### **Informational Paper 66**

## Nonpoint Source and 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 and Water Pollution Abatement and Soil Conservation Programs

#### Introduction

The Department Wisconsin of Natural Resources (DNR) and the Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP) work jointly in controlling nonpoint source water pollution and soil erosion in the state. The purpose of the soil and water conservation program and the nonpoint source water pollution program includes abatement providing mechanism for statewide coverage of soil and water conservation needs at the county level. Further, the intent of the DNR nonpoint source pollution abatement financial assistance program is to focus resources where nonpoint source related water quality problems and threats are the most severe and control is most feasible. As shown in Table 1, for the 2005-07 biennium approximately \$88.5 million is available for nonpoint soil and water conservation grant funding. Funding for the program is provided through general purpose revenue (GPR), segregated (SEG) and federal (FED) revenue and issuance of bonds (BR).

Table 1: Total Available 2005-07 Funding for Local Soil and Water Conservation

<b>Funding Source</b>	Biennial Amount
GPR	\$11,842,600
SEG BR	12,288,200 13,000,000
FED	51,359,000
Total	\$88,489,800

Nonpoint sources of water pollution are those sources that are diffuse in nature, having no single, well-defined point of origin. Nonpoint sources include land management activities that contribute to runoff, seepage or percolation that adversely affect the quality of waters in the state. DNR estimates that nearly one-half of the lakes and streams within assessed watersheds are degraded by nonpoint source pollution, with an additional one-quarter considered threatened. Within these areas, nonpoint pollution is responsible for 90% of the observed degradation in lake water quality and 40% in stream water quality. Soil erosion and runoff are major contributors to the level of nonpoint source pollution.

Several state programs address both urban and rural sources of nonpoint pollution and soil erosion. DNR and DATCP have authority to review the rules of the other agency concerning the nonpoint and land and water conservation programs. In addition, DNR and DATCP jointly establish technical standards for land and water conservation and nonpoint source pollution abatement management practices. Responsible state and local units of government include the following.

#### **Natural Resources**

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

certain animal waste and nonpoint pollution discharges.

### **Agriculture, Trade and Consumer Protection**

Chapter 92 of the statutes establishes DATCP as the central state agency responsible for developing and implementing statewide land and water conservation policies. DATCP administers programs that assist in the abatement of rural water pollution through the reduction of soil erosion, the management of animal wastes and funding of county and state land and water conservation and nonpoint pollution abatement staff.

#### **Commerce**

The Department of Commerce is required, in consultation with DNR, to establish statewide standards for construction site erosion control at public buildings and places of employment (commercial buildings). Commerce is also required to establish standards for construction site erosion control on one- and two-family dwellings. Commerce must review construction plans and inspect erosion control activities at commercial construction sites. The Department also may issue stop work orders for noncompliance. Commerce may delegate its administrative authority to local units of government (counties, cities, villages or towns).

### **Land and Water Conservation Board**

The Wisconsin Land and Water Conservation **Board** (LWCB) directed 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 grant allocation plan for DNR and DATCP. Further, for DATCP the reviews land and water resource **LWCB** management plans, evaluation plans, erosion control plans, project aid applications and

administrative rules. In addition, the Board monitors the achievement of statutorily defined soil erosion control goals and is directed to establish a tolerable soil erosion rate.

In regard to DNR programs, the LWCB has several responsibilities involving the oversight of the nonpoint source program. These responsibilities include reviewing and commenting on DNR administrative rules, making recommendations to the governor and DNR concerning the efficiency and effectiveness of the program, assisting in the resolution of program concerns, reviewing and commenting on the joint agencies' funding allocation plan (as mentioned in the prior paragraph for DATCP), and reviewing and commenting on targeted runoff management projects proposed by DNR for funding.

The LWCB consists of the following members: the Secretaries of the Departments Administration, Natural Resources, and Agriculture, Trade and Consumer Protection, or their designees; (2) three county land conservation committee members, who are designated at a statewide meeting of land conservation committees and appointed for two-year terms; and (3) 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 consist of representatives from: (1) the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS); (2) the USDA Farm Service Agency; (3) the College of Agriculture and Life Sciences of the University of Wisconsin-Madison; (4) the University of Wisconsin-Extension; (5) the Wisconsin Land and Water Conservation Association; (6) Wisconsin Association of Land Conservation Employees; and (7) Wisconsin County Code Administrators.

DATCP provides administrative support to the Board and both DNR and DATCP staff provide technical support to the Board.

## **County Land Conservation Committees and Departments**

County land conservation committees (LCCs) set county policy on land and water conservation issues and directly oversee the activities of county land and water conservation department staff. Each county board is statutorily directed to create an LCC. County LCCs must consist of county board members who are also members of the county committees on agriculture and extension education, and the committee on agricultural stabilization and conservation. In addition to these members, any number of other county board members and up to two persons who are not county board members may be appointed.

County LCCs' powers and duties relating to the implementation of state land and conservation programs include: (1) distributing federal, state and county funds for cost-share programs; (2) providing equipment, technical assistance and materials to landowners for conservation purposes; (3) developing county ordinances for the regulation of land use and land practices; and management **(4)** developing standards for management practices monitoring compliance with those standards. The LCCs are required to prepare land and water resource management plans. In addition, LCCs are required to annually prepare 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: DATCP's annual county staffing and support grants; the priority watershed program; the targeted runoff management program; and the urban nonpoint source and storm water grant program. DATCP, in concert with DNR, then prepares a single grant allocation for each county (with each department administering its own programs).

The LCCs direct the activities of county Land Conservation Departments (LCDs) (which in some instances have merged with Planning and Zoning Departments). County LCDs (or these combined departments) implement state land and water conservation programs with assistance from federal NRCS staff. County conservationists also are responsible for the implementation of other state and federal programs such as nonpoint source pollution abatement programs, the wildlife program, tree damage abatement planting programs and 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, in addition, may hire one or more technical assistants to the conservationist. DATCP officials estimate that there may be approximately 356.5 full-time county conservation staff in the state, along with 26 limited-term employees (LTEs). However, some of these positions are related to priority watersheds and therefore, the associated projects may have, or will be, ending over the next few years (which is discussed later in this paper).

### Redesigned Nonpoint Source Pollution Abatement Program

The 1999-01 biennial budget act (1999 Act 9) made a number of major modifications to the state's nonpoint and soil and water resource management (SWRM) programs. Funding for grants to Wisconsin counties for county technical staff and administration was consolidated in DATCP while funding for cost-share grants to landowners for installation of pollution abatement projects in rural priority watersheds remained in DNR. (However, both agencies now administer cost-share funding for best management practice installation.) The two agencies are required to develop a unified funding allocation plan each year that distributes available state funding for the

nonpoint and SWRM programs (both staffing and cost-share implementation grants). DATCP, in addition to providing staffing grants for original priority watershed projects, receives funds to provide matching grants for county staff and costshares to fund landowners' soil conservation and nonpoint pollution abatement practices. 1999 Act 9 also changed the way DNR funds urban storm water management projects. Under the act, costsharing for urban storm water management practices was removed from the priority watershed program and the urban nonpoint source and storm water management grant program was created to provide funding for planning and construction activities. Also, the municipal flood control and riparian restoration program was created to address floodplain and storm water quality issues. Finally, the act also allowed for the creation of a competitive nonpoint grant program to pay for urban and rural nonpoint source water pollution abatement projects, which became the targeted runoff management grant program.

Revamped DNR and DATCP administrative rules (NR 120, 151, 152, 153, 154, 155, 216, and 243, and ATCP 50) to implement the nonpoint source, storm water and SWRM programs generally became effective on October 1, 2002. New rules relating to a nutrient management standard took effect on October 1, 2003, for new croplands and October 1, 2005, for existing croplands near outstanding, exceptional, impaired or protected waters. The nutrient management standard will take full effect on October 1, 2008, when the rule will apply to all other existing cropland. Also, postconstruction urban runoff standards for new development and transportation projects took effect on October 1, 2004, and take effect on March 10, 2008, and 2013, for existing urban areas and transportation facilities.

