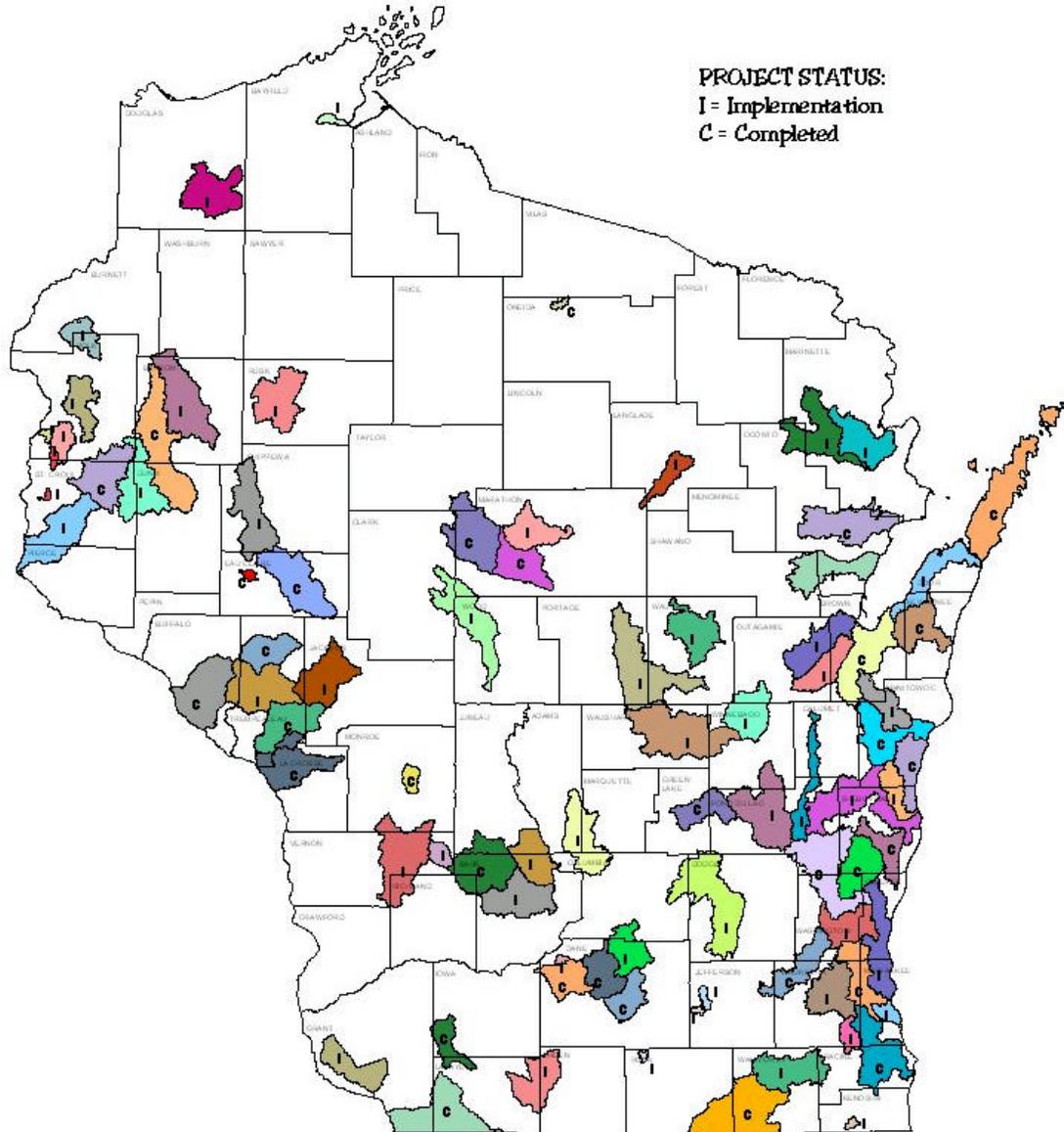
³ 20 counties with Priority Watershed Projects and 14 counties through the LWRM plans (9 were also PW counties)

⁴ 11 counties with Priority Watershed Projects and 14 counties through the LWRM plans (4 were also PW counties)

⁵ 11 counties with Priority Watershed Projects and 14 counties through the LWRM plans (3 were also PW counties)

⁶ 13 counties with Priority Watershed Projects and 11 counties through the LWRM plans (4 were also PW counties)

Nonpoint Source Large and Small Scale Priority Watershed Projects



Map scale 1:3,696,998



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