Nonpoint Source Water Pollution Abatement and Soil Conservation Programs

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Nonpoint Source Water Pollution
Abatement and Soil Conservation Programs

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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 for local coverage of the state's soil and water conservation needs, typically at the county level. Further, DNR nonpoint source pollution abatement financial assistance programs intend 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 $108.7 million was available in the 2015-17 biennium for nonpoint source-related 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), the nonpoint account of the segregated (SEG) environmental fund, federal (FED) revenues and revenues from the issuance of bonds (BR).

Nonpoint sources of water pollution are those sources that are diffuse in nature without a single, well-defined point of origin. Nonpoint sources include land management activities that contribute to runoff, seepage or percolation and adversely affect the quality of waters in the state. DNR reports that over one-half of the lakes and streams the state considers as impaired are degraded by varying levels of nonpoint source pollution. Soil erosion and runoff of water polluted by chemicals, nutrients or both are major contributors to the level of nonpoint source pollution.

Table 1: Total Available 2015-17 Direct Funding for Local Soil and Water Conservation

Funding Source	Biennial Amount
GPR	$6,054,400
SEG	18,023,800
BR	15,900,000
FED	68,700,000
Total	$108,678,200

Several state programs address both urban and rural sources of nonpoint pollution and soil erosion. These agencies and their roles in implementing water pollution abatement programs 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 source pollution discharges.

Agriculture, Trade and Consumer Protection

Chapter 92 of the statutes establishes DATCP as the central state agency responsible for 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 management of animal wastes, improvement of agricultural nutrient management, and funding of county and state land and water conservation staff. DATCP efforts are commonly known as the soil and water resource management (SWRM) program, a complement to the DNR nonpoint source program.

Safety and Professional Services

The Department of Safety and Professional Services (DSPS) is required to establish statewide standards for erosion control at construction sites for one- and two-family dwellings and for public buildings and places of employment, provided an activity would disturb less than one acre of land. The Department may issue stop-work orders for noncompliance, and DSPS also may delegate its administrative authority to counties, cities, villages or towns. DSPS authority had previously been under the Department of Commerce, which preceded DSPS in regulating certain activities related to building safety and environmental protection. Various portions of construction site erosion control programs have transferred between DNR and DSPS under several recent biennial budget acts. Construction site erosion control is discussed in greater detail in Chapter 2.

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.

The LWCB also reviews county land and water resource management plans, which are described further below, and DATCP and DNR administrative rules pertaining to the SWRM and nonpoint source pollution abatement programs. In addition, the Board monitors the achievement of statutorily defined soil erosion control goals, as discussed in a later section. Chapter 281 of the statutes also provides LWCB the authority to make recommendations to the Governor and DNR concerning funds budgeted to the nonpoint source pollution abatement program or concerning the efficiency and effectiveness of the program. The Board is also responsible for assisting counties and DNR in the resolution of program concerns.

The LWCB consists of the following 11 members: (a) the Secretaries of the Departments of Administration (DOA), 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 (CALS) of the University of Wisconsin–Madison; (d) the University of Wisconsin–Extension; and (e) the Wisconsin Land and Water Conservation Association (WI Land+Water), a nonprofit organization that represents the state's county land conservation committees and departments, which holds advisory memberships for its president and executive director. 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 include: (a) two county board members who are also members of the county committees on agriculture and extension education; and (b) the chairperson of the county FSA committee. 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 grant program; and (c) the urban nonpoint source and storm water grant program. DATCP and DNR then prepare a single allocation plan for all counties, with DATCP and DNR each administering its own respective 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 and federal land and water conservation programs, as well as other programs such as the DNR wildlife damage abatement program and tree planting programs, with assistance from federal and state staff. 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 the 2015 calendar year, which is the most recent year completed for which counties have reported staffing levels to DATCP, counties reported a total of 349 full-time equivalent (FTE) employees working in Wisconsin as county conservation staff.

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. By statute and administrative rule ATCP 50, plans at a minimum must include: (a) a county-wide assessment of soil erosion conditions and water quality, including identification of causes of impairments and pollutant sources; (b) water quality objectives identified for each watershed, including pollutant load reduction targets; (c) key problem areas for soil erosion and water quality, including priority farms and sites that contribute or may contribute to water quality impairment; (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, or for carrying out notice and enforcement actions against persons not complying with applicable standards; (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 com-

pliance with applicable federal and state laws, and including an estimate of cost-sharing, education and other assistance needed for the implementation; (g) a system to track progress of activities identified in the plan; (h) a system for monitoring conservation compliance with persons claiming farmland preservation tax credits, which are described later in greater detail; (i) an information and education strategy; and (j) local and state regulations to be used to implement the plan, as well as methods for coordinating implementation activities with local, state or federal agencies and organizations.

County LCCs develop the plans with the assistance of DATCP. DNR also 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. The LWCB reviews plans and recommends DATCP approval or disapproval.

Currently, DATCP administrative rules require LWRM plans to be approved by an order of the DATCP Secretary for a period of up to 10 years. This 10-year period replaced a five-year maximum approval period, beginning August 1, 2011. To receive a 10-year approval, planning documents must include evidence the county specifically constructed the plan on a 10-year horizon, and the plan must describe targets the county will attempt to reach over the plan period. Plans approved for 10 years are required to report on progress after five years. Counties not meeting the requirements for a 10-year approval will continue to have LWRM plans approved for five years.

DATCP reports most counties with five-year approval terms have sought five-year extensions as plan expirations have approached in recent years. However, beginning in 2017, DATCP reports it will no longer approve extensions for expiring plans, since most counties now have plans approved for the 10-year maximum.

CHAPTER 1

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 prepare a single annual grant request. This grant request describes staffing needs and proposed 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 targeted runoff management (TRM) grant program; and (c) the 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. However, each agency prepares, issues and administers its own grants. 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.

Several of the grant programs described throughout this chapter are primarily intended to fulfill statutory and administrative requirements for the funding that must be offered to owners of agricultural facilities or operators of agricultural practices that are existing nonpoint sources of pollution. Under s. 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 existing prior to October 14, 1997.

In general, the state or a municipality may not require water pollution-abatement practices or structures that would change or discontinue existing agricultural practices or facilities to meet performance standards unless the landowner receives a "bona fide offer" of having a portion of the cost of installing the necessary BMP provided to them. This portion for most practices is 70% of eligible costs, meaning the landowner would be responsible for 30% of total project costs. (In 2014, DATCP administrative rule changes began limiting certain practices to a 50% cost share, including practices in nonfarm settings and practices installed on lands owned by a local government. BMPs and their cost-share rates are listed in Appendix I.) Bona fide offers may consist of other public or private funding sources, such as those from federal conservation programs, and need not consist only of state funds.

Certain sites must comply with performance standards regardless of cost-sharing availability, including: (a) livestock facilities permitted as point sources of pollution 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; (d) expanded or modified sites that are granted a local livestock siting or manure storage permit; and (e) new croplands and livestock operations. Aside from these instances, BMPs generally cannot be required for existing facilities or practices, absent a cost-sharing offer. Therefore, the extent to which nonpoint source water pollution abatement is implemented in Wisconsin is significantly influenced by the grant funding that is available to Wisconsin landowners. This differs from abatement of point sources of pollution, for which the responsible party generally 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. This includes cost-sharing grants distributed by DATCP to counties for implementing pollution abatement practices in accordance with their LWRM plans. DNR also allocates a small amount of annual TRM awards to staff costs directly related to a funded project.

Producer-Led Watershed Protection Grants. 2015 Act 55 created a program to provide grants directly to producer-led groups for nonpoint source pollution abatement activities. Groups are eligible for up to $20,000 per year so long as they have at least five members, are in one watershed, and collaborate with a state, county or nonprofit conservation organization. Groups that receive this grant are required to file a report with DATCP annually outlining activities conducted under the grant and their impacts on water quality in the watershed. The statutes authorize DATCP to specify activities that may be conducted under the grant and to design an application process for the grant program. Information about grant awards and producer groups can be found in Appendix II.

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) under DNR's authority. 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. 1999 Act 9 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, also administered by DNR.

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 Local Governments

Since 1987, DATCP has disbursed state funds to local units of government and other project cooperators for 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 recipient 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 to a county only if the county has an approved LWRM plan and 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 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. DATCP provides funding on a reimbursement basis, not as advance payments. County recipients are required to file annual reports on the progress made toward achieving conservation goals specified in LWRM plans, as well as on other funding provided for the county's conservation staffing.

In addition to direct funding of individual county conservation programs, DATCP may provide SWRM grant funding under contract with other organizations for regional or statewide efforts. For example, DATCP has customarily allocated grant funds to WI Land+Water for partial support of its Standards Oversight Council (SOC), an interagency partnership that helps develop technical standards for statewide soil and water conservation practices. DATCP intends for the allocation to further a comprehensive statewide approach to soil and water conservation and the achievement of state program requirements. The University of Wisconsin System also has regularly been contracted for technical support services under the SWRM program. Additionally, local producer-led groups are eligible for watershed protection grants starting in 2015, but these funds are allocated separately from the joint allocation procedures discussed later.

Table 2: DATCP 2017 SWRM Grant Allocation

Program	Grants	Percent of Total
County Staffing Grants	$8,739,100	58.6%
LWRM Plan Implementation*	5,400,900	36.2
Cooperator Contracts and Grants	780,800	5.2
Total	$14,920,800	

* Includes cost-sharing funds for implementation of LWRM plans, funding for nutrient management planning and other soft practices, and a reserve for animal waste discharge response grants.

Appendix III shows, by recipient, the 2017 DATCP SWRM allocations, and Table 2 shows funding by grant type. DATCP administrative rules specify that counties and cooperating organizations must apply for funds each year by April 15. The DATCP portion of the plan is to be approved by December 31, with funding then provided in the subsequent calendar year.

In some circumstances, DATCP rules allow counties to redirect or reallocate staffing grants to landowner cost-sharing grants, or to local governments or tribes, to meet LWRM plan priorities or achieve compliance with state agriculture performance standards. However, DATCP reports counties have never redirected staffing grants to fund landowner cost-sharing, but counties occasionally reallocate grant funds to another entity; for instance, Menominee County regularly transfers funds to the tribe of the same name.

Allocation Procedures

Both statutes and administrative rules describe the methods by which annual allocations to counties are determined. Section 92.14 (6) of the statutes requires DATCP and DNR to attempt to provide funding 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. Accordingly, a county match is required for 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 support costs other than salary and fringe benefits, such as travel expenses, computers and software, office supplies and equipment, field equipment, and training costs. ATCP 50 requires no local match for these training and support costs, although as of August, 2016, administrative rule ATCP 50 caps training and support costs at 10% of a county's annual grant allocation.

Additionally, the Departments are to attempt to provide an average of $100,000 in cost-sharing funds per county, with the statutes generally requiring a 30% landowner match for most cost-shared practices that change existing agricultural facilities or practices. The minimum landowner contribution typically is 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 uses tiers to divide funds among counties and other collaborators. Typically, DATCP has allocated funds in two tiers, including one tier for base funding and a second tier to provide funding for additional positions. A third tier was implemented in 2009, which awarded $10,000 each to 13 counties that had been most effective in creating and substantially following local strategies for limiting nutrient runoff. No additional funding tier has been used since.

In 2014, ATCP 50 revisions repealed the $85,000 annual base staffing grant to each county. The $85,000 requirement had been waived since the 2011-2013 biennium due to funding levels. In practice, DATCP has set a $75,000 minimum for grants since the 2013 allocation. ATCP 50 does not currently specify a minimum Tier 1 grant for each county.

Tier 2 grants provide staffing for second and subsequent positions, with DATCP's goal being to provide funding for an average of three positions per county. 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 base allocation goes toward covering multiple staff positions. This funding is awarded in up to three rounds, one for each position to be funded, although first-round funding is awarded only to counties that have costs of the first position exceeding the Tier 1 base.

Beginning in 2015, DATCP also has administratively determined counties' first state-funded position, which is eligible for 100% state funding, must be a department head or technician "fully engaged in conservation activities." The policy is intended to avoid state appropriations for land and water conservation supporting other program areas, as counties have in some instances in recent years combined land conservation departments with other offices. Beginning in 2015, DATCP limited 100% funding for a county’s first position to a department head, technician, or engineer who spends 95% or more of his or her time on “qualifying conservation activi-

ties." Qualifying activities include (a) LWRM plan implementation; (b) conservation practice engineering, design or installation; (c) cost-share grant administration; (d) farmland preservation program administration; or (e) livestock regulation. Excluded programs may include: (a) planning and zoning; (b) parks; (c) geographic information systems; or (d) design of non-conservation practices. Department heads must oversee only conservation programming, and may not make policy or budgeting decisions in the ineligible program areas. For a second or subsequent position, positions working in other non-conservation program areas part-time could seek SWRM funding, but only to the extent of that position's share of time spent on conservation programming.

For the 2017 joint allocation plan, available staffing grant funding of $8,739,100 includes $5,711,900 nonpoint account SEG and $3,027,200 GPR. Tier 1 grants are $75,000 per county, or $5,400,000 total. Tier 2 funds are allocated first to counties whose first position costs exceed $75,000; for example, a county with a first position cost of $95,000 is provided $20,000 additional funding in the first round of Tier 2 funding. For 2017, $1,088,100 is allocated over 52 counties to fund first positions not fully supported by base funding of $75,000. Therefore, total allocations in 2017 for fully funding each county's designated first position, with minimum funding of $75,000 per county, are $6,488,100. Based on 2016-2017 appropriations for county conservation staffing grants, remaining funding for second and subsequent positions is $2,251,000.

The subsequent two rounds of Tier 2 allow funding for second and third positions at 70% and 50%, respectively, subject to fund availability. Amounts available in 2017 funded about two-thirds (65%) of requests for 70% funding of counties' second positions, equal to about 46% of counties' second positions. No funding is available for third positions in 2017. No third positions have been provided state funding since the 2010 allocation cycle.

In 2015, the most recent year for which counties have reported staffing levels and use of staffing grant awards, DATCP allocated funding of $8.88 million. These funds supported 113 FTE positions of the 349 total FTE reported by counties. Other funding for positions may come from county tax and fee receipts, private or governmental grants, or other sources.

Cost-Sharing and LWRM Plan Implementation. The 2017 allocation plan provided $3,315,000 to counties in bonding for LWRM plan implementation cost-sharing. Bonding proceeds are distributed through counties on a reimbursement basis for 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 of bond funding for each county. From 2007 through 2013, this was $20,000 per county, but beginning in 2013, DATCP awarded a base of $10,000 per county, for a total of $720,000 among all 72 counties. For 2017, DATCP continues to use an award criterion based on the percentage of bond cost-share grants spent by a county over a three-year period. Additionally, funds are awarded: (a) on the basis of need, as measured by agricultural acreage in the county reported in the 2012 USDA Census of Agriculture; and (b) on the basis of total amounts of bond proceeds spent in 2013 through 2015, the three preceding completed grant years. Table 3 shows the dollar amounts awarded by grade in each of the three categories. (For 2017, DATCP indicates seven counties were awarded lower than the amount for which they are otherwise eligible due to the county requesting less funding.)

Table 3: 2017 DATCP Bond-Funded Cost-Sharing Performance- and Need-Based Awards

Category/Evaluation Metric	Amount
2013-15 Average Underspending	
0% to 5%	$29,300
6% to 10%	14,000
11% to 20%	4,000
Greater than 20%	0
Agricultural Acreage, 2012 Ag Census	
275,000 acres or more	$15,500
175,000 to 274,999	11,000
50,000 to 174,999	6,000
Less than 50,000	0
2013-15 Cumulative Spending	
$230,000 or more	$24,100
$200,000 to $229,999	8,000
$75,000 to $199,999	3,500
Less than $75,000	0

Bond-supported cost-sharing awards in 2017 total $3,315,000, and are between $14,000 and $78,900 per county, with an average of about $46,100 per county. (DATCP reserved bond funding of $350,000 for grants to address farm discharges, which are discussed later in greater detail.)

In addition to the bond funding that was awarded to counties for cost-share grants, DATCP has had funding available annually since 2005-06 for nutrient management plan (NMP) development grants. 2005 Act 25 made $520,000 nonpoint account SEG available beginning in 2005-06, and this increased under 2007 Act 20 by an additional $6,000,000 nonpoint SEG available beginning in 2008-09. Funding has been reduced to $2,500,000 annually by subsequent biennial budgets. This funding is provided to counties for: (a) grants to landowners for the implementation of NMPs, which are required under ATCP 50 for most Wisconsin cropland beginning January 1, 2008, or (b) other impermanent or "soft" cropping practices that will reduce nutrient runoff. Impermanent practices may not be funded through the use of state general obligation bonds, which the Wisconsin Constitution generally requires to be used only for permanent structural improvements.

DATCP awarded all $1,735,900 available nonpoint SEG for 2016-17 to counties to distribute to landowners in 2017 for cost-sharing of nutrient management planning and associated cropping practices. These funds are anticipated to provide funds to cover 62,000 acres at a rate of $28 per acre, which equates to $7 per acre per year for four years, the minimum amount of cost sharing required for NMPs. Beginning with the 2012 allocation, DATCP has determined nonpoint SEG cost-sharing by three criteria: (a) the number of farmers claiming farmland preservation tax credits in the county; (b) the number of nutrient management checklists submitted to DATCP annually proving active nutrient management plans in the county comply with USDA standards; and (c) the county's past performance in deploying allocated nonpoint SEG cost-share funds. An additional $780,800 is planned for collaborating organizations, as described later. Grants are shown by county in Appendix III. Fifteen counties did not apply for nonpoint SEG cost-sharing funds for 2017.