### **Unified Grant Submission**

Since 2000, LCCs have been required to annually prepare a single grant request describing staffing needs and activities to be undertaken or funded

by the county under Chapter 92 (Soil and Water Conservation and Animal Waste Management), s. 281.65 (Financial assistance; nonpoint source water pollution abatement) and s. 281.66 (Urban nonpoint source water pollution abatement and storm water management program). To this end, DATCP and DNR are required to create a single grant application process and set of forms for soil and water resource and nonpoint source management program grants, funding allocations, and reporting and evaluations, and to prepare a single grant to counties. The agencies are required to jointly review the applications, determine if projects should be considered for funding through DATCP or DNR competitive funding, and submit a coordinated grant allocation plan to the LWCB for its review and recommendation to the agencies.

Under this grant process, DATCP provides funding for county staff and support grants and for county cost-share grants to landowners for the implementation of nonpoint source water pollution abatement practices. DNR provides funding for cost-share grants to counties and municipalities to fund the implementation of nonpoint water pollution and animal waste management practices under a variety of programs. In addition, federal funding for conservation practices is available to landowners through a variety of federal land conservation programs.

### **Funding to Counties for Staff and Cost Sharing**

Since 1987, DATCP has disbursed state funds through its grant program to local units of government and other project cooperators for the purpose of conducting land and conservation activities across the state. A joint final allocation plan lists the amount and program purpose for funds to be received by the county in each calendar year. Table 2 lists 2007 DATCP Soil Water Resource Management (SWRM) allocations of \$13.1 million. DATCP has the authority to make these grants through the provisions of section 92.14 of the statutes, and Administrative Code ATCP 50. Under s. 92.14 (6)

**Table 2: DATCP 2007 SWRM Grant Allocation** 

Program	Grants	Percent of Total
County Staffing Grants* LWRM Plan Implementation	\$9,331,200 <u>3,727,300</u>	71.5% 28.5
Total	\$13,058,500	100.0%

\* May be used for staff, staff training or support and "shared staff and support" expenses. These staff may work on nonpoint performance standard implementation, soil erosion control, priority watersheds, farmland preservation cross compliance, LWRM plan preparation or other county-priority activities.

of the statutes, DATCP is directed to attempt to provide funding for an average of three staff persons per county, with full funding for the first staff person, 70% funding for the second staff person, and 50% funding for any additional staff persons, and an average of \$100,000 per county for landowner cost-share grants. Should sufficient funding not be available to meet this goal, ATCP 50 provides that DATCP offer each eligible county at least the greater of the following for an annual base staffing grant: (1) \$85,000; or (2) the amount awarded to the county in 2001 for DNR priority watershed staffing in 2001, minus any amount allocated in 2001 for a priority watershed that has subsequently closed.

Funds are allocated based on approved LWRM plans. LCCs are allowed to use the grant for activities to meet compliance with farmland preservation credit requirements, and, consistent with approved LWRM plans, activities related to animal waste management and ordinances, nonpoint source pollution abatement and other conservation practices determined by the county to be necessary for conservation and resource management in that county, and priority watershed activities previously funded under NR 120. LCCs also may use the grant for shoreland management projects. State agencies are ineligible for SWRM grant funding, but may still receive DNR funding for a priority watershed or

competitive project.

DATCP also may provide SWRM grant funding to an organization on behalf of multiple counties for regional or statewide efforts. In 2007, as it has done in past years, DATCP is allocating grant funds to the Wisconsin Land and Water Conservation Association for partial support of their Standards Oversight Council.

Funding is allocated to any LCC with an approved Land and Water Resource Management (LWRM) plan as long as the county board has resolved to match state funds granted for funding with county funds, with match requirements determined by DATCP rule. However, for priority watershed staff, 2001 Act 16 requires DATCP to require a county to provide matching grants equal to not less than 10% nor more than 30% of the staff funding that was provided to the county for 1997 for staff in continuing priority watersheds (rather than minimum required matches of 30% for a second position and 50% for additional positions for non-priority watershed staff). Since 2002, DATCP has no longer made advance payments to counties for staff, and has instead reimbursed county staff costs.

Staffing grants may pay salaries, fringe benefits, training, and support costs for county employees and agents engaged in land and water resource management activities. Support costs, which are to be identified in the grant application, may include travel expenses, computers and software, office supplies and equipment, field equipment, information and education support costs, or any other costs approved by the Department. Staffing grants may be transferred to pay for landowner cost-share grants to the extent that the Department approves the total amount transferred in writing, and that these redirected funds be used in the same year for which they are allocated. ATCP 50 also allows the reallocation of staffing grant funds to a local government or tribe if it is shown these funds will be used to meet a LWRM workplan priority or achieve compliance with state agriculture performance standards. The statutes do not stipulate a specific match requirement for these support costs and ATCP 50 specifies no match is required. The grant amounts awarded to different counties are based on the Department's assessment of funding needs and priorities, and are made on a reimbursement basis.

In preparing the annual grant allocation plan, ACTP 50 specifies that DATCP shall consider the following priorities: (1) maintaining county staff and project continuity; (2) county projects that address statewide priorities identified by DATCP and DNR; and (3) other factors; such as the county's demonstrated commitment to implementing its approved plan and farm conservation practices; the cost-effectiveness of the grant and likelihood that the grant will resolve problems specified in the county's plan; and the county's demonstrated cooperation, commitment and ability to manage and implement the project.

In awarding 2007 staffing grants to counties, DATCP provided funding in two tiers. The first tier provided base funding of the greater of the following: (a) a minimum of \$85,000 in staff and support cost funding; and (b) the amount awarded to the county for DNR priority watershed staffing in 2001, less any amount allocated in 2001 for a priority watershed that has subsequently closed. In addition, DATCP provided compensation to counties with priority watersheds for the loss of basic allocation staffing grants (BASG) previously received by these counties. DATCP has used these BASG make-up grants since 2003. Prior to 2003, DATCP provided BASGs to counties to help them meet administrative and technical operating costs in their soil and water conservation activities. These grants could contain funding for both staffing and project grants, and all counties were eligible for some level of BASG funding. With the elimination of BASGs in 2003, DATCP commenced the offering of BASG make-up grants to aid counties with existing priority watersheds for the loss of former BASG funds. While not specified in ATCP 50, DATCP argues that this BASG make-up

funding is an attempt to more closely maintain prior funding levels for counties with active priority watersheds by utilizing funds in excess of the amount needed for the minimum base funding specified by ATCP 50.

BASG make-up funds are provided to counties that still have existing priority watershed projects at the rate of 61.14% of a county's adjusted basic allocation staffing grant from 2002. The 61.14% amount was originally chosen to coincide with the amount of discretionary funding DATCP had remaining after making base grants in 2003. Once all watersheds within a county close, the county is no longer eligible for BASG make-up funds. In 2007, BASG make-up grants totaled \$528,000.

In total, DATCP will provide counties with Tier 1 base funding grants of \$7,329,500 for 2007 (which includes \$89,500 awarded to the Oneida Tribe for the administration of the Duck/Apple/ Ashwaubenon Creeks priority watershed project).

In addition, as mentioned earlier, DATCP continued to provide grants to certain non-county entities in 2007. These grants include \$50,000 to the Wisconsin Association of Land Conservation Employees (WALCE) for a grant to update the transect survey software and program (which assists the counties with the calculation of soil erosion rates and is discussed later in this paper), and \$25,000 to the Wisconsin Land and Water Conservation Association (WLWCA) to support the development and maintenance of technical standards for urban and rural soil and water conservation practices in Wisconsin. In addition, DATCP provided \$10,000 to the WLWCA for transportation costs for a position that provides technical assistance to county land conservation departments. Further, DATCP plans \$5,400 in grants for various informational and educational activities. As a result, grants to non-counties are expected to total \$90,400 in 2007.

