

Wisconsin Land and Water Conservation Annual Progress Report



2009 Program Highlights

This report to the Wisconsin Land and Water Conservation Board (LWCB) summarizes progress made in 2009 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 2009:

- ◆ 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 \$39.7 million in 2009 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 2009.

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 2009, state and federal investments lagged in supporting the statewide capacity needed to deliver a growing range of important conservation programs. State grants remained level at \$9.3 million for county conservation staff, while federal payments provided \$238,783 in technical assistance. Staff from county land conservation departments (LCDs) and municipalities continued to deliver high levels of conservation, including the provision of about \$30.2 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 (\$12.9 million) and federal (\$17.3 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

Table 1: 2009 Financial data	
SWRM Grant Program Expenditures	
\$9,285,219	DATCP staffing and support
\$5,106,566	DATCP cost-share funds
\$412,101	State CREP
354	County conservation staff
94%	Percentage of cost-share dollars spent or extended
DNR Grant Program Expenditures	
\$3,288,754	TRM for BMPs
\$1,032,727	UNPS for urban BMPs
\$968,644	UNPS for stormwater planning
\$2,077,761	Priority Watershed Projects for BMPs
Federal Grant Program Expenditures	
\$16,290,822	EQIP for BMPs*
\$215,000	CREP for BMPs
\$800,000	s. 319 CWA grant for BMPs
\$238,783	NRCS technical assistance*

*Based on federal FY09

urban runoff. Developed in consultation with the DNR, each plan must also be approved by DATCP.

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 2009, state funds primarily from DATCP paid for 124 of the 354 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 \$5.2 million in cost-share practices in 2009 with the highest spending on the following practices: \$1.8 million to cost-share on 78,000 acres in nutrient management plans; \$0.52 million for 32,000 feet of streambank protection; \$0.5 million for 180 acres of waterways; \$0.49 million for 26 manure storage structures; and \$0.32 million for 20 barnyard practices. 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

Table 2: Farmland Preservation Quickfacts

7.2 million	acres of Wisconsin's 15.2 million acres of farmland protected through the FPP
17,000	farmland owners who received farmland preservation tax credits in 2009
\$11.6 million	value of farmland preservation tax credit
\$687	average tax credit per claimant
33.6%	percentage of Wisconsin's potentially eligible farmers who claimed the credit

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 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.

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. Currently, about

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

*CREP numbers reported are cumulative through FY2009.

3,500 landowners around the state are receiving a total of nearly \$5 million annually in rental payments for enrolling lands in this program intended to protect water quality. Table 3 highlights acres enrolled in CREP through FY 2009. This partnership allows Wisconsin to leverage about \$82 million in federal payments over the next 15 years.

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, and all projects were completed by December 31, 2009. During CY 2009, 10 projects located in 14 counties remained active. Conservation activities conducted in CY 2009 for these projects are incorporated in Table 5, Table 6, and Table 8.

TARGETED RUNOFF MANAGEMENT (TRM) GRANTS

DNR awards TRM grants to local governments to address both urban and rural polluted runoff. Projects are site-specific and usually 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 56 new TRM projects (55 agricultural, 1 urban) were selected for funding in 2009. This brought the number of active TRM projects in CY 2009 to 130. Conservation activity conducted in 2009 for these projects is incorporated in the information in Table 5, Table 6, and Table 8.

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 18 new urban construction

Practices	2009	2004-2009
Detention systems, infiltration devices, street sweeper, other practices (number)	18	643
Storm sewer re-routing, streambank/shoreline protection (feet)	1,208	28,221

projects were selected for funding in CY 2009. This brought the number of active urban construction projects in 2009 to 43. No new urban planning projects were selected for funding in CY 2009 because funds were not available. The number of active urban planning projects in CY 2009 was 52. Conservation activity conducted in 2009 for these projects can be found in Table 4.

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 non-point sources. DNR and EPA must approve all TMDLs. Wisconsin has 43 approved TMDLs covering multiple waterbodies.

