

Wisconsin Land and Water Conservation Annual Progress Report



2010 Program Highlights

This report to the Wisconsin Land and Water Conservation Board (LWCB) summarizes progress made in 2010 on programs administered by the Department of Agriculture, Trade and Consumer Protection (DATCP) and the Department of Natural Resources (DNR) to promote conservation and control polluted runoff from both rural and urban sources. This report is submitted in part to meet program requirements under § 281.65(4)(o) and § 92.14(12), Wis. Stats., for an annual report.

The report provides information on the following programs administered in 2010:

- ◆ State and Federal Conservation Funding.
- ◆ Land and Water Resource Management Planning Program, ch. 92.10.
- ◆ Soil and Water Resource Management Program, ch. 92.14.
- ◆ Priority Watersheds and Lake Projects, ch. 281.65.
- ◆ Targeted Runoff Management Grant Projects, ch. 281.65.
- ◆ Urban Nonpoint Source and Stormwater Management Grant Projects, ch. 281.66.
- ◆ Farmland Preservation Program, ch. 91.

Summarized in Table 1 and detailed further in other tables, the report documents the expenditure of about \$37.0 million in 2010 for staffing, conservation practices and technical assistance to control erosion from croplands and construction sites, repair eroded streambanks and shorelines, protect waterways from livestock manure runoff, and reduce polluted stormwater runoff from city streets and parking lots. The information contained within this report also speaks to the wide range of activities funded and the progress achieved during 2010.

In addition to dollars spent, specific units of measurement are used to quantify the number, size and scope of Best Management Practices (BMPs) constructed, installed or implemented for soil and water conservation purposes. DATCP and DNR have established reporting conventions for BMPs to ensure that data is consistently tracked based on feet, acres or number of practices installed.

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PROGRAM MANAGEMENT

FUNDING FOR CONSERVATION

In 2010, state and federal investments helped support a growing range of important conservation programs even in challenging economic times. State grants remained level at \$9.3 million for county conservation staff, while federal payments provided \$149,583 in technical assistance. Staff from county land conservation departments (LCDs) and municipalities continued to deliver high levels of conservation, including the provision of about \$27.5 million in cost-sharing for Best Management Practices (BMPs) and technical assistance. Cost-share dollars are administered through individual contracts with agricultural producers, as well as contracts with governmental units such as cities, towns, villages, counties, lake districts, and tribal governments. Funds for cost-sharing came from both state (\$9.5 million) and federal (\$18.0 million) sources. Federal funding came from the Environmental Protection Agency (EPA) through s. 319 of the Clean Water Act (CWA) and from United States Department of Agriculture's (USDA) Environmental Quality Incentives Program (EQIP) and Conservation Reserve Enhancement Program (CREP). Table 1 provides a breakdown of key expenditures in the various spending categories.

LAND AND WATER RESOURCE MANAGEMENT PLANNING PROGRAM

Wisconsin's 72 counties are the main vehicles for delivering state conservation programs and funds. Land and Water Resource Management (LWRM) plans are the primary planning tools counties use to target their conservation efforts. These plans are the product of a locally-led process to establish county conservation priorities and identify activities to address these key concerns. Each plan must describe how the county will implement the state performance standards to control agricultural and urban runoff. Developed in consultation with the DNR, each plan must also be approved by DATCP.

Table 1: 2010 Financial data	
DATCP-SWRM Grant Program Expenditures	
\$9,300,000	DATCP funds for support of 124 local staff out of 350 total local staff statewide
\$3,940,532	DATCP funds for local BMP cost-share
95%	Percentage of cost-share spent or extended
\$412,101	State CREP
DNR Grant Program Expenditures	
\$2,938,740	TRM for agricultural BMP cost-share
\$1,079,230	UNPS for urban BMP cost-share
\$450,748	UNPS for stormwater planning
\$673,132	Priority Watershed Projects: BMP cost-share
Federal Grant Program Expenditures	
\$17,047,890	EQIP for BMP cost-share*
\$194,000	CREP for BMP cost-share
\$800,000	s. 319 CWA grant for BMP cost-share
\$149,583	NRCS technical assistance*

*Based on federal FY10

The three most common activities conducted by counties are soil erosion control, manure management and nutrient management. In its abbreviated scope, this report cannot fully capture the benefits of the diverse activities conducted by county programs including invasive species control, grazing assistance, urban stormwater management and groundwater management. Nor can it do justice to outreach, training and technical assistance performed by counties and others such as UW-Extension.

SOIL AND WATER RESOURCE MANAGEMENT PROGRAM

The Soil and Water Resource Management (SWRM) Program supports locally-led conservation efforts through county staffing grants and cost-share funding to implement LWRM plans.

