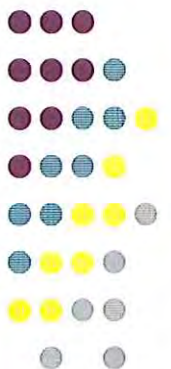




Nonpoint Source Water Pollution Abatement and Soil Conservation Programs

Wisconsin Legislative Fiscal Bureau
January, 2011



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TABLE OF CONTENTS

Introduction.....	1
Chapter 1: Current Nonpoint Source Pollution Abatement Programs and Grants	4
Program Components	4
DATCP Funding to Counties	5
DNR Nonpoint Source Grants	10
Best Management Practices	17
Soil and Water Resource Management and Nonpoint Source Grant Funding.....	19
Soil and Water Resource Management and Nonpoint Source Administrative Funding	25
Clean Water Fund Loans	27
Chapter 2: Nonpoint Source Pollution Abatement Regulatory Authority.....	29
Special Orders and Notices of Intent	29
Nonpoint Source Performance Standards.....	30
Animal Waste	38
Erosion Control Programs.....	40
Program Evaluations.....	47
Appendix I: Definitions of Cost-Shared Best Management Practices.....	51
Appendix II: 2011 Rural Nonpoint Source Water Pollution Abatement Grants.....	54
Appendix III: Targeted Runoff Management Project Grants for 2011.....	56
Appendix IV: Urban Nonpoint Source and Storm Water Project Grants for 2011.....	57
Appendix V: Municipal Flood Control Grant Awards for 2010-12	58
Appendix VI: Original Nonpoint Source Pollution Abatement Grant Program.....	59

Nonpoint Source Water Pollution Abatement and Soil Conservation Programs

Introduction

The Wisconsin Department of Natural Resources (DNR) and the Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP) work jointly to control nonpoint source water pollution and soil erosion in the state. The soil and water conservation program in DATCP and the nonpoint source water pollution abatement program in DNR provide county-level coverage of the state's soil and water conservation needs. Further, the DNR nonpoint source pollution abatement financial assistance program intends to focus resources where nonpoint source-related water quality threats are the most severe and where control is most feasible. As shown in Table 1, approximately \$130.3 million is available in the 2009-11 biennium for nonpoint soil and water conservation grants to landowners and municipalities. These grants are distributed through DNR and DATCP programs and through direct federal support. Funding sources for soil and water conservation programs include general purpose revenue (GPR), segregated (SEG) and federal (FED) revenue and issuance of bonds (BR).

Table 1: Total Available 2009-11 Direct Funding for Local Soil and Water Conservation

Funding Source	Biennial Amount
GPR	\$10,166,000
SEG	22,866,600
BR	20,000,000
FED	<u>77,249,600</u>
Total	\$130,282,200

Nonpoint sources of water pollution are those sources that are diffuse in nature without a single, well-defined point of origin. Nonpoint sources in-

clude land management activities that contribute to runoff, seepage or percolation and adversely affect the quality of waters in the state. DNR estimates that nearly one-half of the lakes and streams within assessed watersheds are degraded by nonpoint source pollution. Soil erosion and runoff of water polluted by chemicals are major contributors to the level of nonpoint source pollution.

Several state programs address both urban and rural sources of nonpoint pollution and soil erosion. In addition, DNR and DATCP jointly establish technical standards for land and water conservation and nonpoint source pollution abatement management practices. Several state and local agencies are involved in nonpoint source water pollution abatement, and they are described below.

Natural Resources

Section 281.11 of the statutes directs DNR to serve as the central unit of state government to protect, maintain and improve the quality and management of the waters of the state, ground and surface, public and private. DNR holds general supervision and control over the waters of the state and is directed to carry out planning, management and regulatory programs. Under these general powers, in addition to the specific statutory program, DNR implements nonpoint source water pollution abatement grant programs and regulates certain animal waste and nonpoint pollution discharges.

Agriculture, Trade and Consumer Protection

Chapter 92 of the statutes establishes DATCP as the central state agency responsible for developing and implementing statewide land and water conservation policies. DATCP administers programs that assist in the abatement of rural water pollution through the reduction of soil erosion, the manage-

ment of animal wastes, improvement of agricultural nutrient management, and funding of county and state land and water conservation and nonpoint pollution abatement staff. DATCP efforts are commonly known as the soil and water resource management (SWRM) program, a complement to the DNR nonpoint source program.

Commerce

The Department of Commerce is required to establish statewide standards for erosion control at construction sites of one- and two-family dwellings. The Department also may issue stop-work orders for noncompliance. Commerce may delegate its administrative authority to counties, cities, villages or towns. Prior to January 1, 2010, Commerce had authority over erosion control at construction sites for public buildings and places of employment, but these functions were transferred to DNR under the 2009-11 biennial budget (2009 Act 28).

Land and Water Conservation Board

The Wisconsin Land and Water Conservation Board (LWCB) is directed to develop recommendations and advise DATCP and DNR on matters concerning land and water conservation and nonpoint source water pollution abatement. This advisory role includes the review and recommendation of a joint annual allocation plan for several grant programs administered by DNR and DATCP.

For DATCP, the LWCB reviews: (a) land and water resource management plans, which are described further below; (b) erosion control plans created by counties to identify and control their most significant erosion occurrences; (c) project aid applications; and (d) administrative rules. In addition, the Board monitors the achievement of statutorily defined soil erosion control goals. LWCB oversight of the DNR nonpoint source program includes: (a) reviewing and commenting on DNR administrative rules; (b) making recommendations to the Governor and DNR concerning the efficiency

and effectiveness of the program; and (c) assisting in the resolution of program concerns.

The LWCB consists of the following members: (a) the Secretaries of the Departments of Administration, Natural Resources, and Agriculture, Trade and Consumer Protection, or their designees; (b) three county land conservation committee members, who are designated at a statewide meeting of land conservation committees and appointed for two-year terms; and (c) five members appointed by the Governor, one for a two-year term and four for staggered four-year terms, to include one farmer, one member of an environmental group, one person from a city with a population greater than 50,000 people, and one person from a governmental unit involved in river management.

In addition, advisory members to the Board include representatives from: (a) the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS); (b) the USDA Farm Service Agency (FSA); (c) the College of Agriculture and Life Sciences of the University of Wisconsin–Madison; (d) the University of Wisconsin–Extension; (e) the Wisconsin Land and Water Conservation Association (WLWCA); and (f) Wisconsin Association of Land Conservation Employees (WALCE). DATCP provides administrative support to the Board and both DNR and DATCP staff provide technical support to the Board.

County Land Conservation Committees and Departments

County land conservation committees (LCCs) set county policy on land and water conservation issues and directly oversee the activities of county land and water conservation department staff. Each county board is statutorily directed to create an LCC. County LCCs must consist of county board members who are also members of the county committees on agriculture and extension education, and the committee on agricultural stabilization and conservation. In addition to these

members, any number of other county board members and up to two persons who are not county board members may be appointed.

County LCCs' powers and duties relating to the implementation of state land and water conservation programs include: (a) distributing federal, state and county funds for cost-share programs; (b) providing equipment, technical assistance and materials to landowners for conservation purposes; (c) developing county ordinances for the regulation of land use and land management practices; and (d) developing standards for management practices and monitoring compliance with those standards. The LCCs are required to prepare land and water resource management (LWRM) plans. In addition, LCCs are required to prepare annually a single state grant request describing staffing and funding needs for all county soil and water conservation and animal waste management programs. These programs include: (a) DATCP's annual county staffing and support grants; (b) the targeted runoff management (TRM) grant program; and (c) the urban nonpoint source and storm water grant program. DATCP and DNR then prepare a single grant allocation for each county, with DATCP and DNR each administering its own programs.

The LCCs direct the activities of county land conservation departments (LCDs), which in some instances have merged with other county departments such as planning and zoning. County LCDs or the combined departments implement state land and water conservation programs with assistance from federal NRCS staff and DATCP staff. County conservationists are responsible for implementing other state and federal programs, including nonpoint source pollution abatement programs, the wildlife damage abatement program and tree planting programs. Conservationists also assist county zoning administrators on land and water resource issues.

Generally, a county employs a county conservationist, a clerical assistant (part- or full-time) and

may also hire one or more technical assistants to the conservationist. As of December, 2010, counties had reported to DATCP that there were 354 full-time equivalent employees working in Wisconsin as county conservation staff in 2009.

Land and Water Resource Management Plans. In order to receive grant funding from DATCP, each LCC is required to have a LWRM plan reviewed by the LWCB and approved by DATCP. Plans at a minimum must include: (a) a county-wide assessment of soil erosion conditions and water quality, including information available from DNR; (b) water quality objectives identified for each water basin, priority watershed and priority lake; (c) key problem areas for soil erosion and water quality, including priority farms; (d) identification of the best management practices (BMPs) to achieve the water quality objectives and to reach current state soil erosion control goals; (e) strategies for achieving voluntary compliance with farm conservation practices; (f) a multi-year strategy for implementing LWRM plan-related activities and priorities, including those priorities identified in the plan and those activities necessary for compliance with applicable federal and state laws; (g) a system to track progress of activities identified in the plan; (h) an information and education strategy; and (i) methods for coordinating plan implementation activities with other applicable local, state or federal agencies and organizations.

County LCCs develop the plans with the assistance of DATCP. The LWCB reviews plans and recommends DATCP approval or disapproval. Currently, DATCP administrative rules require LWRM plans to be renewed every five years, but counties that have written plans for a 10-year period may seek an additional five-year renewal. DNR assists counties in LWRM plan activities by providing available water quality data and information, training and support for water resource assessments and appraisals and other related program information.

CURRENT NONPOINT SOURCE POLLUTION ABATEMENT PROGRAMS AND GRANTS

Program Components

The current structure of the nonpoint and SWRM programs was first created by the 1997-99 biennial budget act (1997 Act 27) and the 1999-2001 biennial budget act (1999 Act 9). These acts made several major modifications and additions to the nonpoint and SWRM programs, as described below, and created the basis for the current programs.

Although the current nonpoint source pollution abatement program has several distinct components and grant programs as noted below, LCCs have been required since 2000 to annually prepare a single grant request. This grant request describes staffing needs and county activities for: (a) soil and water conservation and animal waste management under Chapter 92 of the statutes; (b) financial assistance under s. 281.65 for nonpoint source water pollution abatement, including funding requested under the competitive TRM grant program; and (c) urban nonpoint source water pollution abatement and storm water management program under s. 281.66. To this end, DATCP and DNR have created a single grant application process and a single set of forms for soil and water resource management and nonpoint source program grants, funding allocations, and reporting and evaluations. However, each agency prepares, issues and administers its own grants to counties. The agencies are required to jointly review the applications, determine if projects should be considered for funding through DATCP or DNR competitive funding, and submit a coordinated grant allocation plan to the LWCB for its review and recommendation to the agencies.

It should be noted that the grant programs described throughout the paper are primarily intended to fulfill statutory and administrative requirements for the funding that must be offered to owners of lands that are nonpoint sources of pollution. Pollution-abatement practices or structures that would change or discontinue existing practices or facilities generally require the landowner to receive a "bona fide offer" of having a minimum portion the cost of installing the practice provided to them. This portion for most practices is 70 percent, meaning the landowner is liable for at most 30 percent of the cost. Absent a cost-sharing offer, BMPs are generally not required of landowners, outside of some exceptions discussed later. Further, although municipalities may assemble bona fide offers using other funding available to them, cost-sharing offers generally consist of state grants to counties and other municipalities. The extent to which nonpoint source water pollution abatement is implemented in Wisconsin is therefore significantly influenced by the grant funding that is ultimately available to Wisconsin landowners. This differs from abatement of point sources of pollution, for which the responsible party must pay for all necessary structures and practices.

County Staffing and Cost-Sharing Grants. Rather than DATCP and DNR each funding county staffing and cost-share grants, 1999 Act 9 required DATCP under its SWRM program to fund grants to counties for land conservation staff and administration of land and water conservation programs. The state also provides cost-sharing grants, which are distributed to landowners for installing pollution abatement practices. Both agencies disburse cost-sharing funds for BMP installation. The two agencies are required each year to develop a uni-

fied funding allocation plan that distributes available state funding.

Urban Nonpoint Source and Storm Water Management. 1999 Act 9 removed cost sharing for urban storm water management practices from the priority watershed program, and created a competitive urban nonpoint source and storm water management grant program (UNPS). This program provides funding for both planning and construction activities. Also, the municipal flood control and riparian restoration program (MFC) was created to address floodplain and storm water quality issues.

Targeted Runoff Management. The act also created a competitive nonpoint grant program to pay for urban and rural nonpoint source water pollution abatement projects. This program became the TRM grant program.

Performance Standards and Conservation Practices. DNR was required under 1997 Act 27 to create performance standards for both agricultural and nonagricultural facilities that are nonpoint sources of pollution. DNR and DATCP subsequently revised and created several administrative rules (NR 120, 151, 152, 153, 154, 155, 216, and 243, and ATCP 50) to implement the program changes enacted under 1997 Act 27 and 1999 Act 9. The revised rules mostly took effect on October 1, 2002. However, several chapters have undergone revision since 2002 to change performance standards or make changes to procedures for awarding and distributing grants. These administrative rules are discussed later in greater detail in Chapter 2.

DATCP Funding to Counties

Since 1987, DATCP has disbursed state funds through its grant program to local units of government and other project cooperators for the purpose of conducting land and water conservation

activities across the state. A joint final allocation plan lists the amount and program purpose for funds to be received by the county in each calendar year. DATCP has the authority to make these grants through the provisions of s. 92.14 of the statutes, and administrative rule ATCP 50.

Funds are allocated only if: (a) the county has an approved LWRM plan; and (b) the county board has resolved to match state grants with county funds. LCCs are allowed to use the grants for several purposes: (a) staff activities related to the county's LWRM plans for nonpoint source water pollution abatement, animal waste management, or other conservation activities; (b) activities that promote compliance with soil and water conservation requirements for persons under the farmland preservation program; and (c) consistent with approved LWRM plans, best management practices related to animal waste management, nonpoint source pollution abatement and other conservation practices determined by the county to be necessary for conservation and resource management. LCCs also may use the grant for shoreland management projects.

State agencies are ineligible for SWRM grant funding, but DATCP may provide SWRM grant funding to an organization on behalf of multiple counties for regional or statewide efforts. For example, DATCP has customarily allocated grant funds to the WLWCA for partial support of its Standards Oversight Council (SOC). The SOC assists in the development and maintenance of technical standards for statewide soil and water conservation practices, and DATCP intends for the allocation to further a comprehensive statewide approach to soil and water conservation and the achievement of state program requirements.

Table 2 lists the proposed 2011 DATCP soil and water resource management (SWRM) allocations of \$14.1 million. DATCP administrative rules specify that the DATCP portion of the plan be approved by each December 31, with funding then provided in the subsequent year. As of 2002, DATCP provides funding to counties as reimbursements,

Table 2: DATCP 2011 SWRM Grant Allocation

Program	Grants	Percent of Total
County Staffing Grants	\$9,318,900	66.1%
LWRM Plan Implementation*	<u>4,770,000</u>	<u>33.9</u>
Total	\$14,088,900	100.0%

* Includes funds for cost-sharing funds for implementation of LWRM plans and funding for nutrient management planning.

not advance payments.

Counties may use staffing grants to pay salaries, fringe benefits, training, and support costs for employees and agents engaged in land and water resource management activities. Support costs, which are to be identified in the grant application, may include travel expenses, computers and software, office supplies and equipment, field equipment, information and education support costs, or any other costs approved by the Department. Staffing grants may be transferred to pay for landowner cost-sharing grants if the Department approves the total amount transferred in writing, and provided that redirected funds are used the same year in which they are allocated. ATCP 50 also allows counties to reallocate staffing grant funds to a local government or tribe to meet LWRM plan priorities or achieve compliance with state agriculture performance standards.

Allocation Procedures

Both statutes and DATCP administrative rules describe the methods by which the Department determines annual allocations to counties. Section 92.14 (6) of the statutes requires DATCP to attempt to provide for an average of three staff persons in each county, with salary and fringe benefits funded at a rate of: (a) 100% for the first county staff person; (b) 70% for the second staff person; and (c) 50% for each additional staff person. The statutes accordingly require a county match of 30% of the salary and fringe benefits of the second staff person and 50% of the salary and fringe benefits for each

additional staff person. The statutes do not specify the match requirement for costs other than salary and fringe benefits, and ATCP 50 requires no local match for these training and support costs. Additionally, DATCP is to attempt to provide an average of \$100,000 in cost-sharing funds per county, with ATCP 50 generally requiring a 30% landowner match for most cost-shared practices or 10% in cases of economic hardship.

Further, DATCP has set forth in ATCP 50 several priorities it must consider in establishing each grant allocation plan: (a) continuation of county staff and projects; (b) funding projects that address statewide priorities identified by DATCP and DNR; and (c) other factors. Other factors include: (a) the county's demonstrated commitment to implementation of its approved LWRM plan and to farm-conservation practices; (b) the cost-effectiveness of the grant; (c) the likelihood that the grant will resolve problems specified in the county's LWRM plan; and (d) the county's demonstrated cooperation, commitment and ability to manage and implement the project.

Staffing Grants. To carry out these funding directives, DATCP customarily uses tiers to divide funds among counties and other collaborators, if any. In 2011, DATCP is allocating funds in two tiers, including one tier for base funding and a second to attempt to meet statutory goals of funding an average of three positions per county.

Tier 1 generally provides a minimum amount of funding to each county. As described in ATCP 50, DATCP allocates to each eligible county base funding of at least the greater of: (a) \$85,000; or (b) the amount awarded to the county in 2001 for DNR priority watershed staffing in 2001, minus any amount allocated in 2001 for a priority watershed that has since closed. Because all priority watersheds closed in 2010, Tier 1 funding in 2011 is \$85,000 per county and \$6,120,000 in total.

Although considerations for active priority watersheds no longer apply, DATCP allocations his-

torically have attempted to ensure continuity in resources for counties containing active priority watersheds while this program was active. DATCP until 2002 awarded local staffing and projects grants as basic annual staffing grants (BASGs); although all counties were eligible for BASGs under this allocation system, counties containing priority watersheds generally received higher amounts than those with no priority watersheds.

Beginning in 2003, DATCP began awarding (BASG) make-up grants to compensate those counties that still contained at least one active priority watershed for funding lost by these counties as active projects neared completion. These grants were part of the Tier 1 allocation, and they generally provided up to 60% of a county's 2002 BASG level, after adjustments for watersheds that have closed. It should be noted that BASG make-ups were provided in addition to the criterion noted above that provided Tier 1 funding to counties on the basis of past and continuing priority watersheds. Therefore, a county with one active priority watershed was often eligible for both a Tier 1 allocation larger than \$85,000 and a BASG make-up to compensate for funding reductions as open projects neared completion. Under the BASG make-ups, counties with no active priority watersheds received what is now the uniform Tier 1 base allocation of \$85,000.

As an example, in 2009 Sauk County received a Tier 1 base allocation of \$155,447, the highest of any county. Sauk County at that time contained the open Dell Creek priority watershed. As a result, Sauk County's base allocation included: (a) \$125,369 in base funding for all staffing for the Dell Creek project; and (b) \$30,078 in BASG make-ups.

BASG make-up grants for 2009, the last year any priority watersheds were open, totaled \$285,100 and were distributed among 12 counties. Total funding in 2009 for the 12 counties with active priority watersheds was \$1,452,200, or an average of \$121,000. Sixty counties received a base allocation of \$85,000, for a total of \$5.1 million. DATCP will not issue any further BASG make-up

grants.

In addition to funding for counties, nongovernmental collaborative organizations have requested funding for program support. DATCP proposed 2011 funding of: (a) \$15,000 to the WLWCA Standards Oversight Council to support the development and maintenance of technical standards for urban and rural soil and water conservation practices in Wisconsin; and (b) \$3,000 for the WLWCA Conservation Observance Day, an event organized by WLWCA recognizing conservation initiatives on farms. In the past, other organizations such as WALCE and Central Wisconsin Windshed Partners received funds. Further, DATCP previously awarded staffing grants to the Oneida Tribe for the Duck, Apple and Ashwaubenton creeks priority watershed, which closed in 2008.

Tier 2 grants provide staffing for second and subsequent positions based on county funding requests, with DATCP's goal being to provide funding for an average of three positions per county. Of these staff, the state attempts to fully fund the salary and fringe benefits of the first position, while each county matches at least 30% of the second position and 50% of third and subsequent positions. DATCP awards these grants based on the amount of state funding available as well as how far the Tier 1 allocation goes toward covering multiple staff positions. Based on expected position costs for 2011, DATCP proposed meeting county requests for all first positions at 100%. However, available funding is expected to meet 63% of the second positions' costs, rather than the 70% allowed.

DATCP implemented Tier 3 in 2009, incorporating a recommendation from a WLWCA-initiated committee that in 2004 recommended rewarding counties that address priorities set forth in ATCP 50. Tier 3 recipients in 2009 were awarded funds for having: (a) well-supported strategies for managing nutrient runoff, including sound distribution of cost-sharing grants to landowners, comprehensive nutrient management planning assistance for

farmers and oversight mechanisms that ensure landowner compliance with nutrient management plans (NMPs); (b) strong demonstrated relationships between planning documents and implementation; and (c) a history of acting consistent with articulated plans. For 2009, DATCP awarded Tier 3 grants of \$10,000 to each of the 13 counties who scored highest according to these criteria. DATCP did not offer Tier 3 funding in 2010 and 2011.

As shown in Table 2 and displayed by county in Appendix II, the proposed 2011 joint allocation plan apportions \$9,318,900 for staffing and support. This includes \$9,300,900 for county staff and support costs and \$18,000 for WLWCA.

Cost-Sharing and LWRM Plan Implementation. As shown in Appendix II, the proposed 2011 allocation plan apportions \$3,596,300 in bonding for LWRM plan implementation cost-sharing. This bonding is used to finance cost-sharing grants to landowners that provide up to 70% of the cost of installing conservation practices. Funding up to 90% may be available in cases of economic hardship. These cost-sharing grants are intended to support implementation of nonpoint source water pollution prevention BMPs, which are discussed later in this paper.

DATCP has customarily provided a base amount for each county; since 2007, this has been \$20,000. All 72 counties would receive a base grant in 2011, totaling \$1,440,000. DATCP proposed allocating the remaining \$2.16 million to counties that spent the largest share of their bonding allocations and had done so in a timely manner. For 2011, DATCP proposed additional funding to counties that left on average no more than 20% of their cost-share grants unspent over the preceding three years. The maximum award given out in this category in 2011 would be \$40,931, which 46 counties would receive. (These counties would therefore have a total bonding allocation of \$60,931, including the \$20,000.) Fourteen other counties would receive smaller performance-based grants, meaning that 60 counties would receive some portion of

the \$2.16 million in performance-based funding. (DATCP would allocate remaining bond funding of \$200,000 for regulatory animal waste grants, which are discussed later in greater detail.)