For funds spent during 2015, the most recent year reported, 1,424 practices received cost sharing, including 822 funded by bond proceeds and 602 funded by nonpoint account SEG. In 2014, installed practices numbered 1,249, including 767 bond-supported practices and 482 SEG-funded practices.

DATCP estimates that approximately 2.96 million acres in Wisconsin were under nutrient management planning in 2016, compared to approximately 2.58 million acres in 2014 and 2.87 million acres in 2015. The 2016 amount reflects about 33% of Wisconsin’s harvested cropland, which comprises about 9 million acres, according to the 2012 USDA Census of Agriculture. This total includes: (a) 1,264,000 acres under cost sharing from DATCP, DNR or NRCS, or receiv-

ing farmland preservation tax credits; (b) 956,000 acres at concentrated animal feeding operations (CAFOs), 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 wastewater discharge permit; (c) 623,000 acres under a local ordinance for manure management or livestock siting; and (d) 117,000 acres outside of a specific program.

In addition to funding landowner cost-sharing, DATCP has customarily funded projects to support statewide priorities of nutrient management, technical standards development, and training. The 2017 allocation includes an allocation of $390,000 to the UW-Madison College of Agricultural and Life Sciences, with $220,000 for maintenance and improvement of SnapPlus software used for nutrient management planning and related soil and nutrient management projects. The remaining $170,000 is designated for outreach, education and training by the Nutrient and Pest Management Program in UW-CALS. The 2017 allocation also provides funding of $157,000 to WI Land+Water, $20,000 to UW-Extension for conservation training, $35,000 for the Standards Oversight Council to support the development and maintenance of technical standards for soil and water conservation practices in Wisconsin and $3,000 for the Conservation Observance Day, an event recognizing conservation initiatives on farms.

Nutrient Management Farmer Education and Cooperator Grants. For 2017, DATCP also allocated $175,800 to nutrient management farmer education (NMFE) grants for 17 recipients. The Department began awarding NMFE grants directly in 2014, effectively replacing a similar program previously administered by the UW–Extension. NMFE grants allow recipients to conduct workshops or other training to provide basic education to farmers on nutrient management principles. Grants also may fund stipends to farmers to assist with costs of training or soil sampling. DATCP reports most training results in farmers writing their own nutrient management plans, which the Department expects will help farmers gain necessary understanding to properly implement the plans. Plans written under NMFE-funded programs may help increase nutrient management planning outside of full state-funded cost-sharing. However, NMFE grants serve a purpose different from that of cost-sharing grants, which are intended to fulfill the cost-sharing requirements under which a landowner must adopt nutrient management practices on existing cropland.

Producer-Led Watershed Protection Grants

2015 Act 55 authorizes DATCP to make grants of up to $250,000 per fiscal year to nonpoint source pollution abatement activities undertaken by producer-led groups. In 2016, 14 producer-led groups were awarded $242,600. In 2017, 11 producer-led groups were awarded $197,100. More information about grant awards and producer groups can be found in Appendix II.

The grants, up to $20,000 per recipient per fiscal year, are available to groups that: (a) include at least five agricultural producers; (b) operate eligible farms meeting minimum farm income requirements under the farmland preservation program; (c) operate in one watershed; and (d) collaborate with at least one of the following: (1) DATCP; (2) DNR; (3) a county land conservation committee; (4) UW-Extension or the Discovery Farms program; or (5) a nonprofit conservation organization.

Under administrative rule ATCP 52, which DATCP promulgated as an emergency rule in February, 2016, under authority provided by 2015 Act 55, DATCP specifies allowable purposes and reimbursable expenses for the program. Grants may be used for the following purposes: (a) startup, planning, and shared learning

activities; (b) surveying and identification of management practices and solutions; (c) development of innovative techniques that increase current benefits or identify new benefits; (d) increasing participation in conservation via education, outreach, or incentive payments; (e) measurement and promotion of the benefits of conservation practices; and (f) water quality monitoring and soil testing. Reimbursable expenses include personnel costs for a group's coordinator, incentive payments, outreach and education events, and water quality monitoring and soil testing. Reimbursement is conditioned upon progress reporting and an annual report.

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) of the statutes 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 issue an NOD under Chapter 283 of the statutes and administrative rule NR 243. In 2017, DATCP reserved $350,000 in bond revenue for grants to resolve discharges from farms, expanding awards to include discharge sites identified by DATCP engineers. DATCP also has customarily funded NOIs rather than NODs. DATCP contends NOIs better reflect the voluntary nature of counties' implementation of LWRM plans, which seek to use cost-sharing to encourage the installation of conservation practices at sites where the practices would have the greatest effect, as opposed to requiring pollution abatement practices at specific sites. DATCP must commit its reserve funds to cost-share agreements by the end of the calendar year in which funds are allocated. This is intended to align with provisions of ATCP 50 for extending funding by one year to projects that are not completed by the end of the grant year, but for which contracts have been signed.

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 in a separate section.

DNR Nonpoint Source Grants

DNR funding for pollution management practices is distributed mostly through 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 program (NR 153); (b) the urban nonpoint source and storm water grant program (NR 155); and (c) the municipal flood control program (NR 199). (Recent grants under these programs are listed in Appendices IV, V, and VI. The priority watershed program, which previously implemented nonpoint source pollution abatement efforts in Wisconsin, is described in Appendix VII.) DNR also provides, in conjunction with DATCP, animal waste control grants to livestock operations issued an NOD or NOI. 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 all BMPs constructed under these programs. Local governments that use state funds to provide assistance to private landowners must enter into a similar contractual agreement with the landowner.

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.

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 reports set a goal to reduce pollutant loads introduced to a water body to levels that will allow water quality standards to be achieved. TMDL reports are required for waters DNR has identified to EPA as being impaired by some type of pollutant.) Table 4 compares characteristics of each project type, including information on funding allocated for the 2016 and 2017 grant years. Following is a description of each type of project:

- *Large-Scale TMDL Implementation*. These projects are limited to managing agricultural nonpoint sources. Projects should manage the most critical or significant sources in a watershed area, based on relative contributions to the identified impairment, and must be possible to control cost-effectively. Projects may last up to three years, with extensions possible for a fourth if approved by DNR. Grants are capped at $1 million per project, subject to 70% cost-sharing requirements.

- *Large-Scale Non-TMDL Implementation*. Large-scale projects not implementing a TMDL plan may apply for this category of TRM grants, provided the project focuses on attaining performance standards of NR 151 and ATCP 50. Such projects must be guided by a watershed plan or another strategy for achieving water quality goals in an area. As with large-scale TMDL projects, large-scale non-TMDL projects must be limited to agricultural sources, and must focus on controlling the most critical or significant sources that can be cost-effectively controlled within a watershed area of between eight and 39 square miles. Projects are limited to three years, although extension to a fourth year is possible. Maximum funding is $1 million per project, sub-

Table 4: Summary of Targeted Runoff Management Grant Categories

Category	Standard Duration	Maximum Grant	Agricultural or Urban	2016 Funding	2017 Funding
Large-Scale TMDL	3 years	$1,000,000	Agricultural	$165,300	$844,200
Large-Scale Non-TMDL	3 years	1,000,000	Agricultural	805,100	385,000
Small-Scale TMDL	2 years	150,000	Both	238,000	401,500
Small-Scale Non-TMDL	2 years	150,000	Both	1,945,200	2,229,900
			Totals	$3,153,600	$3,860,600

ject to 70% cost-sharing requirements.

• *Small-Scale TMDL Implementation*. Small-scale TMDL implementation projects may address nonpoint source pollution at one or more sites, which may be either agricultural or urban in character. As with large-scale projects, small-scale TMDL-implementation projects are required to address significant nonpoint sources that can be cost-effectively abated. Projects may last for two years, with a possible extension to a third, given DNR approval. Projects may receive a maximum grant of $150,000, subject to 70% cost-sharing requirements.

• *Small-Scale Non-TMDL Implementation.* Small-scale non-TMDL projects may address water quality concerns in agricultural or urban settings, and are required to achieve attainment with corresponding performance standards. Projects are limited to two years, unless an extension to a third year is approved by DNR. Maximum grants for this project type are $150,000, subject to 70% cost-sharing requirements.

Construction grants may be awarded under any of the categories. Property acquisition costs are also eligible for grant funding. Non-construction local assistance grants may only be made for activities conducted during the grant period in large-scale projects. Local assistance grants fund activities including public outreach, planning, management, and evaluation of best management practices. However, local assistance grants are contingent on the availability of funding other than general obligation bonding, which is the primary source of funding for TRM projects, and the Wisconsin Constitution only allows issuance of public debt for support of long-term capital improvements. DNR also reports project costs regularly exceed the grant maximum, leading to most grants being fully allocated to construction costs.

DNR is to determine the annual TRM budget prior to applications being submitted. The Department then divides total funding into sub-allocations for each category following application submission. Sub-allocations are to be based on water quality goals and the quality of applications in each category, but thereafter, projects compete only within categories. Relative funding levels among categories will, therefore, vary by year with the types of applications submitted. Since 2012, DNR has granted at least one grant in each category, except in 2015 where no grants were provided in the large-scale non-TMDL category, despite having an applicant. It was the first instance of a category receiving no awards since the TRM program's restructuring. The type of funding available also would be expected to influence project selection; for example, federal funds under the Clean Water Act have multiple conditions for their use. Further, DNR expects more grants may be funded through TMDL-based projects as TMDL and equivalent plans continue to be created for more impaired waters.

Both urban and rural nonpoint projects can be funded through a TRM grant. However, point sources of water pollution are ineligible for TRM grants, and approximately 245 urbanized municipalities in Wisconsin, including some UW campuses, are required to have a Wisconsin pollutant discharge elimination system (WPDES) permit for discharges from their municipal separate storm sewer systems (MS4s). This classifies these municipalities as point sources, and eliminates them from TRM eligibility. Most TRM grants thus go to rural counties or small municipalities, and most of these grants in turn are provided to landowners to assist with costs of improvements made on privately held lands.

Up to 70% of a project's eligible costs can be funded through a TRM grant, subject to maximum grants noted previously. However, the 70% rate may be exceeded in cases of economic hardship. Conversely, 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.

DNR awarded TRM grants to 19 projects for $3,153,600 in 2016 and 25 projects for $3,860,600 in 2017. Funds come from federal Clean Water Act funding, general obligation bonding, and nonpoint SEG. TRM grants awarded beginning in 2017 are listed in Appendix IV.

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 nonpoint account SEG and bond revenues.

DNR awards UNPS grants to local governments either with jurisdiction over a project area or with responsibility for controlling storm water discharges under a WPDES MS4 permit (s. 283.33 of the statutes). 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 urban nonpoint source performance standards and with DNR pollution abatement priorities identified for a watershed or other geographic area. Recipients must also have a local program that adequately ensures implementation of construction site runoff controls, and of storm water management for newly constructed or redeveloped sites; these are also required conditions under a WPDES MS4 permit.

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 nonpoint account SEG, as non-construction costs cannot use bond revenues. Projects are carried out either by the local government or a contract entity.

UNPS construction grants provide funding for physical improvements. As with TRM grants, UNPS construction grants are provided to local governments applying for funds. However, under the UNPS program, storm water management projects typically occur on municipal property, and do not involve cost-sharing with private landowners. Eligible projects include: (a) stream bank and shoreland stabilization; (b) structural urban BMPs for abating runoff from government, transportation, commercial, recreational or certain industrial facilities, including costs of 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) most replacement costs for BMPs; (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 significant changes in land use. Construction grants may be funded by general obligation bonding or nonpoint SEG.

Governmental units, including the Board of Regents of the University of Wisconsin System, may apply for UNPS grants. Administrative rules for the UNPS program (NR 155) do not allow construction grants to support abatement of discharges covered under WPDES permits other

than MS4 storm water discharge permits. This provision therefore prohibits UNPS construction grants from supporting, for example, BMPs at private industrial properties to contain storm water runoff from sources associated with or contaminated by industrial activity. (These sources have separate storm water discharge permitting requirements under NR 216.)

All UNPS grants have a maximum state cost-share rate of 50%. Prior to 2015 Act 55, planning grants were eligible for up to 70% of total costs. The maximum amount for a construction grant is $150,000, a level established in 2003. The maximum planning grant 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. Both construction and planning grants are limited to two years per project, although DNR may approve a one-year extension.

About $4.4 million in additional funding is available for urban nonpoint grants and municipal flood control and riparian restoration grants in 2015-17, as the programs share an appropriation of $700,000 each year in nonpoint account SEG and $3 million in additional general obligation bonding under Act 55 for use during the biennium. State law does not specify how program funds are to be divided between the UNPS and municipal flood control (MFC) and riparian restoration grant programs. DNR attempts to allocate funding approximately equally between the programs as new bonding authority is provided each biennium, although actual spending on projects selected for grants affects how funds are expended.

In 2016, DNR began accepting applications for UNPS construction and planning grants during alternating years. Specifically, applications DNR solicited in 2016 will be solely for construction grants for projects beginning in 2017, and odd-numbered years thereafter. Applications solicited in 2017 will be for planning grants for projects beginning in 2018, and even-numbered years thereafter. As a result of this change, UNPS planning grant applications were not solicited in 2016 for the 2017 award cycle, and no planning funds were dispersed. In 2016, the UNPS program awarded grants for construction totaling $797,600 for the 2017 award cycle, supported entirely by general obligation bonding. A list of these grants can be found in Appendix V.

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 structures remaining in a 100-year flood plain.

MFC grants may cover up to 50% of eligible costs for an approved project; the program's maximum cost-share rate was 70% prior to 2015 Act 55. 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.

The statutes specify several criteria for determining the eligibility and priority ranking of projects: (a) no transfer of flooding downstream 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; (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. DNR has specified additional program provisions in administrative rule NR 199.

In 2016, 11 grantees were allocated a total of $2,002,400 for MFC projects that will occur from 2016 to 2018. A list of these awarded appears in Appendix VI.

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). DNR is currently authorized to provide funding pursuant to an NOD or a notice of intent (NOI) if necessary to protect the waters of the state.

DNR may issue NOD/NOI grants using bonding authority available under the TRM program, which was provided $5.9 million in new authority for 2015-17 under 2015 Act 55. As in other programs, bond revenues generally may only fund permanent structural improvements, while federal funds and GPR may support nonstructural practices. Funding requests are customarily divided by Department, with DNR issuing funding pursuant to NODs and NOIs, and DATCP issuing funding for NOIs. 2009 Act 28 authorized DNR to provide grants directly to landowners, as opposed to providing funding through local governments in their annual grant applications. DNR reports it does not expect to use direct grant authority, as the Department considers participation by county land conservation departments to be a significant component in designing and implementing effective projects. Table 5 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 (on alternating years for UNPS programs) 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, but only in former priority watersheds and only up to 10 years past the priority watershed's original expiration date. These extensions would all expire no later than December 31, 2019, at which point state agencies will be required to have the appropriate local unit of government submit applications on their behalf. State agencies, except the UW System Board of Regents, are not eligible for UNPS grants.

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, or by the soonest date possible after the allocation plan is signed by the DNR Secretary.

Table 5: Notice of Discharge (NOD) and Notice of Intent (NOI) Grants by Yearly Allocation

	DNR				DATCP	Total
Year	BR	GPR	FED	Subtotal	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	317,900	85,600	1,034,800	1,438,300	200,000	1,638,300
2012	883,500	0	0	883,500	200,000	1,083,500
2013	973,300	0	64,800	1,038,100	200,000	1,238,100
2014	843,400	125,000	31,600	1,000,000	200,000	1,200,000
2015	775,000	200,000	25,000	1,000,000	200,000	1,200,000
2016	1,000,000	0	0	1,000,000	200,000	1,200,000
2017	2,000,000	0	0	2,000,000	350,000	2,350,000
Total	$8,345,000	$580,300	$1,919,700	$10,845,000	$2,250,000	$13,095,000

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

Targeted Runoff Management

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. Administrative rule NR 153 requires all applicants to provide basic details of the projects to be funded. These screening criteria are intended to ensure a proposal is both eligible and would be appropriately staffed and completed if funded. Required information includes: (a) the BMPs to be installed; (b) how the BMPs would achieve stated goals such as those in 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.

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 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.)

NR 153 has further defined these scoring criteria for the large-scale and small-scale project categories. Both large-scale and small-scale projects are evaluated and assigned points for water-quality needs in the project area 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 increased by up to 15% 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% 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% 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. Maximum project amounts in recent years have been $1 million for large-scale projects and $150,000 for small-scale projects. 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, which is the current limit for large-scale projects, 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, that BMPs or planning projects would be eligible, and that the project would be completed within allowed timeframes and by capable staff and contractors. Applicants must also demonstrate the municipality has 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 controls.

The statutory criteria for scoring are nearly identical to those listed earlier for the TRM program. In implementing the statutory criteria, administrative rule NR 155 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% 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 DNR on construction

site erosion control and storm water management permit activity.

Under the UNPS program, construction and planning projects are separated into two groups that compete for different pools of grant funding. 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% 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

DNR and DATCP jointly administer the selection process for NOD/NOI 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 within a year, the applicant must reapply. NR 153 provides that funding decisions will be made on active, unfunded applications in up to four periods throughout the year. The Departments customarily attempt to equally divide available amounts among funding periods, with the goal of eventually disbursing all funds, provided requested funding meets or exceeds available funding. NOD grants were

awarded in April, June, and August of 2016.