Over the last few years, SWRM funding has steadily lost ground (at the rate of several hundred thousand

dollars per year) in its attempt to meet the goal in s. 92.14(6)(b), Stats. to fund an average of 3 staff in each county at 100, 70, and 50 percent. In 2010, state funds primarily from DATCP paid for 124 of the 350 FTEs employed by counties for conservation work. While counties have used non-state sources to maintain staff levels, this has not been adequate to meet shortfalls of state funding.

Without adequate support, counties cannot hire and retain conservation staff with the experience and technical skills required to implement county resource management plans (including the state agricultural performance standards), facilitate landowner participation in state and federal cost-share programs, and ensure cross compliance of farmers in the revamped farmland preservation program. Just looking at DATCP funds, county staff were responsible for the installation of about \$4.0 million in cost-share practices in 2010 with the highest spending on the following practices: \$0.64 million to cost-share on 31,500 acres in nutrient management plans; \$0.55 million for 30,000 feet of streambank protection; \$0.38 million for 126 waterway systems; \$0.31 million for 12 manure storage structures; and \$0.24 million for 15 barnyard runoff control systems. Besides work on DATCP programs, county staff also provide technical services and support for other state and federal conservation and environmental programs. Looking at the larger picture, based on estimates from DATCP, DNR and USDA programs collected in January 2011, county staff provided farmers with access to nearly \$47 million in cost-share and other program payments. Accordingly, for every state dollar invested in county conservation staff, farmers gain access to over five dollars in state and federal cost-sharing and other payments to enhance their property values and protect natural resources.

The wide-ranging benefits of local conservation go beyond administration of cost-share dollars, and include planning that protects the value of lake front property; technical assistance to control erosion and maintain the productive capacity of the land; and service as first responders in a emergencies such as floods.

FARMLAND PRESERVATION PROGRAM

The Working Lands Initiative (WLI), enacted in July of 2009, modernized and overhauled the 30-year-old Farmland Preservation Program (FPP) to better identify and protect agricultural areas against unplanned or poorly planned development. Without increasing costs for state taxpayers, WLI provided local governments and farmers with better tools for farmland preservation, including new programs to purchase conservation easements and designate agricultural enterprise areas (AEA) that target areas for agricultural preservation and development. Changes to FPP increased tax credits for farmer participants and strengthened conservation

7.2 million	Acres of Wisconsin's 15.2 million acres of farmland protected through the FPP
16,000	Farmland owners who received farmland preservation tax credits for tax year 2010
\$18.1 million	Value of farmland preservation tax credit
\$1,150	Average tax credit per claimant
2.9 million	Acres of farmland related to claimed credits

compliance, including increased county monitoring requirements. Counties are in the process of updating their farmland preservation plans according to a schedule and are eligible for grants to help with these planning efforts. Follow this link to the Working Lands Initiative page:

<http://datcp.wi.gov/Environment/>

CONSERVATION RESERVE ENHANCEMENT PROGRAM

CREP is a cooperative effort with the USDA's Farm Service Agency (FSA) and the Natural Resources Conservation Service (NRCS), DATCP, DNR, LCDs, and Wisconsin landowners. As of October 1, 2010, about 3,400 landowners have enrolled over 43,000 acres into the program. The goal is to enroll 100,000 acres into riparian buffers, wildlife habitat buffers, filter strips, wetland restorations, grassed

Practices	Goal (acres)	Enrolled (acres)
Grassland	15,000	11,754
Riparian buffers	80,000	29,051
Wetland restorations	5,000	2,949
All practices*	100,000	43,754

*Numbers are as reported in the CREP 2010 Annual Report.

waterways and grassland habitat to improve water quality and habitat for endangered grassland birds and other wildlife. The State of Wisconsin has paid about \$11.9 million for CREP as incentive and conservation practice payments. Counties in the project area have spent an additional \$2.24 million in staff and other local costs. This partnership allows Wisconsin to leverage about \$82 million in federal funds to be paid out over the life of the project (federal contracts last 15 years). Table 3 highlights acres enrolled in CREP.

PRIORITY WATERSHED AND LAKE PROGRAM

The Priority Watershed and Lake Program (PWP) was authorized in 1978. During the ensuing years, 85 projects were conducted. Legislation passed in 1997 ended new project selections. All projects were completed by December 31, 2009, except for 7 projects that requested a 1-year extension to complete the installation of BMPs for specific cost-share agreements. Conservation activities conducted in CY 2010 for these cost-share agreements are incorporated in Table 5, Table 6, and Table 7.

TARGETED RUNOFF MANAGEMENT GRANTS

DNR awards TRM grants to local governments to address both urban and rural polluted runoff. Projects awarded funding in CY 2010 were site-specific and expected to last 2 years. Typical TRM projects, cost-shared at 70 percent up to \$150,000, include livestock manure management, erosion control and stream bank protection practices. A total of 45 new TRM projects (43 agricultural, 2 urban) were selected for funding in 2010. Conservation activity conducted in 2010 for these projects is incorporated in the information in Table 5, Table 6, and Table 7.