In addition to the bonding revenue that was awarded to counties for cost-share grants, DATCP has had a base allocation of \$520,000 SEG annually since 2005-06 for nutrient management plan development grants. 2007 Act 20 made an additional \$6,000,000 nonpoint account SEG available beginning in 2008-09, although funding was reduced under 2009 Act 28 to \$5,048,700 annually beginning in 2009-10. This funding is provided to counties for cost-share grants to landowners for manure management grants and the implementation of NMPs, which were required under ATCP 50 for most Wisconsin cropland beginning January 1, 2008. These funds may also be used for cost-share grants for other impermanent or "soft" practices that will reduce nutrient runoff. Impermanent practices may not be funded through the use of state general obligation bonds, which the Wisconsin Constitution requires to be used only for permanent structural improvements. These grants are shown by county in Appendix II.

From the more than \$5 million annual appropriation for 2009-10 and 2010-11, DATCP provided \$1,298,700 in the 2010 joint allocation plan and \$973,700 in the 2011 allocation plan. The 2010 allocation reflects a reduction of \$3.75 million to fulfill a transfer to the state general fund required under 2009 Act 28, while the 2011 preliminary reduction reflects a transfer of approximately \$4.1 million to the general fund. The remaining funding is allocated for: (a) landowner cost-shares; and (b) grants to special collaborators for furtherance of nutrient management activities on a statewide basis. Landowner cost-shares totaled \$780,000 under the 2010 allocation plan, and as of December, 2010, DATCP plans to allocate \$430,000 for 2011.

For funds spent as of February, 2010, which is the close of DATCP's 2009 grant year, 1,512 practices received cost sharing. DATCP estimates that

contracts with landowners contain an average of 1.3 practices per contract, meaning the practices funded during the 2009 grant year cover an estimated 1,163 contracts, or 16.2 per county on average.

Further, DATCP estimates that approximately 1.5 million acres in Wisconsin were under nutrient management planning in 2010. This is about 17% of Wisconsin's cropland. This total includes: (a) 583,000 acres under state cost sharing; (b) 483,000 acres under a local ordinance for manure management or livestock siting, for which cost sharing is required to change existing practices; (c) 354,000 acres at concentrated animal feeding operations, which have wastewater discharge permits under provisions of NR 243, and must practice nutrient management planning regardless of cost sharing availability as a condition of their permit; and (d) 86,000 acres outside of a specific program.

In addition to funding landowner cost shares, DATCP has customarily provided funding for projects intended to allow statewide adoption of nutrient management practices. The 2011 allocation would likewise include allocations of: (a) \$483,700 for UW-Extension; and (b) \$60,000 for Northeast Wisconsin Technical Colleges (NWTC). The UW-Extension grant is for several initiatives, including maintaining and updating SNAP, a nutrient management computer program available online for farmers preparing nutrient management plans. The NWTC grant is for expanding educational programming for persons who implement conservation practices, such as farmers and soil and water conservation professionals.

Regulatory Animal Waste Grants

Regulatory funding for animal waste management is statutorily available from DATCP or DNR. Counties may use DATCP grants under s. 92.14 (3) to share costs for installing animal waste management practices and facilities as a result of a "notice of discharge" (NOD), or notice of intent (NOI) to order the abatement of nonpoint source pollution, issued by DNR under Chapter 283 of the statutes

and administrative rule NR 243. These grants began in 2007. DATCP in recent years has customarily reserved \$200,000 in bond revenue for grant awards.

To accomplish this policy, the Department waived a provision in ATCP 50 that conflicts with s. 92.14. ATCP 50, which governs DATCP's soil and water resource management responsibilities, prohibits counties from using LWRM funding from DATCP to award cost-sharing grants for practices needed to comply with DNR notices of intent and NODs. DATCP intends for the waivers to reflect the intent of the law and to provide a funding source designated specifically for notices of discharge. DATCP must commit its reserve funds to cost-share agreements by the end of the calendar year for which funds are allocated.

Between 2002 and 2007, when DATCP first reserved bond revenues for animal waste management, only the priority watershed program and the competitive TRM grant program funded NOD remediation. The 2007-09 budget act, however, authorized DNR to address animal waste pollution from a similar reserve that operates outside competitive grant programs. DNR funding for animal waste pollution is discussed later in greater detail.

Agricultural Shoreland Management Projects

The Wisconsin Legislature established the agricultural shoreland management program in 1992. This law allows counties, cities, towns and villages to enact agricultural shoreland management (ASM) ordinances for the purposes of maintaining and improving surface water quality. ASM ordinances generally are intended to limit excessive nutrient and sediment runoff into waterways. Ordinances may specify required structures, such as livestock fences or vegetative "buffer" strips, or farming practices to achieve water-quality goals, and they may also prohibit certain structures in designated management areas. Municipalities must obtain DATCP approval before enacting an ordinance, however, and the Department has developed ASM ordinance guidelines to assist local govern-

ments. As is the case with counties' implementation of LWRM plans, no landowner can be required to cease or modify operations or practices without certain levels of cost sharing being offered.

Beginning with the 2003 joint allocation plan, DATCP eliminated separate grant funding for ASM ordinances. Rather, ASM activities such as compliance and monitoring enforcement may be funded by LWRM grants.

DNR Nonpoint Source Grants

With the expiration of the priority watershed program in 2010, DNR funding for pollution management practices exists through three competitive grant programs. These competitive grants are intended to assist landowners and governmental units in controlling nonpoint source pollution by complementing staffing and practice grants made to counties by DATCP.

DNR administers the following three competitive grant programs under the noted administrative rules: (a) the targeted runoff management (TRM) program (NR 153); (b) the urban nonpoint source and storm water (UNPS) grant program (NR 155); and (c) the municipal flood control (MFC) program (NR 199). (The priority watershed program is described in Appendix VI.) Local governments that are awarded any of these grants enter into a contract with DNR. Grant recipients must comply with program conditions, provide the local portion of the project costs, and install and maintain for 10 years all BMPs constructed under these programs. Local governments that use these grant funds to provide assistance to private landowners must enter into a similar contractual agreement with the landowner. Project applications to construct practices in navigable streams or in wetlands require a waterway permit or a wetlands permit prior to the submittal of the application.

Grant Programs

Targeted Runoff Management Grant Program

As created under s. 281.65 (4c) of the statutes, TRM grants are intended to promote "the accelerated implementation of nonpoint source water pollution control" that cannot be achieved through activities funded under DATCP cost sharing. Grants are to support pollution abatement in high-priority target areas, characterized by the following: (a) a need to meet compliance with nonpoint source performance standards established by DNR; (b) the existence of impaired waters as identified by DNR to the federal Environmental Protection Agency (EPA); (c) the existence of outstanding or exceptional resource waters as designated by DNR; (d) the existence of threats to public health; (e) the existence of an animal feeding operation that has received a notice of discharge or a notice of intent to issue a notice of discharge; or (f) other water quality concerns of national or statewide importance.

Projects supported by TRM grants are generally small-scale, short-term construction projects that install BMPs in target rural areas. TRM projects are usually completed by local governmental units within 24 to 36 months of the start of the grant period. The statutory maximum for a project is three years, although DNR may approve extensions to a fourth year. Both urban and rural nonpoint projects can be funded through a TRM grant, but revised federal standards adopted under NR 216 in 2004 have required 218 municipalities in Wisconsin, including some UW campuses, to obtain a Wisconsin pollution discharge elimination system (WPDES) permit. This permit classifies these municipalities as point sources, and point sources are ineligible for TRM grants. Most TRM grants thus go to rural counties or small municipalities.

Up to 70% of a project's eligible costs can be funded through a TRM grant, to a maximum of \$150,000 in state funding. The general 70% cost-share rate under the TRM program may be exceeded in cases of economic hardship, and, con-

versely, local units of government may request a lower cost-share rate in their project applications. Eligible BMPs under the TRM program are explained in Appendix I.

NR 153 authorizes TRM grants for activities such as public outreach, planning, management and evaluation of best management practices that do not involve construction, provided that the local government has hired additional staff or contract services to perform the activities. These awards are known as local assistance grants. However, DNR has not made any of these grants in the past. This is primarily due to general obligation bonding being the primary source of funding for TRM projects, and, as noted earlier, the Wisconsin Constitution only allows issuance of public debt for support of long-term capital improvements. Local assistance grants would therefore be contingent on the availability of funding other than general obligation bonding.

Beginning with grants awarded in 2011 and funded in 2012, administrative rule NR 153 (targeted runoff management grants) provides that TRM grants are to be allocated in one of four project categories: (a) large-scale TMDL (total maximum daily load) implementation; (b) small-scale TMDL implementation; (c) non-TMDL large-scale control projects; and (d) non-TMDL small-scale control projects. (TMDL plans are discussed later in greater detail.) Construction grants may be awarded under any of the categories. Non-construction local assistance grants may only be made for activities conducted during the grant period in large-scale projects, and DNR expects that beginning in 2011 local assistance grants may be made under large-scale TMDL projects to assist farms in meeting obligations of a TMDL plan.

DNR is to divide total yearly funding into sub-allocations for each category to be funded that year. Sub-allocations are to be based on water quality goals and the quality of applications in each category. Projects therefore only compete within categories.

DNR awarded TRM grants of \$5,203,600 in 2010, including \$4.9 million in general obligation bonding and \$300,000 in federal Clean Water Act funding. In November, 2010, DNR selected 41 projects to receive \$4.6 million in calendar year 2011. These projects will generally begin construction in 2011 and may continue into 2012 or 2013. These grants are listed in Appendix III.

Urban Nonpoint Source and Storm Water Grant Program

1999 Act 9 created an urban nonpoint source program under DNR and removed the program's oversight and project selection from the LWCB. The primary goals of the UNPS program include implementing urban runoff performance standards that meet requirements under NR 151, achieving water quality standards, protecting groundwater, and helping municipalities meet municipal storm water permit conditions of NR 216. UNPS grants are funded by a combination of SEG and bond revenues.

The DNR distributes UNPS grants to local governments either with jurisdiction over a project area or with responsibility for controlling storm water discharges under a WPDES storm water permit (s. 283.33). To be eligible for UNPS grants, projects must occur in an urban area, which is land: (a) with a population of at least 1,000 persons per square mile; (b) used industrially or commercially; or (c) surrounded by either type of area. Projects must align with DNR pollution abatement priorities identified for a watershed or other geographic area.

The UNPS grant program contains two grant types. Local assistance grants, or planning grants, help local governments cover various non-construction costs including engineering designs not specific to a project, feasibility studies, public information initiatives, ordinance drafting and ordinance enforcement. Planning activities may cover developed areas, new development or redevelopment projects. Municipalities seeking planning grants must be urban areas or areas projected

to be urban within 20 years. Planning grants are supported by SEG, as non-construction costs cannot use bond revenues.

Runoff management grants, or construction grants, provide funding for physical improvements. Eligible projects include: (a) stream bank and shoreland stabilization; (b) structural urban BMPs such as land acquisition, storm sewer rerouting, and structure removal; and (c) other activities, such as improved street sweeping, identified by DNR rule. Costs associated with designing and building the specific BMP are allowable uses of grant funding. Ineligible construction-related activities include, among others: (a) BMPs associated with new development; (b) replacement costs for BMPs meeting non-agricultural performance standards under NR 151; (c) BMPs whose installation began prior to the beginning of grants or cost-share agreements; and (d) BMPs for runoff that was adequately controlled at the time of a grant or cost-share agreement but has since undergone changes in land use.

Unlike the TRM grant program, governmental units or activities under WPDES storm water permits may apply for UNPS grants. However, administrative rules for the UNPS program (NR 155) do not allow construction grants to support abatement of discharges covered under WPDES permits. This provision therefore prohibits UNPS construction grants from supporting BMPs at non-municipal industrial properties. Similarly, UNPS planning grants may not fund erosion control planning for private development.

The Board of Regents of the University of Wisconsin System may apply for urban nonpoint source cost-share grants for measures that control storm water discharges on UW campuses. A campus must be located in a municipality within a priority watershed or Great Lakes area of concern. The municipality must also be required to hold a storm water discharge permit.

Planning grants may not exceed 70% of total costs, while construction grants have generally had

a 50% cost-share rate since 1999. Since 2003, the maximum amount that can be granted for a construction project is \$150,000, and the maximum amount that can be granted for planning is \$85,000. In addition, projects that involve land acquisition or permanent easements are eligible for an additional \$50,000 at the 50% state cost-share rate. Construction grants are limited to two years per project, although DNR may approve a one-year extension.

As shown in Table 3, a total of almost \$8.7 million is available for urban nonpoint grants and municipal flood control and riparian restoration grants in 2009-11. This includes \$2.7 million non-point account SEG and \$6 million in general obligation bonding authorized in 2009 Act 28. State law does not specify how program funds are divided between the UNPS and municipal flood control (MFC) and riparian restoration grant programs. It should be noted, however, that \$69,000 in 2009-10 was designated for specific grant awards under Act 28.

Table 3: Urban Nonpoint and Municipal Flood Control Grant Appropriations

Source	2009-10	2010-11
SEG	\$1,382,200	\$1,313,200
BR*	<u>3,000,000</u>	<u>3,000,000</u>
Total	\$4,382,200	\$4,313,200

*Bonding of \$6 million is available across both years of the biennium.

For 2010, the UNPS program awarded grants of \$2,154,400, including \$516,600 in planning grants supported by SEG and \$1,637,800 in construction grants supported by general obligation bonding. (These figures do not include the required grants under Act 28.) Further, DNR expects to make \$2,093,600 in construction grants for 2011, and a list of these grants can be found in Appendix IV. As of December, 2010, it was not likely SEG funding would be sufficient to make planning grants in 2010-11, due to departmental transfers to the state general fund under 2009 Act 28. Although these

amounts were not known as of December, 2010, the Department expected them to equal or exceed \$1 million. Transfers in 2009-10 were \$1,175,600 of authorized UNPS funding.

Municipal Flood Control and Riparian Restoration Program

1999 Act 9 created a municipal flood control (MFC) and riparian restoration program within the urban nonpoint program. The program provides grants to cities, villages, towns or metropolitan sewerage districts for the collection and transmission of storm water for flood control and riparian restoration projects. As in the UNPS program, the municipal flood control program offers two types of grants. Local assistance grants fund planning and administrative costs. Acquisition and development grants fund purchases of perpetual flowage and conservation easement rights on land within a flood way, as well as flood proofing of public or private structures remaining in a 100-year flood plain.

DNR may provide grants for up to 70% of construction and acquisition costs for an approved project. DNR may also provide local assistance grants for up to 70% of eligible costs, including planning and design costs. In any fiscal year, the Department may not award more than 20% of the program's available funding to any one applicant.

Projects affecting any number of local governmental units are eligible for municipal flood control and riparian restoration grants. For projects affecting one governmental unit, DNR may award a grant to that unit. For projects affecting two or more local government units, grants may be awarded to: (a) an applying municipality or metropolitan sewerage district upon application by all of the municipalities or metropolitan sewerage districts affected by the project; or (b) a municipality or metropolitan sewerage district with jurisdiction for the provision of storm water collection facilities to two or more municipalities or metropolitan sewerage districts affected by the project.

DNR must specify criteria for determining the eligibility and priority ranking of projects. The statutes, however, specify several criteria: (a) no transfer of flooding down stream or acceleration of upstream runoff; (b) no channeling of a stream or lining of a natural stream bed with concrete; (c) provide adequate opportunity for public use access for the stream and flood way; and (d) to the extent practical, cause no harm to existing beneficial functions of water bodies and wetlands; (e) maintain aquatic and riparian environments; and (f) use storm water retention and detention structures and natural storage.

NR 199 contains administrative rules for the municipal flood control program. These rules became effective October 1, 2001. Twelve grantees were allocated a total of \$3,324,800 in 2010 for projects that will end in 2012. A list of these awarded appears in Appendix V.

Notice-of-Discharge Response Grants

Like DATCP, DNR has statutory authority to issue noncompetitive grants for manure management at animal feeding operations that have been issued a DNR notice of discharge (NOD). Under 2007 Act 20, DNR was authorized to provide funding in order to protect fish and aquatic life, provided that a local government requested funding for this purpose. In the first two years this funding was authorized, DNR allocated \$364,600 in 2008 (\$196,000 bond revenue, \$11,200 GPR, and \$157,400 federal Clean Water Act funds) and \$1,296,400 in 2009 (\$1,000,000 bond revenue, \$246,400 federal funds and \$50,000 GPR). The bonding authority was allocated under the original priority watershed program. As in other programs, bond revenues may only fund permanent structural improvements, while federal funds and GPR may support non-structural practices.

Provisions under 2009 Act 28 expanded the program funding sources to include TRM bonding authority, which totals \$7 million in 2009-11. Further, 2009 Act 28 expanded funding availability in

the following ways: (a) if DNR determines funding is necessary to protect the waters of the state, rather than fish and aquatic life; and (b) allowing funding for cases of notices of intent (NOIs) to issue an NOD, rather than only for NODs. However, funding requests are generally divided by department, with DNR issuing funding pursuant to NODs and DATCP issuing funding for NOIs. Unlike DATCP, DNR may carry reserve funds to the subsequent year and assign them to cost-share agreements at that time.

Act 28 also authorized DNR to provide grants directly to landowners, as opposed to providing funding through local governments in their annual grant applications. As of December, 2010, DNR does not expect to use this distribution authority, however, because the Department generally considers participation by county land conservation departments to be a significant component in designing and implementing effective projects.

Table 4 shows the annual amounts held in reserve by DNR and DATCP for animal waste grants as of the final joint allocation plan for each year.

Project Selection Process

Eligible governmental units must apply for grants under the TRM and UNPS programs by April 15 to be considered for funding in the following calendar year. Governmental units eligible for TRM grants include cities, villages, counties,

towns, sanitary districts, lake districts, tribal governments and others. State agencies may also apply for TRM grants in priority watersheds, which have been clarified under administrative rule NR 153 to include designated lakes and watersheds 10 years past the area's original expiration date. Therefore, after December 31, 2019, state agencies will be required to have the local unit of government in which the project area is located submit applications on their behalf. State agencies, except the UW System Board of Regents, are not eligible for UNPS grants. Under the UNPS program, construction and planning projects are separated into two groups that compete for different pools of grant funding. TRM grant awards are not divided between construction and local assistance grants.

The DNR is to select projects by each November 1. Applicant scores and recommended projects are presented to the Land and Water Conservation Board. (Although statutes and administrative rules only require TRM scoring to be presented for the LWCB's recommendation, DNR customarily presents UNPS scores as a courtesy to the LWCB.) Grant agreements are then entered into by January 1 of the following year.

Targeted Runoff Management

Statutes specify the following scoring criteria for applications for TRM grants: (a) the extent to which the application proposes cost-effective and appropriate BMPs to achieve water quality goals; (b) the existence of an impaired water body in the

Table 4: Notice of Discharge (NOD) and Notice of Intent (NOI) Grants by Yearly Allocation

Year	DNR				Subtotal	DATCP	Total
	BR	GPR	FED	BR			
2007	\$0	\$0	\$0	\$0	\$100,000	\$100,000	
2008	250,000	50,000	0	300,000	200,000	500,000	
2009	1,000,000	50,000	246,400	1,296,400	200,000	1,496,400	
2010	301,900	69,700	517,100	888,700	200,000	1,088,700	
2011	<u>317,900</u>	<u>85,600</u>	<u>1,034,800</u>	<u>1,438,300</u>	<u>200,000</u>	<u>1,638,300</u>	
Total	\$1,869,800	\$255,300	\$1,798,300	\$3,923,400	\$900,000	\$4,823,400	

NOTE: DATCP reserve amounts are exclusively from general obligation bonding authority.

project area, as reported by DNR to EPA; (c) the extent to which the project will attain established water quality objectives; (d) the local interest in, and commitment to, the projects; (e) the inclusion of a strategy to evaluate the progress toward project goals; (f) the extent to which the project would use federal funding; and (g) the extent to which the project enables the City of Racine to control storm water discharges under federal and state requirements. (Under both the TRM and UNPS programs, the criterion relating to storm water management in Racine is used by DNR as a tie-breaker.)

Prior to 2010, grant awarding procedures in NR 153 generally adhered to these criteria. Revisions to administrative rules NR 153 approved in September, 2010, retain the same principles in prioritizing projects but reclassify projects as large or small and TMDL or non-TMDL as discussed earlier.

Provided sufficient funding exists, DNR is required to solicit applications for small-scale projects annually and may solicit applications for large-scale projects biennially or annually. As under previous rules, all applicants must provide basic details of the projects to be funded, including: (a) the BMPs to be installed; (b) the eligibility of the BMPs and their furtherance of stated goals such as an LWRM plan; and (c) evidence that the governmental unit has arranged for sufficient and capable staffing for the project and for completing the project within allowable funding periods. These general characteristics are used to screen for projects' eligibility.

Further, large-scale and small-scale projects have accompanying scoring systems to assign point values to each project. Both large-scale and small-scale projects are evaluated for water-quality needs and the likely improvements to be realized through the BMPs proposed. Additionally, large-scale projects must: (a) justify the extent of the geographic boundaries defining the project area; (b) identify nonpoint sources and state needs and strategies for creating an additional inventory; and (c) propose a strategy by which nonpoint source pollution will be controlled in the project area.

Small-scale project scoring accounts for the extent to which state performance standards will be implemented. Both size categories are also scored on their cost-effectiveness, their consistency with other conservation or management plans, use of other funding, and the ability of the local government to enforce performance standards. Project scores are then multiplied by up to 15 percent for the degree to which the applicant unit of government has authority to enforce nonpoint source performance standards, with full credit available for governments having authority to enforce all standards at all sites to which the standards apply.

Following the scoring procedures, projects in each category are ordered beginning with the highest scores, creating four statewide lists. Large-scale projects are funded in order until funds for the category are exhausted. For small-scale projects, however, DNR awards funds to the top-ranked project in each of the Department's five regions before awarding in a highest-to-lowest fashion until funds are exhausted. If available funding only covers a portion of a request, DNR may make a partial award, and the applicant is required to complete the project if the grant is accepted, even though the cost-sharing may be less than the 70-percent cost-share requirements. NR 153 also grants DNR the right to bypass higher-ranking projects if a lower-scoring project is eligible for and is being allocated federal funds, provided the higher-ranking project is ineligible for federal funding.

NR 153 institutes a funding cap on grantees, which is the greater of: (a) 20 percent of funding allocated for the category, for grantees receiving multiple awards; or (b) a per-project amount determined annually based on available funding and requested funding. For the latter, a project is considered to be all management practices proposed on contiguous property, regardless of how many grants cover the requests. DNR may also reduce cost-share grants for projects not requiring minimum cost sharing.