NR 153 specifies awards are to be made 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 grants pursuant to these discharges may be less than a 70% cost-share. Grants in response to Category 2 discharges, however, must meet the 70% 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

Recipients of 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 are those techniques considered to be the most effective and practical means of abating nonpoint source pollution to a level compatible with state 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 under the SWRM and TRM programs generally equal 70% of the cost of implementing the BMP, except the rate may be up to 90% in cases of economic hardship, as defined by rule. Urban BMPs generally are cost-shared at 50%. BMPs and the associated cost-share rates have been established by administrative rules NR 154 and ATCP 50. 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 agricultural 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% 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 that contributes or will contribute to nonpoint source water pollution, and that 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

* 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.

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 held in perpetuity. The standard cost-share rate of 70% applies to acquisitions and easements, except the rate is 50% 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.

ATCP 50 also allows for SWRM cost-share payments to compensate part of the landowner's cost of removing land from agricultural production to install or maintain certain practices, provided the area is more than half an acre. The landowner's annual cost is generally the county average annual land rental rate for each year the land is required to be removed from agricultural production. Riparian land of more than a half an acre removed from agricultural production is eligible for rental rates equivalent to those under the Conservation Reserve Enhancement Program (CREP), a state-federal program discussed in separate sections. Lands removed from production may be placed under a fixed-term or perpetual easement, depending on the nature of the agreement with a landowner.

Maintenance of Practices

Landowners and governmental units receiving grants under the SWRM and nonpoint source grant programs are required to maintain most cost-shared structural practices for 10 years beginning with the date the last practice is installed. 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.

However, 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 regardless of whether future cost-sharing is available. In other words, a landowner may be required to maintain a structure or practice following the expiration of a cost-sharing agreement, provided the minimum cost-sharing requirements were met.

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 and NOD grant programs must be filed with the local register of deeds; the UNPS program has a general requirement to file. The TRM and NOD programs also require filing of cost-share agreements covering all riparian buffers or any grassed waterway systems receiving one-time per-acre payments.

Additionally, DATCP specifically 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 also bind any future owners to cost-share agreements for the agreements' specified durations. 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 a cost-share 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.

Monitoring and Reporting

Local governments administering funding under the SWRM and nonpoint source grant programs must maintain records of the financing and proper installation of BMPs receiving state cost sharing. Such documentation forms the basis for reimbursement requests and for required reporting, which grantees must complete at varying intervals or at the completion of a project, depending on the program. Although requirements vary somewhat among programs, reporting in general must include evaluations of how a project or projects have furthered the conservation goals stated in a project application or county LWRM plan.

Soil and Water Resource Management and Nonpoint Source Grant Funding

Funding for nonpoint source water pollution abatement grants comes from a variety of state and federal sources. DATCP is provided about $29.5 million during the 2015-17 biennium for rural grants, including LWRM plan implementation. DNR is provided an additional $8.1 million for rural nonpoint grants, which includes approximately $2 million in federal Section 319 funds used for local cost-share grants. In addition, an estimated $66.7 million in additional federal funding is expected to be available for rural nonpoint pollution abatement practices in the two federal fiscal years approximately coinciding with the 2015-17 state fiscal biennium. Total available rural nonpoint funding for the biennium, therefore, is approximately $104.3 million, as shown in Table 6. Additionally, DNR funding for urban nonpoint grants during 2015-17 is approximately $4.4 million.

Table 6: Rural Nonpoint Grants

	2015-16	2016-17
GPR	$3,027,200	$3,027,200
FED (Est.)	34,350,000	34,350,000
SEG	8,311,900	8,311,900
BR*	6,450,000	6,450,000
Total	$52,139,100	$52,139,100
Biennium	$104,278,200	

* $12,900,000 in new bonding authority is available for the 2015-17 biennium. Distributions need not be the same in each year.

NOTE: The table does not include state operations appropriations.

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

General Purpose Revenues (GPR)

DATCP is provided $3,027,200 in each year of the 2015-17 biennium under the SWRM program, which is allocated for county staffing grants.

Segregated (SEG) Funding

The segregated nonpoint account of the environmental fund has two primary funding sources: (a) a GPR allocation budgeted at $11,143,600

annually in the 2015-17 biennium; and (b) $3.20 per ton from the $13 per-ton state tipping fee for most solid waste, other than high-volume industrial waste, disposed in Wisconsin landfills. DNR estimates nonpoint tipping fees payable for 2015-16 were approximately $18.2 million.

The nonpoint account has had its current funding structure since the 2007-09 budget act. The act established the GPR transfer as a sum-certain appropriation, and it also established the nonpoint portion of the tipping fee at 75 cents per ton; 2009 Act 28 subsequently increased the nonpoint tipping fee by $2.45 per ton to its current level. Prior to the 2007-09 budget act, the nonpoint account had primary revenue sources including: (a) in the early and mid-1990s, a $7.50 fee on automobile title transfers; and (b) beginning in the late 1990s, a GPR transfer based on the annual title transfer fee, pursuant to statutory changes directing automobile transfer fee revenues to the transportation fund.

Recent one-time nonpoint account revenues have included: (a) $650,000 in 2013-14 and $1,300,000 in 2014-15 transferred on a one-time basis from the environmental management account (EMA) of the environmental fund; and (b) $1,000,000 in each year of the 2015-17 from the agricultural chemical cleanup fund. Both transfers had the effect of offsetting one-time nonpoint SEG appropriations in each biennium.

The nonpoint account funds a number of DATCP and DNR positions related to nonpoint source pollution abatement efforts, as well as grants to counties and debt service for general obligation bonds issued for nonpoint source pollution abatement grant programs. Table 7 shows the condition of the nonpoint account, and later sections describe nonpoint account appropriations. Uncommitted amounts in segregated appropriations generally lapse back to the environmental fund at the end of each fiscal year. However, some past budget acts required transfers from the nonpoint account to the state general fund.

The segregated environmental fund consists of the nonpoint account and the environmental management account, the latter of which primarily supports DNR programs related to recycling, groundwater, and cleanup of contaminated lands. The two accounts are statutorily designated as one fund but tracked separately. More information on this account is available in the Legislative Fiscal Bureau informational paper entitled, "Environmental Management Account."

County Staffing Grants. In addition to the GPR allocation noted above for county staffing grants, these grants are funded in part with nonpoint SEG. Base funding for this purpose is $5,036,900 annually. However, the 2013-15 and 2015-17 budget acts each provided additional nonpoint SEG funding on a one-time basis in each biennium in response to GPR or nonpoint SEG reductions proposed in each budget bill. Table 8 shows the base and one-time funding provided in each year since 2013-14. Combined annual GPR and SEG appropriations are $8,739,100 in 2015-17, but ongoing funding for the 2017-19 biennium would be $8,064,100, including $3,027,200 GPR and $5,036,900 nonpoint SEG.

Soil and Water Management Grants. DATCP is appropriated $2,500,000 annually in the 2015-17 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 an additional $6 million beginning in 2008-09 under 2007 Act 20. Appropriations for the next two biennia were lower, at $5,048,700 annually in the 2009-11 biennium and $5,356,700 annually in the 2011-13 biennium. In the past, soil and water management funds were transferred to the general fund or required

Table 7: Nonpoint Account Fund Condition

	Actual 2013-14	Actual 2014-15	Estimated 2015-16	Estimated 2016-17	2016-17 Staff
Opening Balance	$18,320,600	$16,741,200	$19,909,100	$19,560,900	
Revenue:					
GPR Transfer	$11,143,600	$11,143,600	$11,143,600	$11,143,600	
Tipping Fee *	13,432,800	19,822,500	18,190,600	17,500,000	
Misc. Income and Adjustments **	677,000	1,300,000	1,002,000	1,006,400	
Total Revenue	$25,253,400	$32,266,100	$30,336,200	$29,650,000	
Total Available	$43,574,000	$49,007,300	$50,245,300	$49,210,900	
Expenditures:					
Agriculture, Trade and Consumer Protection					
Soil and water management administration	$2,176,000	$2,241,100	$2,237,900	$2,249,100	20.30
County staffing grants	4,981,100	6,035,500	5,940,500	5,711,900	0.00
Soil and water management grants	1,581,700	2,104,000	2,594,000	2,500,000	0.00
Debt service	3,555,500	3,583,200	3,776,800	4,087,700	0.00
Natural Resources					
Integrated science services	$454,700	$421,900	$428,400	$445,200	4.00
Nonpoint source contracts	31,800	1,016,600	865,800	997,600	0.00
Nonpoint admin. and Wisconsin Waters	729,800	819,200	768,000	820,800	4.25
Animal feeding operation admin.	575,200	577,200	619,700	619,700	7.00
Urban nonpoint source grants	287,400	545,100	1,064,400	700,000	0.00
Rural TRM/NOD Grants	0	0	0	100,000	0.00
Debt service – Facilities	109,300	108,500	102,600	106,300	0.00
Debt service – Priority watershed	7,851,600	7,146,300	7,506,700	6,910,300	0.00
Debt service – TRM	1,226,800	1,282,200	1,444,800	1,722,400	0.00
Debt service – UNPS	2,894,700	2,833,200	2,995,800	3,152,500	0.00
Administrative operations	211,800	214,000	205,600	208,500	0.08
Customer assistance and communication	165,400	170,200	133,400	133,400	0.62
Total	$26,832,800	$29,098,200	$30,684,400	$30,465,400	36.25
Cash Balance	$16,741,200	$19,909,100	$19,560,900	$18,745,500	
Encumbrances/Continuing	-12,705,100	-13,559,100	-12,888,300	-12,888,300	
Available Balance	$4,036,100	$6,350,000	$6,672,600	$5,857,200	

* Tipping fee revenues reflect approximately $2.75 million from prior year billings received in 2014-15.
** Includes transfers of: (a) $650,000 in 2013-14 and $1,300,000 in 2014-15 from the environmental management account of the environmental fund; and (b) $1,000,000 in each year of the 2015-17 biennium from the agricultural chemical cleanup fund.

were among expenditure reductions to balance annual nonpoint SEG expenditures with anticipated revenues; however, there have been no such actions beginning with the 2013-15 biennium.

Nonpoint Source Contracts. DNR is appropriated $997,600 each year to support contracts for implementing or administering the nonpoint source water pollution abatement program. The statutes require that at least $500,000 each year be allocated to the University of Wisconsin–Extension for educational and technical assistance related to the program. This is done primar-

Table 8: County Conservation Staffing Grant Funding

Fiscal Year	GPR	Nonpoint SEG Base	Nonpoint SEG One-Time	Annual Total
2013-14	$2,844,500	$5,036,900	$998,600	$8,880,000
2014-15	3,027,200	5,036,900	815,900	8,880,000
2015-16	3,027,200	5,036,900	675,000	8,739,100
2016-17	3,027,200	5,036,900	675,000	8,739,100

ily through the Natural Resources Education (NRE) program, formerly known as the basin education program. The NRE program consists of educational and outreach services relating to water quality and land use. The program, although provided by the UW–Extension, is intended to complement other state and local agencies.

Contract funding in the past has also supported: (a) the Standards Oversight Council; (b) continued development and updates to SnapPlus nutrient management software; (c) the development of a web-based nonpoint source best management practices tracking tool; and (d) research related to the effectiveness of urban nonpoint source best management practices.

Of the funding provided for 2015-17, $770,000 is provided on a one-time basis. Therefore, base funding for purposes of establishing the 2017-19 budget would be $227,600 each year.

Urban Nonpoint Source Grants. DNR is appropriated $700,000 nonpoint SEG in each year of the 2015-17 biennium under a biennial appropriation for urban nonpoint source-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 most often supports local assistance grants for planning under these programs, but funding may also be allocated to construction or land acquisition grants.

Of the funding provided in 2015-17, $200,000 each year is provided on a one-time basis. Therefore, base funding for purposes of the 2017-19 budget would be $500,000 each year.

Rural Nonpoint Source Grants. DNR is provided $100,000 each year in the 2015-17 biennium in a biennial appropriation for nonpoint source water pollution abatement. DNR allocates this funding to portions of TRM or NOD grants, including staffing costs or nonstructural management practices, which cannot be funded with bond proceeds. The appropriation was previously supported by GPR but converted to nonpoint SEG by 2015 Act 55. Funding for 2015-17 is provided on a one-time basis, meaning the appropriation would have no base funding for the 2017-19 budget.

General Obligation Bonding and Debt Service

General obligation bonds to provide funding for DATCP's SWRM activities were first authorized in the 1997-99 biennial budget act. A total of $61,075,000 in bonds has been authorized for SWRM activities, including $7,000,000 provided for grants in the 2015-17 biennium. 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.

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 $182.1 million in bonding revenue has been authorized for DNR nonpoint pollution abatement activities, including: (a) $94.3 million for the priority watershed program, which ended in 2010; (b) $49.9 million for urban nonpoint source and municipal flood control programs; and (c) $37.9 million specifically for the TRM program. New authorizations in 2015 Act 55 for grants in the

2015-17 biennium include $5,900,000 for TRM and NOD grants and $3,000,000 for urban nonpoint source and municipal flood control grants.

Bonding authority for each agency has customarily been increased in biennial budget acts, but authority is usable outside of the biennium in which it is first authorized. Therefore, any bonding authority that goes unused in a grant year, perhaps due to projects spending less than authorized, may be awarded by DATCP or DNR in subsequent years, up to the total amount authorized.

Total principal and interest payments, known as debt service, on bonds issued for these grant programs were $15,724,100 nonpoint SEG in 2015-16. Debt service in 2016-17 is estimated at $15.9 million nonpoint SEG. The amounts attributable to each program are shown in Table 7. Debt service costs are expected to represent over one-half of 2016-17 nonpoint account expenditures.

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. These debt payments were converted under 2009 Act 28 from primarily GPR sum-sufficient appropriations to nonpoint SEG sum-sufficient appropriations. (Debt service on DATCP SWRM bonding was partially supported by an annual sum-certain appropriation of $847,700 nonpoint SEG from 2005-06 through 2008-09. This offset GPR debt service by that amount in those years.)

In addition to debt service on bonds issued for grants to abate pollution, the nonpoint account supports a portion of debt service on bonds issued for DNR administrative facilities. These costs are intended to reflect upgrades and maintenance of DNR administrative facilities used by personnel in the nonpoint source programs. These payments are estimated at $106,300 nonpoint account SEG in 2016-17.

Federal Funding

Section 319 Grants. States are awarded funding through the EPA for nonpoint source pollution abatement efforts. These funds are known as Section 319 grants after the Clean Water Act section creating them. According to the EPA, Section 319 grants were appropriated about $200 million annually or more by Congress from federal fiscal year 1999 through FFY 2010. Appropriations for FFY 2016 are approximately $163.4 million.

To be eligible to receive Section 319 funds, a state must create a management plan to control nonpoint pollutant loadings and improve water quality by doing so. The plan must describe several program aspects, including: (a) goals and strategies to protect state waters; (b) programs and other agency partnerships under which assistance will be provided to implement the practices; (c) financial assistance other than Section 319 funds that are anticipated to implement the programs and practices; and (d) a schedule of milestones for achieving and monitoring program progress. DNR's most recent management plan was approved by EPA in September, 2015, and will be in effect through federal fiscal year 2020.

Federal assistance for state programs funded by Section 319 may cover up to 60% of the total cost to a recipient state in administering its nonpoint source management program. States must, therefore, provide at least 40% of total program funding from other non-federal sources. Federal law also contains a maintenance-of-effort requirement that a state maintains its level of aggregate expenditures from all other sources at or above the average funding level for the two fiscal years prior to February, 1987.

DNR has used Section 319 funding both for administrative and staffing costs of the nonpoint source programs, and for grants to local units of government. Administrative costs funded by Section 319 funds typically would be expected to

support the creation and implementation of watershed-based plans, including TMDL implementation plans, to reduce nonpoint source pollution in waters identified as impaired. Total DNR awards of Section 319 funds were $3,933,000 in federal fiscal year 2015, which covers October, 2014, through September, 2015, and $3,892,300 in federal fiscal year 2016. In the 2016 calendar year, DNR allocated $1,000,000 in Section 319 funding to TRM grants and $1,000,000 is budgeted for TRM grants in the 2017 joint allocation plan.

DNR prioritizes Section 319 grant funds for TRM grants over other programs, particularly following the 2011 restructuring of the TRM program to consider projects implementing TMDLs and the 2013 update of federal Section 319 grant guidelines. Section 319 funds disbursed as grants generally must be allocated to projects located in a watershed for which a watershed-based plan exists to address nonpoint source pollution. Such watershed-based plans must include load allocation information such as those contained in a TMDL report, as well as other key elements including: (a) strategies and schedules for implementing, monitoring and evaluating the effectiveness of management practices; (b) amounts of funding required; and (c) educational or informational activities needed to execute the plan. 2014 revisions to ATCP 50 included changes to LWRM plan requirements to facilitate local development of watershed-based plans that might qualify for Section 319 funding if the LWRM plan is approved by DNR and EPA. It should be noted that, as Section 319 funds may not implement practices required under WPDES permits, the funds have not been available for UNPS grants.

USDA Programs. In addition to federal funding that is provided to DNR for disbursement, federal funding may be received by landowners 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.

Table 9: USDA NRCS Land and Water Conservation Funding Available in Wisconsin--Federal Fiscal Year 2016

Program	Funding (Millions $)
Environmental Quality Incentives Program	$23.90
Conservation Stewardship Program	4.52
Agricultural Conservation Easement Program	4.93
Total	$33.35*

*Excludes funding for conservation reserve program (CRP), which primarily involves rental payments, and conservation reserve enhancement program (CREP).