2009 OUTCOMES

BEST MANAGEMENT PRACTICES

In 2009 local land conservation departments utilized nearly \$5.2 million in cost sharing to install 1,512 BMPs as part of the DATCP SWRM grant program. In addition, nearly \$7.4 million in cost sharing was utilized by local land conservation departments, municipalities, and other local units of government to install nearly 500 agricultural and urban BMPs as part of the PWP, TRM and UNPS programs. Expenditures include projects installed with funding awarded in 2008 and extended into 2009. 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 2009, 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 amount of best management practices installed by DNR, DATCP, and NRCS during CY 2009 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. Suppliers of bulk fertilizer to Wisconsin farmers reported 3,131 plans covering 1,358,958 acres in 2009. This is a 2.6 percent increase in acres from the previous year and amounts to 15 percent of Wisconsin’s cropland. In

Table 5: 2009 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)	17,104	732	169,556
Critical area stabilization, grade stabilization, sinkhole treatment, subsurface drains, underground outlets water and sediment control basins (number)	331	109	335
Animal trails and walkways, critical area stabilization, diversions, wind-breaks, underground outlets, waterway systems, streambank and shoreline protection (feet)	47,440	85,276	210,696

2009, 825 nutrient management planners (618 farmers and 207 agronomists) submitted nutrient management plan checklist forms. Farmers developed 213 more self-written plans than last year, covering 76 percent more acres. Agronomists submitted checklists for 2,251 plans covering 1,143,089 acres. Nutrient management plans were submitted from 64 counties in 2009.

MANURE MANAGEMENT

In 2009, 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 wastewater treatment strips to keep manure out of sensitive areas. Table 6 shows the amount of best management practices installed by DNR, DATCP, and NRCS during CY 2009 to address manure management.

Table 6: 2009 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)	76	138	302
Access roads and cattle crossings, barnyard runoff management, livestock fencing, wastewater treatment strips (feet)	820	42,320	481,398
Heavy use area protection, nutrient management, wastewater treatment strips (acres)	4.8	77,886	126,159

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 2009, DNR issued 16 notices under NR 243, 12 of which were NODs, and 4 were NOIs. DNR and DATCP funded 11 of these sites. This brought the number of DNR-funded NOD/NOI grant projects active during 2009 to 18. The number of DATCP-funded NOD/NOI grant projects active during 2009 was 4. This conservation work completed during CY 2009 at these sites is included in Table 6.

Concentrated Animal Feeding Operations

Under ch. NR 243, DNR regulates livestock operations with 1,000 or more animal units, known as concentrated animal feeding operations (CAFOs), by requiring a Wisconsin Pollution Discharge Elimination System (WPDES) permit. Table 7 shows there are currently 214 permitted CAFOs.

Table 7: Regulatory approaches to managing manure	
CAFO Statistics as of December 31, 2009	
214	number of CAFOs with WPDES permits
26	number permits issued/reissued during 2009

These represent less than 2 percent of livestock operations but account for roughly 20 percent of the manure produced in Wisconsin.

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. For more information on the implementation of this program, http://datcp.wi.gov/Environment/Livestock_Siting/Program_Reports/index.aspx

STREAMBANK, SHORELINES, AND WATER QUALITY AND HABITAT PROTECTION

State Funded Conservation Practices

In 2009, 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 8 highlights practices associated with streambank and shoreline projects.

Table 8: 2009 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)	17,873	*	105,899
Shoreline habitat restoration (acres)	–	–	284
Shoreline habitat restoration for redeveloped areas (sq. feet)	26,399	–	–
Residential nutrient management, stream crossing (number)	4	–	--
*DATCP streambank and shoreline BMPs are tracked under the Erosion Control section and are measured in feet.			

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, 2009, DNR had entered into 75 conservation easements through the Nonpoint Program covering 1,677 acres in 17 counties.

Table 9 documents a range of water quality practices.

Table 9: 2009 BMP highlights			
Practice Installed	DNR	DATCP	NRCS
Other Water Quality Practices			
Pesticide management, soil analysis for nutrient management, well abandonments (number)	60	223	1,620
Easements**, pesticide management, rotational grazing, wetland restoration (acres)	1,677	138	55,188
Rotational grazing (feet)	–	82,289	–
**DATCP CREP practices are tracked separately (see Table 3).			