Although the statutes allow TRM grants to last

three years with extensions to a fourth, NR 153 limits small-scale projects to two years, with extensions possible for a third. The limit for large-scale projects remains that specified in the statutes.

Urban Nonpoint Source and Storm Water Management

As under the TRM program, UNPS project selection procedures are generally structured to address the same aims of cost-effectiveness and water quality improvement. Applicants must submit screening information to prove the project is in an urban area and that BMPs or planning projects would be eligible. Applicants must also demonstrate the municipality has: (a) the policy instruments necessary to manage urban runoff, such as ordinances for construction site and post-construction runoff and inter-municipal agreements, where appropriate, to ensure operation and maintenance of urban runoff; and (b) the resources necessary to complete the project.

The statutory criteria for scoring are nearly identical to those listed earlier for the TRM program. Administrative rule NR 155 follows the criteria and scores projects on a variety of bases, including: (a) cost-effectiveness, including monitoring and evaluation associated with the project and the extent of pollution abatement expected; (b) water quality needs and their alignment with DNR priorities for the area; (c) the consistency with other management regimes such as county LWRM plans; (d) the applicant's use of other funding sources to minimize necessary state cost sharing; and (e) support of local persons and entities that would be required to implement BMPs. Initial scores determined by the above metrics may be increased by 10 percent for municipalities with qualifying local implementation programs. A qualifying local implementation program must include: (a) pollution-prevention education for residents and property owners; (b) nutrient management practices required of the applying government unit; and (c) a program of tracking and reporting to the DNR on construction site erosion control and storm water management permit activity.

Selection procedures are fewer than under the TRM program. Specifically, UNPS projects are ranked on a statewide basis only, with the highest-scoring projects receiving funding in descending order until available funds are allocated. However, under NR 155, DNR retains the right to establish minimum qualifying scores for components measuring cost-effectiveness, monitoring/ evaluation, local support and consistency with DNR priorities; projects not considered viable in one of these dimensions are dropped from consideration. As under TRM, DNR limits funding to a maximum amount per project (\$85,000 for planning grants and \$150,000 for construction, with an additional \$50,000 possible for acquisitions and easements), and DNR may also limit a grantee's total awards under multiple projects to 20 percent of overall funding available. DNR may also deny funding if: (a) a project will expose environmental hazards or will have an unacceptable impact on endangered, threatened or wetland resources; or (b) the applicant has been delinquent in meeting previous grant responsibilities.

Municipal Flood Control and Riparian Restoration

Administrative rule NR 199, which implements the MFC program, specifies several eligible project activities. Following are eligible projects, listed in order of priority for funding:

1. Acquisition and removal of structures that cannot be rebuilt or repaired due to zoning restrictions;
2. Acquisition and removal of structures in the 100-year flood plain;
3. Acquisition and removal of repetitive-loss or substantially damaged structures;
4. Acquisition and removal of other flood-damaged structures;
5. Flood-proofing and elevation of vulnerable structures;

6. Restoration projects, such as removals of dams and artificial obstructions, bank restoration or repair of fish and plant habitat;

7. Acquisition of vacant land or perpetual conservation or flowage easements;

8. Construction of structures for the collection, storage or conveyance of storm water or groundwater for flood control purposes;

9. Preparation of flood insurance studies and other mapping projects.

In recent years DNR has customarily awarded MFC grants once each biennium, with most funding coming from general obligation bonding. As such, most grant awards fund construction projects or land and easement acquisition. However, local assistance grants may be awarded for certain labor, testing, engineering or publications costs that are approved by DNR as necessary for the project.

NOD Response Grants

Applications for animal waste management grants may be submitted throughout the year, and applications remain valid for one year. If an application is not approved for funding in that year, the applicant must reapply. NR 153 as revised in 2010 provides that DNR is to identify up to four periods during which funding decisions will be made on active, unfunded applications. Prior to NR 153's revisions in 2010, DATCP and DNR awarded NOD/NOI grants two to three times each year. The Department is also required to determine what amounts from the NOD reserve will be available for awards in each period. DNR customarily has tried to equally divide available amounts among funding periods, with the goal of eventually disbursing all funds. DNR has forgone subdividing awards for periods in which requested funding has not exceeded available funding. DNR awarded NOD grants in three periods in 2010, which occurred in April, June and August.

NR 153 specifies that DNR will make awards on

the basis of the project's merits, which include: (a) environmental impacts of pollution at the site; (b) the site history; (c) funding available, both from the NOD reserve and other sources; (d) farm viability; (e) state cost-share requirements; and (f) follow-up options for state and local authorities if the project is not successfully implemented. Specifically, NR 243 (animal feeding operations) classifies animal waste discharges as Category 1, 2 or 3 unacceptable practices.^{*} DNR has authority to require compliance following Category 1 and 3 discharges without offering cost sharing. NR 153 therefore specifies that DNR may award grants pursuant to these discharges that are less than 70 percent sharing of costs. Grants in response to Category 2 discharges, however, must meet the 70 percent threshold.

NR 153 does not limit the duration of a grant to a specific period, other than requiring DNR to establish and extend a grant for sufficient time to accommodate the compliance period set in the NOD, which is generally in a range of 60 days to two years.

Best Management Practices

Landowners receiving cost-share funding from any of the grant programs described above must agree to install certain cost-effective structures or operations known as best management practices (BMPs). Best management practices (BMPs) are those techniques considered to be the most effective and practical means of abating nonpoint source pollution to a level compatible with state

^{*} Category 1 unacceptable practices are those resulting in discharges to navigable waters through a man-made device such as a ditch or flushing system, or if a navigable water originates outside the facility and passes over or through the operation and contacts the operation's confined animals. Category 2 unacceptable practices are those resulting from an owner's failure to meet performance standards for livestock operations, which are described in Chapter 2. Category 3 unacceptable practices are any other practices resulting in discharges to waters of the state not included in Categories 1 and 2.

water quality goals. BMPs are generally eligible for cost-share agreements provided that they are the lowest cost practice, but more expensive alternatives may receive grant funding if they confer additional benefits for fish, wildlife, practice longevity, ease of maintenance, or reduced risk of failure. DNR and DATCP jointly establish technical standards for management practices eligible for grant funds.

Cost-Share Rates

Cost-share grants generally equal 70 percent of the cost of implementing the BMP, except the rate may be up to 90 percent in cases of economic hardship, as defined by rule. BMPs and the associated cost-share rates have been established by administrative rules NR 120, 154 and ATCP 50, as listed in Table 4. For certain cropland practices, a county has the option to select between fixed rates per acre or rates based on costs incurred. A definition of each of the cost-shared BMPs is provided in Appendix I. Also noted in Appendix I are practices eligible for cost sharing in addition to or different from the typical 70 percent rate for BMP installation. For example, certain vegetation plantings may be reimbursed for both prevailing land rental rates as well as maintenance costs such as mowing.

Property Acquisition and Easements

Under the TRM and UNPS programs, grants may cover land or easement acquisitions for any of the following: (a) the construction of a structural urban BMP; (b) land which contributes or will contribute to nonpoint source water pollution, and which may be used for riparian buffers, wetland restoration, critical area stabilization or other practices; or (c) under the TRM program, abandonment/relocation of livestock or livestock facilities. For livestock facility relocation, an acquisition must meet eligibility requirements as a BMP. Further, if the acquisition cost is greater than amounts needed for installation of other BMPs, the Department must find that the additional cost is justified by additional water quality improvements. If the acquisition cost is less than the amount needed to

install BMPs, but the landowner is unwilling to sell property rights, the amount that would be needed for acquisition may be used as the ceiling for the cost of installing BMPs.

Easements are to be in perpetuity. The standard cost-share rate of 70 percent applies to acquisitions and easements, except the rate is 50 percent for acquisitions supporting structural urban BMPs. The rate is applied to the lesser of: (a) the cost of the acquisition or easement; or (b) the appraised value and reasonable related costs, including appraisals, land surveys, relocation payments, title evidence, recording fees, historical and cultural assessments, and environmental inspections and assessments. Easements may be donated in whole or in part, and DNR may grant funds to itself for easement purchasing, provided an easement would be located within a previously designated priority watershed not expired for 10 years or longer. Administrative rules require that any acquisitions or easements may only be purchased from willing sellers.

Maintenance of Practices

Landowners and governmental units receiving grants under the SWRM and nonpoint source grant programs are required to maintain all cost-shared structural practices for 10 years beginning with the date the last practice is installed. Exceptions are for grassed waterway systems and riparian buffers, which landowners must maintain for 15 years if the project receives support payments in addition to installation costs. Non-structural practices such as strip cropping, contour farming, or nutrient, pesticide and residue management need only be maintained through any year in which cost-sharing is provided; these cost-sharing agreements generally last four years.

Cost-share agreements, which are the contracts between local governments and landowners that specify the terms of BMP installation and subsequent maintenance, are required to be filed with the appropriate county register of deeds if cost-share grants are to exceed certain dollar amounts. Beginning January 1, 2010, contracts greater than

\$14,000 under the SWRM, TRM, UNPS and NOD grant programs must be filed with the local register of deeds. DNR also requires filing of cost-share agreements covering all riparian buffers or any grassed waterway systems receiving one-time per-acre payments.

Additionally, DATCP requires any contracts of \$14,000 or more to be binding on future landowners for the term of the agreement if the property is sold before expiration. This means subsequent owners or users must maintain the BMPs installed. DNR administrative rules require all cost-share agreements to remain in effect for their specified duration in cases of ownership change. However, local governments are authorized to approve different management of the land if requested by a new landowner, provided that the appropriate degree of environmental protection is maintained.

Violations of an agreement may be penalized by repayment of all or part of the cost-share funds received under the contract, and the seriousness of the infraction determines the amount of the penalty. At the close of a cost-share agreement, local governments may release the recipient from all or part of an agreement if the BMPs installed will be maintained or replaced without compromising water quality objectives. DNR must approve releases for agreements filed with a register of deeds. It should be noted that administrative rule NR 151, which establishes performance and technical standards for runoff, specifies that once agricultural land comes into compliance with a performance standard, it must continue to meet that standard.

**Soil and Water Resource Management and
Nonpoint Source Grant Funding**

Funding for rural nonpoint source water pollution abatement grants comes from a variety of state and federal sources. DATCP is provided over \$35.7 million during the biennium for rural grants,

including LWRM plan implementation. DNR is provided an additional \$10.4 million for rural nonpoint grants, which includes approximately \$1.8 million in federal funds used for local cost-share grants. In addition, approximately \$75.5 million in additional federal funding is expected to be directly available to local governments for nonpoint pollution abatement practices in the 2009-11 biennium. This brings total available funding for the biennium to approximately \$121.6 million. Table 5 lists rural nonpoint funding by year.

Table 5: Rural Nonpoint Grants

	2009-10	2010-11
GPR	\$5,108,000	\$5,058,000
FED	38,394,100	38,855,600
SEG	10,085,600	10,085,600
BR*	<u>7,000,000</u>	<u>7,000,000</u>
Total	\$60,587,700	\$60,999,200
Biennium	\$121,586,900	

*\$14,000,000 is available for the 2009-11 biennium. Distributions need not be the same in each year.

NOTE: The table does not include state administrative appropriations, federal funding or funding used for contracts between DATCP/DNR and other agencies.

Funding for cost-share and staffing grants is provided from the following sources:

General Purpose Revenues (GPR)

DATCP is provided \$4,270,100 in 2010-11 for county staffing grants under the SWRM program. DNR is provided \$787,900 in 2010-11 in a biennial appropriation. DNR assigned these funds to the NOD reserve for the 2011 joint allocation plan. GPR funds are most commonly used to pay for cropping practices such as nutrient management, strip cropping and conservation tillage, which are not eligible for funding through bond issues.

Segregated (SEG) Revenues

The segregated nonpoint account of the environmental fund has two primary funding sources: (a) a GPR allocation of \$12,863,700 annually in the 2009-11 biennium; and (b) \$3.20 per ton from the \$12.997 per-ton tipping fee for most solid waste, other than high-volume industrial waste, disposed in Wisconsin landfills. Tipping-fee revenues to the nonpoint account were \$10,662,000 in 2009-10 and are estimated at \$19 million in 2010-11. A description of each appropriation supported by these revenues follows below. Table 6 shows the condition of the segregated nonpoint account. It should be noted that unspent segregated appropriation authority generally lapses back to the environmental fund at the end of each fiscal year. However, recent budget acts have required transfers from the nonpoint account to the state general fund, and these are also described below.

The nonpoint account formerly had a \$7.50 automobile title transfer fee as its sole revenue source. This funding mechanism began in 1991. This revenue source reflected the nonpoint source pollution attributable to vehicle operation and the state's transportation infrastructure. However, the 1997-99 biennial budget required that title transfer fees be deposited to the transportation fund, and that general fund revenues in an amount based on the annual title transfer fee revenues from the previous fiscal year be deposited to the segregated nonpoint account to be used for nonpoint source water pollution abatement-related activities. The 2007-09 budget act: (a) changed GPR funding to a sum-certain amount of \$11,514,000 in 2007-08 and \$13,625,000 in 2008-09; and (b) established the nonpoint portion of the tipping fee at 75 cents per ton. The nonpoint tipping fee increased by \$2.45 per ton under 2009 Act 28. The sum certain GPR transfer was also reduced under Act 28.

In addition to providing grants to counties, the nonpoint account funds a number of DATCP and

DNR positions related to nonpoint source pollution abatement efforts, as well as debt service for general obligation bonds issued for the departments' grant programs. These appropriations are shown in the table above but described in a later section on administrative funding. It should be noted the segregated environmental fund consists of the nonpoint account and the environmental management account (EMA), the latter of which primarily supports DNR programs related to groundwater programs and cleanup of contaminated lands. The two accounts are statutorily designated as one fund but are tracked separately. More information on this account is available in the Legislative Fiscal Bureau informational paper titled "Contaminated Land and Brownfields Cleanup Programs."

County Staffing Grants. In addition to the GPR allocation noted above, DATCP funds county staffing grants with nonpoint SEG. Prior to 2009 Act 28, this portion of grant funds was combined in an annual appropriation with the soil and water management grants discussed in the next paragraph. The purposes were split into separate appropriations under Act 28, and DATCP has \$5,036,900 available annually for county staffing in the 2009-11 biennium.

Soil and Water Management Grants. DATCP is appropriated \$5,048,700 annually in the 2009-11 biennium for soil and water management grants. Nonpoint SEG for these grants was established at \$520,000 beginning in 2005-06, primarily for addressing cost-sharing needed for nutrient management planning, which cannot be funded by general obligation bonding. Annual funding increased by \$6 million beginning in 2008-09 under 2007 Act 20. However, the base allocation of \$6,520,000 was reduced under 2009 Act 28 to offset reductions that otherwise would have lowered amounts available for county staffing grants in the 2009-11 biennium. The amount shown in Table 6 is further decreased by \$4.1 million to reflect an expected transfer to the state general fund in 2010-11.

Table 6: Nonpoint Account Fund Condition

	Actual 2008-09	Actual 2009-10	Est. 2010-11	2010-11 Staff
Opening Balance	\$6,514,800	\$8,165,800	\$7,519,700	
Revenue:				
GPR Transfer	\$13,625,000	\$12,863,700	\$12,863,700	
Tipping Fee	5,259,400	10,662,000	19,000,000	
Investment Revenue/Misc.	<u>28,400</u>	<u>-3,400</u>	<u>5,000</u>	
Total Revenue	\$18,912,900	\$23,522,300	\$31,868,700	
Total Available	\$25,427,700	\$31,688,100	\$39,388,400	
Expenditures:				
<i>Agriculture, Trade and Consumer Protection</i>				
Soil and water management				
administration	2,095,500	2,054,800	2,006,500	21.00
County staffing grants	3,616,000	4,252,800	5,036,900	0.00
Soil and water management grants	2,136,100	1,879,400	948,700	0.00
Debt service	847,700	1,175,800	2,563,300	0.00
<i>Natural Resources</i>				
Integrated science services	326,400	358,800	385,800	4.50
Nonpoint source contracts	1,001,200	320,900	0	0.00
TMDL and Wisconsin Waters	870,000	742,900	815,300	5.25
Nonpoint source administration	560,300	552,300	559,600	7.00
Urban nonpoint source grants	1,099,000	651,500	313,200	0.00
Lake and river grants	0	50,000	0	0.00
Debt service – Facilities	95,100	106,900	141,300	0.00
Debt service – Priority watershed	0	2,940,500	7,981,100	0.00
Debt service – TRM	0	154,100	806,600	0.00
Debt service – UNPS	0	932,500	2,557,900	0.00
Administrative operations	213,400	259,300	279,900	0.00
Customer assistance and				
communication	<u>170,900</u>	<u>188,400</u>	<u>199,300</u>	<u>1.22</u>
Total Expenditures	\$13,031,600	\$16,620,900	\$24,595,400	38.97
Transfer to General Fund	4,230,300	7,547,500	7,306,900	
Cash Balance	\$8,165,800	\$7,519,700	\$7,486,100	
Encumbrances/Continuing	<u>7,526,000</u>	<u>6,844,400</u>	<u>6,700,000</u>	
Available Balance	\$639,800	\$675,300	\$786,100	

Nonpoint Source Contracts. DNR is appropriated \$997,600 annually to support basin education relating to DNR's nonpoint source water pollution abatement program. The basin education program is administered by the University of Wisconsin-Extension, and the statutes require that \$500,000 each year be allocated to UW-Extension for this purpose. Funding in the past has also supported: (a) the Wisconsin Land and Water Conservation

Association (WLWCA), a nonprofit organization that represents the state's 72 county land conservation committees and departments; (b) research related to the effectiveness of buffer strips in preventing water pollution; and (c) the Wisconsin Agricultural Stewardship Initiative (WASI), a research-oriented effort to develop environmentally compatible and economically sustainable farms. However, the entire amount appropriated in 2009-10

was transferred to the general fund, and the same amount is expected to be transferred in 2010-11.

Urban Nonpoint Source Grants. DNR is appropriated \$1,313,200 nonpoint SEG in 2010-11 under a biennial appropriation for urban nonpoint-related grants. As discussed elsewhere in this paper, this appropriation funds grants for the urban nonpoint source and storm water management program as well as the municipal flood control and riparian restoration program. Funding from this appropriation supports local assistance grants for planning under these programs, but this funding is not used for construction or land purchases.

In addition to base funding of \$1,313,200, funding in 2009-10 also included two one-time designated grants under 2009 Act 28: (a) \$19,000 for the village of Bagley in Grant County for study of projects that could mitigate flooding risks to the village, including work on storm sewers; and (b) \$50,000 for the Rock-Koshkonong Lake District for a study of options to preserve wetlands, shoreline, fish and wildlife habitat and the navigability of the lake. As of December, 2010, no planning grants are expected to be made under the urban nonpoint source program for 2011, as most or all of the budgeted amounts are expected to be transferred to the general fund.

General Obligation Bonding

General obligation bonds to provide funding for DATCP's SWRM activities were first authorized in the 1997-99 biennial budget act. A total of \$40,075,000 in bonds has been authorized for SWRM activities.

General obligation bonds to support DNR grants for installing cost-share practices were first authorized for the program in the 1991-93 biennial budget act. Since that time, a total of \$148.2 million in bonding revenue has been authorized for DNR nonpoint pollution abatement activities, including: (a) \$94.3 million for the priority watershed program; (b) \$35.9 million for urban nonpoint source and municipal flood control programs; and (c) \$18

million specifically for the TRM program. DNR has reallocated unspent priority watershed bonding when available to the TRM program in past years. However, with all remaining priority watersheds having closed in 2010, 2009 Act 28 authorized no additional general obligation bonding for the priority watershed program. This bonding authority had \$5,035,000 in unexpended funds as of June 30, 2010, but all unobligated authority has subsequently been committed to projects. Therefore, no additional obligations could be made at this time without either the bonding authority being increased or current projects spending less than their full allotment. Expenditures for current commitments are expected to continue through 2013-14, as projects beginning in 2011 may take up to three years to complete. Further, DATCP has been authorized \$40.1 million in general obligation bonding authority for SWRM grants. As noted earlier, bond proceeds may only fund cost-share grants for the installation of structural pollution-abatement or conservation practices and cannot be used for local program administration. Debt service costs on bonds issued by the two agencies totaled approximately \$5.2 million nonpoint SEG in 2009-10.

Federal Funding

DNR allocates a portion of its federal funding under the Clean Water Act for rural nonpoint source pollution abatement. This funding, known as section 319 grants after the Clean Water Act section creating them, accounted for \$665,100 under the 2010 joint allocation plan and \$1,126,600 under the 2011 joint allocation plan. This funding will continue to support TRM grants and NOD grants in 2011 and subsequent years; it also funded cost sharing for cropping practices under the priority watershed program prior to that program's closure. The Department contends these grants, namely for NODs, afford the greatest opportunity to expand the use of nutrient management planning and cropping practices in the state, compared to the activities supported by DNR's competitive grant programs. However, the Department anticipates that s. 319 funds will be increasingly diverted from NOD grants to TRM grants after the revised NR

153 takes effect. This is due to several planning activities for TMDL-based grants that may require cost sharing but would not be eligible for funding by bond proceeds.

In addition to federal funding that is provided to DNR for county grants, federal funding may be received by landowners via local governments, who may receive federal funds directly for conservation practices under a variety of federal programs administered by the USDA's Natural Resources Conservation Service (NRCS) and Farm Service Agency (FSA). Funding under these programs is separate from DNR and DATCP grants to counties. As shown in Table 7, actual funding received directly by Wisconsin landowners and local governments for conservation practices totaled approximately \$37.7 million in federal fiscal year 2009-10. Funding by program is not yet known for 2010-11, although it is assumed to continue at similar levels. It should be noted that this amount, along with the amount shown in Table 5 for 2010-11, is the amount of funding that is expected to be made available to Wisconsin. The actual amount received by Wisconsin landowners may be less depending on the amount of local government and landowner participation.

Table 7: Federal Fiscal Year 2010 Federal Land and Water Conservation Funding Awards to Wisconsin Landowners

Program	Funding
Environmental Quality Incentive Program	\$17,000,000
Conservation Security Program	6,650,000
Farm and Ranch Lands Protection Program	1,830,000
Wildlife Habitat Incentives Program	489,000
Wetlands Reserve Program	10,600,000
Grasslands Reserve Program	<u>1,160,000</u>
Total	\$37,729,000 *

*Excludes funding for conservation reserve program (CRP), which primarily involves rental payments, and conservation reserve enhancement program (CREP), which is not annual. Both are discussed later in greater detail.