Unlike prior years, no grant was provided to the Central Wisconsin Windshed Partners, LLC (CWWP), in 2007 (this agreement was discontinued in 2006). While the CWWP did request bonding revenue, an opinion by the state's Bond Counsel specifies that bond revenue may only be provided to a governmental unit.

After making the base Tier 1 grants to counties (and certain non-county entities), DATCP used remaining funds of \$1,821,800 to make Tier 2 county staffing grants in an attempt to provide counties with funding for three positions (based on the statutory funding guideline of full funding for the first staff person, 70% funding for the second staff person, and 50% funding for any additional staff persons). Based on actual position costs, DATCP was ultimately able to fully fund county requests for the first and second positions, and 37% of the requested amount for counties' third position.

Grants for Local Administration. Prior to 1999 Act 9, DNR provided local assistance grants (LAG) to designated management agencies (generally counties or municipalities) for their administrative costs under the original nonpoint source grant program. Beginning in 1998, state law required all nonpoint pollution abatement watershed or special projects designated after June 30, 1998, to include a LAG match of at least 30% (a maximum state grant of 70%). Further, based on available funds and a 1997 directive to provide nonpoint funding for staff in all counties, DNR capped LAG spending for 1998 and 1999 at 90% of the 1997 level. Under a DNR financing plan approved by the LWCB, this local match was gradually increased until counties were required to provide 30% of staff costs in 2004.

Currently, s. 92.14 (5g) of the statutes specifies that the first county staff person may be fully funded by the state, with a 30% match required for the second and 50% match required for each additional staff person. However, for a grant award before 2010, 2001 Act 16 requires DATCP to require a county to provide matching grants for priority watershed project staff equal to not less than 10% nor more than 30% of the staff funding

that was provided to the county for 1997 for a priority watershed that was designated before July 1, 1998, as long as it is before the termination date that was in effect on October 6, 1998, for the priority watershed project. For 2007, DATCP is choosing to require counties to provide a 10% match for priority watershed staff (generally the amount of priority watershed staffing funds received in previous years).

As shown in Table 2 and displayed by county in Appendix II, the 2007 joint allocation plan apportions \$9,331,200 for staffing and support, including \$9,240,800 for county staff and support costs and \$90,400 for non-county staff and support.

Land and Water Resource Management Plans. In order to receive grant funding from DATCP, each LCC is required to prepare a LWRM plan that at a minimum includes: (a) a county-wide assessment of soil erosion conditions and water quality, including information available from DNR; (b) water quality objectives identified for each water basin, priority watershed and priority lake, and identifying the best management practices to achieve the water quality objectives and to reach current state soil erosion control goals; (c) nonpoint source and soil erosion performance standards and prohibitions required under soil and water resource management and water quality protection provisions; (d) a multiyear strategy for implementing LWRM plan-related activities and priorities, including those identified in the plan and those necessary to ensure compliance with federal laws and regulations and state animal waste and other applicable performance standards and prohibitions; (e) a system to track progress of activities identified in the plan; (f) an information and education strategy; and (g) methods for coordinating plan implementation activities with other applicable local, state or federal agencies and organizations.

County LCCs, with the assistance of DATCP, develop the plans, which are then sent to the LWCB, which recommends DATCP approval or disapproval. DNR assists counties in LWRM plan

activities by providing available water quality data and information, training and support for water resource assessments and appraisals and other related program information. As shown in Table 2 and Appendix II, the 2007 allocation plan allocates \$3,207,300 in bonding for LWRM plan implementation cost sharing. This bonding is used to finance cost-share grants to landowners that provide up to 70%, except in the case of economic hardship, of the cost of installing conservation practices. These cost-share grants are to be used to pay for the implementation of nonpoint source water pollution best management practices, which are discussed later in this paper.

For 2007, DATCP allowed counties to apply for \$20,000 in base funding for cost-share grants (as opposed to \$30,000 in 2006). In 2007, these base awards totaled \$1,440,000 (all 72 counties received a base grant).

For remaining funding of about \$1.77 million, approximately \$1.67 million was allocated based on DATCP's determination of a county's record of spending previously allocated costs-share dollars in a timely manner. For 2007, DATCP allowed counties that had average annual under-spending of Department awards of 20% or less over 2003, 2004, and 2005 to be eligible for up to an additional \$36,000 in performance-based awards. A total of 50 counties received some portion of the \$1.67 million in performance-based funding. Finally, the remaining \$100,000 was set aside for regulatory animal waste grants.

In addition to the bonding revenue that was awarded to counties for cost-share grants, 2005 Act 25 (the 2005-07 biennial budget act) also made \$520,000 nonpoint account SEG available annually. This funding was provided to counties for cost-share grants to landowners for the implementation of nutrient management plans required by ATCP 50 (which are currently required of farmers near outstanding or exceptional resource waters, and all farmers by 2008). However, these funds may also be used for cost-share grants for other "soft

practices" (non-bondable) that will reduce nutrient runoff. DATCP awarded these funds to: (1) areas that have experienced manure runoff incidents; or (2) sensitive areas that will benefit from preventative practices. These grants are shown by county in Appendix II.

Regulatory Animal Waste Grants. Regulatory funding for animal waste management is statutorily available from DATCP or DNR. Under s. 92.14 (3) counties may use DATCP grants to fund cost-shares for animal waste management practices as a result of a "notice of discharge" (NOD), or notice of intent to order the abatement of nonpoint source pollution, issued by DNR under authority of Chapter 283 of the statutes and NR 243.

Section 92.14 of the statutes specifies that counties may use funds received as part of the annual grant from DATCP for construction of animal waste management facilities or systems by a farmer who has received a notice of intent or a notice of discharge related to animal waste from DNR. However, ATCP 50 governing DATCP's soil and water resource management responsibilities prohibits counties from using LWRM funding from DATCP to award cost-share grants for practices needed to comply with DNR notices of intent and notices of discharge. DATCP officials have expressed the desire to allow counties to use their state grants to assist farmers in resolving these regulatory actions beginning with calendar year 2007 grants and have set aside \$100,000 for this purpose. They argue this change would reflect the intent of the law and would provide a funding source designated specifically for notices of discharge. In order to accomplish this policy change, the Department would need to either: (a) modify ATCP 50 through the administrative rule process; or (b) determine that this portion of ATCP 50 conflicts with s. 92.14 of the statutes and is unenforceable.

Since 2002, cost sharing for the NR 243 program has been provided and managed by DNR. In DNR, the targeted runoff management (TRM) grant pro-

gram provides the funding mechanism for the construction of animal waste management practices that are required as a result of an NOD. Between calendar years 2002 and 2006, NODs were only funded through DNR's competitive targeted runoff management grant program and the priority watershed program. As under the DNR grant programs, beginning again in 2007 DATCP funding set aside for animal waste management grants can only be obtained by livestock owners to fund NOD efforts if a county applies for these grants. Grants may be provided for construction of livestock operation runoff control and manure storage facilities, vegetative filter strips or other agricultural best management practices. All large concentrated animal feeding operations and those smaller feeding operations that have not corrected the deficiencies identified in an NOD are required to obtain a Wisconsin pollutant discharge elimination system (WPDES) permit.

### Agricultural Shoreland Management Projects.

Wisconsin Legislature established agricultural shoreland management program in 1992. This law allows counties, cities, towns and villages to enact agricultural shoreland management (ASM) ordinances for the purposes of maintaining and improving surface water quality. Before an ordinance is enacted, however, it must first be approved by DATCP. To assist in the preparation of ordinances, DATCP has developed ASM ordinance guidelines. The law also provides that an ASM ordinance may not be enforced unless a county uses grant funds to correct the infraction.