URBAN NONPOINT SOURCE AND STORMWATER MANAGEMENT (UNPS) GRANTS

These DNR grants cover both planning and construction projects to address polluted urban runoff. They typically last 2 years. Construction grants may cover 50 percent up to \$150,000 of the cost of BMPs such as stormwater detention ponds, infiltration practices, and streambank and shoreline stabilization. Planning grants can pay for 70 percent up to \$85,000 for stormwater planning, education, ordinance and utility development, and development. A total of 22 new urban construction projects were selected for funding in CY 2010. There were 4 urban planning grants selected for funding in CY 2010. Conservation activity conducted in 2010 for these projects can be found in Table 4.

Practices	2010	2004-2010
Detention systems, infiltration devices, street sweeper, other practices (no.)	7	650
Storm sewer re-routing, streambank/shoreline protection (feet)	1,980	30,201

IMPAIRED WATERS AND TOTAL MAXIMUM DAILY LOADS

Impaired waters, as defined by Sec. 303(d) of the CWA, are waters that do not meet the state's water quality standards. DNR updates its Impaired Waters List every 2 years for EPA approval. A Total Maximum Daily Load (TMDL) must be developed for waterbodies listed as "Impaired."

A TMDL identifies pollutant reductions needed to meet water quality standards and allocates responsibility for those reductions between point and nonpoint sources. DNR and EPA must approve all TMDLs. Wisconsin has 62 approved TMDLs covering pollutants ranging from total phosphorus, nutrients, bacteria, sediment and total suspended solids in multiple water bodies and stream segments around the state.

2010 OUTCOMES

BEST MANAGEMENT PRACTICES

In 2010 local land conservation departments utilized nearly \$4.0 million in cost sharing to install 1,096 BMPs as part of the DATCP SWRM grant program. In addition, nearly \$5.1 million in cost sharing was utilized by local land conservation departments, municipalities, and other local units of government to install nearly 125 agricultural and urban BMPs as part of the PWP, TRM and UNPS programs. Expenditures include projects installed with funding awarded in 2009 and extended into 2010. State and local funds are often used to leverage federal cost-share programs, such as EQIP and s. 319 of the CWA.

CROPLAND SOIL EROSION CONTROL

Keeping productive soil on the land and out of the water is one of Wisconsin's primary conservation goals. The counties, state and federal government administer a variety of programs that work together to help landowners reduce soil erosion to tolerable ("T") levels or below.

In 2010, cost-share funds from SWRM, TRM and PWP helped pay for agricultural BMPs such as reduced tillage, residue management and cover crops to hold soil in place, grade stabilization and other structures to deflect or slow down runoff from slopes and practices to repair and prevent gullies. Table 5 shows the numbers of various best management practices installed with the help of funding from DNR, DATCP, and NRCS during CY 2010 to reduce upland erosion.

NUTRIENT MANAGEMENT

The DATCP tracks the levels of nutrient management planning through reports from bulk fertilizer suppliers and the nutrient management

plan checklists submitted by farmers, agronomists, and public agency staff. For the first time since the suppliers of bulk fertilizer started reporting these acres in 2006, more acres were reported through nutrient management plan checklists in 2010. This means more plans are being recorded with the

Table 5: 2010 BMP highlights

Practice Installed	DNR	DATCP	NRCS
Erosion Control			
Residue management, green manure crop, grassed waterways, buffers, waterway systems, reduced tillage, grade stabilization structure, critical area stabilization (acres)	407	1,298	166,519
Critical area stabilization, grade stabilization, sinkhole treatment, subsurface drains, underground outlets water and sediment control basins (number)	13	110	250
Animal trails and walkways, critical area stabilization, diversions, wind-breaks, underground outlets, waterway systems, streambank and shoreline protection (feet)	4,046	86,761	129,963

county as part of ordinances and programs and not just part of a crop management plan. In 2010, 62 counties reported 3,078 plans covering 1,506,610 acres. This is a 12% increase from last year covering 17% of Wisconsin's cropland. In 2010, 695 farmers wrote their own nutrient management plans on 204,670 acres (14% of total acres). Farmers prepared 23% of the total plans. The remaining 77% of plans were prepared by 278 agronomists hired by farmers to assist with nutrient management planning. Agronomists reported 1,301,940 acres (86% of total acres) from 2,383 plans. The majority of all plans are prepared using the Snap Plus software.