Environmental Quality Incentive Program (EQIP). EQIP offers cost sharing and technical help to eli-

gible participants for the installation or implementation of structural and management practices on eligible agricultural land. Participants create a plan of operations to detail their conservation objectives and the practices that will achieve those goals. EQIP pays up to 75 percent of the cost of eligible conservation practices, including income foregone due to certain practices. EQIP participants enroll in the program under contracts of at least one year and up to 10 years from the completion of the BMP. For Wisconsin, funding for installation of conservation practices was about \$17 million in the 2009-10 federal fiscal year. EQIP provides funds for general nonpoint source water pollution abatement on agricultural lands; landowners may also receive funding under other federal programs described below, each of which has a more specific focus than EQIP.

Conservation Stewardship Program (CSP). The CSP provides financial and technical assistance by awarding incentive payments to landowners for the conservation and improvement of soil, water, air, energy, plant and animal life, and other conservation purposes on private land. Any agricultural producer may apply to enter into five-year contracts providing: (a) annual payments for installation of new conservation practices and maintenance of old practices; and (b) supplemental payments for adopting crop-rotation systems. Payments are based on environmental performance, with better-performing systems receiving higher payments. Contracts per person are limited to \$40,000 per year and no more than \$200,000 during a five-year contract. Wisconsin had \$6.65 million allocated for CSP contracts in federal fiscal year 2009-10.

Farm and Ranch Land Protection Program (FRPP). Under the FRPP, the NRCS provides matching funds to help purchase conservation easements (development rights) to keep productive farm and ranchland in agricultural uses. The program also generally requires landowners under easements to have conservation plans for any cropland considered highly erodible. The NRCS provides up to 50% of the purchase costs of permanent easements

on eligible farmland. The other 50% must come from a state, tribal or local government or a non-governmental group. Wisconsin was allocated \$1,830,000 for easement purchases in the sign-up period beginning in February, 2010. From the program's beginning in 1996 through the 2009 federal fiscal year, Wisconsin landowners have received \$17.2 million for FRPP easements.

A new purchase of agricultural conservation easements (PACE) program structured similarly to FRPP was created in Wisconsin under 2009 Act 28. More information about this program is provided later in this paper and in the Legislative Fiscal Bureau informational paper titled "Working Lands and Farmland Preservation Tax Credits."

Grassland Reserve Program (GRP). The GRP offers private landowners an easement or rental payment for the implementation of practices to preserve grasslands on their property and limit uses to those consistent with grazing. Eligible lands are those: (a) predominantly used for grazing; (b) areas historically dominated by grassland and also containing habitat for ecologically valuable animal and plant populations; or (c) lands under Conservation Reserve Program (CRP) contracts that are expiring, if the land is ecologically valuable and susceptible to conversion to non-grazing uses. (The CRP is described in a later section.) Landowners may apply for permanent easements, or rental contracts of 10, 15, or 20 years, and may also apply for restoration agreements providing cost-sharing to restore functions to degraded grasslands. Payments vary by agreement, with rental contracts receiving between \$5.50 and \$16.50 per acre per year, depending on the county in which the land is located. Easement payments are determined by appraisal.

Wildlife Habitat Incentives Program (WHIP). WHIP provides private landowners with technical assistance and cost sharing for the establishment and improvement of wildlife and fish habitat. Participants create plans of operation describing conservation practices to be undertaken, and NRCS will provide up to 75 percent cost-sharing under

contracts ranging from one to 10 years. Practices receiving cost-share funds must be maintained for their anticipated lifespan. Long-term cost-share agreements are also available, which run a minimum of 15 years and may provide 90 percent cost-sharing for "essential" habitat, including rare and unique habitat for at-risk species, critical habitat designated under federal or state law, or habitat of certain species that could be improved with specific conservation practices. WHIP payments are capped at \$50,000 per person per year.

Wetlands Reserve Program (WRP). The WRP provides technical and financial assistance to eligible private landowners to protect wetland resources. Wetland restoration and preservation is intended to improve or maintain water quality, wildlife habitat, groundwater recharge and flood mitigation. Program enrollment is through: (a) 30-year easements; (b) perpetual easements; or (c) restoration cost-share agreements lasting at least 10 years. For perpetual easements, USDA covers all easement and wetland restoration costs. Restorations are cost-shared at 75 percent for the other enrollment options, as are the purchase costs for a 30-year easement. As of December, 2008, Wisconsin had 48,300 acres enrolled in WRP.

Conservation Reserve Program (CRP). Administered by the USDA Farm Service Agency, the CRP encourages private landowners to establish vegetative covers on land susceptible to erosion. CRP contracts range from 10 to 15 years, and owners receive rental payments based on: (a) the relative productive capacity of soils on a county-level basis; and (b) the area's average cash rent or cash-rent equivalent. CRP lands may also be eligible for the following: (a) up to 50 percent cost sharing for establishing vegetative covers; (b) per-acre payments for maintenance practices; and (c) up-front signing incentives for committing to certain conservation practices. As of August, 2010, Wisconsin had 428,300 acres enrolled in CRP, with statewide average annual rental payments of \$76.74 per acre. This equates to approximately \$32.9 million annually in payments statewide.

Conservation Reserve Enhancement Program (CREP). CREP is a subprogram of CRP and is administered by both the USDA and the state of Wisconsin. Participating landowners voluntarily retire agricultural land to instead implement conservation practices to protect environmentally sensitive land, decrease erosion, restore wildlife habitat, and safeguard ground and surface water. Enrollment is through 15-year or perpetual easements. Eligible CREP conservation practices include riparian buffers, filter strips, wetland restorations, and establishment of native grasslands in two designated grassland project areas.

Under the program, the state is required to provide a 20 percent match to a federal grant of up to \$200 million. As such, the state originally authorized \$40 million in general obligation bonding authority for the program under 1999 Act 9. However, because DATCP believes program demand is unlikely to approach these funding authorizations, bonding authority was reduced under 2009 Act 28 to \$28 million, with \$12 million being reallocated to provide initial funding for the PACE program.

Through September 30, 2010, about 42,000 acres of land have been enrolled in CREP, with 35,600 acres entered in 15-year easements and 6,400 acres in perpetual easements. The FSA projects that total federal payments associated with this acreage over CREP contracts will total about \$82 million. In addition, state incentive payments to enroll this land into the program and to make cost-share grants to landowners for the installation of conservation practices are approximately \$11.9 million as of September 30, 2010. As a result, expenditures of approximately \$94 million (out of the total \$240 million contract amount) are expected over the life of the CREP contracts for the lands enrolled in CREP as of September 30, 2010.

Practices funded by CREP have achieved the following: (a) buffered 1,430 miles of streams, part of the state goal of 3,700 miles; (b) removed an estimated 134,000 pounds of phosphorus annually, part of the state goal of 610,000 pounds annually; (c) removed an estimated 71,000 pounds of nitro-

gen annually, part of a goal of 305,000 pounds annually; and (d) removed an estimated 65,500 tons of sediment annually, part of a goal of 355,000 tons annually. Additionally, CREP has made the following progress toward goals for certain practices: (a) established 11,200 acres of the state goal of 15,000 acres of grassland habitat; (b) restored 2,800 acres of the statewide goal of 5,000; and (c) established 29,000 acres of riparian buffers, part of a goal of 80,000 acres. The overall goal for total enrolled acres is 100,000; Wisconsin currently has about 42,000, as noted above. Wisconsin and the USDA extended the state's participation in CREP in December 2007. CREP is authorized through 2012, when it the next federal Farm Bill will be up for renewal.

Soil and Water Resource Management and Nonpoint Source Administrative Funding

DATCP and DNR are provided approximately \$8.5 million in direct administrative funding for positions associated with the nonpoint and SWRM programs in 2010-11, as shown in Table 8. In addition to amounts identified in the table, each program also supports a portion of agency overhead costs.

Table 8: 2010-11 Administrative Funding and Associated Positions

Source	<u>DATCP</u>		<u>DNR</u>	
	Funding	Staff	Funding	Staff
GPR	\$0	0.00	\$923,600	9.50
FED	301,300	4.00	2,158,000	27.00
SEG	2,006,500	21.00	1,374,900	12.25
PR	<u>0</u>	<u>0.00</u>	<u>1,708,700</u>	<u>18.50</u>
Total	\$2,307,800	25.00	\$6,165,200	67.25

DATCP Soil and Water Management Staff

DATCP is appropriated \$2,006,500 and 21.0 positions in 2010-11 from the nonpoint account for soil and water management staff. These positions

are a part of DATCP's Bureau of Land and Water Resources. Soil and water resource management efforts include establishing technical standards for nonpoint pollution, assisting the development of nonpoint pollution abatement measures, and evaluating nonpoint pollution abatement efforts.

DNR Watershed Management Staffing

State and federal funding has been provided for DNR planning, monitoring and administration of the nonpoint program. In 2010-11, DNR is provided \$6.2 million and 67.25 staff to administer its nonpoint pollution abatement and storm water activities. Program revenues are provided from storm water fees. Segregated revenues are provided from the nonpoint account of the environmental fund. Federal funds are provided from the Department's grant from the EPA under section 319 of the federal Clean Water Act.

Total Maximum Daily Load (TMDL) Development and Wisconsin Waters Initiative. DNR is appropriated \$815,300 nonpoint SEG annually with 5.25 positions for nonpoint source administrative duties. A total of 0.75 of the positions are designated for the development and implementation of Wisconsin's federally required TMDL plans. TMDL plans attempt to reduce the amount of specific pollutants reaching an impaired lake or stream so that water quality standards will be met. While funded from the nonpoint account, these positions are used by DNR for TMDL activities related to waters impaired by point source and nonpoint source pollution. The remaining 4.5 positions have various responsibilities such as wastewater engineering, coordinating nonpoint source pollution abatement grants, coordinating state implementation of agricultural performance standards, and policy development related to agriculture-based pollution and storm water.

Also included is approximately \$403,200 nonpoint SEG annually for the Wisconsin waters initiative, used to develop a computer-based system to improve access to water-related site information electronically. The goal of this initiative is to expe-

dite water permit processing and enable state and local access to improved data such as floodplain mapping.

Nonpoint Source Operations. In addition to the administrative duties listed above, DNR is appropriated \$559,600 nonpoint SEG annually with 7.0 positions for other nonpoint source activities. These resources are used for technical assistance and the administration of DNR's nonpoint source water pollution abatement programs.

Storm Water Management. DNR is authorized \$1,708,700 PR in 2010-11 with 18.5 positions under an annual appropriation for storm water management and permitting. The DNR storm water program is responsible for: (a) annual WPDES permitting of municipalities, industrial sites and construction sites required to operate under permits for their storm water discharges; and (b) inspections and enforcement of permit violations. The storm water management program is discussed in greater detail in a later section.

Federal Funding. The current DNR federal positions were first authorized in 1990 and are funded under the federal Water Quality Act of 1987, which amended the federal Clean Water Act. The federal program requires states to submit a proposed management program for controlling pollution from nonpoint sources and improving water quality. This must include a list of BMPs, a program of implementation of those measures and a timetable. States that comply with requirements are eligible for 60% federal grants to assist nonpoint source plan implementation. These grants are known as "section 319 grants" because of the section of the act creating the program.

DNR's recent funding from section 319 grants has typically been about \$5 million each year. This includes federal administrative funding shown in Table 8, and amounts noted earlier that are disbursed as TRM or NOD response grants. Other DNR expenditures of federal funding include such items as supplies and travel, research projects, and contracts with other agencies such as DATCP, UW-

Extension and other UW System institutions.

DNR Other Staffing

In addition to the 12.25 nonpoint SEG positions in the DNR Bureau of Watershed Management, the nonpoint account supports a number of other positions outside the DNR Division of Water. These positions are described below, but are not reflected in Table 8.

Integrated Science Services. DNR is appropriated \$385,800 nonpoint SEG annually with 4.5 positions in the Division of Enforcement and Science for activities related to the research, evaluation and monitoring of nonpoint source water pollution.

Administrative Operations. DNR has allocated \$279,900 nonpoint SEG in 2010-11 for general and administrative costs in its Division of Administration and Technology. The administrative operations appropriation supports general departmental nonpoint-related support functions such as grant management, legal services, finance and auditing, administrative and field services, data processing, information technology, human resources and facility rental costs.

Customer Assistance and Communications. DNR has allocated \$199,300 nonpoint SEG with 1.22 positions in 2010-11 to support staff in the Division of Customer Assistance and External Relations, which is responsible for customer service and communication and education efforts. These amounts are intended to reflect the time addressing nonpoint source water pollution issues.

Debt Service

In 2010-11, DATCP and DNR principal repayment and interest on general obligation bonds is budgeted at \$13.9 million nonpoint SEG. The amounts attributable to each program are shown in Table 6. The \$2.45 increase in tipping fees under 2009 Act 28 was primarily intended to cover increases in nonpoint account obligations attributable to this debt service.

DNR Grant Programs. The nonpoint account in 2009-10 began supporting all debt service for bonds issued under the priority watershed, TRM, UNPS and MFC programs for structures and acquisitions allowed under those grant programs as described earlier. These debt payments were converted under 2009 Act 28 from GPR to nonpoint SEG sum-sufficient appropriations.

Debt Service (DNR Facilities). The nonpoint account supports a portion of DNR obligations on bonds issued to fund the acquisition of land and construction of DNR administrative facilities. DNR has allocated \$141,300 nonpoint account SEG in 2010-11 for debt service.

Debt Service (DATCP SWRM Program). Debt service costs reflect the repayment of principal and interest on bonds issued to fund cost-share grants to counties for structural BMPs for the abatement of nonpoint source water pollution. This appropriation was created under 2005 Act 25 as sum-certain, meaning it would offset the larger GPR obligation only up to the amount annually appropriated. Sum-certain funding was \$847,700 nonpoint SEG annually from 2005-06 through 2008-09. Under 2009 Act 28, the appropriation was converted to sum-sufficient, and all debt service for DATCP bonding authority was converted to nonpoint SEG.

Clean Water Fund Loans

The clean water fund program, administered by DNR and the Department of Administration, provides low-interest loans to municipalities for nonpoint source pollution abatement and storm water management projects. The subsidized interest rate is 65% of the market rate. DNR promulgated rule changes effective March 1, 2001, to allow funding for nonpoint and urban storm water projects. To date the program has funded 19 urban storm water projects for \$20,535,100 and two nonpoint projects

for \$868,100.

The land recycling loan program is part of the clean water fund program and provides no-interest loans to certain local governments for the investigation and remediation of certain eligible proper-

ties. Under federal clean water regulations, land recycling loans are considered to be for nonpoint source pollution abatement projects. The Legislative Fiscal Bureau informational paper titled "Environmental Improvement Fund," describes the clean water fund program.

NONPOINT SOURCE POLLUTION ABATEMENT REGULATORY AUTHORITY

Special Orders and Notices of Intent

DNR has authority under Chapter 281 to order the abatement of most occurrences of nonpoint source water pollution that the Department has determined to be significant. This includes nonpoint pollution which causes the violation of a water quality standard, significantly impairs aquatic habitat or organisms, restricts navigation, is deleterious to human health or otherwise significantly impairs water quality. This authority also applies to agricultural sources, provided DNR consults with DATCP on determining the significance of the pollution. DNR's authority does not, however, apply to pollution caused by animal waste.

Orders generally establish a deadline by which a landowner must comply with DNR-prescribed standards or operations changes. Landowners are granted rights to petition DNR for modification or suspension of orders, a process which includes a public hearing and may include further investigation by DNR. Any DNR decisions on petitions may further be reviewed in contested case proceedings under Chapter 227 of the statutes. Absent a modification or suspension, continued noncompliance with an order may result in the case's referral to the Department of Justice (DOJ) for further court action. Statutes provide that violations of special orders issued under Chapter 281 are subject to forfeitures of not less than \$10 and not more than \$5,000 per day of violation.

Certain special provisions apply to cases in which DNR identifies a significant source of nonpoint source pollution for which it would be authorized to issue an abatement order. The Depart-

ment first must issue the responsible party a notice of intent (NOI) to issue an order. The NOI must describe DNR's findings regarding the pollution, and it must set a deadline at least one year from the date of the notice by which time the party must abate the pollution or have BMPs in place. The deadline may be sooner for pollution that is causing or will cause severe water quality degradation that could be mitigated or prevented in a shorter timeframe. If a landowner fails to comply with an NOI, the Department may issue a special order as described earlier.

For sources of agricultural-related nonpoint pollution, DNR must send an NOI to the responsible landowner, the county LCC and DATCP. (The statutes grant the county LCC authority to disapprove of certain NOIs, but this authority is generally moot with the closure of the priority watersheds.) DATCP, with the county LCC, is responsible for providing the landowner with: (a) a list of potential management practices which could abate the pollution; and (b) an explanation of the financial aids and technical assistance which may be available to achieve compliance. In addition, DATCP is required to report to DNR within one year of the NOI: (a) the actions taken by the landowner to bring the land into compliance; and (b) a recommendation on whether DNR should issue an order to abate the pollution. If an order is issued, DNR may begin enforcement proceedings as described above.

Prior to the closure of priority watersheds in 2009, DNR was not authorized to issue orders for pollution caused primarily by animal waste or another agricultural source if located in a priority watershed or lake as regulated by NR 243, unless the source is designated as a critical site in a priority watershed or lake plan. This limitation has effec-

tively expired with the closure of the priority watersheds. However, animal waste-related discharges are discussed later in greater detail.

Nonpoint Source Performance Standards

The 1997 biennial budget act required DNR to develop performance standards for both agricultural and nonagricultural facilities. These standards are established and enforced by both DNR and DATCP.

With the promulgation of the nonpoint source water pollution abatement rules, there are enforceable state standards to control farm runoff. DNR administrative rule NR 151 establishes the standards and defines enforcement procedures. However, as noted earlier, landowners in most cases are entitled to receive a cost-share offer before they would be required to change an existing operation.

DNR is required under Chapter 281 of the statutes to prescribe performance standards to achieve water quality standards by limiting nonagricultural, nonpoint source water pollution. The Department is also required to develop and disseminate technical standards to implement these performance standards.

In addition, DNR has statutory authority relating to agricultural nonpoint sources. DNR, in consulting with DATCP, is required to promulgate rules prescribing performance standards and prohibitions for agricultural facilities and agricultural practices that are nonpoint sources. At a minimum, the prohibitions must provide that livestock operations have no:

1. Overflow of manure storage structures;
2. Unconfined manure piled in a "water quality management area" (WQMA), defined as follows: (a) the area within 1,000 feet from the ordinary high-water mark of a lake, pond or flowage;

(b) the area within 300 feet from the ordinary high-water mark of navigable waters that consist of a river or stream; or (c) sites that are susceptible to groundwater contamination or that have a potential to be a direct conduit to groundwater contamination;

3. Direct runoff from a livestock operation or stored manure into waters of the state; or

4. Unlimited access by livestock to waters of the state where high concentrations of animals prevent adequate sod cover.

NR 151

In order to administer its nonpoint and soil erosion performance standard responsibilities, DNR promulgated administrative rule NR 151, which establishes runoff management performance standards under the nonpoint source water pollution abatement program. The rule prescribes performance standards for three general areas: (a) agricultural land; (b) non-agricultural land; and (c) transportation facilities. The performance standards initially took effect in 2002, but were expanded under new rules promulgated in 2010.

Agricultural Standards. NR 151 generally divides agricultural performance standards by those for croplands and those for livestock. Cropland performance standards include those for: (a) erosion; (b) tillage setback; (c) phosphorus; (d) nutrient management; and (e) total maximum daily load (TMDL) requirements. Livestock performance standards include relating to: (a) TMDL requirements; (b) process wastewater handling; (c) clean water diversions; (d) manure storage facilities; and (e) manure management.

Erosion Control. All cropland must be managed to meet a tolerable soil erosion rate, or "T," which is intended to be the maximum average annual rate of soil erosion allowable that will also sustain high crop productivity. The T-value for most Wisconsin cropland is 3 to 5 tons of erosion per acre per year. Rates for individual farm fields are calculated un-

Table 9: NR 151 Agricultural Performance Standards

Pollutant/Activity	Standard
Erosion Control	Must meet tolerable ("T") soil-loss rate as determined for specific site
Tillage Setback	Minimum 5 feet from top of water channel; up to 20 feet may be required
Phosphorus	Average phosphorus index (PI) of 6 over eight-year period; no PI higher than 12 for any individual year
Nutrient Management	Mechanical applications of nutrients must be done according to management plan
Total Maximum Daily Load	Reduce discharges as needed to meet TMDL plan for watershed
Process Wastewater	No significant discharges of water contacting animals, animal byproducts or raw materials
Clean Water Diversions	In WQMAs, no runoff contact with feedlots, barnyards or manure storage areas
Manure Storage Facilities	Construction and operation shall minimize risks of leaking or overtopping
Manure Management	Manure shall be properly stored and kept separate from runoff water

der a universal soil-loss equation developed by the USDA NRCS and specific for each soil type in the state based on soil composition, depth to bedrock, rainfall, and groundwater depth. State erosion control goals are discussed later in greater detail.

Tillage Setback. The tillage setback generally prohibits tilling that would compromise the integrity of stream banks or result in direct sediment deposits to surface waters. Specifically, the standard allows no tilling within five feet of the top of a surface water channel, but DNR may require setbacks of up to 20 feet in instances where such an increase is necessary to maintain bank integrity or avoid sediment deposition. Further, except for grassed waterways installed as BMPs, setback areas must be at least 70 percent covered by sod or self-sustaining vegetative covers.

The tillage setback was a new standard promulgated under NR 151 revisions that, as of December, 2010, are expected to take effect on February 1, 2011. This standard is based on recommendations made in the 2005 final report of the Wisconsin Buffer Initiative (WBI), a project convened in 2002 by the Natural Resources Board to develop guidance on where riparian buffers would best be utilized in Wisconsin to protect the quality of surface waters from agricultural runoff. The tillage setback in some ways resembles a buffer by preserving cer-

tain acreage from tillage, thereby allowing other vegetative covers in those areas to capture sediment and pollutant runoff from agricultural fields. The tillage setback differs from a buffer, however, in that the WBI report proposed creating buffers that accounted for runoff contributed from upland draining. The tillage setback instead imposes a more uniform requirement.

Phosphorus. Also contained in the 2010 NR 151 revisions are limits on the amount of phosphorus runoff allowed from cropland, pasture and winter grazing areas. Phosphorus loading is measured using the phosphorus index (PI), which is an estimate of phosphorus loading potential of agricultural lands based on both indigenous phosphorus in soil and phosphorus introduced through fertilizers or manure. The NR 151 performance standard allows for an average PI of 6 over a period of eight years. The PI, however, is not to exceed 12 for any single year in that period. The eight-year accounting period begins with completion of a nutrient management plan, and the PI initially is to be calculated based on planned phosphorus introductions rather than historical data. Actual data, however, is to be used each year as it becomes available following the beginning of the accounting period. The PI standard takes effect July 1, 2012. In addition to meeting PI limits for runoff potential, the phosphorus standard prohibits crop and livestock

producers from applying nutrients or manure directly to surface waters.