As shown in Table 9, $33.35 million in federal fiscal year 2016 was available to Wisconsin landowners and local governments for conservation practices under NRCS programs. It should be noted that this is an amount expected to be available to Wisconsin, but actual amounts received by landowners may vary with local government and landowner participation. This amount also includes only NRCS programs, which are more akin to state cost-sharing programs for practices on lands in active agricultural production; land-retirement programs administered by FSA are excluded from Table 9 and other comparisons throughout this paper.

Environmental Quality Incentives Program (EQIP). EQIP offers financial assistance and technical help to eligible 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 contracts generally pay up to 75% of the cost of eligible conservation practices, or up to 100% of income foregone due to certain practices. EQIP participants enroll in the program under contracts of up to 10 years. The federal Agricultural Act of 2014, commonly known as the 2014 Farm Bill,

caps total aggregate payments to any person or legal entity at $450,000 for contracts begun through federal fiscal year 2018. The Wisconsin NRCS office reports EQIP funding available in the state for the 2015-16 federal fiscal year was $23.9 million.

EQIP provides funds for general nonpoint source water pollution abatement and other resource concerns on agricultural lands; landowners may also receive funding under other federal programs described below, each of which has a more specific focus than EQIP. It should be noted that EQIP funding available in Wisconsin may include funds under several special federal initiatives, including: (a) the National Water Quality Initiative, which is intended to target financial assistance to select impaired waters; (b) the Driftless Area Landscape Conservation Initiative to address erosion and fish and wildlife habitat in the driftless area of southwestern Wisconsin; (c) the Mississippi River Basin Healthy Watersheds Initiative, a national effort to improve water quality of the river and the Gulf of Mexico by controlling deposition of nutrients and sediment throughout the basin; and (d) the Great Lakes Restoration Initiative, which is discussed in a separate section.

Conservation Stewardship Program (CSP). The CSP provides financial and technical assistance by awarding incentive payments to landowners for conservation practices that address local, state or national priority natural resource concerns. Agricultural producers 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 to be based on expected environmental benefits, costs to the producer for installation, and foregone income. The 2014 Farm Bill set contracts at a maximum of $200,000 in aggregate per person or other legal entity during a five-year contract. Wisconsin NRCS reports $4.52 million was allocated for new CSP contracts enrolled in federal fiscal year 2015-16, adding 327,100 acres to the program.

Agricultural Conservation Easement Program (ACEP). Prior to the 2014 Farm Bill, NRCS administered several programs under which landowners could enter easements or similar long-term rental arrangements to preserve productive farmland or other ecological features on and around farmland, namely wetlands and grasslands. The programs typically offered landowners rental payments or proceeds from an easement purchase in exchange for the owner maintaining the land in accordance with program specifications. Landowners could also qualify for cost-sharing for establishment or restoration of features, in some instances. These programs included: (a) the Farm and Ranch Land Protection Program (FRPP); (b) the Wetlands Reserve Program (WRP); and (c) the Grassland Reserve Program (GRP).

Beginning with the 2014 Farm Bill, these easement and land-rental programs were consolidated into a single Agricultural Conservation Easement Program. The ACEP's two components include an agricultural land easement, which encompasses the former farmland and grassland preservation aims of the FRPP and the GRP, and a wetland reserve easement, akin to the former WRP. Across these two components, Wisconsin NRCS reports total financial assistance allocations of $4.93 million in federal fiscal year 2016.

In general, the agricultural land easement component allows for payment of up to 50% of the fair market value of the easement, or 75% of fair market value if protecting grasslands of special environmental significance. Agricultural land easement durations are generally expected to be the maximum allowed by law in a state. A wetland reserve easement may last in perpetuity, for 30 years, or for other terms allowed by individual state laws. For permanent easements, NRCS may pay up to the full market value of the easement, plus 50% to 75% of costs for restoring wetlands

covered by the easement. Easements of 30 years or shorter terms may receive 50% to 75% of each of the easement's fair market value and the restoration costs for the covered wetlands.

It should be noted the purchase of agricultural conservation easements (PACE) program, structured similarly to FRPP, was created in Wisconsin under 2009 Act 28, although the program stopped accepting new applications in 2011 and two primary funding mechanisms for the program were repealed under 2011 Act 32. More information about this program is provided in the Legislative Fiscal Bureau informational paper entitled, "Working Lands and Farmland Preservation Tax Credits."

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% 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 July, 2016, Wisconsin had 16,400 CRP contracts in effect covering 10,300 farms and 238,800 acres. Statewide average annual rental payments were $117 per acre, with annual payments totaling approximately $27.9 million. (These figures include payments for and acreage enrolled in the Conservation Reserve Enhancement Program, which is discussed in the following paragraphs.)

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 establish conservation practices on environmentally sensitive agricultural land near bodies of water. The conservation practices are intended to decrease erosion, restore wildlife habitat, and safeguard ground and surface water, while leaving most acreage in agricultural production. Enrollment is through 15-year agreements or perpetual easements.

USDA pays enrollees annual land rental payments for 15 years, as well as cost-sharing for 50% of the cost of installing conservation practices. Eligible CREP conservation practices include riparian buffers, filter strips, wetland restorations, and establishment of native grasslands in two designated grassland project areas. The state of Wisconsin also makes up-front, one-time incentive payments of 1.5 times the annual rental rate for 15-year easements and 12 times the annual rental rate for permanent easements, as well as 20% cost-sharing for eligible costs of establishing conservation practices.

The state is required to provide a 20% overall 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. DATCP believed program demand was unlikely to approach these funding authorizations so bonding authority was reduced to $28 million under 2009 Act 28, with $12 million being reallocated to fund the PACE program. When PACE was repealed under 2011 Act 32, this funding was not restored to CREP. Based on historical enrollment rates, DATCP currently projects the $28 million authorized will be sufficient for state payments for the foreseeable future. Since its inception, total state and local costs for CREP total $15.8 million. This includes $2.7 million in spending by counties for staff and other costs associated with implementation of CREP locally.

CREP has enrolled 46,600 acres into agricultural conservation practices, with 39,800 acres entered in 15-year agreements and 6,800 acres in perpetual easements as of June 30, 2016. DATCP reports 4,300 contracts are in effect with 4,300

different landowners. The FSA projects that total federal payments associated with this acreage for active CREP contracts will total over $100 million. In addition, state incentive payments to landowners enrolling their land totaled $13.1 million as of June 30, 2016, which includes $11.2 million in incentive payments and $1.9 million in cost-share payments for installation of conservation practices.

Practices funded by CREP have achieved the following: (a) buffered 1,500 miles of streams, part of the state goal of 3,700 miles; (b) prevented 145,000 pounds of phosphorus deposition annually, part of the state goal of 610,000 pounds annually; (c) prevented 77,000 pounds of nitrogen deposition annually, part of a goal of 305,000 pounds annually; and (d) prevented 71,200 tons of sediment runoff annually, part of a goal of 355,000 tons annually. Additionally, CREP has made the following estimated progress toward goals for the following practices: (a) established 11,600 acres of the state goal of 15,000 acres of grassland habitat; (b) restored 3,300 wetland acres of the statewide goal of 5,000; (c) established an estimated 29,600 acres of riparian buffers, part of a goal of 80,000 acres; and (d) 2,100 acres of currently uncategorized practices. The overall goal for total enrolled acres is 100,000; Wisconsin currently has about 46,600 acres enrolled.

Wisconsin and the USDA have regularly extended the state's participation in CREP as the program is reauthorized by Congress. DATCP reports new CREP contracts can be entered in Wisconsin through September 30, 2018, which is the expiration date of the 2014 Farm Bill.

Great Lakes Restoration Initiative. The Great Lakes Restoration Initiative (GLRI) began in 2010 as a coordinated effort among several federal agencies to provide federal funding to address concerns in the Great Lakes watersheds pertaining to water quality, public health and wildlife habitat. According to a federal GLRI grants database, approximately $1.6 billion in GLRI grants had been awarded from 2010 through September, 2016. Projects located primarily in Wisconsin have been granted approximately $256 million since 2016 from EPA, USDA, the U.S. Department of the Interior, the U.S. Army Corps of Engineers, the National Oceanic and Atmospheric Administration, U.S. Department of Transportation and U.S. Geological Survey. Approximately $152 million has been awarded by EPA. Not included in the total are other amounts for multistate awards that may have Wisconsin components.

Soil and Water Resource Management and Nonpoint Source Administrative Funding

DATCP and DNR allocate approximately $9.0 million in direct administrative funding for approximately 87 staff and associated costs for the nonpoint and SWRM programs in 2016-17, as shown in Table 10. In addition to amounts identified in the table, this section discusses other general agency costs funded by nonpoint SEG.

Table 10: 2016-17 Administrative Funding and Associated Positions

	DATCP		DNR	
Source	Funding	Staff	Funding	Staff
GPR	$0	0.00	$754,400	8.50
FED	286,000	2.50	2,551,400	27.53
SEG	2,249,100	20.30	1,440,500	11.25
PR	0	0.00	1,749,300	16.50
Total	$2,535,100	22.80	$6,495,600	63.78

DATCP Soil and Water Management Staff

DATCP is appropriated $2,249,100 in 2016-17 with 20.30 positions from the nonpoint account for soil and water management. These positions are a part of DATCP's Bureau of Land and Water Resources. Soil and water resource management efforts include establishing tech-

nical standards for nonpoint pollution, assisting the development of nonpoint pollution abatement measures, providing agricultural engineering assistance across the state through five field offices, implementing the farmland preservation program, providing nutrient management support, overseeing county LWRM planning, managing grant programs and evaluating nonpoint pollution abatement efforts.

DATCP continues to receive $191,000 FED in Clean Water Act Section 319 funding from DNR in federal fiscal years 2015 and 2016. These funds support 2.50 positions which perform engineering work in the field, especially related to BMP education, design, and implementation.

In federal fiscal years 2015 and 2016, DATCP continued to receive annual GLRI funding of $95,000 for enhancing nutrient management services in the Lower Fox, Manitowoc-Sheboygan, and Milwaukee River watersheds. Funded activities include: (a) review of nutrient management plans; (b) individualized instruction and technical support; (c) coordination with NRCS and project partners; (d) nutrient management training sessions; and (e) support for the manure management advisory system. DATCP has received funding for these initiatives since September, 2011.

DNR Watershed Management Staffing

State and federal funding has been provided for DNR planning, monitoring and administration of the nonpoint program. In 2016-17, DNR is provided $6,495,600 and 63.78 staff to administer its nonpoint pollution abatement and storm water activities. Program revenues are provided from storm water permitting fees. Segregated revenues are provided from the nonpoint account of the environmental fund. Federal funds are provided mostly from the Department's Section 319 grant from the EPA, and also from other EPA-funded water quality grant programs.

Nonpoint Source Administration and Wisconsin Waters Initiative. DNR is appropriated $820,800 nonpoint SEG annually with 4.25 positions for nonpoint source administrative duties in 2016-17. These 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.

In addition to the staff, the appropriation includes $400,000 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 expedite water permit processing and enable access to data such as floodplain mapping.

Animal Feeding Operations. A separate appropriation of $619,700 nonpoint SEG annually with 7.0 positions is allocated primarily to regulation of animal feeding operations. (CAFO staffing is discussed in detail in Chapter 2.) Staff responsibilities include oversight of large operations requiring a WPDES wastewater permit and smaller facilities that have been sources of manure or process wastewater discharges to state waters. Staff supported by the appropriation may evaluate permit applications, investigate complaints, determine compliance with performance standards or permit conditions, and assist with enforcement, if necessary.

Storm Water Management. DNR is authorized $1,749,300 PR in 2016-17 with 16.5 positions under an annual appropriation for storm water management and permitting. The DNR storm water program is responsible for annual WPDES permitting of municipalities, industrial sites and construction sites required to operate under permits for their storm water discharges. The program also conducts inspections and enforcement of permit violations. Storm water management is discussed in greater detail in Chapter 2.

Federal Funding. The current DNR federal positions are funded through the state's EPA-funded grants under Section 319 of the Clean Water Act for control of nonpoint source pollution and under Section 106 for general surface water and groundwater pollution control. Of the DNR FED positions shown in Table 10, 23 are supported by Section 319 funding and 4.53 are supported by Section 106 funding.

DNR Other Staffing

In addition to the 11.25 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 shown in Table 7 and described below, but are not reflected in Table 10. References to DNR's organizational structure throughout this paper reference the names of divisions and programs included in the Department's 2017-19 biennial budget request of September, 2016, rather than proposed names in DNR's December, 2016, reorganization plan.

Science Services. DNR is appropriated $445,200 nonpoint SEG annually with 4.0 positions for activities related to research, evaluation and monitoring of nonpoint source water pollution.

Administrative Operations. DNR has allocated $208,500 nonpoint SEG in 2016-17 with 0.08 position for general and administrative costs in its Division of Customer and Employee Services. The administrative operations appropriation supports general departmental nonpoint-related support functions such as 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 $133,400 nonpoint SEG with 0.62 positions in 2016-17 to support activities of the Division of Customer and Employee Services relating to grant management, licensing and public information. These amounts are intended to reflect staff time spent addressing nonpoint source water pollution issues.

Other Funding Sources

In addition to state and federal grant funding, other types of programs in Wisconsin provide funding to address nonpoint source water pollution. These include adaptive management programs, the proposed multi-discharger variance for phosphorus, and the clean water fund. Each is described in the sections following.

Adaptive Management Programs

Adaptive management programs are designed to focus pollution abatement funding and activities on sources whose contributions of pollutants can be reduced most cost-effectively. Programs engage multiple entities to cooperate on abatement activities in a given watershed in order to collectively meet water quality standards. While point sources, such as wastewater treatment plants or industrial facilities, may have discharges that are easier to identify and monitor, such entities have already achieved reductions of certain regulated pollutants, and pursuing additional reductions may be technologically difficult or expensive. At the same time, nearby nonpoint sources may have relatively fewer pollution controls and may be able to manage their runoff with lower-cost practices to help meet water quality standards for area waters.

In 2010, DNR promulgated rules to create water quality standards for phosphorus, as well as establish water quality-based effluent limits for certain WPDES-permitted entities such as wastewater treatment facilities that discharge phosphorus. An adaptive management option was created in administrative rule NR 217 for permit holders that could demonstrate the following: (a)

an area water's phosphorus excess is attributable both to point and to nonpoint sources; (b) contributions by nonpoint sources and municipal separate storm sewers exceed 50% of the total phosphorus contribution to the water not meeting applicable standards, or the applicable standard cannot be met without additional phosphorus controls on nonpoint sources; (c) reducing phosphorus discharges to meet water quality standards would require filtration by the permit holder, or other equivalent technology to meet requirements; and (d) the permitted entity has a plan that identifies specific partner entities, actions and sufficient funding to achieve applicable phosphorus standards. Entities approved for an adaptive management plan may take up to three five-year WPDES permit terms, or 15 years, to meet the phosphorus concentration requirements of discharges, although requirements are progressively more stringent each permit term.

Multi-Discharger Variance for Phosphorus

2013 Act 378 established in statute an allowance for permit holders to use adaptive management for phosphorus as well as for total suspended solids (TSS). (TSS are small particles contained in runoff, which increase the turbidity of water, and also may convey phosphorus or other organic material, including bacteria, into waterways.) In codifying the adaptive management option, Act 378 provides DNR may authorize plans that achieve effluent limits over four permit terms, or 20 years.

Federal water quality standards provide regulatory flexibility to states for implementing water quality standards in the form of variances. A variance is a time-limited designated use that is targeted at a specific pollutant, which represents the highest attainable condition of pollution abatement in a given time period. Act 378 creates a process by which a statewide variance for phosphorus water quality standards may be available for point sources in existence on December 1, 2010, when the phosphorus water quality standards took effect. Variances continue to be allowed under Chapter 283 of the statutes, but they are issued on a case-by-case basis in light of natural or other circumstances of the water body, or the likelihood of a water quality standard as applied to the permit holder causing adverse social and economic benefits.

As part of the process for attaining a statewide variance for phosphorus water quality, Act 378 required the Department of Administration (DOA) determine by December, 2014, whether meeting phosphorus water quality standards through water quality-based effluent limits imposed by point sources' WPDES permits would be infeasible by causing "substantial and widespread adverse social and economic impacts on a statewide basis," due to permitted facilities likely needing to undergo major facility upgrades to achieve compliance.

In April, 2015, DOA and DNR released an economic impact analysis outlining the impacts of water quality standards compliance costs on Wisconsin industries, municipalities and the overall economy. The report estimated necessary expenditures of at least $3.45 billion by Wisconsin businesses and municipalities to comply with regulations. The report associated such costs with negative impacts to state economic activity and employment.

In October, 2015, DOA issued a final determination regarding phosphorus water quality standards. It found that implementation of water quality standards for phosphorus will cause "substantial and widespread adverse social and economic impacts." As a result, it directed DNR to begin the process of applying for a multi-discharger variance (MDV) from EPA.

Since March, 2016, DNR has been awaiting EPA approval of Wisconsin's MDV for phosphorus. While mandated to issue a determination within 90 days, the EPA has yet to approve or deny the request. In September, 2016, EPA indi-

cated it is taking additional time for review, citing the complexity and novelty of the program as complicating factors. As of November, 2016, the EPA review of Wisconsin's phosphorus MDV remained in progress, and no action has been taken.