MANURE MANAGEMENT

In 2010, landowners used state cost-share dollars to install manure management practices such as manure storage structures, practices to control runoff from barnyards, feedlots, milk houses, and pastures; livestock fencing, access roads and cattle crossings and wastewater treatment strips to reduce runoff in areas of heavy livestock activity; and nutrient management, heavy use area protection and

Table 6: 2010 BMP highlights			
Practice Installed	DNR	DATCP	NRCS
Manure Management			
Agricultural sediment basin, barnyard runoff control systems, livestock watering facilities, manure storage facilities, milk-house waste control, roof runoff systems, sediment basins, waste transfer systems (number)	101	336	180
Access roads and cattle crossings, barnyard runoff management, livestock fencing, wastewater treatment strips (feet)	2,560	79,931	514,472
Heavy use area protection, nutrient management, wastewater treatment strips (acres)	2,398	33,863	86,820

wastewater treatment strips to keep manure out of sensitive areas. Table 6 shows the amount of best management practices installed with the help of funding from DNR, DATCP, and NRCS during CY 2010 to address manure management.

REGULATORY APPROACHES TO MANAGING MANURE

Notices of Discharge

Since the mid-1980s DNR has used Notices of Discharge (NODs) and Notices of Intent (NOIs) under ch. NR 243 of the state administrative code to address significant discharges to state waters from small (<300 animal units) and medium (300 – 999 animal units) sized livestock operations. DATCP engineers and county staff provide technical assistance. Both DNR and DATCP provide state funding to address NOD/NOI sites and jointly administer a grant application process that uses a combination of state and federal EPA funding. USDA funding is also occasionally used to address these sites.

In 2010, DNR issued ten notices under NR 243, three of which were NODs and seven were NOIs. DNR and DATCP funded 8 of these sites. DATCP funded two projects, DNR funded four projects and two projects were jointly funded by DNR and DATCP. This conservation work completed during CY 2010 at these sites is included in Table 6.

Local Regulation

Fifty-nine counties administer manure storage ordinances that require permit applicants to properly design manure storage facilities and implement nutrient management plans. County ordinances also may implement the state manure management prohibitions and other agricultural performance standards. A few counties have restrictions on winter spreading of manure.

Under the Livestock Facility Siting Law, counties and other local governments have the option to adopt ordinances that require permits for new and expanding livestock facilities. These local ordinances must be administered according to state standards and other requirements. Through March 2010, 61 ordinances have been adopted: 23 by counties, 37 by towns and one by a city. More information on the implementation of this program is available at: http://datcp.wi.gov/Environment/Livestock_Siting

STREAMBANK, SHORELINE, AND WATER QUALITY AND HABITAT PROTECTION

State Funded Conservation Practices

In 2010, many landowners used state cost-share dollars to install practices that protect and restore streambanks and shorelines, protect groundwater, and improve habitat through wetland restorations. Partners such as fishing and hunting groups, conservation organizations, “Friends of” groups, local conservation staff, U.S. Fish and Wildlife Service, and DNR staff often contribute matching funds along with expertise and labor to make these projects successful.

Table 7 highlights practices associated with streambank and shoreline projects.

Table 7: 2010 BMP highlights			
Practice Installed	DNR	DATCP	NRCS
Streambank and Shoreline			
Critical area stabilization, streambank/shoreline protection, shoreline habitat restoration, stream crossing, streambank rip-rap, streambank/shoreline fencing, streambank/shoreline shaping and seeding (feet)	18,181	*	48,861
Shoreline habitat restoration (acres)	–	–	348
Shoreline habitat restoration for redeveloped areas (sq. feet)	9,318	–	–
Residential nutrient management, stream crossing (number)	–	–	68
*DATCP streambank and shoreline BMPs are tracked under the Erosion Control section and are measured in feet on Table 5.			

Table 8: 2010 BMP highlights			
Practice Installed	DNR	DATCP	NRCS
Other Water Quality Practices			
Pesticide management, soil analysis for nutrient management, well abandonments (number)	1	189	1,238
Easements*, pesticide management, rotational grazing, wetland restoration (acres)	3.1	45**	28,662
Prescribed grazing (feet)	–	51,687	–
*DATCP CREP practices are tracked separately (see Table 3). ** This does not include any acreage for rotational grazing which DATCP cost -shared in the amount of \$41,086 .			

Other Water Quality Practices

State and federal agencies pay for a range of practices that improve water quality in different ways. Pesticide management may include payment for facilities to contain spills from mixing and loading of chemicals. Sealing unused wells prevents contaminants from reaching groundwater through direct conduits. Fencing and other grazing practices enable farmers to effectively manage vegetative cover in pastured areas to reduced sediment and nutrient runoff. When restored, wetlands provide beneficial environmental services including flood control and filtration.

The voluntary acquisition of conservation easements along rivers, streams and lakes has been a long-standing tool used cooperatively by landowners, counties, DNR, NRCS, and nonprofit conservation organizations to protect water quality. As of December 31, 2010, DNR had entered into 75 conservation easements through the Nonpoint Program covering 1,677 acres in 17 counties.

Table 8 documents a range of water quality practices installed as part of program efforts across the state.