Nutrient Management. As discussed earlier, the nutrient management standard requires all mechanical applications of fertilizer, manure or other nutrients to be in accordance with a nutrient management plan created for the cropland. This requirement took general effect on October 1, 2003, for new cropland and on January 1, 2008, for all existing cropland, provided there is a bona fide offer of cost sharing.

Total Maximum Daily Load. The 2010 revisions to NR 151 created requirements that crop or livestock producers reduce pollution discharges to surface waters if necessary to achieve limits established in TMDL plans. TMDL plans are required for waters on the state list of impaired waters submitted biennially by DNR to the EPA. TMDL plans use studies of pollutant loading within the impaired water's basin to allocate a maximum daily amount of pollutants from both point and nonpoint sources that can enter the water and still allow the body to meet water-quality standards.

Process Wastewater. Under the 2010 revisions, NR 151 prohibits all significant discharges of process wastewater to any surface or groundwater. Process wastewater includes production-area wastewater from an animal feeding operation that results from: (a) overflow of watering systems; (b) washing, cleaning or flushing of pens, barns, manure pits or other facilities; or (c) water used for swimming, washing or spray cooling that directly contacts animals, raw materials or animal byproducts such as manure, feed, bedding, milk or eggs.

A significant discharge is to be determined based on the circumstances of the event, including: (a) the volume and frequency of discharges; (b) the discharge's proximity to affected waters; (c) the means of wastewater conveyance to affected waters; (d) slope, vegetation and rainfall that may influence the frequency and likelihood of discharges; and (e) the susceptibility of groundwater to con-

tamination from the discharge and whether the discharge was to a direct conduit to groundwater, such as a well or area of bedrock fracture.

Clean Water Diversions. The performance standard for clean water diversions applies only to livestock producers within a water quality management area, which is discussed earlier. The standard requires runoff water to be diverted from contacting feedlots, manure storage areas and barnyard areas within the WQMA. Diversions to protect a private well are required only if the livestock facility is upslope from the well.

Manure Storage Facilities. The performance standard for manure storage facilities requires facilities to be designed, built and maintained to minimize or eliminate the risk of failures, including leaks to surface and groundwater sources or overtopping in significant rains. The standard applies to new facilities, including those being substantially altered from existing uses, as well as facilities being abandoned. Any facility ceasing operation with no additions or removals of manure is to be closed in a manner to prevent future leakage or contamination. Similarly, operating facilities that pose an imminent threat to public health or fish and aquatic life or that are violating groundwater standards are also to be upgraded, replaced or abandoned.

Manure Management. NR 151 prohibits mishandling of manure that result in any of the following: (a) an overflow of storage facilities; (b) an unconfined manure pile existing in a WQMA; (c) direct runoff to surface or groundwater from a feedlot or stored manure; or (d) unlimited access to state waters by livestock, such that animal concentrations are high enough to prevent continuing sod or self-sustaining vegetative cover to prevent runoff and preserve bank integrity.

Non-Agricultural Performance Standards. Prior to revisions in 2010, NR 151 contained performance standards for the following nonagricultural sites or practices: (a) construction sites dis-

Table 10: NR 151 Construction-Site Performance Standards

Activity	Standard
<i>Less than One Acre (Non-Permitted)</i> Soil/Sediment Loss Controls	BMPs shall reduce or prevent soil tracking on streets or sediment discharges
<i>One Acre or Larger (Permitted), Prior to January 1, 2011</i> Sediment Runoff	80 percent reduction in sediment carried off-site, as compared to no control
<i>One Acre or Larger (Permitted), After January 1, 2011</i> Soil/Sediment Loss Controls	Sites in general should reduce or prevent soil tracking on streets and sediment discharges; additionally, BMPs must reduce sediment carried off-site: (a) by 80 percent if site is permitted within two years of rule; (b) to no more than 5 tons/acre/year if site permitted after rule has been in effect for two years; or (c) to maximum extent practicable if standard is unattainable

turbing one acre or more after March 10, 2003; (b) any construction sites regulated under NR 151 in their post-construction operation; (c) developed urban areas; and (d) fertilizer applications on non-municipal properties of five acres or greater. However, the 2010 revisions to NR 151 created two standards for construction sites. One standard applies to sites less than one acre in size, and the other applies to sites of one acre or larger, which are required to hold a WPDES storm water permit under administrative rule NR 216. Each non-agricultural standard is described below.

Construction Sites–Non-Permitted. The non-permitted site standard requires practices to reduce the following: (a) soil being tracked onto streets from vehicle tires; (b) sediment discharges by various means; and (c) runoff of chemicals, cement and other building compounds, unless required by the nature of the project, such as bridge supports. Controls are to be in place prior to construction beginning and remain in place until land disturbances cease and final grade has been reached.

Construction Sites–Permitted. Requirements for permitted sites differ, depending on whether the responsible party sought WPDES permit coverage prior to January 1, 2011, which is the effective date of the revised NR 151. For sites seeking permit coverage prior to the NR 151 effective date, permitted sites are to achieve an 80 percent reduction in

the sediment load carried off-site, compared to a circumstance of no controls, as measured on an average annual basis. However, the rule allows reductions to be to the "maximum extent practicable," if the responsible party justifies to DNR why the 80 percent standard is unattainable. Sites are also obligated to manage soil tracking, sediment deposition and chemical release similar to the manner described for non-permitted sites.

For sites seeking WPDES coverage beginning January 1, 2011, the rule requires one of two standards: (a) for sites seeking coverage within two years of the NR 151 effective date, BMPs must achieve a reduction in sediment load of 80 percent, as compared to no controls on an average annual basis, or to the maximum extent practicable. For sites seeking coverage after the rule has been in effect for two years, or January, 2013, the standard is no more than five tons of sediment per acre per year. All permitted construction sites must attempt to limit sediment loss in the manner described for non-permitted sites, and must also: (a) maintain existing vegetation, where practicable; (b) minimize soil compaction and preserve topsoil; (c) minimize land disturbances on slopes of 20 degrees or steeper; and (d) develop spill prevention and responses.

As with non-permitted sites, all permitted sites are to institute erosion control practices prior to

land-disturbing activities occurring, and must remain in place throughout construction. Permitted sites are also required to create a written plan that implements all applicable NR 151 requirements.

Post-Construction. For construction sites regulated under the provisions above, these sites must also meet several performance standards following the completion of construction activities. As is the case for WPDES-permitted construction sites, post-construction sites must meet different standards under NR 151 if the initial construction project sought permit coverage following the effective date of the NR 151 revisions.

All post-construction sites must meet standards relating to: (a) total suspended solids (TSS); (b) peak discharges, which would be estimated to occur during a 24-hour design storm taking place on average every two years; (c) infiltration of runoff volume; (d) areas immediately adjacent to

bodies of water, known as protective areas; and (e) fueling and vehicle maintenance areas. As with active construction sites, post-construction sites must continue adhering to a written storm water plan that incorporates NR 151 requirements. The performance standard in each category, based on when the initial construction site sought its WPDES permit, is shown in Table 11.

Developed Urban Areas. The revised NR 151 creates requirements both for incorporated municipalities of more than 1,000 residents per square mile that are not WPDES-permitted for storm water discharges under NR 216, and for municipalities required to hold a WPDES permit. Both municipal categories must implement programs including yard waste management, proper nutrient application to municipal turf areas, and detection and elimination of illicit discharges. Municipalities must also provide public education on these topics.

Table 11: NR 151 Post-Construction Performance Standards

Category	Standard, Prior to Jan. 2011	Standard, Beginning Jan. 2011
Total Suspended Solids		
New Development	80%	80%
Redevelopment	40%	40%
In-Fill Development, <5 Acres, By Oct. 1, 2012	40%	40%
In-Fill Development, <5 Acres, On or After Oct. 1, 2012	80%	80%
In-Fill Development, 5 Acres	80%	80%
Peak Discharge	No more than pre-construction peak runoff for 2-year, 24-hour storm	No more than pre-construction peak runoff for 1-year and 2-year 24-hour storms
Infiltration (Percentage of Pre-Development Volume)		
Residential	90%, or 25% of 2-year, 24-hour storm	N/A
Non-Residential	60%, or 10% of 2-year, 24-hour storm	N/A
Low Imperviousness (Parks, Cemeteries)	N/A	90% (10% impervious)
Medium Imperviousness (Multi-Family Residential)	N/A	75% (25% impervious)
High Imperviousness (Strip Malls, Downtowns)	N/A	60% (40% impervious)
Protective Areas	No impervious surfaces, and at least 70% vegetative cover for land-disturbing construction	No impervious surfaces, and at least 70% vegetative cover for land-disturbing construction
Fueling and Vehicle Maintenance	BMPs shall reduce petroleum in runoff to eliminate sheen	BMPs shall reduce petroleum in runoff to eliminate sheen

Table 12: NR 151 Developed Urban Area Performance Standards

<p>All Urban Areas (1,000+ persons/square mile)</p> <p>Storm Water Management Plan</p> <ul style="list-style-type: none"> Yard waste management Proper nutrient application to municipal turf Prevention of illicit discharges Public education 	<p>WPDES Storm Water Permit Holders</p> <p>Stage 1</p> <ul style="list-style-type: none"> 20% TSS reduction in storm water from existing development <p>Stage 2</p> <ul style="list-style-type: none"> 40% TSS reduction; deadline varies, and may occur under a long-term management plan
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Municipalities covered by a municipal storm water discharge permit must also achieve TSS reductions in storm water runoff from existing development. These reductions are to occur in stages, and are measured as percentages compared to an alternative of no controls. Permitted municipalities must achieve a Stage 1 TSS reduction of 20% within two years of WPDES permit issuance. Stage 2 requirements are one of the following: (a) a 40% TSS reduction by March 31, 2013, if WPDES permit coverage began January 1, 2010, or earlier; (b) a 40% TSS reduction within seven years of permit issuance if the permit was issued later than January 1, 2010; or (c) if a 40% reduction is not achieved, the municipality may describe controls in place and submit a long-term storm water management plan to describe future cost-effective efforts to reach the 40% reduction. If a municipality will not meet the seven-year deadline, NR 151 contains provisions under which DNR may extend the compliance deadline by 10 years or more. Any such extension would include five-year reviews by DNR.

The performance standards promulgated in 2010 for WPDES-permitted municipalities replace requirements of a 20% reduction by March 10, 2008, and a 40% reduction by March 10, 2013. The changes related to extended deadlines and extension for cost-effective planning are intended to reflect concerns of municipalities in recent years that costs of complying with the original March, 2013, deadline would be too onerous. Requirements for developed urban areas are summarized in Table 12.

Turf Standards. NR 151 requires that private owners of non-agricultural turf or gardens of five

acres or larger that apply nutrients do so based on site-specific schedules created based on soil tests and achieving optimum health of the turf or garden. The provision applies only to properties that discharge to surface or groundwater, and that are not the site of silvicultural activities.

Transportation Facility Performance Standards. Transportation facilities are required to be constructed according to a development plan that utilizes BMPs to meet all performance standards. As with non-agricultural facilities and practices, transportation-facility performance standards vary based on whether the site is: (a) a construction site, which can be either WPDES-permitted for storm water or not; (b) a post-construction site; or (c) in a developed urban area. Further, the standards for transportation facilities in each category are identical to those for non-agricultural facilities. For example, construction-site performance standards for transportation facilities are those summarized in Table 10. Post-construction and developed-area standards for transportation facilities include slight modifications as described below, but overall TSS reduction requirements are consistent.

Post-Construction. Standards for TSS reduction at post-construction transportation facilities are slightly different than those summarized in Table 11 for non-agricultural facilities and practices. Transportation facilities must achieve the following reductions: (a) for new transportation facilities, 80%; (b) for highway reconstructions, 40%; and (c) for redevelopment of non-highway transportation facilities, 40% of the load from parking areas and roads. The standard for highway reconstruction does not apply until January 1, 2017, for municipi-

palties with WPDES storm water permits and transportation facilities under the jurisdiction of the Wisconsin Department of Transportation (DOT) that are located in WPDES-permitted municipalities.

Standards relating to transportation facilities in protective areas are somewhat less restrictive than the same standards for non-agricultural facilities. NR 151 prohibits impervious surfaces of transportation facilities in protective areas, unless it is determined necessary by the approving authority of the facility and DNR. In such a case, construction is only allowed to the degree it is reasonably necessary.

Post-construction facilities that use swales for runoff conveyance are subject to the requirements for TSS reductions, peak discharges and infiltration, unless the swale is vegetated and complies with DOT technical standards for swales. (A swale is a channel that receives and absorbs runoff. It commonly contains vegetation, and may be located on roadsides or in highway medians.) DNR may impose additional requirements on swales occurring near certain high-traffic areas where runoff enters impaired or significant waters.

Developed Urban Areas. DOT transportation facilities within a WPDES-permitted municipality must meet 20% and 40% TSS reductions consistent with those assigned to the municipality as described above. DOT has the same flexibility granted to municipalities in achieving a 40% reduction if a standard seven-year deadline is unattainable.

Implementation Procedures. Although much of the language of NR 151 refers to DNR ensuring compliance with performance standards, standards in many cases may be implemented and enforced by local entities operating under DNR's auspices. The implementation of each performance standard is described below.

Agricultural. NR 151 provides that DNR may

rely on local governments to implement standards and make various determinations required if landowners are believed to be noncompliant. In most cases, county land conservation departments implement and enforce agricultural standards. However, NR 151 also states DNR intends to assist counties when requested and pursue compliance in cases where municipalities have failed to achieve it.

It should be noted that local governments may also enforce their own livestock facility ordinances, but these may not exceed state standards unless: (a) the ordinance does not directly target livestock operations; (b) the ordinance was created before October 1, 2002, or (c) the governmental unit receives DATCP and DNR approval.

Construction Sites and Post-Construction. Implementation of performance standards for construction sites and post-construction sites occurs through the process under NR 216 by which landowners apply to DNR for construction site storm water discharge permits. NR 216 requires a permittee to have both an erosion control plan (for construction) and a storm water management plan (post-construction), each of which must describe how the site will meet the applicable performance standards.

Municipalities are encouraged to adopt storm water management ordinances, both explicitly in NR 151 language and implicitly under score-multiplier provisions in the ranking procedures of the competitive TRM and UNPS grant programs. To help municipalities create local programs, DNR has published model construction-site and post-construction erosion control ordinances as appendices to NR 152. Municipalities passing such ordinances can apply to be authorized local programs under NR 216's provisions for construction-site erosion control. Approvals by such a local program are equivalent to a DNR permit.

Developed Urban Areas. Standards for developed urban areas are implemented through municipal storm water permitting under NR 216. Urbanized

areas and operators of municipal separate storm sewer systems (MS4s), of which WPDES permits are required, must have as permit conditions programs for public education and participation, illicit discharge detection, construction-site erosion control, post-construction erosion control and general pollution prevention within the MS4 service area.

Enforcement. Chapter 281 of the statutes authorizes DNR to enforce any rules such as NR 151 that were promulgated under the chapter's authority. The department typically follows a process of "stepped enforcement" for environmental violations. This process usually begins with a notice of violation and a written response from the alleged violator. Further steps may include an enforcement conference between the involved parties to discuss resolution of the matter, which may be followed by a formal order to take or cease certain actions. Some cases may be referred to DOJ for court action. Violations of rules promulgated under Chapter 281 may incur forfeitures of between \$10 and \$5,000 per day of violation.

It should be noted that performance standards for activities supervised and directed by the DOT are generally not subject to requirements of NR 151, although DOT and DNR are required by statute to cooperate to minimize environmental impacts of transportation building.

If a WPDES-permitted livestock facility violates performance standards, DNR may instead follow NR 243 procedures, which are discussed later in greater detail.

DATCP Authority and ATCP 50

DATCP is directed under sections 92.05, 281.16 and 281.65 of the statutes to: (a) promulgate rules to improve agricultural nutrient management in Wisconsin, consistent with the nonpoint source performance standards established in NR 151; (b) provide technical assistance to counties and other local governments in developing ordinances to implement agricultural standards on a local basis; (c) promulgate rules prescribing conservation prac-

tices that would achieve agricultural performance standards; and (d) disseminate technical standards, including numeric or other objectives, that constitute achievement of a performance standard. In other words, whereas NR 151 is intended to establish goals for reducing nonpoint source pollution, ATCP 50 is intended to describe how agricultural operations are to contribute to meeting those goals. Conservation practices and technical standards created by DATCP must include provisions relating to management of animal waste, nutrients applied to the soil, and cropland sediment.

To fulfill these responsibilities, DATCP promulgated administrative rule ATCP 50. This rule generally took effect October 1, 2002, and was updated in August, 2007, to incorporate the 2005 NRCS 590 Nutrient Management Standard, which the NRCS created as a national model. The rule implements the entire SWRM program, beginning with requirements that agricultural landowners practice nonpoint source pollution control in accordance with NR 151, cropland erosion control and nutrient management planning. In addition, the rule provides technical means for meeting performance standards, such as establishing the universal soil-loss equation used to determine whether a field is meeting the tolerable soil-loss level known as "T." ATCP 50 also details minimum requirements for installed, cost-shared BMPs, the definitions and cost-share rates of which appear in Appendix I, and it establishes procedures for DATCP's annual distribution of grant funds to counties.

Local Regulations

Local governmental units are allowed to promulgate rules for livestock operations that are consistent with the performance standards, prohibitions, conservation practices and technical standards established by DNR and DATCP. Further, local standards for cropland may be more stringent than state standards, but, as noted earlier, local standards for livestock operations may only exceed those established by DNR or DATCP if the more stringent regulations are shown to be necessary to

achieve DNR water quality standards and one of the Departments approves the standards. 1999 Act 9 requires DATCP to provide technical assistance to county land conservation committees and local units of government for the development of any local ordinance that implements agricultural performance standards. Technical assistance includes preparing model ordinances, providing data concerning these standards and reviewing draft ordinances for compliance with applicable state laws. Existing livestock operations that were a lawful use or legal nonconforming use on October 14, 1997 and that have received a notice of discharge or are required to apply for a DNR point source permit may continue to operate at that location, in conformance with the permit, regardless of any subsequent city, village, town or county general zoning ordinance.

Cost-Share Requirement

Under section 281.16(3) of the statutes, cost sharing must be available to require compliance with, or enforcement of, the performance standards, prohibitions, conservation practices and technical standards for agricultural facilities and practices for the abatement of nonpoint source water pollution caused or threatened to be caused by agricultural facilities and practices existing prior to October 14, 1997. This requirement took effect October 1, 2002, for most farmland. Certain sites must comply with performance standards regardless of cost-sharing availability, including: (a) facilities permitted under DNR's animal waste regulatory program (NR 243); (b) unpermitted small and medium livestock facilities that have a point source discharge to waters of the state; (c) persons obligated to meet standards as a condition of receiving farmland preservation tax credits; and (d) sites that are granted a local livestock siting permit.

Further, cost-sharing must be offered under local regulations that exceed state performance standards and that apply to agricultural facilities that were a lawful use or legal nonconforming use on October 14, 1997. Local nonpoint source performance standards that require installation or

implementation of a water pollution abatement practice must contain a minimum cost-share rate of 70% and up to 90% in cases of hardship. Both DNR and DATCP revised their cost-share rates in administrative rules (NR 120, NR 154 and ATCP 50) that became effective on October 1, 2002. These rates are shown in Appendix 1.

Animal Waste

DNR administrative rule NR 243, which was promulgated in 1984, regulates all large animal feeding operations in the state and those smaller animal feeding operations that have caused a significant discharge of pollutants into state waters. DNR regulates such operations as "point sources" of water pollution. Point sources must obtain a WPDES permit, which is the same permit system used to regulate discharges such as municipal sewage treatment plants. DNR promulgated rules that updated NR 243 in September, 2002, by adding the agricultural performance standards and prohibitions in NR 151 to the existing requirements for animal feeding operations. In 2003, DNR began the process of revising NR 243 to comply with revised federal animal feeding operation regulations and address manure runoff issues associated with land application activities. A revised NR 243 took effect July 1, 2007.

Discharge Permits

Individual Permits. Under NR 243, all large concentrated animal feeding operations (CAFOs), which are those having 1,000 "animal units" or more, are required to obtain a WPDES permit from DNR. Animal units measure the total number of animals present in an animal feeding operation in a manner that adjusts for the potential impacts of their wastes. For example, 700 milking cows, 1,000 beef cattle, and 200,000 broiler chickens are each approximately equivalent to 1,000 animal units. CAFOs are required to maintain acceptable management practices and facility design standards to

prevent ground or surface water pollution. The construction of new or altered storage or pollutant runoff control structures may be required due to NR 243 regulations.

In addition, NR 243 regulates all other medium and small animal feeding operations, if DNR determines that the animal feeding operation has unacceptable practices. An animal feeding operation is defined as "a lot or facility, other than a pasture or grazing area, where animals have been, are or will be stabled or confined, and will be fed or maintained for a total of 45 days or more in any 12-month period." The Department has the authority to issue a notice of discharge (NOD) directing the operator to take corrective action. Any operation, regardless of the number of animal units on the property, may be designated as a point source if it makes certain discharges to navigable waters. Such operations must apply for a WPDES permit.

Currently, all CAFO permits are issued as individual permits, which are intended to be specific to the operation applying for coverage. Large CAFOs must pay annual WPDES permit fees of \$345, which was established in the statutes under 2009 Act 28. Of the \$345, \$250 is deposited to the general fund and \$95 is deposited to a PR appropriation for management of the state's water resources. Permits are valid for five years, and holders are required to pay the \$345 each year. The \$95 per-permit deposit to the PR appropriation generated approximately \$16,300 in revenues in 2009-10, equaling payments from 172 CAFOs.

DNR reports that of the amount collected, \$13,900 PR was used in 2009-10 for salaries, fringe benefits and supplies for limited-term employees (LTEs). LTE responsibilities included: (a) reviewing applications for permit issuances and renewals; (b) CAFO compliance and enforcement; and (c) nutrient management-related duties, including review of NMPs required under WPDES permits and review of permit holders' annual reports. Time spent on these activities in 2009-10 totaled approximately 1,150 hours, with nearly 1,000 hours spent on permit issuance and nutrient management. Act 28 re-

quires DNR annually to report to the Joint Committee on Finance and the Legislature's agricultural and environmental standing committees how these PR funds were used. As of December, 2010, DNR had not issued a formal report.