If EPA approves the MDV, a permit holder in a point source category determined eligible by DOA may apply to DNR for coverage under the variance. Permit holders covered under the variance would be required to optimize the source's performance in controlling phosphorus discharges, but may be allowed four WPDES permit terms, or 20 years, before being fully required to meet water quality-based effluent limits for phosphorus.

Any permit holder covered under a statewide phosphorus variance must choose one of three options to reduce phosphorus entering state waters. First, a permit holder may enter a binding agreement with DNR under which the permit holder constructs a project or implements a plan to reduce phosphorus entry at some other point in the geographic drainage basin of the point source. The amount of phosphorus reduction would be required to be at least as much as the difference between the point source's actual phosphorus contributions and the level it would be expected to reach to contribute to the achievement of water quality standards.

A second option is for the permit holder similarly to commit to constructing a project or implementing a phosphorus-reduction plan elsewhere in the basin through a third party, rather than the permit holder undertaking a phosphorus-reducing project directly. Any person conducting a project under these options must report annually to DNR on the estimated phosphorus reductions achieved by the project. If the project is shown not to effectively reduce phosphorus, the agreement detailing the project is to be modified or terminated.

A third option is for the permit holder to make payments to counties in support of county nonpoint source pollution abatement activities. The payment is to be an amount per pound of phosphorus by which the point source in the preceding year exceeded the level of phosphorus discharge it would be expected to reach to achieve water quality standards. The price per pound is $50, beginning in 2014, with DNR required annually to adjust the amount for inflation beginning in 2015. These payments are capped by 2013 Act 378 at $640,000 each year per point source.

Payments are to be distributed to counties electing to participate in the MDV program in proportion to the territory each county has in the basin. If no counties in the same basin as a point source permit holder elect to participate, a permit holder is to distribute payments to counties selected by DNR. Payments are to be made by March 1. Also by each March 1, a recipient county is to develop a plan for using the funds received in the previous year. The plan is to be consistent with the county LWRM plan, and is to identify projects or watersheds with the greatest potential to achieve phosphorus reductions, along with measures to ensure projects are completed and evaluated. Funds received by counties may support cost-sharing for projects to reduce phosphorus at agricultural facilities, staff to implement such projects, or modeling or monitoring of waters for purposes of planning future efforts to reduce phosphorus entry into state waters. However, at least 65% of funds received must be used to cost-share projects.

Two years after receiving a payment from a point source permit holder, a county must, by May 1, submit a report detailing the projects or staff funded and the estimated pounds of phosphorus reductions achieved. Reports are to be submitted to each permit holder from which it received payments, as well as DNR and DATCP. DNR is to review the reports, and if it determines funding is not being effectively used to reduce

phosphorus entry to state waters, future funding can be reduced or eliminated.

Under 2015 Act 205, changes were made to Act 378 to bring Wisconsin law into compliance with new federal rules. Act 205 requires DNR to review current water quality standards every three years and to determine if modifications to standards or the variance are necessary to maintain compliance with federal standards. If necessary, DNR will modify variances and water quality standards at the time of reissuance or modification of permits. Act 205 also requires DNR to conduct a review every five years of a variance to determine whether effluent discharges at point sources are consistent with the highest attainable condition.

Clean Water Fund

The clean water fund program, administered by DNR and DOA, provides subsidized loans to municipalities for nonpoint source pollution abatement and storm water management projects. The subsidized interest rate is 75% of the market rate. Funding for nonpoint and urban storm water projects has been allowed since 2001. As of June 30, 2016, the program has funded 26 nonpoint or urban storm water projects for $23,414,900. The Legislative Fiscal Bureau informational paper entitled, "Environmental Improvement Fund" describes the clean water fund program.

Nonpoint Source Performance Standards

The 1997-99 biennial budget act required DNR to develop performance standards for agricultural activities and facilities, and required DATCP to prescribe conservation practices that would allow attainment of the associated performance standards. Performance standards are to be designed to achieve state water quality standards by preventing or limiting nonpoint source pollution. 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.

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

With the promulgation of the nonpoint source water pollution abatement rules, there are enforceable state standards to control runoff. DNR administrative rule NR 151 establishes the standards and defines enforcement procedures. However, as noted earlier, agricultural sources are entitled to receive a cost-share offer before being required to change an existing livestock operation or facility, or existing cropland.

NR 151

In order to administer its nonpoint and soil erosion performance standard responsibilities, DNR promulgated administrative rule NR 151. The rule prescribes performance standards for three general areas: (a) agricultural land; (b) nonagricultural land; and (c) transportation facilities, including highways, roads, public mass transit facilities and harbor improvements. The performance standards initially took effect in 2002 and underwent further revisions that took effect January 1, 2011.

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 relate to: (a) TMDL requirements; (b) process wastewater handling; (c) clean water diversions; (d) manure storage facilities and handling; (e) nutrient management;

Table 11: 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 five feet from top of water channel; up to 20 feet may be required.
Phosphorus Index	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 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.

and (f) phosphorus. Performance standards are summarized in Table 11. It should be noted that conservation practices specified in administrative rule ATCP 50 serve the purpose of implementing agricultural performance standards in NR 151.

Erosion Control. All cropland and pasture 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 and pasture is two to five tons of erosion per acre per year. Rates for individual fields are calculated under soil-loss models developed by the USDA NRCS that account for particular characteristics of the field. State erosion control goals are discussed later in greater detail.

Tillage Setback. The tillage setback prohibits tilling that would compromise the integrity of stream banks or result in direct sediment deposits to surface waters. Specifically, the standard generally allows no tilling within five feet of the top of a surface water channel. Setbacks of up to 20 feet may be required in instances where such an increase is determined to be necessary. Further, setback areas must be at least 70% covered by sod or self-sustaining vegetative covers. These conditions and dimensions do not apply to a grassed waterway installed specifically as a conservation practice.

The tillage setback was a new standard promulgated under NR 151 revisions that took effect on January 1, 2011. This standard is based in part 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 surface waters from agricultural runoff. The tillage setback in some ways resembles a buffer by preserving certain acreage near waterways from tillage, thereby allowing other vegetative covers in those areas to capture sediment and pollutant runoff from agricultural fields and maintain the integrity of the stream bank. The tillage setback differs from a buffer, however, in that the WBI report recommended buffers that accounted for the characteristics of the upland drainage area, including its size and any areas in which runoff converges into more concentrated flows. The tillage setback instead imposes a more uniform requirement. Riparian buffers remain a best management practice eligible for

DNR or DATCP cost-sharing.

Phosphorus Index. Also contained in the 2011 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 indigenous phosphorus in soil, phosphorus introduced through fertilizers or manure, and the field's estimated soil erosion rate. 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. 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.

As with the tillage setback standard, the phosphorus index standard is intended to be in lieu of required riparian buffers, in that it limits phosphorus introduction to waters but allows landowners discretion in achieving the standard.

Nutrient Management. As discussed earlier, the nutrient management standard requires 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 by January 1, 2008, it was in effect for most other existing cropland, provided there is a bona fide offer of cost sharing if applicable.

Total Maximum Daily Load. The 2011 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 reports. TMDL reports are required for waters on the state list of impaired waters submitted biennially by DNR to the EPA. TMDL reports 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 2011 revisions, NR 151 prohibits all significant discharges of process wastewater to any surface water 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 contamination 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 generally requires runoff water to be diverted from contacting feedlots, manure storage areas and barnyard areas within the WQMA.

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 results 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.

Nonagricultural Performance Standards. The 2011 revisions to NR 151 created two standards for construction sites. One standard applies to sites not required to hold a WPDES storm water permit, which generally are those 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 nonagricultural standard is described below. Table 12 summarizes performance standards for construction sites.

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 storm water permit coverage prior to January 1, 2011. For sites seeking permit coverage prior to January 1, 2011, permitted sites are to implement BMPs designed to achieve an 80% reduction in the sediment load carried off-site, compared to a circumstance of no controls, as measured on an average

Table 12: NR 151 Construction-Site Performance Standards

Activity	Standard
Less than One Acre (Non-Permitted) Soil/Sediment Loss Controls	BMPs shall reduce or prevent soil tracking on streets, and reduce or prevent discharges of sediment, chemicals or building materials.
One Acre or Larger (Permitted), Prior to January 1, 2011 Sediment Runoff	Sites in general should reduce or prevent soil tracking on streets and sediment discharges; additionally, BMPs must reduce sediment carried off site by 80%, as compared to no control, or to the maximum extent practicable if 80% is unattainable.
One Acre or Larger (Permitted), After January 1, 2011 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% if site is permitted by Jan. 1, 2013; (b) to no more than 5 tons/acre/year if site permitted after January 1, 2013; or (c) to maximum extent practicable if standard is unattainable.

annual basis. However, the rule allows reductions to be to the "maximum extent practicable," if the responsible party justifies to DNR why the 80% 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 storm water permit coverage beginning January 1, 2011, NR 151 requires one of two standards for sediment contained in runoff. For sites that sought coverage by December 31, 2012, BMPs needed to achieve a reduction in sediment load of 80%, as compared to no controls on an average annual basis, or to the maximum extent practicable. For sites seeking coverage beginning January 1, 2013, the standard is no more than five tons of sediment per acre per year. Regulated sites may also reduce sediment loading to the maximum extent practicable if BMPs cannot be designed to meet the specified standards. 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, 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. NR 151 requires several performance standards to be met following the completion of construction activities at each WPDES storm water-permitted construction site. As is the case for the performance standards applied to WPDES storm water-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 2011 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 storm water permit, is shown in Table 13. Percentage reductions typically are determined by using runoff models that show how a BMP designed in a particular manner would be expected to reduce runoff, relative to an environment at the site in which no controls existed. Installed BMPs are required to be maintained as designed.

Developed Urban Areas. NR 151 creates requirements both for incorporated municipalities of more than 1,000 residents per square mile but not holding WPDES MS4 permits for storm water discharges under NR 216, and for municipalities required to hold a WPDES MS4 permit under NR 216. 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.

Municipalities covered by WPDES MS4 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

Table 13: NR 151 Post-Construction Performance Standards

Category	Standard Prior to Jan. 2011	Standard Beginning Jan. 2011
Total Suspended Solids (Percentage Reduction)		
New Development	80%	80%
Redevelopment	40%	40%*
In-Fill Development, <5 Acres, Before 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-development peak runoff for 2-year, 24-hour storm.	No more than pre-development peak runoff for 1-year and 2-year 24-hour storms.
Infiltration (Minimum, as a Percentage of Pre-Development Volume)		
Residential	90%, or at least 25% of 2-year, 24-hour storm	N/A
Non-Residential	60%, or at least 10% of 2-year, 24-hour storm	N/A
Low Imperviousness (Parks, Cemeteries)	N/A	90%
Medium Imperviousness (Multi-Family Residential)	N/A	75%
High Imperviousness (Strip Malls, Downtowns)	N/A	60%
Protective Areas (An area extending outward from the edges of lakes, rivers, streams and wetlands, up to a specified distance, usually 50 to 75 feet)	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.

*Applies to parking areas and roads.

two years of WPDES MS4 permit coverage. Stage 2 requirements are one of the following: (a) a 40% TSS reduction by March 31, 2013, if WPDES MS4 permit coverage began January 1, 2010, or earlier; (b) a 40% TSS reduction within seven years of WPDES MS4 permit coverage if permit coverage 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.

2011 Act 32 limits the application of the Stage 2 requirements by prohibiting DNR from enforcing a rule provision that requires a permitted municipality to achieve a specified TSS reduction if the reduction would exceed 20%. However, WPDES MS4-permitted municipalities that had achieved a TSS reduction of more than 20% are required to maintain, to the maximum extent practicable, any BMPs implemented by the act's effective date of July 1, 2011. This provision is intended to prevent the degradation or abandonment of publicly funded practices already in place that may have contributed to water quality improvements.

The 2011 Act 32 provision and the 2011 NR 151 revisions were intended to reflect concerns

Table 14: NR 151 Developed Urban Area Performance Standards

All Urban Areas (1,000+ persons/square mile)	**Additional for WPDES MS4 Permit Holders**
Storm Water Management Plan	Stage 1:
Yard waste management	20% TSS reduction in storm water from existing development
Proper nutrient application to municipal turf	Stage 2:
Prevention of illicit discharges	40% TSS reduction by varying deadlines; superseded by 20% maximum reduction specified by s. 281.16 (2) (am)
Public education on runoff prevention	

that costs of complying with the TSS deadlines could be too onerous. Prior to January 1, 2011, the NR 151 performance standards for developed urban areas required WPDES MS4-permitted municipalities to achieve a 20% TSS reduction by March 10, 2008, and a 40% reduction by March 10, 2013. The seven-year compliance period for certain municipalities, as well as the option to develop a long-term storm water management plan, were introduced in the 2011 NR 151 revisions. Requirements for developed urban areas are summarized in Table 14.

Turf Standards. NR 151 requires that private owners of nonagricultural turf or gardens of five acres or larger that apply nutrients for fertilizer do so based on site-specific schedules designed to achieve optimum health of the turf or garden through the use of soil tests. The provision applies only to properties that discharge to surface or groundwater, and that are not the site of silvicultural (forestry) 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. In general, the standards for transportation facilities in each category mirror those for nonagricultural facilities. This includes differences for: (a) construction sites, which can be either WPDES construction site-permitted for storm water or not; (b) post-construction sites; or (c) transportation facilities in developed urban areas. Further, standards may differ somewhat between sites seeking coverage either before or after January 1, 2011, as is the case with other nonagricultural standards. As such, the preceding tables depicting nonagricultural performance standards are largely consistent with standards for transportation facilities. For example, construction site performance standards for transportation facilities are those summarized in Table 12, with non-permitted sites including both those less than one acre, or those less than five acres undergoing routine maintenance for cleaning of storm water conveyance systems. Notable differences for post-construction and developed-area standards for transportation facilities are described below, although 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 13 for nonagricultural 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 applies beginning January 1, 2017, for municipalities with WPDES storm water permits and transportation facilities under the jurisdiction of the Wisconsin Department of Transportation (DOT) that are located in WPDES MS4-permitted municipalities, provided permit coverage was sought after January 1, 2011.

Standards relating to transportation facilities in protective areas are somewhat less restrictive

than the same standards for nonagricultural 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 generally are considered to meet applicable performance standards, provided the swale is vegetated and meets certain technical standards. (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.

Post-construction performance standards for transportation facilities may not in all cases apply to certain activities, such as minor reconstruction of highways, bicycle/pedestrian paths, or road resurfacing.

Developed Urban Areas. DOT transportation facilities within a WPDES MS4-permitted municipality must meet 20% and 40% TSS reductions consistent with those assigned to the municipality as described earlier. DOT has the same flexibility granted to municipalities in achieving a 40% reduction if a standard seven-year deadline is unattainable. DNR interpreted the 2011 Act 32 provision limiting the 40% TSS reduction for covered municipalities to also apply to the identical TSS reduction standard required of DOT transportation facilities within covered municipalities.

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. 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 ordinance which primarily focus on livestock facilities. Local regulations are discussed in a separate section.

Construction Sites and Post-Construction. For sites of at least one acre of land disturbance, 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. Those municipalities covered under a WPDES-MS4 permit also are required under terms of their permit to administer such ordinances. To help municipalities create local programs, DNR has published model construction site and post-construction erosion control ordinances as appendices to NR 152. Local regulation of construction site erosion control is discussed in a separate section.

Developed Urban Areas. Standards for de-

veloped urban areas are implemented through municipal storm water permitting under NR 216. Urbanized areas and operators of 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.

Transportation. DOT and DNR are required by statute to cooperate in establishing standards for activities related to construction site erosion control and storm water management for transportation facilities. Statutes also previously exempted DOT-supervised or DOT-directed projects from several permitting requirements, including those for storm water management, provided DNR and DOT adhered to interagency agreements minimizing adverse environmental impacts of transportation projects. In order to comply with Clean Water Act provisions requiring a permit for sufficiently large projects or storm water discharges, 2015 Act 307 instituted changes requiring DNR to issue a general permit to DOT before June 30, 2018. Once the general permit has been issued, DOT's storm water permitting exemption will terminate. Transportation projects implemented by municipalities are required to comply with standards described earlier, and are subject to permitting requirements for projects of one acre of land disturbance or greater.

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. NR 151 also allows for violations of performance standards to be addressed under a compliance schedule and with an offer of cost-sharing, if required. Further steps may include an enforcement conference between the involved parties to discuss resolution of the matter. Livestock operations not required to hold a WPDES permit may be issued a notice of discharge under the WPDES program; enforcement of discharges from small and medium animal feeding operations is discussed in a separate section. Formal orders to take or cease certain actions may be used by DNR in cases of long-term noncompliance, or in cases of repeated mismanagement or willful violations. Some cases may be referred to the Department of Justice (DOJ) for court action. Violations of rules promulgated under Chapter 281 may incur forfeitures of between $10 and $5,000 per day of violation.

If a WPDES-permitted livestock facility violates performance standards, DNR may instead pursue remedies under the WPDES program, including possible criminal penalties, civil forfeitures and permit revocation.

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 practices 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.

Administrative rule ATCP 50 implements the entire SWRM program, beginning with requirements that agricultural landowners practice nonpoint source pollution control in accordance with NR 151, control cropland erosion and comply with nutrient management plans. 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. It also establishes procedures for annually distributing grant funds to counties. The current rule generally took effect October 1, 2002, and it was most recently updated effective May 1, 2014, to reflect the 2011 changes to performance standards in NR 151. 2014 revisions included: (a) specifications for implementing a tillage setback; (b) clarifications on nutrient management planning requirements, including how to incorporate pastures into a plan; and (c) several technical changes to standards for cost-shared practices. DATCP is in the rulemaking process to revise ATCP 50 primarily to incorporate the newest standard for nutrient management adopted by NRCS.