Beginning with the 2003 joint allocation plan, DATCP eliminated separate grant funding for agricultural shoreland management ordinances. Instead, projects may be funded from the unified LWRM grants. Through these grants, DATCP may award cost-share grants to county LCCs to implement practices required by a county, city, town or village ASM ordinance, including reimbursement for the cost of fencing that a landowner installs to comply with a DATCP-approved shoreland management ordinance or the cost of providing a well

for livestock, if as a result of complying with such an ordinance, the livestock does not have adequate access to drinking water. Further, DATCP and DNR are required to work with counties to implement shoreland management provisions.

### **DNR Nonpoint Source Cost-Share Grants**

DNR provides cost-share grants to landowners for the installation of pollution best management practices under the priority watershed program and under three competitive grant programs (which are discussed later in this paper). Under the priority watershed program, the maximum costshare rate is 70% except that it may be as high as 90% in cases of economic hardship. These priority watershed grants are included in the unified allocation plan grant to counties. Counties, in turn, provide cost-share grants to individual landowners through cost-share agreements to install water pollution abatement practices and structures. To receive cost-share funding from the nonpoint source grant, a landowner must agree to install identified cost-effective best management practices. The DNR and DATCP jointly establish technical standards for management practices eligible for grant funds. Table 3 lists the recent history of DNR grant expenditures under the program. DNR administrative costs are not included in the table and are discussed in a later section.

**Table 3: DNR Nonpoint Source Pollution Abatement Grant Program Expenditures by Grant Category\*** 

Type of Grant	2004-05	2005-06
Cost-Share Grants	\$10,060,600	\$9,171,800
Local Assistance	114,600	50,700
Easements**	40,200	79,900
Contracts***	997,600	964,500
Total	\$11,213,000	\$10,266,900

<sup>\*</sup> Includes expenditures for priority watershed projects and for urban and rural TRM projects.

<sup>\*\*</sup> Includes DNR-held easements only.

<sup>\*\*\*</sup> Includes expenditures of contract funds provided by the state for USDA, UW-Extension and other organizations.

Best Management Practices. "Best management practices" are those techniques which have been determined to be the most effective and practical means of abating nonpoint source pollution to a level compatible with state water quality goals, and which do not adversely impact fish and wildlife habitat. These include practices, except dredging, to prevent or reduce pollutants from sediments of inland lakes polluted by nonpoint sources. The 1997 biennial budget act further required that DNR and DATCP identify best management practices that are also "cost-effective" for water pollution abatement. Best management practices eligible for cost-share agreements must be the lowest cost practice unless another alternative is more costeffective. The lowest cost practice might not be used where the more expensive alternative has additional benefits for fish, wildlife, practice longevity or ease of maintenance, or reduced risk of failure.

Cost-Share Rates. Cost-share grants generally equal 70% of the cost of implementing the best management practice. However, in cases of economic hardship, as defined by rule, the state cost-share rate may be increased to a maximum of 90%. Additionally, after cost-share grants have been available to a landowner in a priority watershed or lake for 36 months, only a reduced grant (one which does not exceed the cost-share rates established by rule) may be provided to the owner or operator of a site designated as a critical site in a priority watershed.

Best management practices and the associated cost-share rates have been established by administrative rules NR 120 and 154 and ATCP 50, as listed in Table 4. For certain cropland practices, a county has the option to select between fixed rates per acre or rates based on costs incurred. A definition of each of the cost-shared best management practices is provided in Appendix I.

The 2007 joint allocation plan allocates \$5,452,700 for reimbursements to grantees for cost sharing in priority watershed projects. Of this,

\$5,422,200 is allocated to counties and \$30,500 is allocated to the Oneida Tribe.

**Easements.** Funding may also be used for the purchase of easements in conjunction with shoreline buffers, wetland restoration, critical area stabilization and animal lot abandonment or relocation. The easements may be for a period of not less than 20 years.

Maintenance of Practices. Landowners and governmental units receiving grants are required to maintain the cost-shared practices for a period extending 10 years beyond the date the last practice is installed. If the property on which the practice was installed is sold before the expiration of the agreement, the new owner must continue the practice or repay the grant. Further, administrative rule NR 151 (which established performance and technical standards for storm water runoff) specifies that once agricultural land comes into compliance with a performance standard it must continue to meet that standard.

The agencies are required to develop, by rule, the types of cost-shared practices and the minimum grant amounts that require any subsequent owner of a property to maintain the cost-shared practice for the duration of the cost-share agreement (generally, four years for cropping and management practices and 10 years for other BMPs). Landowners can be required to maintain a best management practice under NR 151 if it is found the practice brings the landowner into compliance with the performance standards.

### **Nonpoint Source Grant Funding**

Funding for rural nonpoint source water pollution abatement grants comes from a variety of state and federal sources. DATCP is provided over \$25.1 million during the biennium for rural grants, including LWRM plan implementation. DNR is provided an additional \$10.3 million for rural nonpoint grants, which includes approximately \$2.6 million in federal funds used for local cost-

**Table 4: Best Management Practices State Cost-Share Rates** 

### **Cropland Practices**

Contour farming	70% or \$9 per acre for 4 year
Strip-cropping	70% or \$13.50 per acre, 4 yr.
Cover and green manure	
cropping	70% or \$25 per acre, 4 yr.
Residue management	70% or \$18.50 per acre, 4 yr.
Nutrient management	70% or \$7 per acre, 4 yr. <sup>a</sup>
Pesticide management	70% or \$7 per acre, 4 yr.

### **Animal Waste Management Practices**

Livestock fencing	<b>70</b> %
Barnyard runoff control systems	<b>70</b> %
Animal feeding operation relocation or	
abandonment	70% b
Manure storage systems	<b>70</b> %
Manure storage system closure	<b>70</b> %
Roofs	<b>70</b> %
Roof runoff system	70%
Access roads and cattle crossings	70%
Heavy use area protection	<b>70</b> %
Livestock watering facilities	<b>70</b> %
Prescribed grazing	70%

The listed rates may be increased up to 90% in cases of  $\,$  economic hardship.

share grants (the majority of which for cropping practices). In addition, approximately \$48.8 million in federal funds is expected to be directly available to local governments for nonpoint pollution abatement practices in the 2005-07 biennium. This brings total available funding for the biennium to approximately \$84.2 million. Table 5 delineates rural nonpoint funding by year.

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

**General Purpose Revenues (GPR).** DATCP is provided \$5,081,900 in 2006-07 for SWRM program grants, including funding for priority watershed staff.

### **Cropland and Other Practices**

Sediment basins	70%
Critical area stabilization	70%
Grade stabilization structures	70%
Stream bank and shoreline protection	70%
Wetland development or restoration	70%
Milking center waste control	70%
Diversions	70%
Terrace Systems	70%
Well Decommissioning	70%
Animal trails and walkways	70%
Field windbreaks	70%
Filter strips*	<b>70</b> %°
Water and sediment control basins	70%
Riparian buffers*	<b>70</b> % <sup>d</sup>
Sinkhole treatment	70%
Subsurface drains	70%
Underground outlets	70%
Waterway Systems	<b>70</b> % <sup>e</sup>

<sup>&</sup>lt;sup>c</sup> In addition to 70% of installation costs, DATCP offers twice annual mowing costs and 70% of the rental rate (for the length of the agreement) if the land is taken out of production for non-riparian filter strips. For riparian filter strips, DATCP offers the CREP rate if land is taken out of production. If CREP is not applicable, DATCP makes the same offer it does for non-riparian filter strips.