General Permit. DNR has authority under the statutes to issue WPDES general permits for "specified categories or classes of point sources" of water pollution. NR 243 further allows permitting based on operation size, livestock type or species, geographic or other watershed area, method of manure management, or other appropriate feature. Although DNR has not completed a general permit for CAFOs to date, the Department in 2010 held public hearings on draft general permits for: (a) dairy operations of at least 1,000 animal units but fewer than 5,720 animal units; and (b) any livestock operations not exceeding 999 animal units that have been required to hold a WPDES permit based on past discharges. As of December, 2010, departmental approval of the draft permits is pending, and the Department has indicated it will not issue general permits without further legislative action to authorize fees for coverage under the permits. As of December, 2010, DNR had requested the establishment of five-year application and annual operating fees in its 2011-13 biennial budget request to support 2.0 additional positions and related costs for field enforcement of permits. The proposed fees are shown in Table 13.

Table 13: WPDES Permit Fees for CAFOs in 2011-13 DNR Budget Request

Operation Size/Permit	Fee
Application Fee	
Fewer than 1,000 AUs - General	\$100
1,000 AUs or more - General	750
1,000 AUs or more - Individual	1,500
Operating Fee	
Fewer than 1,000 AUs - General	\$100
1,000 AUs or more - General	1,000
1,000 AUs or more - Individual	1,500

NOTE: Application fees would be paid once every five years, which is the duration of a permit. Operating fees would be paid annually.

Enforcement of Small and Medium Livestock Operations

In the past, DNR identified potential violations based upon citizen complaints. However, as suggested in a 1994 audit by the Legislative Audit Bureau, DNR now also investigates animal waste sites on the basis of either citizen complaints or information received from state and county staff. The DNR estimates that it currently receives between 250 and 300 citizen complaints annually. The complaints and subsequent investigations resulted in the issuance of 621 notices of discharge or notices of intent to order abatement to livestock operators through June 30, 2010. Nineteen of these issuances were from July 1, 2008, to June 30, 2010.

Prior to 2002, grants for remediation were available from DATCP's animal waste regulatory cost-share program, and grant amounts received by livestock owners averaged around \$20,000. Between 2002 and 2006, the TRM grant program in DNR was the sole source of available grant funding to assist these livestock operators in paying for facilities needed to correct the pollution discharge. County LCD staff and DATCP engineering staff could provide technical assistance for cost-shared projects. In 2007 Act 20, DNR received authorization to use bonding authority under the priority watershed program for animal waste management grants to facilities receiving an NOD. As of December, 2010, however, this authority is mostly exhausted following the expiration of the priority watershed program.

Currently, the TRM program and reserves established by both DATCP and DNR are the primary funding sources for grants to manage animal waste. As noted earlier, NOD grants must be issued to protect the waters of the state. The DNR typically distributes these grants to counties, which enter into cost-sharing agreements with a landowner.

Approximately 57% (or 356) of the livestock operations receiving DNR notices of discharge have received, or are in the process of receiving,

cost sharing from the state. This includes 15 of the 19 operations that were issued notices in 2008-09 and 2009-10. Of these 356 operations, 329 have received grants from DATCP's animal waste regulatory cost-share program and 25 have received grants from DNR under either the priority watershed program, TRM program or NOD reserve. One project has had funding split between DNR and DATCP programs, while one operation received federal funding under EQIP.

As of June 30, 2010, 566 NOD violations have been resolved and 12 were planning or implementing corrections. Fifty one notices have expired over time, meaning that the one-year deadline had passed without the operation achieving compliance due to insufficient funding available for cost sharing. DNR officials report that NODs now generally are not issued until the required funding has been reserved for the project, unless administrative rules allow DNR to require compliance without cost sharing. NODs are therefore corrected, issued WPDES permits or, if compliance is not achieved, referred for legal action. Fewer than two percent of the operators failed to take required actions under the notice of discharge and have been issued WPDES permits or have DNR action pending.

Through June 30, 2010, 29 livestock operations had been referred to the Department of Justice for prosecution, including both WPDES-permitted and non-permitted operations. The operators were assessed a civil forfeiture and agreed, or were required, to install practices to address the discharges that lead to the referrals.

Erosion Control Programs

DATCP implements programs to achieve the state's soil erosion control goals contained in Chapter 92 of the statutes. To achieve these statutory goals, DATCP uses a combination of voluntary land and water conservation grant programs and regulatory actions to address problem areas. As

discussed earlier, administrative rule ATCP 50 now contains much of the basis for DATCP's erosion control programs, namely the requirement that all cropland meet soil erosion rates of T or less. Although many of these efforts have been discussed earlier, the following sections are intended to provide detail on the attainment of these statutory goals.

Erosion Control Goals

The statutory land and water conservation goals for the state focus on achieving tolerable soil erosion rates on a statewide basis, a countywide basis and individual-field basis. The statutes define a tolerable soil erosion rate (or "T") as the maximum average annual rate of soil erosion allowable that will also sustain high crop productivity. Using the universal soil-loss equation, a separate tolerable soil erosion rate is calculated for each soil type in the state based on soil composition, depth to bedrock, rainfall, and groundwater depth. In Wisconsin, tolerable soil erosion rates generally range from three to five tons of soil loss per acre per year, depending on soil type.

The specific long-term and interim statutory goals, which are based on the tolerable soil erosion rate, include the following:

State Goal. By January 1, 2000, no individual cropland field in the state was to have had a soil erosion rate exceeding the tolerable soil erosion rate. This goal is known as "T by 2000."

County Goal. By July 1, 1990, no county was to have had an average annual cropland soil erosion rate which exceeded 1.5 times the tolerable soil erosion rate. By July 1, 1993, no county would have had an average annual cropland soil erosion rate which exceeded the tolerable soil erosion rate.

Individual-Field Goal. By July 1, 1990, no individual crop fields in the state were to have a soil erosion rate which exceeded three times the tolerable soil erosion rate. By July 1, 1995, no individual crop fields in the state were to have a soil erosion

rate which exceeded two times the tolerable soil erosion rate.

State-Run Farms Goal. By July 1, 1990, no individual crop fields of a farm owned by the University of Wisconsin system, the Department of Corrections, or any other agency of state government were to have a soil erosion rate which exceeded the tolerable soil erosion rate. This requirement excluded research plots.

Attainment of Erosion Control Goals

The Department depends on counties to identify their most severe soil erosion problem areas. The state's 55 southern-most counties assessed vulnerable areas between 1984 and 1988 in county soil erosion control plans. The typical plan includes an analysis of land uses, calculations of soil erosion rates and a strategy for addressing areas with soil erosion greater than "T." These plans were approved by the Land Conservation Board, predecessor of the LWCB.

When ATCP 50 was revised in December, 1996, it required that all counties have approved soil erosion control plans or have soil erosion control plan waivers in order to continue receiving LWRM plan grant funds. By January 1, 2003, all counties had earned LWCB approval for either soil erosion control plans or land and water resource management plans that encompass required soil erosion control components. Additionally, nutrient management plans are required to address soil erosion.

Beginning with calendar year 1995, there was a significant change in the way data were reported to and analyzed by DATCP staff to determine progress toward meeting "T by 2000" goals. County LCD staff used to submit data indicating the number of acres of cropland in their county that fell into the various erosion categories. In many cases, counties estimated this data. In response to concerns expressed by the Legislative Audit Bureau in 1994 about unequal estimations and sometimes erroneous data supplied by counties, DATCP began relying exclusively on data entered into a uni-

fied county database to track progress toward "T by 2000" goals. However, it became difficult to maintain ever-changing data from fields not participating in state or federal programs, and by 1998 only half of Wisconsin's cropland was entered into the county database.

In response to the need for accountability and additional data on the current status of soil conservation efforts in Wisconsin, 60 counties in 1999 participated in a transect survey designed to determine erosion rates and conservation tillage residue levels. DATCP has compiled information from similar surveys performed annually by counties since then.

The most recent transect survey was completed for 2009, with 16 counties participating. The results are shown in Table 14. DATCP concluded that of the counties that participated in the survey, 88% of the cropland was below the "T" rate, including in excess of 90% of cropland in Clark, Columbia, Fond du Lac, Green Lake, Waupaca, Washington and Wood counties.

Table 14: 2009 Transect Survey Soil Erosion Rates*

Percent of Cropland at or Below "T"	Number of Counties
No Data	56
Less than 60%	0
60% to 69%	1
70% to 79%	0
80% to 89%	8
90% to 100%	<u>7</u>
	72

* The transect survey included 16 of the state's 72 counties.

More complete information is available from the transect survey performed by counties and compiled by DATCP in 2002. As shown in Table 15, 80% of the acres reported by counties through the survey in 2002 had a soil erosion rate of "T" tol-

Table 15: 2002 Transect Survey Soil Erosion Rates*

Erosion Rate	Acres	Percentage of Reported Acres
T or Less	6,530,883	80.1%
Between T and 2T	962,292	11.8
Between 2T and 3T	312,561	3.8
Greater than 3T	<u>351,561</u>	<u>4.3</u>
Total Reported	8,157,297	100.0%

* The transect survey included 8.2 million acres, or approximately 51%, of the state's 16.2 million cropland acres.

erable) or less. A rating of "2T" indicates a soil erosion rate twice the tolerable rate estimated to maintain high crop productivity.

In 2003, 32 counties performed a transect survey, and it was estimated that 82% of their cropland was at or below the tolerable rate of soil loss.

The statewide "T" rate from the 2007 transect survey was 78%, which is a decrease from the 80% or better level reported in the 2002 and 2003 surveys. At that time, DATCP noted a decline in counties attaining "T" may have been the result of increasing use of row crops that may increase soil erosion.

For surveys after 2008, DATCP officials indicate that transect soil surveys should be more accurate following a revision of the universal soil loss equation used to estimate erosion. The program, known as WinTransect, uses regularly updated data from the USDA National Agricultural Statistics Service as well as the new soil-loss calculation to approximate countywide soil loss rates. Officials report these calculation methods will better reflect planning and management occurring in counties. However, county participation in the surveys has decreased over time, which may affect the statistical validity of recent surveys.

Cross-Compliance Enforcement -- Farmland Preservation and Federal Programs

DATCP officials indicate that aside from the SWRM grant program to counties, the cross-compliance aspects of the farmland preservation program and federal commodity programs have had a large impact on the state's ability to attain its soil erosion control goals.

According to the Department of Revenue (DOR) aggregate income tax data in 2010, which reflects tax year 2009 property taxes, the farmland preservation program provided approximately \$14.2 million in formula-based state income tax credits to non-corporate agricultural landowners who meet specified criteria. The tax credit is based on the property taxes levied on the eligible land, the income of the farm household and whether the eligible land is subject to exclusive agricultural zoning or a preservation agreement. Based on DOR aggregate income tax data, the average credit received by the 16,654 non-corporate claimants was \$855 in 2010, which was for the 2009 tax year.

Through the farmland preservation program, land and water conservation activities of participating landowners are regulated under a "cross-compliance" provision. All claimants of farmland preservation credits must conduct farming activities in compliance with land and water conservation standards.

This cross-compliance provision changed slightly under 2009 Act 28. Prior to the act, the LWCB had developed documents and guidance to assist landowners and counties, including: (1) guidelines for land and water conservation standards; (2) procedures for the submission of these standards for review by county LCCs; (3) standardized forms; and (4) notices of noncompliance. Using these guidelines, county LCCs were required to establish applicable local standards and also monitor compliance with the standards. If a farmer receiving tax credits did not meet conservation standards, the county LCC was authorized to issue a notice of noncompliance, which withheld the tax

credits for an individual landowner. Counties were required to notify the Department of Revenue and the local zoning authority.

Under Act 28, counties are no longer required to develop local standards; the act instead required compliance with the performance standards under ATCP 50 and NR 151. County LCCs must continue to monitor compliance, which may include inspections by the county of lands on which credits are claimed and annual certification by the landowner that the land is in compliance with the standards. A county may issue a notice of noncompliance if a landowner fails to: (a) comply with performance standards; (b) certify compliance with the standards; or (c) allow an inspection. Notices are still to be submitted to Revenue, and may be withdrawn once the landowner resumes compliance. It should be noted that counties are required at least once every four years to inspect farms claiming credits, and DATCP is similarly required at least once every four years to review each county's inspection efforts.

DATCP estimates that as of December, 2010, approximately 6.8 million of Wisconsin's 15.2 million farmland acres are under farmland preservation zoning and approximately 550,000 acres are under restrictive covenants known as farmland preservation agreements. The DOR number does not include acreage in the program reported by corporate filers. DATCP believes that the cross-compliance provisions of the program have a significant effect on the amount of land and water conservation activities occurring on Wisconsin farms. Implementing the conservation provision of the farmland preservation program has been identified by the Department as a cost-effective method of achieving erosion control. In the 2001-03 biennium, Department staff concluded that 37 percent of Wisconsin cropland on farms of at least 35 acres has a conservation plan through landowner participation in the farmland preservation program. Through the soil erosion transect survey, DATCP estimates that about 80% of the state's cropland meets tolerable soil loss standards. The Department anticipates that most farmland preservation

tax credit claimants will abide by erosion control standards rather than lose the tax credits. To achieve implementation, a substantial amount of county staff work is required to assist affected farmers in adopting appropriate practices and monitoring those practices for noncompliance.

Federal programs also have significantly contributed to the amount of land meeting the state's soil erosion goals. Federally funded USDA field staff work closely with county LCD staff and jointly provide technical assistance to farmers through the development of conservation plans. Also, the cross-compliance requirements of the 1985 Food Security Act (Farm Bill) boosted the number of landowners requesting conservation plans in order to be eligible for USDA benefits. These conservation plans require crop rotations and other management strategies that reduce soil erosion to "T" or less.

Construction Site Erosion Control

Prior to 2009 Act 28, administration of programs for controlling erosion from construction sites rested with both DNR and the Department of Commerce. DNR continues to enforce standards at all sites of one acre or larger, except where construction is for one- or two-family dwellings, which are under jurisdiction of Commerce. This authority includes larger development plans such as those for residential subdivisions that contain multiple parcels of less than one acre but that collectively surpass the one-acre threshold. These sites are required to seek WPDES permits for storm water discharges. Commerce was responsible for administration of erosion control standards at construction sites involving public buildings or places of employment. Administrative rule Comm 60 established uniform standards for these construction sites. For commercial construction sites one acre and larger, Comm 60 contained provisions allowing for these sites to be covered by DNR discharge permits.

Administration of these standards was trans-

ferred to DNR under 2009 Act 28, and DNR was authorized by Act 28 to administer Comm 60 on a temporary basis. The act also required DNR to submit its own rules package no later than January 1, 2011, to incorporate necessary programmatic changes prompted by the transfer. DNR accomplished the rule-making requirements in part in 2010 with the NR 151 revisions. DNR also plans to revise NR 216, likely in the 2011-13 biennium, to address further program changes pursuant to the Act 28 transfer.

Commerce retains administration of erosion control for one- and two-family dwellings, which is contained under the Wisconsin uniform dwelling code in rules Comm 20 and 21.

Commercial Buildings. With the Act 28 transfer, DNR is now responsible for developing and administering statewide standards for erosion control at construction sites for public buildings and buildings that are places of employment, in addition to previously designated responsibilities under Chapter 281 for construction sites not including building construction. The building-site authority includes construction of multi-family dwellings, commercial shopping malls, industrial buildings and schools, but not federal buildings, buildings on American Indian reservations or farm buildings.

For land-disturbing activities of one acre or larger, DNR administers construction site erosion control primarily by maintaining a statewide WPDES general permit for construction site storm water discharges. This applies to both commercial and non-commercial construction sites. Landowners apply for coverage under the permit by submitting to DNR notices of intent (NOIs) seeking permit coverage. Further, administrative rule NR 216 allows municipalities to become authorized local programs. In these cases, municipalities administer permitting of construction sites and ensure that construction sites are in compliance with state standards. Additionally, any municipality permitted for storm water discharges under NR 216 is required as a condition of its permit to administer a

program for storm water management and erosion control for sites of one acre or larger.

For land-disturbing activities less than one acre, multiple administrative regimes are possible. Although these sites generally are not regulated by wastewater discharge permits as larger sites are, DNR may require these sites to seek permit coverage if the Department determines a site to be contributing either: (a) to violation of a water quality standard; or (b) significant pollution to waters of the state. Sites less than one acre that are not required to seek permit coverage are still required to meet performance standards for small sites under NR 151. These performance standards were previously described.

Further, statutory language for sites of public buildings and places of employment does not specify size limits, meaning all sites less than one acre may be under regulatory authorities provided in Chapter 283 of the statutes. This section of the statutes, which was previously carried out by Commerce, requires erosion control plans for public buildings and places of employment, as well as inspections of these sites to verify erosion control activities and any necessary structures have been implemented. The plan review and inspections are to be performed by either the state or a delegated municipality, should a municipality seek such authority. (It should be noted that this authority is not the same as the WPDES-permitting authority under NR 216 for larger construction sites, and makes a delegated municipality responsible for commercial building sites in addition to those of one acre or larger.) The DNR or an authorized municipality may issue stop-work orders at sites until required plans are approved or until the site complies with state erosion control standards.

As of January, 2010, when commercial construction site erosion control administration moved to DNR, 221 municipalities had been delegated authority by Commerce. DNR has continued these delegations, although no new municipalities have received delegations. Further, whereas administrative rule Comm 60 allowed delegated municipali-

ties to receive NOIs for sites of one acre or larger, DNR now receives all NOIs.

In addition to the statutory authority for commercial building sites, a municipality may enforce erosion-control standards on a local basis under ordinances that supersede statewide standards. The statutes require a superseding ordinance to have been adopted before January 1, 1994. Prior to the Act 28 transfer, Commerce had estimated that approximately 165 local soil erosion control ordinances were adopted prior to 1994. However, it was not clear how many of the local ordinances are more restrictive than state standards, if any. Further, DNR reports that because statutory language relating to general storm water management ordinances does not contain such a restriction, the Department encourages municipalities with particular circumstances to enact stricter ordinances for general storm water management if appropriate for local circumstances.

To carry out the rule-making procedure required under Act 28 pursuant to the program transfer, DNR added language to NR 151 for: (a) non-WPDES-permitted sites (smaller than one acre); and (b) WPDES-permitted sites (one acre or larger) for which permit coverage is sought two years or more after the NR 151 effective date of January 1, 2011. As noted earlier, these future standards for WPDES sites will limit sediment loss to five tons per acre per year rather than 80% as compared to no control. DNR reported in promulgating the NR 151 revisions that the five-ton standard would be consistent with provisions from Comm 60 for the most common soil types in the state. This standard provides a limit that is also more consistent with how total maximum daily loads are measured. Performance standards for small sites do not contain specific numeric measures.

Erosion Control Plans. Under NR 216, erosion control plans must be prepared and implemented for all construction sites of one acre or more. NR 216 provides that the plans are to be completed prior to submitting an NOI so the Department can determine the adherence to standards. Further,

landowners must update the plan as necessary, and they must inspect the construction site following certain heavy rains and document their assessment of the control practices contained in the plan.

NOIs submitted to DNR constitute certification by the site owner that all applicable performance standards are being met by the erosion control plan. However, DNR reviews NOIs to determine whether that self-certification is plausible. Sites with potential environmental impacts may be inspected and have plans reviewed. Inspections may also be prompted by complaints to the Department. Also, municipalities with storm water permits are required to have construction-site erosion control ordinances in effect, so these municipalities in many cases constitute the local inspection and enforcement authority.

The owner is required to submit a notice of termination when the land-disturbing construction activities have ceased, all disturbed areas have been stabilized, and all temporary erosion- and sediment-control practices have been removed. In the post-construction phase, storm water from the site is to be managed under a storm water management plan created prior to the site's NOI. The storm water management plan must comply with the post-construction performance standards contained in NR 151.

For sites less than one acre, the statutes require submission of an erosion control plan to be approved by DNR or a delegated municipality. However, DNR does not generally require such submissions, nor did Commerce prior to the program transfer. DNR also does not require a storm water management plan for small sites. Despite statutory authorities for review and inspection of these sites, DNR reports inspections are likely to take place on the basis of complaints or potential risk to vulnerable or significant water resources.

Commerce reports over the 18 months beginning July 1, 2008 until the program transfer, staff

conducted 13 reviews of commercial soil erosion plan submittals. This was in addition to 964 plans reviewed by a computer screening application. Plans may be submitted in response to a complaint or submitted voluntarily to demonstrate compliance with soil erosion control rules in response to citizen concerns.

Commerce staff also conducted site visits to train and consult with building inspectors who inspect soil erosion and commercial construction. Commerce building inspectors made 2,698 such commercial soil erosion inspections between July 1, 2008, and December 31, 2009.

Commerce One- and Two-Family Dwelling Program. The Safety and Buildings Division in the Department of Commerce is responsible for administering the state one- and two-family uniform dwelling code, including standards for erosion control for such dwellings.

Commerce is allocating \$30,800 PR and 0.27 PR positions in 2010-11 to administer the one- and two-family building site erosion control program. The amount of time is provided through a small portion of the time of several commercial building inspectors and uniform dwelling code staff. The program revenue funds are derived from permit fees for one- and two-family dwellings.

Commerce performs the following activities related to construction site erosion control: (a) inspects soil erosion control activities at building sites where building inspections are performed (one- and two-family buildings) or where complaints have been received; (b) provides consultation and advice to persons who may perform soil erosion control activities; (c) certifies local inspectors who inspect erosion control at building sites; (d) participates in interagency coordination efforts; and (e) audits agent inspection municipalities.

As of November, 2010, 1,478 municipalities have chosen to adopt the state code and administer it at the local level. In addition, 12 counties (Ad-

ams, Buffalo, Chippewa, Eau Claire, Florence, Forest, Iron, Langlade, Marquette, Richland, Trempealeau, and Waushara) administer the program for 194 municipalities. Commerce enforces the code in other municipalities. Prior to December, 2009, Commerce contracted with private inspection agencies to provide inspection in municipalities that chose not to provide their own enforcement. Effective in December, 2009, Commerce suspended the private inspection agency contracts and began administering the permitting and enforcement responsibilities in 179 municipalities with Commerce Safety and Buildings Division staff. Commerce anticipates this will continue into 2011.

Commerce conducted five audits and two informal audits of municipal one- and two-family dwelling soil erosion control programs in 2009. It also conducted nine field audits and five informal audits of private contract inspection agencies. In 2010, the Department audited nine municipal programs and three county programs. The audits reviewed the soil erosion control plans submitted with building plans, the conditions of the plan review, and the plan implementation and maintenance at the site.

Audits and reviews of municipal, county, and private inspection agency programs during 2009 and 2010 found enforcement activities in need of improvement included: (a) require complete erosion control plans prior to issuance of new home building permits; (b) ensure that erosion and sediment control measures are installed at construction sites prior to beginning activities that disturb the land; (c) provide greater enforcement of basic erosion control practices required in Commerce administrative rules; (d) ensure that proper and timely maintenance of erosion control practices are carried out; (e) inspect erosion and sediment control measures at the same time other construction activities are inspected during site visits; and (f) improve inspection notes for erosion control measures and enforcement activities.