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 that 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 to issue orders does not, however, apply to pollution caused by animal waste. 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.

Although DNR continues to have authority to issue orders for nonpoint sources of pollution, the Department interprets most of these provisions to pertain to the priority watershed program, which is inactive. Instead, DNR reports it has typically pursued enforcement of performance standards through procedures established in NR 151 or NR 243, in the case of discharges from animal feeding operations.

Local Regulations

The statutes allow local governments to create several types of ordinances to further regulate agricultural activities that may contribute to nonpoint source water pollution in their jurisdictions. These ordinances are described in the following paragraphs. State law limits local regulation of agriculture by requiring: (a) DNR or DATCP approval of local provisions relating to livestock operations, and that are more stringent than state standards (s. 92.15); (b) compliance with state-mandated procedures and standards when approving new or expanding livestock facilities (s. 93.90); and (c) an offer of cost-sharing if a local government ordinance requires existing agricultural facilities to install practices to comply with state standards (s. 281.16).

Livestock Operations

Local governmental units are allowed to enact ordinances or regulations for livestock operations that are consistent with the performance standards, prohibitions, conservation practices and technical standards established by DNR and

DATCP. The most common focus of local ordinances involves the regulation of livestock facilities. Of the 119 local governments with ordinances requiring approval of new and expanded livestock facilities, 26 counties have adopted zoning or licensing ordinances, according to DATCP.

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 state water quality standards, and one of the Departments approves the standards. In 2006, Manitowoc County received approval for an ordinance that creates standards related to manure application more stringent than state standards. In 2016, Bayfield County was denied approval for more stringent standards in the County's South Fish Creek Watershed Animal Waste Storage and Management Ordinance. Bayfield County has since appealed DNR's decision.

For a local ordinance to apply to an operation in existence on October 14, 1997, cost-sharing must be available to the owner if the regulation would require a change to practices. DATCP is required 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. The restrictions on local regulation do not apply to measures that do not directly relate to livestock operations, such as local standards for cropland that may be more stringent than state standards.

Manure Storage Facility Ordinances

Chapter 92 of the statutes authorizes counties, cities, villages or towns to enact ordinances requiring manure storage facilities in their jurisdictions to comply with technical standards the municipality may impose on such structures. ATCP 50 further specifies the content of these ordinances and provides for the review of the ordinances, prior to enactment, by the county land conservation committee and the county planning and zoning agency. DATCP also may require a municipality to submit a proposed ordinance for review. These procedures do not require any reviewing entity to approve the ordinance, however. Sixty-one counties have used the authority under s. 92.l6 to adopt manure storage ordinances that require construction permits for new or substantially altered manure storage structures and implementation of nutrient management plans. These ordinances often include provisions that require operators to close storage structures unused for 24 months and to obtain permits to close unused manure storage structures.

Agricultural Shoreland Management

Agricultural shoreland management (ASM) ordinances are intended to limit excessive nutrient and sediment runoff into waterways, by specifying required structures or farming practices, or by prohibiting structures. Beginning with the 2003 joint allocation plan, DATCP eliminated separate grant funding for ASM ordinances, and DATCP reports the few counties and towns that had adopted shoreland management ordinances do not actively implement these ordinances, as DATCP no longer provides separate grants to support this activity. However, ASM activities such as compliance and monitoring enforcement may be funded by LWRM grants.

Animal Feeding Operations and Animal Waste

DNR administrative rule NR 243, which was first promulgated in 1984, regulates all concentrated animal feeding operations (CAFOs) in the state. CAFOs include all large-scale animal feeding operations (1,000 animal units or more) and

smaller-scale animal feeding operations (less than 1,000 animal units) with certain discharges of pollutants into state waters. DNR regulates such operations as "point sources" of water pollution under a WPDES permit, which is the same permit system used to regulate discharges from such sources as municipal sewage treatment plants and paper mills. Point sources are not eligible for cost-sharing to meet permit conditions. NR 243 was updated in September, 2002 by incorporating NR 151 agricultural performance standards and prohibitions into the existing requirements. Further revisions in 2007 incorporated revised federal animal feeding operation regulations, including more protective practices to address runoff issues associated with manure application.

DNR investigates CAFOs on the basis of its general inspection authority for WPDES-permitted CAFOs, as well as on the basis of citizen complaints or information received from state and county staff. Staffing associated with CAFO permitting and oversight in 2016-17 consists of 8.5 GPR, 9.5 nonpoint SEG, and 2.0 FED positions. Budgeted funding is $1,757,200, including $754,400 GPR, $806,400 SEG, and $196,400 FED.

Discharge Permits

WPDES Permit Program. 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 relative size and manure production of different animal types. For example, 700 milking cows, 1,000 beef cattle, and 125,000 broiler chickens are each approximately equivalent to 1,000 animal units. CAFOs are required to prevent groundwater or surface water pollution through management practices and facility design standards. The construction of new or altered storage or pollutant runoff control structures may be required due to NR 243 regulations. Smaller-scale operations may be defined or designated as a point source if they meet certain discharges to navigable waters. Such operations must also apply for a WPDES permit.

General Permits. 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 features.

In 2011, DNR issued a general permit for dairy operations of at least 1,000 animal units but fewer than 5,720 animal units. Eligibility for the permit requires dairy animals to be 80% or more of the animal population of the farm, and covered facilities generally may not have been subject to criminal or civil actions, including DNR citations, for prohibited discharges under the statutes. The general permit expired on March 31, 2016, although permit terms generally remain in effect for covered operations. As of June 30, 2016, 25 CAFOs with active permits were covered under the general permit. Efforts to reissue the general permit are ongoing as of December, 2016. DNR reports comparatively fewer dairy CAFO operators have been covered under the general permit, despite having operations fall within the limits for animal units, due to: (a) many entities not needing new or reauthorized permit coverage when the general permit took effect in 2011; (b) the permit's expiration in 2016, which could prompt operators to undergo certain processes associated with permit reissuance earlier than they would under permits with later expiration dates; (c) future plans to expand above the 5,720 animal unit general permit threshold; and (d) past instances of noncompliance or if sites have geological, operational or structural characteristics better addressed through individual permits.

In addition to the general permit for large dairy facilities, DNR for several years has been considering a general permit for any livestock operations not exceeding 999 animal units that have been required to hold a WPDES permit based on past discharges. However, this permit has not been issued and is on indefinite hold as of September, 2016.

CAFO Oversight

DNR reports 284 CAFOs were permitted as of June 30, 2016. This number includes the following subtotals classified by primary livestock operation type: (a) 246 dairy; (b) 14 swine; (c) 13 beef; and (d) 11 poultry. Currently, most active CAFO permits (256) are individual permits, which are intended to be specific to the operation applying for coverage. Since 2009, CAFOs must pay annual WPDES permit fees of $345. 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 $25,900 in revenues in 2015-16.

DNR reports annually to the Joint Committee on Finance and the Legislature's agricultural and environmental standing committees how these PR funds were used. DNR reports $24,400 PR was used in 2015-16 for salaries and other costs for limited-term employees (LTEs). LTE responsibilities typically include: (a) reviewing applications for permit issuances and renewals; (b) CAFO compliance and enforcement, including inspection activity; (c) nutrient management-related duties, including review of NMPs required under WPDES permits and review of permit holders' annual reports; and (d) responding to manure spills.

Enforcement of Small and Medium Livestock Operations

DNR estimates that it currently receives between 350 and 400 citizen complaints annually. Due in part to complaints and subsequent investigations, DNR has issued 740 notices of discharge or notices of intent to livestock operators to order abatement from 1984 through June 30, 2016, including 18 in 2015 and nine in 2016 through June 30.

Currently, the TRM program and NOD/NOI reserves established by both DATCP and DNR are the primary funding sources for grants to manage animal waste. Under NR 243, if DNR determines that an animal feeding operation has unacceptable practices, it has the authority to issue a notice of discharge (NOD) directing the operator to take corrective action. As noted earlier, NOD grants must be issued to protect the waters of the state. DNR typically distributes these grants to counties, which enter into cost-sharing agreements with a landowner.

At least 57% (or 426) of the livestock operations receiving DNR notices of discharge or intent have received, or are in the process of receiving, cost sharing from the state. This includes eight of 18 operations issued notices in 2015 and seven of nine operations issued notices in 2016 through June 30. Of operations receiving cost sharing from the state, 356 have received grants from DATCP's animal waste regulatory cost-share program and 74 have received grants from DNR under either the priority watershed program, TRM program or NOD reserve, including four projects receiving funding split between DNR and DATCP programs. DNR has reported in the past federal cost-sharing under EQIP has been used to resolve NOD/NOI issuances, but the number of these instances is not readily available.

As of June 30, 2016, 72 violating operations were planning or implementing corrections. DNR reports 565 notices have been resolved through corrective action, and 93 were terminated or expired over time. Expired notices were formerly possible if a predetermined deadline had passed without the operation achieving compliance due

to insufficient funding, if any, available for cost sharing. Terminated notices likewise were typically closed without cost-sharing. DNR officials report NODs or NOIs 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 2% of the operators failed to take required actions under the notice of discharge and have been issued WPDES permits. For 2014-15 and 2015-16, DNR reports there have been four operations that were required to apply for a WPDES permit, all during 2015-16.

Through June 30, 2016, 19 livestock operations had been referred to the Department of Justice (DOJ) 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. WPDES permits have been issued in some instances. (DNR had previously reported at least 30 operations had been referred to DOJ through 2013, but DNR has since altered the amount based on available records.)

In addition to issuing NODs or NOIs, DNR has the ability to issue notices of noncompliance under NR 151. Such notices would typically be issued if violations of performance standards had occurred, but no discharge to state waters had occurred. DNR issued no notices of noncompliance in 2015 and nine in 2016 through June 30. DNR records indicate the issuance of 26 such notices from 2005 through 2014. Counties also may issue notices of noncompliance, although DNR does not maintain comprehensive data on such activity.

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 programs, including LWRM planning, the farmland preservation program 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 fields and pastures 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 state's statutory land and water conservation goals, enacted in 1985, 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 two 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 exceeding 1.5 times the tolerable soil erosion rate. By July 1, 1993, no county was to have had an average annual cropland soil erosion rate that 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 exceeding 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 exceeding 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 exceeding the tolerable soil erosion rate. This requirement excluded research plots.

Attainment of Erosion Control Goals

DATCP depends on counties to identify their most severe soil erosion problem areas. LWRM plans are the most pertinent component of counties addressing statewide soil erosion. Additionally, nutrient management plans are required to address soil erosion. The grant programs described earlier, as well as technical assistance from county, state and federal agencies, ultimately are intended to provide resources to assist landowners and local governments with the implementation of practices that will abate or prevent soil erosion.

Various efforts to survey soil erosion conditions in counties have occurred at least since the 1980s. However, DATCP reports that data published in the USDA National Resources Inventory (NRI) are the most reliable sources of information on current statewide T attainment. The most recent NRI, published in 2015 for 2012 data, showed Wisconsin's statewide soil-loss rate from water-based (sheet and rill) erosion on cultivated cropland declining from 4.7 tons per acre per year in 1982 to 3.7 tons per acre per year in 1997, but then increasing to 4.3 tons per acre per year in 2007 and to 5.0 tons per acre per year in 2012. These estimates are generally consistent with other state surveys during this time, and are consistent with an increase in row cropping practices that tended to increase soil loss on Wisconsin cropland.

DATCP expects the prevention of future soil erosion from cropland may be contingent on nutrient management planning. The nutrient management planning program SnapPlus, which DATCP, DNR, USDA and the UW System offer online for landowners who are creating a nutrient management plan, estimates soil loss. DATCP reports SnapPlus now has the capacity to map where field data is collected, populate points with soil and other attributes in the SnapPlus database, and aggregate data to perform analysis. A DATCP grant with the University of Wisconsin has continued SnapPlus development to create reports to calculate factors such as crop residue, annual soil loss, and rotational soil loss. DATCP staff currently work with counties on a voluntary basis to build local capacity to track soil erosion using SnapPlus. To date, the following counties have participated: Barron, Buffalo, Clark, Green, Dane, Dodge, Dunn, Juneau, Kewaunee, Marathon, Monroe, Polk, St. Croix, and Sauk.

Cross-Compliance Enforcement -- Farmland Preservation and Federal Programs

In addition to the SWRM grant program, the "cross-compliance" aspects of the farmland preservation program and federal commodity programs are significant components of state soil erosion control efforts. The farmland preservation program requires persons claiming farmland preservation credits to comply with land and water conservation standards under ATCP 50 and NR 151. County LCCs must monitor compliance, which includes county inspections 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 of noncompliance are to be submitted to the Department of Revenue (DOR) and are to be withdrawn once the landowner resumes compliance. Counties are required at least once every four years to inspect those farms claiming credits, and DATCP is similarly required at least once every four years to review each county's inspection efforts.

In 2015-16, representing primarily claims for the 2015 tax year, the farmland preservation program provided $19.5 million in state income tax credits to agricultural landowners. Most tax credits currently are payable for each acre of land under either farmland preservation zoning, a restrictive covenant known as a farmland preservation agreement, or both. However, certain landowners under agreements entered into prior to July 1, 2009, may claim credits based on their property tax liability, the income of the farm household and the land being subject to exclusive agricultural zoning or a preservation agreement. DOR data for the 2015 tax year shows approximately 13,300 individual claimants, excluding corporate and trust claimants. Total acreage of these claimants was approximately 2.5 million acres. DATCP estimates that as of July, 2016, approximately 4.7 million of 14.4 million farmland acres were under farmland preservation zoning and approximately 299,300 acres were under farmland preservation agreements.

The cross-compliance provisions of the program are thought to encourage land and water conservation on Wisconsin farms, as claimants generally would be more likely to abide by conservation standards than risk losing tax credit eligibility. ATCP 50 also allows a landowner to be considered compliant with standards, and remain eligible for the tax credit, if operating under a county-approved performance schedule that specifies a plan to achieve full compliance with all conservation standards within five years of being notified of the tax credit's compliance obligations. The availability of performance schedules is further thought to encourage compliance with conservation standards.

It is estimated that as of November, 2016, approximately 9,700 certificates of compliance with soil and water conservation standards have been issued. This represents 73% of known claimants from the 2015 tax year. More information on the farmland preservation program is available in the Legislative Fiscal Bureau informational paper entitled, "Working Lands and Farmland Preservation Tax Credits."

Similarly, it is thought federal programs also have contributed to the amount of land meeting the state's soil erosion goals. Beginning with the 1985 Food Security Act (Farm Bill), federal law generally requires persons participating in USDA programs to use conservation systems to limit agricultural impacts on highly erodible lands and wetlands. Federally funded USDA field staff work closely with county LCD staff and jointly provide technical assistance to farmers for the development of such systems.

Construction Site Erosion Control

Since the 1990s, programs for controlling storm water runoff and soil erosion from construction sites have been shared among DNR, the Department of Safety and Professional Services (DSPS), and several other agencies. In the past, it has been argued that erosion control programs dealing with building construction were best placed in agencies, such as the former Department of Commerce, that had oversight of building construction on other regulatory fronts, particularly regarding building safety and accessibility. Conversely, it has been argued DNR is a more appropriate place for centralizing runoff

management programs, as DNR generally has regulatory authority over activity impacting the waters of the state.

An additional consideration in assigning regulatory responsibilities for construction site erosion control is that EPA has delegated to DNR the authority to act as the state permitting agency for point sources of pollution under the federal Clean Water Act. Under federal law, construction sites of one acre or larger are considered to be point sources of pollution and must seek WPDES permits for discharges of storm water that may occur from those sites. This authority extends to 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. EPA requires states with permitting authority split among state agencies to seek federal approval for the divisions to ensure all programs are operated in accordance with the Clean Water Act. Unapproved divisions could subject the state to loss of any delegated permitting authority if not corrected.

A July, 2011, EPA letter to DNR listed 75 possible inconsistencies between the state WPDES program and minimum federal requirements for state wastewater discharge permitting programs. Among the inconsistencies cited were storm water regulatory authorities split among DNR and other agencies under state law at the time. Since 2011, various statute and administrative rule changes have addressed the division of construction site erosion control regulatory authority, including changes enacted as part of 2013 Act 20. The following sections describe the state's construction site erosion control responsibilities by agency.

DNR Authority. Following changes made under 2013 Act 20, DNR has permitting authority for all land-disturbing activities of one acre or larger. This includes sites of one acre or larger that involve commercial buildings, places of employment, and one- or two-family dwellings. Erosion control standards for some of these categories have at times been the responsibility of DSPS and its predecessor agencies, even in cases of the area of land disturbance being one acre or larger. DNR administers its portion of the construction site erosion control program primarily by maintaining a statewide WPDES general permit for construction site storm water discharges. Administrative rule NR 216 specifies the process by which permit coverage is granted and terminated, as well as other provisions regarding the erosion control and storm water management plans required of all WPDES-permitted construction sites.