**Table 5: Rural Nonpoint Grants** 

	2005-06	2006-07
GPR	\$5,921,300	\$5,921,300
FED	24,148,200	27,210,800
SEG	4,745,100	4,745,100
BR*	5,750,000	5,750,000
Total	\$40,564,600	\$43,627,200

\$84.191.800

The table does not include federal funding that was used for contracts with DATCP or other agencies.

 $<sup>^{*}</sup>$  Under ATCP 50, a landowner is entitled to payments for land taken out of production if the landowner must take or keep more than 1/2 acre out of agricultural production in order to install or maintain the conservation practice. This payment is not required for land occupied as part of the practice. If the land is in a riparian area, the rate is equal to the rate received under the federal CREP program. If not, the rate is 70%. Also, under ATCP 50, maintenance payments for mowing, up to twice per year, are \$10/\$ acre.

<sup>&</sup>lt;sup>a</sup> DATCP's rate is shown. DNR offers \$6 per acre for the first year, and \$4 per acre for years two through four.

<sup>&</sup>lt;sup>b</sup> DATCP offers 70% of costs, with a \$5,000 maximum for livestock transport.

<sup>&</sup>lt;sup>d</sup> DNR offers 70% plus \$500 per acre. DATCP offers the CREP rate if the land is eligible for CREP. If not, it offers 70% of installation costs, twice annual mowing and 70% of the rental rate if the land is taken out of production (for the length of the agreement).

<sup>&</sup>lt;sup>e</sup> DNR offers 70% of installation costs, plus \$300 per acre.

<sup>\*</sup>Available in either year of the biennium.

DNR is provided \$839,400 in 2006-07 in a biennial appropriation. These funds are used to pay for non-bondable cropping practices like nutrient management, contour strip cropping and conservation tillage, in priority watershed projects.

**Segregated (SEG) Revenues.** DATCP is provided \$4,745,100 in 2006-07 from the nonpoint account of the environmental fund for county staffing grants, including funding for priority watershed staff, and nutrient management planning grants.

The nonpoint account of the environmental fund receives GPR funding based on a vehicle title transfer fee formula. Prior to 1997, environmental fund revenues were provided from a \$7.50 automobile title transfer fee adopted in 1991. This revenue source was selected, in part, in recognition of the nonpoint source pollution attributable to the state's transportation infrastructure and vehicle operation. However, the 1997-99 biennial budget required that title transfer fees be deposited to the transportation fund, and that instead, general fund revenues in an amount based on the annual title transfer fee revenues from the previous fiscal year be deposited to the segregated nonpoint account of the environmental fund to be used for nonpoint source water pollution abatement related activities. Under 2001 Act 109, between 2002-03 and 2004-05, this transfer of GPR was reduced by \$555,000 each year. In 2003-04, the amount of revenue deposited into the transportation fund from vehicle title transfer fees totaled \$11,304,000, meaning in 2004-05, \$10,749,000 (\$11,304,000 minus \$555,000) in general purpose revenue was transferred to the nonpoint account.

The 2005-07 biennial budget act eliminated the reduction of \$555,000 from the annual GPR transfer. In 2006-07, nonpoint account revenue from vehicle title transfer fees totaled \$10,672,000. This GPR transfer (and associated investment income) is the sole source of nonpoint account revenue. Unspent segregated appropriation authority generally lapses back to the environmental fund at the end of

each year. Table 6 shows an estimate of the segregated nonpoint account condition, and a description of each appropriation in the table follows below.

In addition to the nonpoint account funding change discussed above, the 2005-07 budget also shifted a number of costs from GPR to nonpoint account SEG, as follows: (a) \$885,900 and 10.0 administrative positions annually in DATCP; (b) \$847,700 annually in DATCP debt service costs related to bonds issued for cost-share grants made to counties for nonpoint best management projects; and (c) \$356,200 and 4.75 administrative positions annually in the DNR. As a result, total costs of \$4,179,600 were transferred from GPR to nonpoint account SEG over the 2005-07 biennium.

Soil and Water Management Staff. DATCP is appropriated \$1,973,700 and 21.0 positions in 2006-07 from the nonpoint account for soil and water management staff (an increase of 10.0 positions, along with related funding, from the 2003-05 biennium). These staff are a part of DATCP's Bureau of Land and Water Resources. Soil and water resource management efforts included establishing technical standards for nonpoint pollution, assisting in the developments and design of nonpoint pollution abatement measures, and analyzing nonpoint pollution abatement efforts.

Soil and Water Management Grants. In the 2005-07 biennium, DATCP is appropriated \$4,745,100 annually (an increase from \$3,725,100 previously) for soil and water management grants. This appropriation is combined with a GPR appropriation (\$5,081,900 annually) and primarily used to provide \$9.3 million in state grants to support county staff for local implementation of land and water conservation efforts, including funding for priority watershed staffing. The remaining \$520,000 SEG annually was provided in 2005 Act 25 for counties to make cost-share grants to landowners for nutrient management plans (which are required of farmers near outstanding and exceptional resource waters currently, and all farmers by 2008).

**Table 6: Nonpoint Account Fund Condition** 

	Actual 2004-05	Actual 2005-06	Est. 2006-07	2006-07 Staff
	2001 03	2000 00	2000 01	Starr
Opening Balance	\$7,621,600	\$6,140,100	\$6,727,000	
Revenue:				
Title Transfer Revenue	\$10,749,000	\$10,641,800	\$10,672,000	
Investment Revenue	700	641,700	460,000	
<b>Total Revenue</b>	\$10,749,700	\$11,283,500	\$11,132,000	
Total Available	\$18,371,300	\$17,423,600	\$17,859,000	
Expenditures:				
Agriculture, Trade and Consumer Prote	ction			
Soil and water management				
administration	969,000	1,596,000	1,973,700	21.00
Soil and water management grants	3,672,700	4,065,100	4,745,100	0.00
Debt service	0	847,700	847,700	0.00
Natural Resources				
Integrated science services	257,000	166,100	356,800	4.50
Nonpoint source contracts	987,000	1,050,600	997,600	0.00
Management and TMDL	35,100	338,300	468,200	6.25
Nonpoint source administration	465,600	483,400	486,600	7.00
Urban nonpoint source grants	2,392,300	1,290,400	1,399,000	0.00
Debt service	23,900	48,400	74,300	0.00
Administrative operations	649,400	608,000	632,200	0.00
Customer assistance and				
communication	73,900	202,600	212,300	1.22
Total Expenditures	\$9,542,200	\$10,696,600	\$12,193,500	39.97
Lapse to General Fund	2,689,000	0	0	
Cash Balance	\$6,140,100	\$6,727,000	\$5,665,500	
Encumbrances	5,221,000	5,010,400	5,360,800	
Available Balance	\$919,100	\$1,716,600	\$304,700	

Debt Service (DATCP). Debt service costs reflect the principal and interest costs of bonds that were issued to fund cost-share grants to counties for nonpoint source water pollution abatement best management practices. This appropriation was created as part of 2005 Act 25 and transferred costs from GPR to nonpoint account SEG.

Integrated Science Services. DNR is appropriated \$356,800 and 4.5 positions annually for activities related to the research, evaluation and monitoring of nonpoint source water pollution.

Nonpoint Source Contracts. DNR is appropriated \$997,600 annually for nonpoint source contracts. This appropriation is predominantly used to support basin education, provided by the University of Wisconsin-Extension, related to DNR's nonpoint water pollution abatement program. Funding is also used to support: the Wisconsin Land and Water Conservation Association (WLWCA, a nonprofit organization that represents the state's 72 county board land conservation committees and departments); research related to the effectiveness of buffer strips in preventing water pollution; and the Wisconsin Agricultural Stewardship Initiative (WASI, a research oriented effort to develop environmentally compatible and economically sustainable farms).