In May, 2009, Commerce surveyed all municipi-

palities that had adopted the one- and two-family dwelling code. The survey results showed: (a) a range of differences between the level of attention and enforcement in the erosion control program; (b) no direct correlation between the numbers of constructions adjacent to or near water bodies and amount of enforcement; (c) no direct correlation between the number of new home start permits issued and the number of enforcement actions related to erosion control; and (d) a need for raising the level of awareness and knowledge among one- and two-family dwelling inspectors about program and enforcement requirements.

Program Evaluations

Joint Evaluation System

DNR and DATCP are required to conduct a joint evaluation system for the nonpoint source program and the land and water resource management program. In response to this requirement, the two agencies developed a joint plan establishing the criteria to be used for program evaluation. Major aspects of the plan are described below.

Annual Reports. DATCP and DNR are required to annually submit a report to the Land and Water Conservation Board on the status of all nonpoint source pollution abatement and soil and water resource management projects. DATCP annually collects data from counties and other grantees on cropland soil erosion rates published in the transect survey, local technical assistance for animal waste violations under NR 243, acres under nutrient management, conservation planning status, farmland preservation program status, overall progress toward soil erosion control goals and progress toward LWRM plan implementation.

Prior to the closure of the priority watersheds, DNR annually collected data on the following in

counties with priority watersheds: (a) pollutant load reduction; (b) progress toward other plan goals; (c) acres under conservation plans; (d) landowner contacts and participation levels; (e) major information and education activities; (f) overall project progress; (g) critical sites updates; and (h) land and/or water conservation ordinances. However, these data will not be collected following the closure of the priority watershed program. In November, 2010, DATCP and DNR submitted the annual report for 2009.

Comprehensive Program Evaluation Reports. In each even-numbered year, DNR and DATCP must prepare a comprehensive program evaluation report that contains project status reports, program accomplishments, expenditures, an evaluation of program policies and recommendations for future changes. Joint evaluation reports were last published in 1990, 1993 and 1994, although DATCP and DNR generally include evaluation components in their annual report. In addition, DATCP conducted an evaluation to improve county land and water resource management planning at the direction of the Land and Water Conservation Board (LWCB).

Since 2006 DATCP and DNR have been developing a new evaluation system based both on local implementation of the state performance standards and on increased emphasis on county land and water resource management (LWRM) plans. Preliminary evaluation plans include: (a) establishing baseline data for both agricultural and non-agricultural performance standards; (b) measuring compliance, tracking and evaluating for the TRM and UNPS competitive grant programs; and (c) continued evaluation of the remaining priority watershed projects. DATCP and DNR now produce one report intended to meet both the annual and biennial reporting requirements.

Monitoring of Land and Water Resources Using a Unified Data Collection System. In the past, water quality improvements resulting from the nonpoint source program have been difficult to

quantify. In part, this has been due to lack of baseline information to use as evaluation criteria. Particularly during the early years of the program, little initial water quality data were collected.

Beginning in 1989, DATCP and DNR began to collect data from all funded projects, including: (a) accomplishment data, such as the number and type of conservation practices installed by project; (b) resource data, such as fish surveys, bacteria sampling and chemical monitoring to determine water quality; (c) financial data, including the number and cost of signed landowner cost-share agreements; and (d) time data, including how state-funded local government staff time has been allocated. Individual watershed project evaluations included administrative review, modeling review and water resources evaluation. The administrative review focused on the progress of the local unit of government in implementing the project. The modeling review evaluated pollutant loads before and after BMP installation. The water resource monitoring was used to evaluate how well a priority watershed project achieved the water resource objectives identified in the watershed plan. Reports were to be published for each watershed project within 18 months following the completion of the project.

This evaluation process was never fully implemented and has largely been replaced by other monitoring strategies. For example, DNR conducts single-source monitoring. The purpose of single-source monitoring is to isolate and measure the effectiveness of BMP implementation at a single site. The goal is to measure how each practice reduces the pollutant loading.

Whole-Stream Monitoring

As part of a joint agreement, DNR and the U.S. Geological Survey (USGS) conducted "whole-stream monitoring" of seven designated streams located in five priority watershed projects. The whole-stream monitoring project included the following creeks, which are grouped by priority wa-

tershed: (a) Brewery and Garfoot (Black Earth Creek–Dane and Iowa counties); (b) Joos Valley and Eagle (Waumandee–Buffalo County); (c) Otter (Sheboygan River–Sheboygan County); (d) Bower (East River–Brown County); and (e) Spring (Rock County). (An additional three streams, two of which were in Grant County and one in the City of Milwaukee, were initially selected, but were later eliminated due to BMPs not being installed.)

Whole-stream monitoring involves the collection of chemical, physical, and biological data before and after the implementation of nonpoint source practices. The purpose of the monitoring is to determine if the implementation of the recommended nonpoint source practices improves the quality of a whole stream. All of the streams are impacted by runoff from agricultural activities. The size of the drainage areas for the seven streams varies from five to 40 square miles. Monitoring for most of the streams began between 1990 and 1993, but all monitoring, both prior to and following BMP implementation, is complete for the seven participating streams.

Results from the whole-stream monitoring projects in general have found that BMPs have both reduced erosion from stream banks and also improved fish habitat. Fish populations in Otter Creek, Eagle Creek and Spring Creek particularly had increased, although fish communities in Joos Valley Creek did not show significant changes. Water chemistry, particularly with respect to suspended solids and phosphorus, has also improved in all streams during both base drainage periods and runoff events. Joos Valley and Eagle creeks have exhibited the most significant improvements in water composition.

As of December, 2010, final reports on whole-stream monitoring had been published for the watersheds of Black Earth Creek (2003) and the Sheboygan River (2005). DNR expected the final reports for the Waumandee and East River projects to be published in March and July of 2011, respectively. A final, comprehensive summary for all pro-

jects will also be published following the reports for individual projects. Reports are published by the USGS.

Single-Source and Multi-Stream Comparisons

Because "whole-stream monitoring" is a time-consuming process, the nonpoint source program has adopted more immediate ways of documenting the benefits of abatement practices. Both single-source monitoring and multi-stream comparison monitoring are ways of measuring water quality in a more timely fashion. Single-source monitoring was started in 1994 and multi-stream comparison monitoring began in 1996.

Single-source monitoring attempts to evaluate the benefits of a single practice. A stream that is adjacent to the source of pollutants, such as a barnyard, is monitored before and after practices are installed. DNR began the project using three barnyard sites and one site on which the landowner practiced rotational grazing. (One barnyard participant elected not to install BMPs following initial monitoring.) DNR reports the projects that installed BMPs generally demonstrated significant improvements. For example, using this data, staff found that pollutant loads were reduced as much as 90% after complete barnyard systems were installed at two dairy farms. Also, initial monitoring of a small stream in Fond du Lac County on which riprap was installed on eroded stream banks has indicated improvements in the stream.

DNR began multi-stream comparison monitoring by collecting information from 45 streams on differences in water quality and the level of management in each watershed. Unlike the other types of monitoring, data collection is only done once. This snapshot of water quality is intended to compare streams with high, medium and low levels of practice implementation. However, the department indicates it was unable to collect complete implementation data from counties and therefore, did not produce a final report.

APPENDIX I

Definitions of Cost-Shared Best Management Practices

Note: Unless otherwise specified, these practices have a 70 percent cost-share rate.

Access Roads and Cattle Crossings. A road or pathway which confines or directs the movement of livestock or farm equipment, and which is designed and installed to control surface water runoff, to protect an installed practice, to control livestock access to a stream or waterway, to stabilize a stream crossing, or to prevent erosion.

Animal Feeding Operation Relocation or Abandonment. Relocation of an animal lot from a site such as a floodway to a suitable site to minimize the amount of pollutants from the animal lot to surface or ground waters. Reimbursement costs for permanent relocation or abandonment of livestock operation must be the most cost-effective option to deal with a water quality problem at the site, and DATCP must approve a plan for relocation or abandonment. For abandonment, eligible costs are those for removing structures, closing wells and stabilizing the site. For relocation, eligible costs are those for installing manure storage and other conservation practices at the new site, transporting animals (up to \$5,000), and constructing livestock buildings at the new site although cost sharing for new buildings may not exceed the appraised value of buildings at the current site.

Animal Trails and Walkways. A travel lane to facilitate the movement of livestock.

Barnyard Runoff Management. The use of structural measures such as gutters, downspouts and diversions to intercept and redirect surface runoff around the barnyard, feeding area or farmstead, and collect, convey and temporarily store runoff from the barnyard, feeding area or farmstead.

Contour Farming.* Plowing, preparing, planting and cultivating sloping land on the contour

and along established grades of terraces or diversions.

Cover and Green Manure Cropping.* Close-growing grasses, legumes or small grain grown for seasonal protection and soil improvement.

Critical Area Stabilization. The planting of suitable trees, shrubs and other vegetation appropriate for controlling and stabilizing sloped lands which are producing nonpoint source pollutants and lands that drain into bedrock crevices, openings or sinkholes.

Diversions. Structures installed to divert water from areas where it is in excess to sites where it can be used or transported safely. Usually the system is a channel with a supporting ridge on the lower side constructed across the slope at a suitable grade.

Field Windbreaks. A strip or belt of trees, shrubs or grasses established or restored within or adjacent to a field, so as to control soil erosion by reducing wind velocities at the land surface.

Filter Strips. An area of herbaceous (non-woody) vegetation that separates an environmentally sensitive area from cropland, grazing land or disturbed land. (For non-riparian filter strips that remove one-half acre or more from agricultural production, DATCP offers: (a) 70% of installation costs; (b) 70% of the rental rate for the length of the cost-share agreement; and (c) costs for mowing twice per year at \$10 per mowing if necessary to maintain the practice. For riparian filter strips, landowners may elect to receive the same cost-sharing, but DATCP must at least offer the rate landowners would receive under CREP. Landowners electing to receive the CREP equivalent must

enter into 15-year or perpetual CREP-equivalent contracts.)

Grade Stabilization Structures. A structure used to reduce the grade in a drainage way or channel to protect the channel from erosion or to prevent formation or advance of gullies.

Heavy Use Area Protection. Installation of surface material to control runoff and erosion in areas subject to concentrated or frequent livestock activity.

Livestock Fencing. The enclosure, separation or division of one area of land from another in such a manner that it provides a permanent barrier to livestock in order to exclude livestock from land areas that should be protected from grazing or gleaning where degradation of the natural resource will likely result if livestock access is permitted.

Livestock Watering Facilities. A trough, tank, pipe, conduit, spring development, pump, well, or other device or combination of devices installed to deliver drinking water to livestock.

Manure Storage Facilities. A structure for the storage of a volume of manure: (a) for which suitable land application sites or practices are temporarily unavailable generally due to frozen or saturated conditions; (b) from operations where the location and site characteristics of areas where manure is spread have a high potential to carry pollutants to lakes, streams and groundwater; and (c) for which the facility is necessary to properly land apply the manure according to a nutrient management plan.

Manure Storage Systems Closure. The proper abandonment of leaking or improperly sited manure storage systems.

Milking Center Waste Control. A piece of equipment, practice or combination of practices installed in a milking center for the purposes of reducing the quantity or pollution potential of

wastes. For example, a waste storage system that captures milking equipment cleaning agent waste, discarded milk and other potential milking center wastes.

Nutrient Management.* The management of the application of manure, legumes and commercial fertilizers including the rate, method and timing of application to minimize the amount of nutrients entering surface or ground waters. (Under ATCP 50, DATCP allows counties to offer cost-sharing of the higher of: (a) 70 percent; or (b) \$7 per acre per year. In either case, state cost-sharing for nutrient management is not required beyond four years. Under NR 154, DNR offers \$6 per acre for the first year and \$4 per acre for three subsequent years.)

Pesticide Management.* The management of the handling, disposal and application of pesticides (including herbicides, insecticides and fungicides) including the rate, method and timing of application to minimize the amount of pesticides entering the air, water and nontarget organisms.

Prescribed Grazing.* A grazing system which divides pastures into multiple cells, each of which is grazed intensively for a short period and then protected from grazing until its vegetative cover is restored.

Residue Management.* The preparation or planting of land that results in a rough surface in order to maintain residue cover and avoid disturbing the entire soil surface.

Riparian Buffers. An area in which vegetation is enhanced or established to reduce or eliminate the movement of sediment, nutrients and other nonpoint source pollutants to an adjacent surface water resource. (Under ATCP 50, DATCP must offer at least the CREP rate for more than one-half acre of riparian land removed from agricultural production, regardless of the land's eligibility for CREP. In such a case, the landowner must agree to refrain from agricultural production activities on the land for either 15 years or in perpetuity under a

CREP-equivalent contract. However, landowners may instead elect to receive: (a) 70% of buffer installation costs; (b) two annual mowing reimbursements (\$10 per mowing); and (c) 70% of the current rental rate for the length of the agreement. The standard ten-year cost-sharing requirement does not apply in such a case; rather, rent-based cost-sharing must continue for the duration of the contract. DNR offers 70% of installation costs plus a one-time payment of \$500 per acre. DNR allows the one-time payments only for acreage on which commodity crops were harvested in two of the preceding five years.)

Roofs. A roof and supporting structure constructed specifically to prevent rain and snow from contacting manure.

Roof Runoff Systems. A facility for collecting, controlling, diverting, and disposing of precipitation from roofs.

Sediment Basin. A permanent basin that reduces the transport of waterborne pollutants such as eroded soil sediment, debris and manure sediment.

Stream Bank and Shoreline Protection. The stabilization and protection of the banks of streams and lakes against erosion and the protection of fish habitat and water quality from livestock access.

Sinkhole Treatment. The modification of a sinkhole, or its surrounding area, to reduce erosion, prevent expansion of the hole, and reduce pollution of water resources.

Strip-cropping.* Growing crops in a systematic

arrangement of strips or bands, usually on the contour, in alternated strips of close growing crops, such as grasses or legumes, and tilled row crops.

Subsurface Drains. A conduit installed below the surface of the ground to collect drainage water and convey it to a suitable outlet.

Terrace Systems. A system of ridges and channels constructed on the contour with a non-erosive grade at a suitable spacing.

Underground Outlets. A conduit installed below the surface of the ground to collect surface water and convey it to a suitable outlet.

Water and Sediment Control Basin. An earthen embankment or a ridge and channel combination which is installed across a slope or minor watercourse to trap or detain runoff and sediment.

Waterway System. A natural or constructed waterway or outlet that is shaped, graded and covered with a vegetation or another suitable surface material to prevent erosion by runoff waters. (DNR offers 70% of installation costs plus \$300 per acre.)

Well Decommissioning. The proper filling and sealing of a well to prevent it from acting as a channel for contaminants to reach the groundwater or as a channel for the vertical movement of surface water to groundwater.

Wetland Development or Restoration. The construction of berms or destruction of the function of tile lines and drainage ditches to create conditions suitable for wetland vegetation.

* Practices for which bonding revenues may not be used for implementation. The Wisconsin Constitution generally restricts the issuance of public debt to long-term capital projects.

APPENDIX II

2011 Rural Nonpoint Source Water Pollution Abatement Grants

	Staffing and and Support Total	Landowner Cost Sharing (Bonding)	Landowner Cost Sharing (SEG)	Total DATCP Allocation	DNR Targeted Runoff Management (TRM) Cost Sharing	Total 2011 Allocation
Adams	\$125,293	\$60,931	\$2,300	\$188,524	\$0	\$188,524
Ashland	108,049	60,931	3,500	172,480	0	172,480
Barron	132,037	60,931	3,500	196,468	0	196,468
Bayfield	103,551	60,931	8,330	172,812	0	172,812
Brown	146,948	60,931	22,000	229,879	0	229,879
Buffalo	109,668	60,931	0	170,599	150,000	320,599
Burnett	95,062	20,000	3,500	118,562	0	118,562
Calumet	141,371	60,931	22,000	224,302	150,000	374,302
Chippewa	174,187	60,931	2,300	237,418	147,750	385,168
Clark	127,766	60,931	23,185	211,882	150,000	361,882
Columbia	136,062	60,931	8,330	205,323	150,000	355,323
Crawford	102,460	42,326	1,600	146,386	0	146,386
Dane	185,082	60,931	22,000	268,013	229,142	497,155
Dodge	145,185	34,884	3,500	183,569	0	183,569
Door	155,174	60,931	22,000	238,105	873,703	1,111,808
Douglas	119,048	60,931	3,500	183,479	0	183,479
Dunn	138,700	27,442	3,500	169,642	0	169,642
Eau Claire	140,577	60,931	8,330	209,838	0	209,838
Florence	89,946	46,039	0	135,985	0	135,985
Fond du Lac	147,755	20,000	22,000	189,755	0	189,755
Forest	91,972	20,000	0	111,972	0	111,972
Grant	107,869	60,931	3,500	172,300	0	172,300
Green	118,040	60,931	3,500	182,471	0	182,471
Green Lake	144,420	60,931	8,330	213,681	0	213,681
Iowa	107,314	60,931	2,300	170,545	0	170,545
Iron	96,945	42,326	2,300	141,571	0	141,571
Jackson	123,268	60,931	0	184,199	283,980	468,179
Jefferson	157,955	20,000	3,500	181,455	0	181,455
Juneau	110,864	42,326	0	153,190	0	153,190
Kenosha	160,446	49,768	8,330	218,544	0	218,544
Kewaunee	135,530	20,000	3,500	159,030	132,469	291,499
La Crosse	148,538	60,931	8,330	217,799	0	217,799
Lafayette	97,166	60,931	3,500	161,597	0	161,597
Langlade	85,000	60,931	3,500	149,431	0	149,431
Lincoln	100,832	60,931	2,300	164,063	0	164,063
Manitowoc	158,173	60,931	22,000	241,104	0	241,104
Marathon	153,645	60,931	22,000	236,576	281,464	518,040
Marinette	153,356	60,931	2,300	216,587	750,000	966,587
Marquette	115,078	20,000	2,300	137,378	0	137,378
Menominee	85,000	20,000	0	105,000	0	105,000

APPENDIX II (continued)

2011 Rural Nonpoint Source Water Pollution Abatement Grants

	Staffing and and Support Total	Landowner Cost Sharing (Bonding)	Landowner Cost Sharing (SEG)	Total DATCP Allocation	DNR Targeted Runoff Management (TRM) Cost Sharing	Total 2011 Allocation
Milwaukee	\$98,597	\$20,000	\$0	\$118,597	\$0	\$118,597
Monroe	133,144	60,931	2,300	196,375	0	196,375
Oconto	148,517	34,633	1,600	184,750	0	184,750
Oneida	121,746	60,931	0	182,677	0	182,677
Outagamie	158,808	60,931	3,500	223,239	196,900	420,139
Ozaukee	167,219	60,931	1,600	229,750	0	229,750
Pepin	94,377	60,931	8,330	163,638	0	163,638
Pierce	128,795	60,931	22,000	211,726	0	211,726
Polk	147,838	34,884	2,300	185,022	0	185,022
Portage	133,653	60,931	0	194,584	0	194,584
Price	99,137	60,931	3,500	163,568	0	163,568
Racine	132,370	60,931	1,600	194,901	0	194,901
Richland	103,534	60,931	22,000	186,465	0	186,465
Rock	152,412	60,931	3,500	216,843	0	216,843
Rusk	114,793	42,326	2,300	159,419	0	159,419
Saint Croix	132,785	57,210	3,500	193,495	0	193,495
Sauk	171,427	60,931	3,500	235,858	60,550	296,408
Sawyer	109,152	25,808	2,300	137,260	0	137,260
Shawano	112,290	20,000	2,300	134,590	150,000	284,590
Sheboygan	166,542	20,000	1,600	188,142	0	188,142
Taylor	137,619	60,931	3,500	202,050	0	202,050
Trempealeau	120,100	60,931	2,300	183,331	350,595	533,926
Vernon	134,432	60,931	8,330	203,693	0	203,693
Vilas	113,291	34,875	0	148,166	0	148,166
Walworth	163,331	60,931	2,300	226,562	64,750	291,312
Washburn	132,814	20,000	0	152,814	0	152,814
Washington	131,721	60,931	3,500	196,152	0	196,152
Waukesha	154,596	20,000	0	174,596	0	174,596
Waupaca	117,488	60,931	3,500	181,919	340,730	522,649
Waushara	117,859	38,605	8,330	164,794	0	164,794
Winnebago	150,380	60,931	22,000	233,311	0	233,311
Wood	124,809	60,931	1,600	187,340	0	187,340
Non-Counties	18,000	0	543,745	561,745	0	561,745
Reserve	<u>0</u>	<u>200,000</u>	<u>0</u>	<u>200,000</u>	<u>1,438,343*</u>	<u>1,638,343</u>
Total	\$9,318,908	\$3,796,278	\$973,700	\$14,088,886	\$5,900,376**	\$19,989,262

Note: These figures reflect grant awards under the 2011 Joint Final Allocation Plan. Actual spending may be less, and funds may be reallocated as described in the paper.

* Although shown under TRM, the DNR animal waste management reserve is funded by: (a) \$1,034,766 in federal funding; (b) \$317,925 in bond revenues; and (c) \$85,652 GPR.

** Does not include a \$150,000 grant to Town of Mercer, which does appear in Appendix III.

APPENDIX III

Targeted Runoff Management Project Grants for 2011

Project Grantee	Funding Designated
Buffalo County	\$150,000
Calumet County	150,000
Chippewa County	147,750
Clark County	150,000
Columbia County	150,000
Dane County [2]	229,142
Door County [9]	873,703
Jackson County [3]	283,980
Kewaunee County [2]	132,469
Marathon County [2]	281,464
Marinette County [5]	750,000
Mercer, Town of	150,000
Outagamie County	196,900
Sauk County	60,550
Shawano County	150,000
Trempealeau County [3]	350,595
Walworth County	64,750
Waupaca County [3]	<u>340,730</u>
Total TRM	\$4,612,033

Note: Numerals listed after grantees denote multiple grants to the governmental unit.

APPENDIX IV

Urban Nonpoint Source and Storm Water Project Grants for 2011

Project Grantee	Project Type	Funding Source	Funding Designated
Village of Allouez [2]	Construction	Bond	\$166,842
Village of Bellevue [4]	Construction	Bond	360,445
Village of Brown Deer [2]	Construction	Bond	242,175
City of Fond du Lac	Construction	Bond	150,000
Garners Creek Storm Water Utility	Construction	Bond	150,820
City of Milwaukee (Redevelopment Authority)	Construction	Bond	130,000
Village of Mt. Pleasant	Construction	Bond	150,000
City of New Berlin	Construction	Bond	150,000
Village of Oliver	Construction	Bond	19,600
City of Racine	Construction	Bond	150,000
UW-Madison	Construction	Bond	150,000
City of Verona [2]	Construction	Bond	78,675
City of Waupun	Construction	Bond	150,000
City of West Bend	Construction	Bond	<u>45,000</u>
Total UNPS			\$2,093,557

NOTE: No planning grants are expected for 2011. Amounts budgeted for this purpose are expected to be transferred to the state general fund.