Landowners apply for coverage under the permit by submitting to DNR notices of intent (NOIs) seeking permit coverage. In fiscal years 2015 and 2016, the total sites covered under a construction site storm water general permit were 1,907 and 1,912, respectively. NOIs submitted to DNR constitute certification by the site owner that all applicable performance standards are being met by the erosion control plan. (Standards would primarily be those under NR 151, as discussed in a separate section of this chapter.) DNR reviews NOIs to determine whether self-certification is plausible, and sites with potential environmental impacts may be inspected and have plans reviewed. Inspections may also be prompted by complaints to the Department. In September, 2015, DNR began accepting NOIs exclusively through an electronic application system, except in limited circumstances where an applicant lacks computer access or skills.

A general permit provides coverage for a project up to three years from the original date of coverage, although the site 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. If a project is not completed within three years, the site owner must reapply and pay the original application fee. 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.

In addition to the WPDES permitting authority for larger construction sites, DNR has regulatory authority for storm water management standards at construction sites less than one acre that do not involve construction of a public building or place of employment, or that are not for one- or two-family dwellings. Such sites are subject to performance standards under NR 151, as described earlier, although these sites generally would not be regulated by WPDES permits. DNR may require such sites to seek WPDES coverage if it determines a site to be contributing either: (a) to violation of a water quality standard; or (b) significant pollution to waters of the state.

There are several provisions in statute or DNR administrative rule under which municipalities may be responsible for regulating construction site erosion control. Any municipality with an MS4 permitted under NR 216 is required as a condition of its permit to administer a program, such as an ordinance or other regulatory instrument, requiring erosion control at construction sites and storm water management at newly developed or redeveloped sites following the completion of construction. At a minimum, the municipal regulatory framework must apply to sites with a land disturbance of one acre or larger. As these requirements apply to municipalities with permitted MS4s, these municipalities would constitute the local inspection and enforcement authority for most parts of the state with larger population numbers. Granting or revoking permit coverage, however, would typically continue to be the responsibility of DNR.

Additionally, municipalities of any size generally may adopt zoning ordinances relating to storm water management; however, municipal authority is subject to statewide uniformity requirements discussed in the following paragraph. Also, administrative rule NR 216 allows authorized municipalities to administer storm water permitting for construction sites, in effect assuming DNR's permitting role for the municipality. Waukesha County is currently the only authorized local program. A 2011 program review by EPA raised concerns regarding the administration of storm water permitting by local agencies other than DNR. As of September, 2016, under a court-approved stipulation, DNR has agreed to suspend approval of additional local programs until EPA's concerns are resolved. EPA is aware of the Waukesha County local program but has not requested DNR withdraw its approval.

Uniform Statewide Standards for Storm Water Management. In addition to modifying departmental responsibilities for erosion control standards, 2013 Act 20 requires DNR to promulgate uniform statewide erosion control standards for: (a) all construction sites with a land disturbance of one acre or larger; (b) construction sites less than one acre and that do not involve a commercial building, place of employment or one- or two-family dwelling (sites of less than one acre that include these buildings are regulated by DSPS); (c) storm water management; and (d) construction work on roads, highways and bridges. Act 20 allows DNR to use existing standards in NR 151 as uniform statewide standards, if DNR determines NR 151 provisions meet the Act 20 requirements. In October, 2014, a DNR guidance document regarding the 2013 Act 20 provisions determined NR 151 performance standards met the requirements for establishing uniform statewide standards.

In April, 2015 DNR issued additional guidance by updating the model ordinances for construction site erosion control, and post-construction storm water management and sediment control. Permittees have between 18 and 24 months from the start date of a permit to comply with uniform statewide standards. DNR plans to

codify the updated model ordinances by updating NR 152.

Act 20 also provides ordinance provisions with more stringent standards may be enforced if necessary for any of the following: (a) controlling storm water quantity or flooding; or (b) complying with approved TMDL plans. Strict conformance also does not apply to storm water management of existing development or redevelopment, as defined in NR 151.

Department of Safety and Professional Services (DSPS) Authority. The Department of Safety and Professional Services is responsible for developing and administering statewide standards for erosion control at construction sites of less than once acre that are also public buildings and buildings that are places of employment. This 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.

DSPS has promulgated administrative rule SPS 360, which functions as an analog to NR 151 in that it requires commercial construction sites subject to DSPS standards to employ practices that will not discharge or deposit soil or sediment to streets, the waters of the state or any location off site. The numeric standards of SPS 360 also are intended to be similar to those under NR 151. Sites must achieve one of the following: (a) soil loss of no more than five tons per acre per year or seven and a half tons per acre per year, depending on the type of soil at the site; or (b) a reduction of 40% of the potential sediment load in storm water runoff, as compared to a circumstance of no controls during construction.

(NR 151 requires WPDES-permitted construction sites to limit sediment loss to no more than five tons per acre per year. DNR intended for this to be consistent with SPS 360 provisions for the most common soil types in the state, and it is intended to provide a limit more consistent with how total maximum daily loads are measured.)

The statutes allow DSPS to delegate to municipalities the authority to conduct certain activities otherwise required of DSPS, including the review of erosion control plans required of certain commercial-building construction sites less than one acre and the inspection of erosion control practices installed at such sites. DSPS reported that as of the fall of 2016, it had delegated agency regulatory authority to 220 municipalities.

In addition to exercising certain regulatory authorities, the statutes allow for local standards in municipal ordinances to, in some cases, be more stringent than DSPS erosion control standards for commercial buildings or places of employment. The statutes require a superseding ordinance to have been adopted before January 1, 1994. As of mid-2009, it was 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, the statute allows ordinances to exceed state standards only to the extent the municipal ordinance regulates sites of commercial buildings or places of employment. The statewide uniform standards required under 2013 Act 20 to be promulgated by DNR would not apply to DSPS-regulated sites of commercial buildings or places of employment.

Although WPDES permits are not required for most sites less than one acre, the statutes do require submittal to DSPS of 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. During the construction phase, DSPS or an authorized mu-

nicipality may issue stop-work orders at sites until required plans are approved or until the site complies with state erosion control standards.

DSPS One- and Two-Family Dwelling Program. DSPS is responsible for administering the state one- and two-family uniform dwelling code, including standards for erosion control for such dwellings built on sites of less than one acre. DSPS administers code SPS 321.125 to administer the erosion control provisions.

DSPS spent $115,700 PR in 2014-15 and $119,400 in 2015-16 and allocated 0.91 PR position annually 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 uniform dwelling code inspectors and other staff. DSPS anticipates a similar level of allocation during 2016-17. The program revenue funds are derived from permit fees for one- and two-family dwellings. The Department received $262,900 in program revenue from the fees in 2014-15 and $308,900 in 2015-16. Revenues supported the one- and two-family dwelling code program in addition to the erosion control program.

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

DSPS reported that as of July, 2016, 1,525 municipalities have chosen to adopt the state code and administer it at the local level. (This is lower than what DSPS reported in July, 2014, because DSPS changed its method of calculating the number.) In addition, 12 counties (Adams, Buffalo, Chippewa, Eau Claire, Florence, Forest, Iron, Langlade, Marquette, Richland, Trempealeau, and Waushara) administer the program for 192 municipalities. DSPS enforces the code in other municipalities, and contracted with 12 private inspection agencies during 2015-17 to provide inspection in 139 municipalities that chose not to provide their own enforcement.

During January, 2015, through July, 2016, DSPS audited the programs of 602 municipalities. To accomplish this, DSPS conducted 47 field audits with municipalities, counties, and contracted inspection agencies that administer one- and two-family dwelling construction site erosion control programs. This included 20 audits of individual municipalities and their employed inspectors, and one audit of a county that administers the program in 21 municipalities. It also included audits of a limited number of the municipalities covered by contracts with 26 private contract inspection agencies. The audits reviewed: (a) implementation and enforcement of the DSPS erosion and sediment control rules; (b) record-keeping related to permit issuance, inspection and plan review; and (c) the proper credentialing of inspectors and contractors.

Audits and reviews of municipal, county, and private inspection agency programs during 2015 and 2016 found enforcement activities in need of improvement included: (a) requiring complete erosion control plans prior to issuance of new home building start permits; (b) ensuring that erosion and sediment control measures are installed at construction sites prior to beginning activities that disturb the land; (c) providing greater enforcement of basic erosion control practices required in DSPS administrative rules; (d) ensuring that proper and timely maintenance of erosion control practices are carried out; (e) inspecting erosion and sediment control measures at the same time other construction activities are inspected during site visits; and (f) improving

inspection notes for erosion control measures and enforcement activities. DSPS also identified a need for increased continuing education on these issues for one- and two-family dwelling inspectors in the state.

Program Evaluations

Joint Evaluation System

DNR and DATCP are required to conduct a joint evaluation system for the nonpoint source program and the soil and water resource management program. Major aspects of the agencies' program evaluations are described below.

Annual and Comprehensive 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 and DNR have developed an evaluation system based both on local implementation of the state performance standards and on increased emphasis on county LWRM plans. Evaluations are intended to include: (a) establishing baseline data for both agricultural and nonagricultural performance standards; and (b) measuring compliance, tracking and evaluating for the TRM and UNPS competitive grant programs.

DATCP annually collects data from counties and other grantees on cropland soil erosion rates, 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. Additional data is collected via the TRM, UNPS, and NOD grant programs, which require evaluations of ongoing and completed projects to assess reductions in expected pollutant loads and increases in acres under nutrient management plans.

Further, under state law, 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. DATCP and DNR generally include evaluation components in their annual report intended to meet both the annual and biennial reporting requirements.

Whole-Stream Monitoring and Single-Source Comparisons

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 watershed: (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. All monitoring is now complete for the seven participating streams.

By 2013, final reports on whole-stream monitoring had been published for the all projects individually, and a final, comprehensive summary for all projects was published. 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, mostly improved in streams during both base drainage periods and runoff events. Joos Valley and Eagle Creeks exhibited the most significant improvements in water composition. For certain target pollutants in some of the watersheds, no statistically significant differences were found following installation of BMPs, suggesting possible needs for additional or different BMPs, particularly as upland land uses change.

Because whole-stream monitoring is a time-consuming process, the nonpoint source program has used alternative ways of documenting the benefits of abatement practices. Single-source monitoring examines one stream before and after a practice is installed, and DNR reports this type of monitoring generally has shown projects that installed BMPs generally resulted in water quality improvements. Under a single-source monitoring project begun in 1994, DNR staff found that complete barnyard systems installed at two dairy farms reduced pollutant loads by as much as 90%. 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.

APPENDIX I

Definitions of Cost-Shared Agricultural Best Management Practices

Note: Unless otherwise specified, these practices have up to a 70% cost-share rate.[a]

Access Roads.[a] A road or pathway that confines or directs the movement of livestock, farm equipment or vehicular traffic, and which is designed and installed to control surface water runoff, to protect an installed practice, or to prevent erosion.

Animal Feeding Operation Relocation or Abandonment. Discontinuing an existing animal lot at a location, and, if appropriate, relocating the operation to minimize pollutants introduced to surface or ground waters. Reimbursement costs for permanent relocation or abandonment of livestock operation must be the most cost-effective option to address a water quality problem at the site, and DATCP must approve a plan for relocation or abandonment. The landowner also must agree to abstain from reestablishing an animal lot at the abandoned site unless certain conditions are satisfied. Eligible abandonment costs are those for removing structures, closing wells and stabilizing the site. Eligible relocation 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. Cost-sharing for new buildings may not exceed the appraised value of buildings at the current site.

Barnyard Runoff Management. The use of structural measures to intercept, collect, treat or redirect surface runoff around an outdoor area with concentrated animal activity. Such measures may include roofs, sediment basins or vegetated treatment areas.

Contour Farming. [b] Plowing, preparing, planting and cultivating sloping land on the contour and along established grades of terraces or diversions. (Contour farming may be cost-shared at $9 per acre per year for up to four years.)

Cover and Green Manure Cropping. [b] Close-growing grasses, legumes or small grain grown for seasonal protection and soil improvement. (Cover cropping may be cost-shared at $25 per acre per year for four years.)

Critical Area Stabilization. The planting of suitable trees, shrubs and other vegetation appropriate for controlling and stabilizing sloped lands that 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.

Feed Storage Runoff Control Systems. A system of facilities or practices to contain, divert, treat or convey runoff from feed storage areas.

Field Windbreaks. A strip or belt of trees, shrubs or grasses established or renovated 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, a cost-sharing offer may include: (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. A filter strip of one-half acre or larger required of a landowner must include all components. For riparian filter strips, landowners must be offered at least the rate landowners would receive under CREP. Landowners may elect to receive payment under either 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.

Livestock Fencing. The enclosure or division of one area of land from another to create a permanent barrier to livestock movement. Fencing may exclude livestock from land areas that should be protected from grazing or gleaning. It also may be erected to prevent human or animal access to manure storage containment.

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 or impoundment for the storage of manure, along with equipment for the proper conveyance of manure to storage. Cost-sharing is limited to instances in which facilities are necessary to properly land apply the manure according to a nutrient management plan. Such instances may include operations with unsuitable land application sites: (a) during frozen or saturated conditions; or (b) due to contamination potential of nearby surface or groundwater resources. Nutrient management plans are required of recipients.

Manure Storage Systems Closure. Permanently dismantling and sealing manure storage systems, including those improperly sited or at risk of failure. Closure may include the disposition of manure-saturated soils.

Milking Center Waste Control. Equipment or practices to reduce the quantity or pollution potential of wastes from milking facilities.

Nutrient Management. [b] Controlling 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, cost-sharing of $7 per acre per year for four years, paid as a lump sum, is intended to cover soil testing, manure analysis and plan development. Under NR 154, DNR offers $6 per acre for the first year and $4 per acre for three subsequent years.)

Pesticide Management. [b] Managing the handling, disposal and application of herbicides, insecticides and fungicides, both through application planning and spill-prevention facilities. (Pesticide management may be cost-shared at 70% of costs of structural practices, as well as $7 per acre per year for up to four years for other non-structural activities.)

Prescribed Grazing. [b] A grazing system that 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. [b] The preparation or planting of land using methods that yield a rough surface with variable residue cover in order to reduce soil erosion. (Residue management systems may be cost-shared at $18.50 per acre per year for four years.)

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, if a

landowner is required to install a riparian buffer, a cost-sharing offer must include at least a CREP-equivalent offer of cost sharing 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, a landowner 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 10-year cost-sharing requirement applies in such a case. As an alternative to a 70% installation cost-share offer, a landowner may receive a flat payment of $100 per acre per year for installing conservation plantings. 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] 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.

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.

Stream Bank and Shoreline Protection. [a] Waterway-specific treatments to stabilize and protect banks of streams or constructed channels, and the shorelines of lakes or other surface waters. Component practices may include critical area stabilization, riparian buffers and others.

Stream Crossing. [a] A road or path to confine or direct the movement of livestock, equipment or vehicles over a stream, and which is designed to improve water quality, protect an installed practice or control livestock access to surface water.

Strip-cropping. [b] 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. (Strip-cropping may be cost-shared at $7.50 per acre per year for four years, or at $13.50 per acre per year for four years, if methods used are more preventive of soil erosion.)

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 of the land with a non-erosive grade at a suitable spacing.

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

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

Wastewater Treatment Strips. An area of herbaceous vegetation used to remove pollutants from runoff of an animal lot or milking center. (Such practices are similar to a filter strip or riparian buffer, but installed where greater amounts of pollutants are anticipated.) Recent changes in NRCS technical standards will significantly limit the use of treatment areas for larger livestock operations.

Water and Sediment Control Basin. An earthen embankment or a ridge and channel

combination 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. [a] The construction of berms or destruction of the function of tile lines and drainage ditches to create or restore conditions suitable for wetland vegetation.

[a] DATCP cost-sharing may not exceed 50% of eligible costs to install and maintain, unless installation is required to achieve compliance with an agricultural performance standard.