Management and Total Maximum Daily Load (TMDL) Development. DNR is appropriated \$468,200 and 6.25 positions annually for non-point source administrative duties. This includes a shift of 4.75 positions and related funding annually from GPR to this appropriation in 2005 Act 25. 2.25 of the positions are designated for the develop-

ment and implementation of Wisconsin's federally-required TMDL plans. TMDL is a plan to reduce the amount of specific pollutants reaching an impaired lake or stream so that water quality standards will be met. While funded from the nonpoint account, these positions are used by DNR for TMDL activities related to waters impaired by point source and nonpoint source pollution. The remaining 4.0 positions have various responsibilities such as wastewater engineering, coordinating nonpoint abatement grants, coordinating state implementation of agricultural performance stan-

dards, and managing federal section 319 contracts.

Nonpoint Source Administration. In addition to the administrative duties listed above, DNR is also appropriated \$486,600 annually and 7.0 positions for other nonpoint source activities. These resources are used for technical assistance and the administration of DNR's nonpoint source water pollution abatement programs.

Urban Nonpoint Source Grants. DNR is appropriated \$1,399,000 annually from the nonpoint account for urban nonpoint related grants. As discussed elsewhere in this paper, this appropriation is used to make grants for two programs administered by DNR. The urban nonpoint source and storm water management program provides costshare grants to urban areas for the construction of nonpoint source water pollution abatement practices. The municipal flood control and riparian restoration program provides financial assistance to cities, villages, towns and metropolitan sewerage districts for the purchase of vacant land, structure removal, construction and other development costs, along with the collection, retention, and transmission of storm water.

*Debt Service (DNR).* Debt service costs reflect the program's share of bonds that were issued to fund the acquisition of land and construction of DNR administrative facilities.

Administrative Operations. DNR is appropriated \$632,200 in 2006-07 from the nonpoint account for general and administrative costs. The administrative operations appropriation supports \$168,600 in 2006-07 related to general departmental nonpoint pollution abatement support functions such as grant management, legal services, finance and auditing, administrative and field services, data processing, information technology, human resources and facility rental costs. Also included is approximately \$463,600 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 speed water permit processing and state and

local access to improved data (such as floodplain mapping).

Customer Assistance and Communications. DNR is appropriated \$212,300 and 1.22 positions in 2006-07 to support customer service, communication and education efforts, as they pertain to nonpoint water pollution issues.

General Obligation Bonding. General obligation bonds to provide funding for SWRM activities were first authorized in the 1997-99 biennial budget act. A total of \$26,075,000 in bonds has been authorized for DATCP SWRM activities.

General obligation bonds to support DNR grants for installing cost-share practices were first authorized for the program in the 1991-93 biennial budget act. Since that time, a total of \$117.2 million in bonds has been authorized for DNR nonpoint pollution abatement activities, including \$89.3 million for the priority watershed program, \$23.9 million for urban storm water and municipal flood control programs and \$4 million specifically for the targeted runoff management (TRM) program. (However, DNR has reallocated unspent priority watershed bonding to the TRM program in past years when available.) Bonding is limited to costshare grants for the installation of certain water pollution abatement or conservation practices and cannot be used for local program administration. In 2005-06, debt service costs on bonds issued by the two agencies totaled approximately \$7.3 million, including \$6,418,000 GPR and \$847,700 nonpoint account SEG.

Federal Funding. DNR expects to receive rural nonpoint funding of approximately \$1.3 million annually in 2005-06 and 2006-07 under the federal Clean Water Act (Section 319 grants) from the Environmental Protection Agency. This funding is associated with the Great Lakes basin projects and selected cost-share and local staffing grants and is awarded as part of the Department's priority watershed grants.

In addition to federal funding that is provided

to DNR for county grants, federal funding may be received by landowners via local governments, who may receive federal funds directly for conservation practices under a variety of federal programs administered by the United States Department of Agriculture's Natural Resource Conservation Service (NRCS) (separate from DNR and DATCP grants to counties). As shown in Table 7, actual funding received directly by Wisconsin landowners and local governments for conservation practices totaled \$22.8 million in 2005-06. While funding by program is not yet known for 2006-07, total funding available to Wisconsin landowners is expected to be approximately \$25.9 million. However, it should be noted that this amount, (along with the amount shown in Table 5 for 2006-07) is the amount of funding that is expected to be made available to Wisconsin. The actual amount received by Wisconsin landowners may be less depending on the amount of local government and landowner participation.

Table 7: Federal Fiscal Year 2006 Federal Land and Water Conservation Funding Awards to Wisconsin Landowners

Program	Funding
Environmental quality incentive program Conservation security program	\$16,353,700 3,493,000
Farm and ranch lands protection program	1,514,000
Grassland reserve program Wildlife habitat incentives program	12,000 411,300
Wetlands reserve program	1,064,200
Total	\$22,848,200 *

<sup>\*</sup>Excludes conservation reserve enhancement program (CREP) funding, which is not annual and is discussed later.

One program that offers funding to local governments for grants to landowners is the U.S. Department of Agriculture's environmental quality incentive program (EQIP). EQIP offers financial and technical help to assist eligible participants install or implement structural and management practices on eligible agricultural land through the use of incentive payments and cost-shares, for which it pays between 50 and 75 percent of the cost

of eligible conservation practices. For Wisconsin, funding for installation of conservation practices is projected to be about \$15.9 million in 2006-07 (actual awards were \$16.4 million in 2005-06).

In addition to federal funds specifically for nonpoint source water pollution abatement, Wisconsin landowners may also receive federal funding under other programs, including: the conservation security program (CSP); the farm and ranch lands protection program (FRPP); the grassland reserve program (GRP); the wildlife habitat incentives program (WHIP); and the wetlands reserve program (WRP). The CSP provides financial and technical assistance by awarding incentive payments to landowners for the conservation and improvement of soil, water, air, energy, plant and animal life, and other conservation purposes on private land. Under the farm and ranch lands protection program, the Natural Resources Conservation Service (NRCS) provides matching funds to help purchase development rights to keep productive farm and ranchland in agricultural uses. The NRCS provides up to 50% of the purchase costs of permanent easements on eligible farmland. The other 50% must come from the state or another entity. The GRP offers landowners an easement or rental payment for the implementation of practices to protect, restore, and enhance grasslands on their property. WHIP provides private landowners with technical assistance and up to 75% cost-share assistance for the establishment and improvement of wildlife and fish habitat. The WRP provides technical and financial assistance to eligible landowners to address wetland, wildlife habitat, soil, water, and related natural resource concerns on private lands.

In addition, under the conservation reserve enhancement program (CREP), the USDA and the state of Wisconsin entered into a \$240 million agreement to protect environmentally sensitive land next to rivers and streams by improving impaired water resources and for enhancing wildlife habitat in two designated geographic areas known as "grassland areas." CREP is a voluntary land re-

tirement program in which landowners may enroll agricultural lands into conservation practices in order to protect environmentally sensitive land, decrease erosion, restore wildlife habitat, and safeguard ground and surface water. Eligible conservation practices under CREP include riparian buffers, filter strips, wetland restorations, and establishment of native grasslands in the grassland project area. The land may be enrolled through a 15-year agreement or a perpetual easement. Under the program, the state is required to match a federal grant of \$200 million with at least \$40 million of state funds. The state has authorized \$40 million in general obligation bonding authority for the program.