Numerals listed after the grantees denote separate grant awards to the governmental unit but within the same grant category. As of December, 2010, DNR reports award amounts may be subject to change.

APPENDIX V

Municipal Flood Control Grant Awards for 2010-12

Project Grantee	Grant Amount
City of Brookfield	\$197,303
Village of Cambridge	226,247
City of Darlington	542,360
Town of Dunn	98,940
Village of Gays Mills [2]	377,546
City of La Crosse	262,710
Village of La Farge [2]	214,655
Milwaukee Metropolitan Sewerage District	595,000
City of New Berlin	160,020
Town of Roxbury	<u>650,000</u>
Total	\$3,324,781

NOTE: Numerals listed after the grantees denote separate grant awards to the governmental unit.

APPENDIX VI

Original Nonpoint Source Pollution Abatement Grant Program

Chapter 418, Laws of 1977, created the nonpoint source water pollution abatement grant program to provide state financial assistance to landowners and municipalities for installing practices that abate nonpoint sources of pollution. Through June 30, 2010, over \$216 million in local assistance and cost-share grants has been spent for original priority watershed and lake projects. The program remains authorized under s. 281.65 of the statutes and administrative rule NR 120, but the program has effectively ended. As noted in the tables following, several projects received extensions into 2010, although 2010 is the final year those projects may receive funding. In its place, DNR and DATCP administer the grant programs described earlier.

Original Priority Watershed Projects

Prior to 1998, the nonpoint source grant program was implemented solely through a priority watershed strategy. A watershed comprises all land that contributes runoff water to a stream or lake. In the past, DNR used area-wide water quality plans originally developed under the Federal Water Pollution Control Act to identify watersheds and lakes where the need for nonpoint source pollution abatement was most critical. Only abatement projects located within watersheds designated as a high or medium priority were eligible for funding. Specific projects within these areas were then selected, first by DNR and later by the LWCB, based on district workload and priorities, county ability to manage a project and landowner participation.

Priority Watershed Designations

The 1997-99 biennial budget act, 1997 Act 27, required that DNR re-rank all watersheds and lakes in the state by the level of impairment by nonpoint source pollution. In preparing the rank-

ings, DNR considered water bodies appearing on the state-designated impaired waters list, or 303(d) list, which DNR is required to submit to EPA. The 1997-99 biennial budget act also required that funding be terminated for any of the 62 active priority watershed projects that were not re-identified by the LWCB. DNR subsequently sorted large-scale, small-scale and priority lakes projects watersheds into high-, medium- or low-priority watershed status. Using this list, the LWCB identified priority watersheds and lakes with DNR and DATCP recommendations, regardless of past priority watershed designations. Statutorily designated watersheds in the Milwaukee River basin and the South Fork of the Hay River were exempt from funding termination.

The LWCB ultimately re-designated all 62 active priority watershed projects, therefore keeping them eligible for funding on an area-wide basis until their completion. No future designations of priority watershed projects could be made. Priority areas were grouped by the following designations:

Large-Scale Priority Watersheds. For planning purposes, the state is divided into 330 large-scale watersheds. Each large-scale watershed is generally 75 to 300 square miles.

Small-Scale Priority Watersheds. Small-scale priority watersheds are sub-watersheds within a large-scale watershed. Small-scale priority watershed projects implement the same best management practices (BMPs) as the large-scale projects but are selected to achieve local water quality objectives, such as reducing sedimentation of a small stream. Small-scale projects are often found in medium- or low-priority watershed areas where it can be demonstrated that significant local benefits can be derived.

Priority Lakes Projects. Priority lakes projects generally include watersheds draining to a selected lake or lakes. Priority lakes are those where the need for nonpoint source water pollution abatement is most critical. The affected area of these projects has ranged from eight to 230 square miles. Until 2003, the statutes required DNR to allocate at least \$300,000 of nonpoint source grant funds each year to priority lakes projects.

High-Priority Areas. High-priority areas contain a preponderance of impaired waters, threatened waters or a mix of impaired, threatened and partially impaired waters. The presence of endangered or threatened species may also prompt a high ranking.

Medium-Priority Areas. Medium-priority areas are a mixture of those fully meeting their uses and those partially meeting their uses.

Low-Priority Areas. Low-priority areas have a majority of waters fully meeting their uses.

Statutorily Designated Priority Watersheds. As part of 1983 Act 416, DNR was required to identify watershed projects in the Milwaukee River Basin, which includes portions of Milwaukee, Waukesha, Washington, Ozaukee, Fond du Lac and Sheboygan counties. In 1989 Act 366, the Kinnickinnic River was designated a part of the Milwaukee River Basin, and was, therefore, included as a part of the nonpoint project area. Six of the 66 large-scale priority watershed projects were located in the Milwaukee River Basin. In 1997 Act 209, the Root River Watershed was statutorily designated a priority watershed, reopening a watershed that previously had been completed.

The South Fork of the Hay River in Barron, Dunn, Polk and St. Croix counties was originally designated a priority in 1993 and guaranteed such a designation until June 30, 2001. This designation was subsequently extended to 2005. The South Fork watershed area was exempt from nonpoint requirements related to cost-share rates and the types of BMPs installed. Instead, Dunn County and

the DNR developed guidelines that were intended to distribute shared costs on the basis of higher reductions in nonpoint source water pollution.

Project Planning and Implementation

Best Management Practices (BMP). As under current grant programs, BMPs were the primary means of abating nonpoint source water pollution under the priority watershed program. Area-wide water quality management plans were drafted to identify appropriate BMPs, and the implementation of these practices were further refined in the nonpoint source water pollution abatement plan prepared for each watershed project. Counties used cost-share grants under the priority watershed program to enter into cost-share agreements with landowners to install BMPs, similarly to the operation of current programs.

In addition to landowner grants, DNR had authority to require local governments to adopt manure storage ordinances and construction site ordinances as a grant condition under the priority watershed program. DNR for these circumstances, as well as for purposes of achieving statewide performance standards under NR 151, has developed construction-site erosion control technical standards and a model construction site erosion control ordinance. The technical standards replace the handbook of construction-site BMPs previously developed by DNR. In addition, the Department of Commerce and the Department of Transportation (DOT) have specific authorities and duties related to one- and two-family construction sites and highway and bridge construction projects, respectively. These provisions require Commerce and DOT, in consultation with DNR, to establish standards based on BMPs.

Designated Management Agency. For the nonpoint source grant program, the term "designated management agency" is used to identify the primary local government participant or participants. Various local governmental units can participate in the nonpoint source grant program, including counties, cities, villages, towns, tribal gov-

ernments, metropolitan sewerage districts, town sanitary districts, regional planning commissions, drainage districts and various lake districts. DNR designates management agencies for nonpoint source planning and implementation activities in a given watershed area. Designated management agencies in rural watersheds generally were counties, while cities, villages and towns typically managed urban watersheds.

Watershed Assessment and Planning. Projects in the original nonpoint program were based on watershed plans and assessments with continual updates. The first step in watershed planning required preparing an inventory of nonpoint source water pollution in the watershed. This assessed the water quality problems in the watershed's lakes, streams and groundwater, and identified the nonpoint sources causing the problems. The priority watershed plan was also required to: (a) identify critical surface water and groundwater protection management areas within the watershed, which are those portions where pollution is most significant and where BMPs will be most effective; (b) establish an integrated resource management strategy to protect or enhance fish and wildlife habitat, aesthetics and other natural resources; and (c) develop a comprehensive strategy to manage agricultural and nonagricultural nonpoint source water pollution affecting surface water or groundwater.

DNR delegated some of the planning work to the designated management agency in the priority watershed areas. DATCP, other state agencies, local governmental units and persons located in the watershed also participated in planning. DATCP responsibilities were to prepare parts of the watershed plans relating to: (a) farm-specific implementation schedules; (b) cross-compliance activities, which are requirements that recipients of farmland preservation tax credits employ BMPs and comply with land and water conservation standards; (c) animal waste management; and (d) selection of BMPs for agricultural areas.

1991 Act 309 required DNR to complete the planning process for all designated priority water-

sheds by December 31, 2000. 1995 Act 27 extended that date to December 31, 2015, although the date is moot given that all originally designated priority watersheds closed in 2009.

Local Priority Watershed Advisory Committee. DNR was directed to appoint a local committee for each priority watershed and priority lake to provide advice on all aspects of the project. A committee was to consist of at least two farmers if the watershed or lake included agricultural land. Committees also included at least two representatives of a public inland lake protection district, or, in the absence of such a district, owners of riparian properties abutting a lake, river or other natural water body. For priority areas in the Milwaukee River basin, committees were to include a member of the county board of each county within the Milwaukee River Basin priority watershed or priority lake area. The current grant programs have discontinued the local advisory committees.

Project Implementation Phase. Designated management agencies were responsible for coordination and implementation of plan activities once each plan received approval from the LWCB, counties and DNR. This implementation included contacting all owners or operators identified as significant nonpoint sources in the watershed plan and securing their cooperation. As participation in the nonpoint program is voluntary except for those sites within critical watersheds, an important function of designated management agencies is securing the cooperation of land users who have the greatest impact on nonpoint source pollution. The agency executed cost-share agreements with individual landowners, ensured proper installation of BMPs, and provided general local program administration and coordination. In urban areas, municipalities typically were landowners receiving cost-sharing.

The maximum cost-share rate under the priority watershed program was 70 percent, as under the current competitive programs, except the rates up to 90 percent were allowed for cases of economic hardship. Priority watershed grants, com-

monly called anticipated cost-share reimbursement amounts or ACRAAs, were included in the annual joint allocation plan. Counties and other municipalities, in turn, entered cost-share agreements with individual landowners for the installation of pollution-abatement practices and structures. As under the competitive program, cost-share agreements are filed with county registers of deeds and their requirements are binding on the land for the duration of an agreement, even following ownership transfers.

Critical Sites. Critical sites were those considered most important to achieving water quality goals established in a priority watershed plan, and participation by these sites was required. 1993 Act 166 directed DNR, in preparing priority watershed plans, to designate critical sites within the watershed as part of the planning processes. The DNR, in consultation with DATCP, presented proposed critical sites to the LWCB, whose approval was required for designations to take effect. In addition, critical-site owners had rights of appeal to the county LCC, the LWCB, and finally DNR, if they wished to contest their designation. Following designations, DNR had authority, in consultation with DATCP and with LWCB approval, to modify critical site lists.

Designated Watershed Projects

Under the original nonpoint program, 86 large, small and lake projects were selected for funding, and all have been completed and closed as of 2010. DNR formerly issued final reports for closed projects, but now updates the following information each year for all priority watershed projects: (a) cumulative pollutant load reduction; (b) cumulative landowner participation rates; (c) progress on other project goals; (d) cumulative BMPs installed and cost-share funds reimbursed; and (e) cumulative critical sites resolved. This information then appears in an annual progress report published jointly by DNR and DATCP. Additional information on expended funds, cost-share participation rates and water quality information for remaining

watersheds is available from, or reported annually by, DNR and DATCP.

Table 16 lists small-scale, priority lakes and other uses of grant funds. Table 17 lists large-scale nonpoint source pollution control projects. The tables portray the grant amounts that have been expended for each project including funding for cost-share and local assistance grants. The tables also note which projects are closed or the year of completion for open projects. The amounts listed reflect final project costs only through June 30, 2010, for completed projects. The tables reflect state and federal expenditure figures.

Priority Watershed Funding

Between 1997 and 2009, the DNR provided counties with active priority watershed projects with an anticipated cost-share reimbursement amount (ACRA), to be used to reimburse landowners for BMPs installed during that calendar year. The ACRA was to equal the state cost-share amount for practices installed in each watershed project for that calendar year. If a county exceeded its ACRA, the county was responsible for funding the amount of the overage. In 1998, the LWCB approved revised nonpoint source grant totals for original nonpoint projects; this decreased most grant awards but still fully funded all signed cost-share agreements.

Unspent ACRAAs were allowed to be transferred between priority watersheds within the same county, between grantees in the same priority watershed, or between counties in different priority watersheds. In the past, DNR reallocated unspent ACRAAs to grants in the TRM program.

As under the competitive grant programs, ACRAAs supported by general obligation bonding could not be used to pay for cropping practices such as nutrient management and conservation tillage. Cropping practices were only reimbursed using the combination of federal 319 funds, which are restricted to certain areas of the state, and GPR.

Table 16: Original Nonpoint Source Pollution Abatement Grant Program Expenditure Through June 30, 2010 -- Small-Scale Priority Watersheds, Priority Lake Projects, and Other Grants

Year Started	Project Name (end date)	County	Watershed Size (Sq. Miles)	Local Assistance	Cost-Share
Small Scale Watershed Projects					
1986	Bass Lake*	Marinette	1	\$23,026	\$94,593
1990	Dunlap Creek*	Dane	14	100,742	181,907
	Lowes Creek*	Eau Claire	10	289,587	232,255
	Port Edwards Groundwater Project*	Wood	10	157,108	0
1991	Whittlesey Creek*	Bayfield	12	343,826	182,987
	Spring Creek*	Rock	6	234,741	9,999
1994	Osceola Creek*	Polk	<u>9</u>	<u>198,646</u>	<u>158,828</u>
	Subtotal		62	\$1,347,675	\$860,569
Priority Lake Projects					
1990	Minocqua Lake*	Oneida	10	\$175,587	\$82,001
	Lake Tomah*	Monroe	32	376,096	358,657
1991	Little/Big Muskego-Wind Lakes*	Waukesha, Racine	41	1,297,915	668,586
1992	Middle Inlet-Lake Noquebay *	Marinette	155	556,907	1,897,187
	Lake Ripley*	Jefferson	8	646,918	230,904
1993	Camp/Center Lakes*	Kenosha	8	585,045	149,913
	Hillsboro Lake*	Vernon	35	551,334	697,335
	Lake Mendota*	Dane, Columbia	230	1,740,591	837,720
1994	St. Croix Lakes Cluster*	St. Croix	3	282,465	298,245
	St. Croix Flowage & Upper St. Croix Lake*	Douglas	45	313,583	71,171
1995	Big Wood Lake *	Burnett	20	280,753	159,929
	Horse Creek (2010)	Polk	15	306,247	507,128
	Rock Lake*	Jefferson	<u>10</u>	<u>163,288</u>	<u>139,582</u>
	Subtotal		612	\$7,276,729	\$6,094,358
Other Grant Recipients					
	Federal (NRCS, USGS)			\$1,238,526	\$0
	State Institutions (UW, UWEX)			1,524,702	0
	Regional Planning Commissions			282,188	0
	Other			<u>103,170</u>	<u>0</u>
	Subtotal			\$3,148,586	\$0
Total				\$11,772,990	\$6,955,227

* Completed Projects

♠ Amounts for FY 01 through FY 08 include Priority Watershed grants only. The most recent urban nonpoint source and storm water management grant and targeted runoff management grant awards are included in a separate table.

DATCP Participation in the Original Nonpoint Source Grant Program

Under the priority watershed program, DATCP had authority to: (a) prepare the parts of the watershed plans relating to farm-specific implementation schedules, cross-compliance activities, animal waste management and agriculturally related BMP selection; (b) identify areas within a watershed that

were subject to activities required under the cross-compliance provisions of the farmland preservation program; (c) identify recommendations for implementation of these activities; (d) develop a grant disbursement and project management schedule for agricultural BMPs; (e) provide input on critical-site selection within a watershed when pollution is animal waste-related; and (f) provide engineering assistance.

Table 17: Original Nonpoint Source Pollution Abatement Grant Program Expenditures Through June 30, 2010 -- Large-Scale Priority Watershed Projects ♠

Year Started	Project Name (end date)	County	Size Sq. Miles	Local Assistance**	Cost-Share
1979	Galena River*	Lafayette, Grant	241	\$120,412	\$2,267,305
	Elk Creek*	Trempealeau	112	78,732	1,456,717
	Root River*	Racine, Waukesha, Milwaukee	198	489,057	1,487,593
	Lower Manitowoc River*	Manitowoc, Brown	168	8,224	188,750
	Hay River*	Barron, Dunn	289	29,464	841,307
1980	Big Green Lake*	Green Lake, Fond du Lac	106	312,913	650,435
	Upper Willow River*	St. Croix, Polk	183	53,173	327,522
	Six-mile/Pheasant Branch Creek* ♦	Dane	119	2,321	493,293
	Onion River*	Sheboygan, Ozaukee	97	58,324	321,193
1981	Upper W. Branch Pecatonica River*	Iowa, Lafayette	77	9,227	257,049
	Lower Black River*	La Crosse, Trempealeau	189	312,364	1,309,686
1982	Kewaunee River*	Kewaunee, Brown	142	245,452	647,267
	Turtle Creek*	Walworth, Rock	288	586,582	1,482,020
1983	Oconomowoc River*	Waukesha, Washington, Jefferson	130	594,875	283,984
	Little River*	Oconto, Marinette	210	777,206	1,472,807
	Crossman Creek/Little Baraboo River*	Sauk, Juneau, Richland	213	1,616,899	3,846,414
	Lower Eau Claire River*	Eau Claire	399	399,224	833,631
	Beaver Creek*	Trempealeau, Jackson	160	166,794	1,620,347
1984	Upper Big Eau Pleine River*	Marathon, Clark, Taylor	219	696,567	1,119,674
	Seven-mile/Silver Creek*	Manitowoc, Sheboygan	112	291,508	1,188,890
	Upper Door Peninsula*	Door	287	1,161,944	3,846,414
	East & West Branch Milwaukee River*	Fond du Lac, Washington, Sheboygan, Dodge, Ozaukee	265	1,665,851	1,625,934
	North Branch Milwaukee River*	Sheboygan, Washington, Ozaukee	149	1,369,836	1,348,996
	Cedar Creek*	Ozaukee, Washington	129	1,262,521	1,171,100
	Milwaukee River South*	Ozaukee, Milwaukee	167	3,830,134	4,692,988
	Menomonee River*	Milwaukee, Waukesha, Ozaukee, Washington	136	3,224,356	1,150,422
1985	Black Earth Creek*	Dane	105	645,841	1,600,512
	Sheboygan River*	Sheboygan, Fond du Lac, Manitowoc, Calumet	260	2,827,999	3,712,468
	Waumandee Creek*	Buffalo	221	1,409,795	3,561,279
1986	East River*	Brown, Calumet	206	3,936,671	3,458,325
	Yahara River-Lake Monona*	Dane	93	2,070,735	1,856,528
	Lower Grant River*	Grant	129	1,061,056	1,425,192
1989	Middle Trempealeau River*	Trempealeau, Buffalo	205	2,492,682	5,177,533
	Lake Winnebago/East*	Fond du Lac, Calumet	99	1,946,144	2,205,232
	Middle Kickapoo River*	Vernon, Monroe, Richland	246	2,170,618	3,436,155
	Yellow River*	Barron	239	828,868	952,367
	Upper Fox/Illinois River*	Waukesha	151	1,717,551	659,421
	Narrows Creek/Baraboo River*	Sauk	176	1,408,825	3,755,138
	L. E. Branch Pecatonica River*	Green, Lafayette	144	1,898,949	2,147,746

Table 17: Original Nonpoint Source Pollution Abatement Grant Program Expenditures Through June 30, 2010 -- Large-Scale Priority Watershed Projects (continued)

Year Started	Project Name (end date)	County	Size Sq. Miles	Local Assistance**	Cost-Share
1990	Arrowhead River	Outagamie, Winnebago	142	\$1,473,852	\$1,585,313
	/Daggets Creek*				
	Kinnickinnic River*	Milwaukee	33	175,094	0
	Beaver Dam River*	Dodge, Columbia, Green Lake	290	2,104,624	2,390,764
	Duncan Creek*	Chippewa, Eau Claire	191	2,283,577	2,150,357
	Lower Big Eau Pleine River*	Marathon	138	993,368	1,687,907
	Upper Yellow River*	Wood, Clark, Marathon	212	1,320,268	2,540,116
1991	Upper Trempealeau River*	Jackson, Trempealeau	175	1,490,582	4,185,814
	Neenah Creek*	Adams, Marquette, Columbia	173	1,078,588	710,240
1992	Balsam Branch Creek*	Polk	104	896,430	1,010,789
	Red River/Little Sturgeon Bay*	Door, Kewaunee, Brown	139	1,944,648	7,460,263
1993	Branch River*	Brown, Manitowoc	108	2,056,800	4,494,382
	Soft Maple/Hay Creek*	Rusk	176	567,997	444,369
	South Fork Hay River*	St. Croix, Dunn, Polk, Barron	181	1,170,004	1,472,625
	Tomorrow/Waupaca River*	Waupaca, Portage	290	1,331,289	2,452,748
1994	Duck/Apple/ Ashwaubenon Creeks (2010)	Brown, Outagamie, Oneida Nation	264	2,126,536	5,262,480
	Dell Creek (2010)	Juneau, Sauk	133	708,940	1,174,908
	Pensaukee River*	Oconto, Shawano	163	685,373	2,268,958
	Spring Brook*	Langlade, Marathon	69	305,913	442,657
	Sugar & Honey Creeks*	Racine, Walworth	166	749,964	972,850
1995	Fond du Lac River (2010)	Fond du Lac, Winnebago	244	616,281	2,720,323
	Kinnickinnic River (2010)	Pierce, St. Croix	206	639,213	1,800,677
	Lower Little Wolf River*	Waupaca	152	380,529	2,808,924
	Lower Rib River*	Marathon	129	503,692	1,354,691
	Middle Peshtigo & Thunder Rivers (2010)	Marinette, Oconto	193	238,916	1,009,697
	Pigeon River (2010)	Manitowoc, Sheboygan	78	544,838	659,962
	Pine & Willow Rivers (2010)	Waushara, Winnebago	<u>303</u>	<u>576,741</u>	<u>2,901,921</u>
	Total		11,511	\$70,743,751	\$126,843,368

* Completed Projects

** Local assistance reflects grants made by DNR predominantly through 2000. Starting in 2001, funding for most local assistance grants was consolidated in DATCP (through staffing and support grants). Remaining DNR local assistance grants are primarily made to lake districts.

◆ Six-mile/Pheasant Branch is currently a part of the Lake Mendota priority lake project (1993).

♠ Amounts for FY 01 through FY 10 include Priority Watershed grants only. The most recent urban nonpoint source and storm water management grants and targeted runoff management grant awards are included in a separate table.