[b] 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

2016 Producer-Led Watershed Protection Project Grants

Project Grantee	Watershed	County	Grant Amount
Buffalo-Trempealeau Farmer Network	Elk Creek	Buffalo, Trempealeau	$17,700
	Waumandee Creek	Buffalo	12,000
Dry Run Creek Farmer-Led Council	Dry Run Creek	St. Croix	20,000
Farmers for Lake Country	Oconomowoc River	Jefferson, Waukesha	7,000
Farmers for the Upper Sugar River*	Sugar River	Dane	9,850
Farmers of Barron County Watersheds	Yellow River	Barron, Burnett, Washburn	16,000
Farmers of Mill Creek Watershed Council	Mill Creek	Portage, Wood	20,000
Hay River Farmer-Led Watershed Council	Hay River	Barron, Dunn, Polk	20,000
Horse Creek Farmer-Led Watershed Council	Horse Creek	Polk, St. Croix	20,000
Milwaukee River Watershed Clean Farm Families	Milwaukee River	Milwaukee, Ozaukee	20,000
Peninsula Pride Farms	Ahnapee River	Door, Kewaunee	20,000
South Kinni Farmer-Led Watershed Council	Kinnickinnic River	Pierce, St. Croix	20,000
Trout Creek-Mill Creek Watershed Group**	Trout Creek-Mill Creek	Iowa	20,000
Yahara Pride Farms	Yahara River	Dane	20,000
Total			$242,550

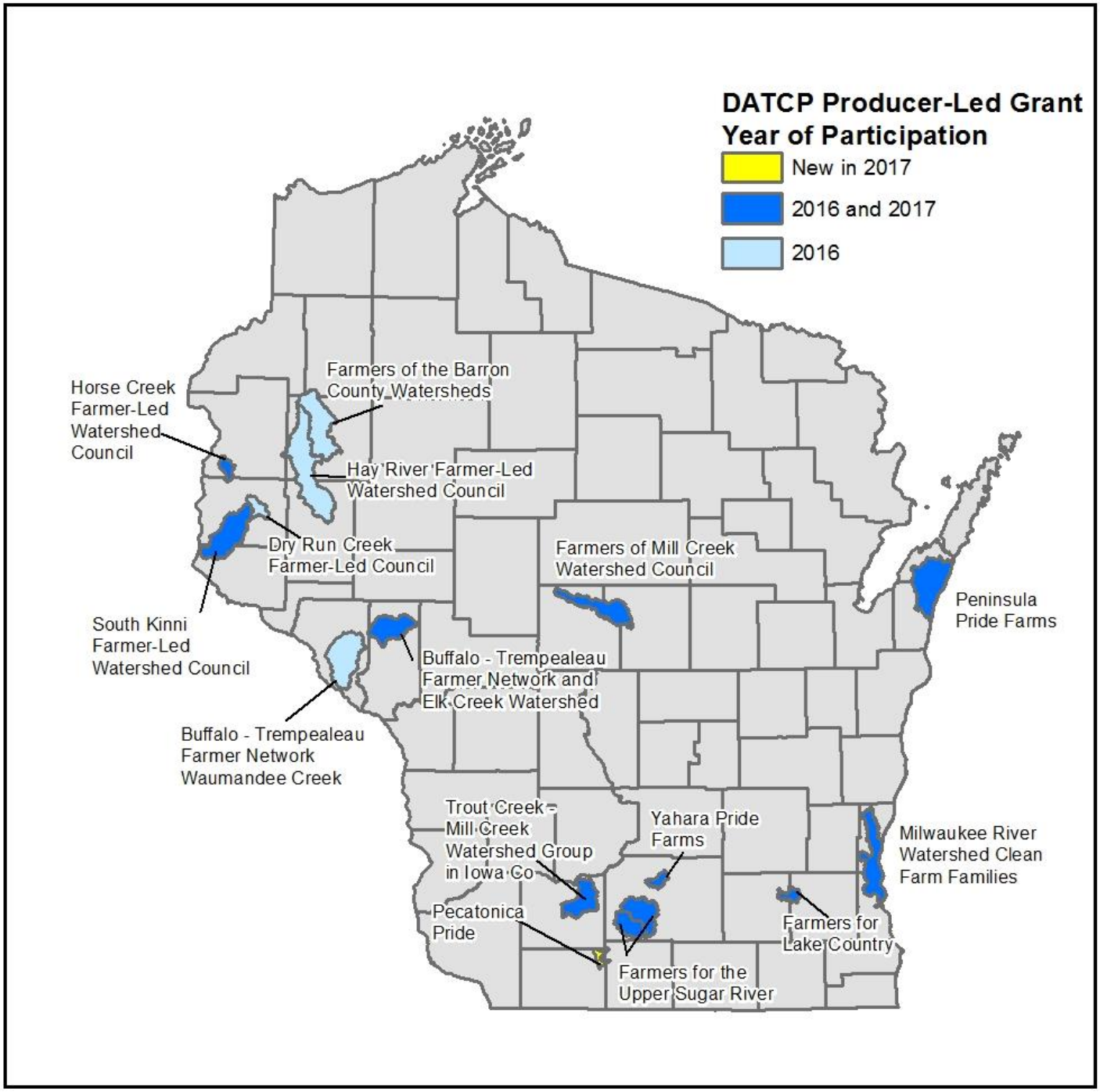
2017 Producer-Led Watershed Protection Project Grants

Project Grantee	Watershed	County	Grant Amount
Buffalo-Trempealeau Farmer Network	Elk Creek	Buffalo, Trempealeau	$13,440
Farmers for Lake Country	Oconomowoc River	Jefferson, Waukesha	20,000
Farmers for the Upper Sugar River*	Sugar River	Dane	20,000
Farmers of Mill Creek Watershed Council	Mill Creek	Portage, Wood	19,975
Horse Creek Farmer-Led Watershed Council	Horse Creek	Polk, St. Croix	15,450
Milwaukee River Watershed Clean Farm Families	Milwaukee River	Milwaukee, Ozaukee	20,000
Pecatonica Pride	Pecatonica River	Lafayette, Green	20,000
Peninsula Pride Farms	Ahnapee River	Door, Kewaunee	20,000
South Kinni Farmer-Led Watershed Council	Kinnickinnic River	Pierce, St. Croix	10,000
Trout Creek-Mill Creek Watershed Group**	Trout Creek-Mill Creek	Iowa	18,200
Yahara Pride Farms	Yahara River	Dane	20,000
Total			$197,065

* Formerly known as Upper Sugar River Watershed Coalition.
** Formerly known as Farmer Led Watershed Group in Iowa County.

APPENDIX II (continued)

Producer-Led Watershed Protection Project Grants



APPENDIX III

2017 Joint Final Allocation Plan for 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 2017 Allocation
Adams	$117,482	$48,800	$28,000	$194,282	$0	$194,282
Ashland	107,464	42,800	14,000	164,264	0	164,264
Barron	112,849	43,000	28,000	183,849	0	183,849
Bayfield	107,363	48,800	8,400	164,563	0	164,563
Brown	138,896	28,500	5,000	172,396	0	172,396
Buffalo	108,713	43,000	14,000	165,713	214,120	379,833
Burnett	103,748	16,000	17,000	136,748	0	136,748
Calumet	124,409	23,500	62,500	210,409	150,000	360,409
Chippewa	166,072	58,300	37,000	261,372	150,000	411,372
Clark	103,686	58,300	62,500	224,486	0	224,486
Columbia	141,361	62,800	62,500	266,661	300,000	566,661
Crawford	105,159	38,500	21,000	164,659	0	164,659
Dane	150,418	33,000	45,000	228,418	0	228,418
Dodge	138,382	29,000	10,000	177,382	0	177,382
Door	156,727	23,500	19,600	199,827	0	199,827
Douglas	111,700	20,000	0	131,700	0	131,700
Dunn	155,232	58,300	11,200	224,732	0	224,732
Eau Claire	141,286	53,800	42,400	237,486	0	237,486
Florence	81,444	42,800	0	124,244	0	124,244
Fond du Lac	137,989	40,000	24,000	201,989	0	201,989
Forest	81,833	14,000	0	95,833	0	95,833
Grant	100,014	62,800	0	162,814	0	162,814
Green	134,183	58,300	42,400	234,883	0	234,883
Green Lake	133,963	48,800	28,000	210,763	0	210,763
Iowa	100,568	29,000	24,000	153,568	0	153,568
Iron	93,860	40,000	0	133,860	0	133,860
Jackson	123,348	74,400	28,000	225,748	0	225,748
Jefferson	170,893	35,000	14,000	219,893	0	219,893
Juneau	122,254	53,800	37,000	213,054	157,498	370,552
Kenosha	117,448	48,800	14,000	180,248	0	180,248
Kewaunee	124,565	53,800	16,800	195,165	311,134	506,299
La Crosse	155,896	53,300	62,500	271,696	0	271,696
Lafayette	94,578	58,300	42,400	195,278	0	195,278
Langlade	88,069	48,800	28,000	164,869	0	164,869
Lincoln	81,839	53,300	0	135,139	0	135,139
Manitowoc	156,975	53,800	62,500	273,275	0	273,275
Marathon	145,872	78,900	62,500	287,272	0	287,272
Marinette	139,485	48,800	42,400	230,685	0	230,685
Marquette	112,787	48,800	37,000	198,587	0	198,587
Menominee	75,000	20,000	0	95,000	0	95,000

APPENDIX III (continued)

2017 Joint Final Allocation Plan for 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 2017 Allocation
Milwaukee	$75,000	$15,000	$0	$90,000	$0	$90,000
Monroe	107,048	58,300	16,800	182,148	0	182,148
Oconto	127,455	38,500	0	165,955	0	165,955
Oneida	92,391	27,500	0	119,891	0	119,891
Outagamie	166,047	53,800	62,500	282,347	1,168,698	1,451,045
Ozaukee	147,874	48,800	42,400	239,074	150,000	389,074
Pepin	115,099	40,000	11,200	166,299	0	166,299
Pierce	126,417	74,400	15,000	215,817	101,500	317,317
Polk	150,195	50,000	0	200,195	0	200,195
Portage	131,881	58,300	0	190,181	0	190,181
Price	78,226	33,500	0	111,726	0	111,726
Racine	130,054	53,300	37,000	220,354	0	220,354
Richland	96,681	38,500	28,000	163,181	0	163,181
Rock	161,482	62,800	56,000	280,282	0	280,282
Rusk	98,906	48,800	14,000	161,706	0	161,706
Saint Croix	140,820	24,500	20,000	185,320	385,000	570,320
Sauk	127,418	58,300	42,400	228,118	0	228,118
Sawyer	82,880	39,300	2,531	124,711	0	124,711
Shawano	112,559	21,000	27,600	161,159	0	161,159
Sheboygan	136,148	53,800	14,000	203,948	0	203,948
Taylor	105,028	74,400	28,000	207,428	0	207,428
Trempealeau	108,892	58,300	42,400	209,592	380,483	590,075
Vernon	116,932	58,300	42,400	217,632	0	217,632
Vilas	112,786	27,500	0	140,286	0	140,286
Walworth	141,386	53,800	20,020	215,206	0	215,206
Washburn	102,756	48,800	5,600	157,156	0	157,156
Washington	121,716	48,800	10,080	180,596	0	180,596
Waukesha	157,127	25,000	0	182,127	0	182,127
Waupaca	121,593	74,400	42,400	238,393	392,126	630,519
Waushara	119,322	48,800	20,000	188,122	0	188,122
Winnebago	142,529	28,700	50,000	221,229	0	221,229
Wood	120,642	74,400	32,004	227,046	0	227,046
NOD/NOI Reserve	0	350,000	0	350,000	2,000,000	2,350,000
Non-Counties	0	0	780,800	780,800	0	780,000
Total	$8,739,100	$3,665,000	$2,516,735	$14,920,835	$5,860,559	$20,781,394

Note: These figures reflect grant awards under the 2017 joint final allocation plan. Actual spending may be less, and funds may be transferred or reallocated to increase or decrease funding awards.

Not shown is a $500,000 reserve established by DNR for sites that previously installed vegetated treatment areas. Due to a change in national standards, sites with these treatment areas may require additional runoff control practices to bring a site into compliance with performance standards. The reserve would fund such practices at previous TRM or NOD sites.

APPENDIX IV

Targeted Runoff Management Project Grants for 2017

Large-Scale TMDL

County	Amount
Outagamie	$844,198

Large-Scale Non-TMDL

County	Amount
St. Croix	$385,000

Small-Scale TMDL

County	Amount
Chippewa	$150,000
Columbia	150,000
Pierce	101,500
Subtotal	$401,500

Small-Scale Non-TMDL

County	Amount
Waupaca [3]	$392,126
Trempealeau [3]	380,483
Outagamie [3]	324,500
Kewaunee [4]	311,134
Buffalo [2]	214,120
Juneau [2]	157,498
Calumet	150,000
Columbia	150,000
Ozaukee	150,000
Subtotal	$2,229,861

Awards Summary

County	Total Funding
Outagamie [4]	$1,168,698
Waupaca [3]	392,126
St. Croix	385,000
Trempealeau [3]	380,483
Kewaunee [4]	311,134
Columbia [2]	300,000
Buffalo [2]	214,120
Juneau [2]	157,498
Chippewa	150,000
Calumet	150,000
Ozaukee	150,000
Pierce	101,500
Total TRM	$3,860,559

Note: Numerals listed after grantees denote multiple grants to the governmental unit within the grant category or overall.

APPENDIX V

Urban Nonpoint Source and Storm Water Project Grants for 2016/2017

Project Grantee	Funding Designated
Planning Grants (2016)	
Milwaukee Metropolitan Sewerage District	$76,610
Village of Mount Pleasant	75,733
City of Hudson	73,500
City of Fond du Lac	67,250
City of Elkhorn	66,445
Town of Algoma	60,750
City of Brookfield	60,750
Village of Kewaskum	60,687
Village of Saukville	59,527
Village of Sherwood	57,787
City of Greenfield	57,600
Town of St. Joseph	52,850
City of St. Francis	46,060
City of Stoughton	45,908
City of Fort Atkinson	40,830
Village of DeForest	37,250
Town of Waterford	35,494
Village of Bloomfield	34,919
City of Cedarburg	33,000
Town of Ixonia	32,871
Town of Dunn	32,700
City of Waupun	30,222
City of Wisconsin Rapids	28,286
Town of Clayton	26,840
University of Wisconsin-Green Bay	25,200
Village of Bellevue	25,056
Town of Middleton	23,650
Town of Scott	22,950
City of Watertown	20,000
City of Green Lake	19,088
City of Beaver Dam	15,786
Village of Eden	14,259
Washington County	13,700
Calumet County	10,969
Subtotal – Planning	$1,384,527

APPENDIX V (continued)

Urban Nonpoint Source and Storm Water Project Grants for 2016/2017

Project Grantee	Funding Designated
Construction Grants (2017)	
City of Whitewater [2]	$271,900
City of Madison	150,000
Village of Ashwaubenon	137,506
Garners Creek Storm Water Utility	88,035
City of Port Washington	75,455
City of New Richmond	42,500
City of Fitchburg	32,175
Subtotal – Construction	$797,571
Total Urban Nonpoint Source Grants*	$2,182,098

Note: Numerals listed after the grantees denote multiple grant awards to the governmental unit but within the same grant category.
*Total reflects sum of most recent year in each of construction and planning grant categories; planning grant applications were not solicited in 2016 for the 2017 cycle, as DNR has implemented an alternating year schedule.

APPENDIX VI

Municipal Flood Control Grant Awards for 2016-18

Project Grantee	Grant Amount
City of Janesville	$380,000
City of Appleton	360,706
City of Oshkosh	360,706
Town of Jefferson	349,250
City of Mauston	134,772
Town of Grafton	118,345
Milwaukee Metropolitan Sewerage District	105,500
City of Madison	83,750
City of Elroy	49,100
City of Superior	38,500
City of Waterloo	21,780
Total	$2,002,409

APPENDIX VII

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 December 31, 2010, approximately $216 million in local assistance and cost-share grants was 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. 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 rankings, 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 were to implement the same best management practices (BMPs) as the large-scale projects but were selected to achieve local water quality objectives, such as reducing sedimentation of a small stream. Small-scale projects were often in medium- or low-priority watershed areas where significant local benefits could be demonstrated.

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 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.

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 iden-

tified the nonpoint sources causing the problems. The priority watershed plan was also required to: (a) identify critical surface water and groundwater protection management areas where pollution was most significant and where BMPs would 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, which was typically a municipal or tribal government, special-purpose district, or regional planning commission. 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 watersheds 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 by 2010.

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 priority watershed program was mostly voluntary except for those sites within critical watersheds, an important function of designated management agencies was 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 received cost-sharing.

The maximum cost-share rate under the priority watershed program was 70%, as under the current competitive programs, except rates up to 90% were allowed for cases of economic hardship. Priority watershed grants, commonly called anticipated cost-share reimbursement amounts or ACRAs, 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 programs, cost-share agreements were to be 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 con-

sidered 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. 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 reporting now occurs through an annual progress report published jointly by DNR and DATCP.

Table 15 lists small-scale, priority lakes and other uses of grant funds. Table 16 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 amounts listed reflect final project costs, and reflect state and federal expenditure figures.

Priority Watershed Funding

Between 1997 and 2009, 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 ACRAs 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 ACRAs to grants in the TRM program.

As under the competitive grant programs, ACRAs 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 Section 319 funds, which are restricted to certain areas of the state, and GPR.

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 15: Original Nonpoint Source Pollution Abatement Grant Program Expenditure Through December 31, 2010 -- Small-Scale Priority Watersheds and Priority Lake Projects

Year Started	Project Name	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	9	198,646	158,828
	Subtotal		62	$1,347,676	$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	Polk	15	306,247	545,039
	Rock Lake	Jefferson	10	163,288	139,582
	Subtotal		612	$7,276,729	$6,136,269
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			103,170	0
	Subtotal			$3,148,586	$0
Total				$11,772,991	$6,996,838

NOTE: All projects completed by 2010. A limited amount of expenditures were reimbursed in early 2011.

Table 16: Original Nonpoint Source Pollution Abatement Grant Program Expenditures Through December 31, 2010 -- Large-Scale Priority Watershed Projects

Year Started	Project Name	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 16: Original Nonpoint Source Pollution Abatement Grant Program Expenditures Through December 31, 2010 -- Large-Scale Priority Watershed Projects (continued)

Year Started	Project Name	County	Size Sq. Miles	Local Assistance*	Cost-Share
1990	Arrowhead River/Daggets Creek	Outagamie, Winnebago	142	$1,473,852	$1,585,313
	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	Brown, Outagamie, Oneida Nation	264	2,126,536	5,490,741
	Dell Creek	Juneau, Sauk	133	708,940	1,343,408
	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	Fond du Lac, Winnebago	244	616,281	2,750,215
	Kinnickinnic River	Pierce, St. Croix	206	639,213	1,828,321
	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	Marinette, Oconto	193	238,916	1,078,126
	Pigeon River	Manitowoc, Sheboygan	78	544,838	659,962
	Pine & Willow Rivers	Waushara, Winnebago	303	576,741	2,961,519
	Total		11,511	$70,743,751	$126,425,693

NOTE: All projects completed by 2010. A limited amount of expenditures were reimbursed in early 2011.

* 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 Creek was a part of the Lake Mendota priority lake project.