Through October 1, 2006, over 35,000 acres of land have been enrolled in CREP (29,800 acres in 15-year easements and 5,400 acres in perpetual easements). The Farm Service Agency projects that total federal payments associated with these 35,000 acres over their CREP contracts (generally 15 years, unless a permanent easement is granted) will total about \$71 million. In addition, state incentive payments to enroll this land into the program and on cost-share grants to landowners for the installation of conservation practices related to this land are expected to be approximately \$10.2 million. As a result, expenditures of approximately \$81.2 million (out of the total \$240 million available) are expected over the life of the CREP contracts for the 35,000 acres enrolled in CREP as of October 1, 2006. This funding has been used to: (a) buffer streams (1,250 miles of the state goal of 3,700 miles); (b) remove phosphorus (an estimated 123,600 pounds annually of the state goal of 610,000 pounds annually), nitrogen (65,000 pounds annually of the goal of 305,000 pounds annually) and sediment (an estimated 59,200 tons annually of the goal of 355,000 tons annually) from runoff; and (c) establish 10,100 acres of the state goal of 15,000 acres of grassland habitat. Under the current agreement with the USDA, state landowners are allowed to participate in CREP provided they have signed a federal contract by December 31, 2007.

### **Administrative Funding**

As shown in Table 8, in 2006-07, the agencies are provided approximately \$8 million in direct administrative funding for positions associated with the nonpoint and soil conservation programs (in addition to amounts identified in the table each agency supports a portion of overall Department overhead costs). DATCP funding is estimated at approximately \$2.3 million and 25.0 staff to administer its land and water resource management program activities. Funding is provided from general purpose revenue and the segregated nonpoint account of the environmental fund.

Federal and state funding has been provided for DNR planning, monitoring and administration of the nonpoint program. In 2006-07, DNR is provided \$5.8 million and 75.75 staff to administer its nonpoint pollution abatement and storm water activities. Program revenues are provided from storm water fees. Segregated revenues are provided from the nonpoint account of the environmental fund.

In addition to the amounts shown in Table 8, DNR is provided \$997,600 from the nonpoint account of the segregated environmental fund for nonpoint contracts in 2006-07. The statutes require that at least \$500,000 of these funds be used each year for contracts with UW-Extension for educational and technical assistance.

**Table 8: 2006-07 Administrative Funding and Associated Positions** 

	DAT	'CP	DNR		
Source	Funding	Staff	Funding	Staff	
GPR	\$0	0.00	\$1,019,600	12.00	
FED	301,300	4.00	2,258,100	31.25	
SEG	1,973,700	21.00	954,800	14.00	
PR	0	0.00	1,532,400	18.50	
Total	\$2,275,000	25.00	\$5,764,900	75.75	

The current DNR federal positions were authorized in 1990 and are funded under the federal Water Quality Act of 1987. The federal program requires states to submit a proposed management program for controlling pollution from nonpoint sources and improving water quality. This must include a list of best management practices, a program of implementation of those measures and a timetable. States that comply with requirements are eligible for 50% federal grants to assist nonpoint source plan implementation (known as "section 319 grants" because of the section of the federal act creating the program).

In addition to federal funding of \$2,258,100 provided for 31.25 positions (as shown in Table 8), and \$1,300,000 provided for section 319 watershed grants (included in the cost-share grants category in Table 3), additional federal funding received by DNR for federal fiscal year 2006 was \$1,566,200. This includes \$663,800 for administrative funding (not salary and fringe costs, rather such items as supplies and travel), \$509,300 for research, and \$393,000 in contracts with other agencies. These contracts include \$301,300 with DATCP, \$56,700 with UW-Extension, and \$35,000 for the Natural Resources Conservation Service (NRCS). As a result, total federal funding received by DNR in federal fiscal year 2006 was \$5,124,300.

# **Nonpoint Source Pollution Abatement Grant Programs**

In complement to annual staffing and practice grants made to counties by DATCP and the priority watershed program, DNR may provide competitive grants to governmental units for nonpoint source projects to accelerate the implementation of nonpoint source pollution control to target areas: (a) that are of highest priority, including targeted water quality standards, impaired waters, outstanding and exceptional resource waters, public health threat

situations and other issues of state and national importance; and (b) where pollution abatement can not be achieved through implementation of county soil and water resource activities funded under DATCP cost-shares. Targeted projects include projects for managing pollutants from animal feeding operations receiving a notice of discharge or notice of intent to issue a notice of discharge.

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

### **Targeted Runoff Management Grant Program**

Targeted runoff management grants are competitive financial awards to support small-scale, short-term projects that are completed by local governmental units within 24 months of the start of the grant period, with a possible 12-month extension (the statutory maximum is four years). Both urban and rural projects can be funded through a TRM grant, however, grants must be made to combat nonpoint water pollution. Under state and federal law, an entity that has a Wisconsin pollutant discharge elimination system (WPDES) permit is defined as a point source. With the implementation of revised federal standards (revised NR 216, which took effect in July, 2004),

DNR officials estimate over 250 municipalities in Wisconsin will be required to obtain a WPDES permit, and therefore be classified as a point source. Since municipalities that are required to obtain a WPDES permit are ineligible for a TRM grant, most grants made under the TRM grant program are made to rural counties or smaller municipalities.

Up to 70% of a project's eligible costs can be funded through a TRM grant, to a maximum of \$150,000 in state funding. Funds may be used for the construction of BMPs (which are listed in Table 4) in a target area where they are needed to comply with one of the following: (1) DNR standards; (2) the existence of impaired water bodies that the Department has identified to the federal EPA; (3) the existence of outstanding or exceptional resource waters (as designated by statute); (4) the existence of threats to public health; (5) 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 (6) other water concerns of national or statewide quality importance. TRM grant funds cannot be used to pay for staffing, studies, or designs. For calendar year 2006, the TRM program awarded 19 projects over \$1.9 million. These grants are listed in Appendix III.

#### **Grants for Local Assistance**

Under the Wisconsin Constitution, generally the state may only issue public debt for long term capital improvements. Since bonding is currently the only source of funding for TRM projects, local assistance grants are not provided for staff or administrative costs, and all staff funding support comes from the awards made under the joint allocation plan. Under the 1997 biennial budget act, it was expected that some existing priority watersheds might be scaled back or discontinued with program savings shifted to a competitive grant program. However, all active and planned projects were continued. Further, 1999 Act 9 shifted most funding for staffing grants from DNR to

DATCP.

While the maximum cost-share rate under the TRM program is 70% (except in cases of economic hardship), local units of government, in their project applications, are allowed to determine a lower TRM cost-share rate for their project. Eligible best management practices for TRM cost-share grants are listed in Appendix I.

# **Urban Nonpoint Source and Storm Water Grant Program**

1999 Act 9 created a statutory urban nonpoint program under DNR and removed oversight and project selection powers from the LWCB for the urban nonpoint program.

DNR may distribute a grant to a governmental unit, or for activities within that governmental unit, to be carried out by another governmental unit that is required to control storm water discharges relating to s. 283.33 (the section of the statutes that pertains to WPDES storm water permitting). These governmental units or activities include: (a) cities with populations over 100,000; (b) discharge associated with an industrial activity or other discharge that DNR determines either contributes to a violation of a water quality standard or is a significant contributor of pollutants; (c) municipal separate storm sewer systems (MS4s) that serve an area located in an urbanized area (an area with a population density of 1,000 or more per square mile with a total population of at least 50,000); (d) MS4s serving an area with a population of 10,000 or more and having a population density of 1,000 or more per square mile that the Department designates based on an evaluation of whether the storm water discharge has the potential to exceed water quality standards; and (e) MS4s that contribute substantially to the pollutant loading of a physically interconnected municipal separate storm sewer system that is required to have a permit.

In addition, the Board of Regents of the Univer-

sity of Wisconsin System may apply for urban nonpoint source cost-share grants for practices, techniques or measures implemented to control storm water discharges on certain University of Wisconsin campuses. The UW campus must be located in a municipality that is within a priority watershed or Great Lakes area of concern and that is required to obtain a storm water discharge permit.

The governmental unit with jurisdiction for the project area must ensure adequate implementation of the construction site pollutant control and post-development storm water management for new development and redevelopment for sites of one or more acres in order to receive an urban nonpoint cost-share grant. Further, the project also must be consistent with the urban nonpoint source performance standards that were promulgated by administrative rule NR 151.

Urban nonpoint source and storm water (UNPS) grants promote urban runoff management for existing urban areas, developing urban areas and urban redevelopment, for a two-year period, with a possible one-year extension. These grants are site-specific, generally smaller than a subwatershed, and targeted to address high-priority problems in urban project areas. For a storm water planning project to be eligible for funding under this program, it must currently be in an urban area or an area projected to be urban within 20 years. A municipality is eligible for cost sharing even if a storm water permit under NR 216 covers the municipality. The primary goals include implementing urban runoff performance standards (NR 151), achieving water quality standards, protecting groundwater, and helping municipalities meet municipal storm water permit conditions (NR 216).

Urban nonpoint grants can fund 70% of technical assistance while standard cost-share funds are available at 50% of the project cost from DNR. Eligible cost-share activities include: (a) structural urban best management practices, including necessary land acquisition, storm sewer rerouting, removal of structures and associated flood manage-

ment, but excluding new construction activities and new development; (b) stream bank and shoreland stabilization; and (c) other activities, such as improved street sweeping, identified by DNR rule. Since 2003, the maximum amount that can be granted for a construction project is \$150,000, and the maximum amount that can be granted for a technical assistance project 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).

As shown in Table 9, a total of almost \$4.3 million (\$2.8 million nonpoint account SEG and \$1.5 million in bonding that was authorized in 2005 Act 25) is available for urban nonpoint grants and municipal flood control and riparian restoration grants in 2005-07. State law does not specify how much of the \$4.3 million be spent on either program.

Table 9: Urban Nonpoint and Municipal Flood Control Grant Appropriations

Source	2005-06	2006-07
SEG BR*	\$1,399,000 <u>750,000</u>	\$1,399,000 <u>750,000</u>
Total	\$2,149,000	\$2,149,000

<sup>\*</sup>Available in either year of the biennium.

For 2006, the UNPS program awarded nearly \$3.5 million to 51 projects. Of this amount, about \$1.9 million in bonding went to fund construction costs, with the remaining approximately \$1.6 million in planning costs being funded by segregated revenue. A list of these grants can be found in Appendix IV.

### **Project Selection Process**

DNR distributes applications for the targeted runoff management program and the urban nonpoint source and storm water management program in January and eligible governmental units that apply for grants under these two programs must have all materials required by DNR postmarked by April 15, in order to be considered for funding in the following calendar year. Governmental units include cities, villages, counties, towns, sanitary districts, lake districts, tribal governments and others. In addition, state agencies are eligible to apply for grants under the TRM program, while the University of Wisconsin Board of Regents is eligible to apply for grants under the urban nonpoint source and storm water management program.

Under the TRM and UNPS grant programs, after first passing a screening process to determine basic eligibility, applicants are awarded grant agreements based on a scoring system devised by DNR. Statutorily, the scoring criteria must include the following: (a) the extent to which the application proposes to use cost-effective and appropriate best management practices to achieve water quality goals; (b) the existence in the project area of an impaired water body that the DNR has identified to EPA; (c) the extent to which the project will result in the attainment of 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 reaching project goals; (f) the extent to which the application proposes to use available federal funding; and (g) the extent to which the project is necessary to enable the City of Racine to control storm water discharges as required under federal and state requirements.

DNR guidelines establish minimum qualifications for eligibility, including a state cost-share maximum (\$150,000 for TRM, \$150,000 for UNPS construction, \$50,000 for UNPS land acquisition, and \$85,000 for UNPS planning) and installation generally to be completed within 24 months of the start of the grant period. Applicants meeting the minimum qualifications are then scored based on fiscal accountability, water quality information, evidence of local support, and the ranking of the area on the watershed and lake list, where again they must receive minimum scores for further con-

sideration. Finally, applicants meeting those minimum score requirements are scored based on water quality needs, the extent of pollutant control needed, the likelihood of success of the project, the leveraging of additional funding and, as a tiebreaker, whether or not the project will assist the City of Racine to control storm water discharge. The initial project score is increased by 10% if there is a comprehensive local implementation program serving the project area, or by up to 25% (for TRM projects) if there is an implementation and enforcement program. Under the urban nonpoint source and storm water management program, construction and planning projects are separated into two separate groups that compete for two different pools of grant funding.

After determining project scores under the TRM grant program (and after DNR and the Land and Water Conservation Board have discussed the scores and recommended projects for TRM cost sharing) by September 1, rankings are established using the scoring system and, to the extent possible, distributed evenly in a geographic manner throughout the state (by awarding a grant to the highest scoring project from each DNR region regardless of the project's overall ranking). Grant agreements are then entered into by January 1, of the following year.

### **Municipal Flood Control and Riparian Restoration Program**

1999 Act 9 created a municipal flood control and riparian restoration program within the urban nonpoint program. The program provides financial assistance to cities, villages, towns or metropolitan collection sewerage districts for the transmission of storm water for flood control and riparian restoration projects. Grants may be used for facilities and structures, including the purchase of perpetual flowage and conservation easement rights on land within a flood way and flood proofing of public or private structures remaining in a 100-year flood plain.

DNR may provide grants for up to 70% of

eligible costs for construction and real estate acquisition for a DNR approved project. DNR may also provide municipal flood control and riparian restoration program local assistance grants for up to 70% of eligible costs, including planning and design costs. In any fiscal year, the Department may not provide to any applicant more than 20% of the funding available for the program.

DNR may provide grants: (a) for projects affecting two or more municipalities or metropolitan sewerage districts, to one of the applicant municipalities or metropolitan sewerage districts upon application by all of the municipalities or metropolitan sewerage districts affected by the project; (b) to 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; and (c) for projects affecting only one municipality or metropolitan sewerage district to the applicant municipality or metropolitan sewerage district.

DNR must specify criteria for determining the eligibility and priority ranking of projects which include requiring: (a) no transfer of flooding down stream; (b) to the extent practical, no harm of existing beneficial functions of water bodies and wetlands; (c) the maintenance of aquatic and riparian environments; (d) to the extent practical, the use of storm water retention and detention structures and the use of natural storage; (e) adequate opportunity for public use access for the stream and flood way; and (f) no channelization, acceleration of upstream runoff or concrete lining of natural stream beds.

The Department promulgated administrative rules related to the municipal flood control program in NR 199, which became effective October 1, 2001. Subsequently, in March of 2002, the Department awarded 17 flood control grants worth \$3.9 million to municipalities for calendar years 2002 and 2003. In 2004, DNR made seven additional grants worth \$1.97 million for the two-

year period lasting from January 1, 2004, through December 31, 2005. In 2006, DNR awarded seven grants totaling \$2.2 million for the two-year period lasting from January 1, 2007, through December 31, 2008. A list of these grants can be found in Appendix V.

#### **Clean Water Fund Loans**

The clean water fund program, administered by DNR and the Department of Administration, provides low-interest loans to municipalities for nonpoint source pollution abatement and storm water management projects. The subsidized interest rate is 65% of the market rate, which currently provides an interest rate of 2.925% to these projects. DNR promulgated rule changes effective March 1, 2001, to allow funding for nonpoint and urban storm water projects. To date the program has funded one urban storm water project for \$793,400 and no nonpoint projects.

The land recycling loan program is part of the clean water fund program and provides 0% interest rate loans to certain local governments for the investigation and remediation of certain eligible properties. Under federal clean water regulations, land recycling loans are considered to be for nonpoint source pollution abatement projects. The Legislative Fiscal Bureau Informational Paper titled "Environmental Improvement Fund," describes the clean water fund program.

### 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 for the installation of practices that abate nonpoint sources of pollution. The program awards grants to landowners and municipalities for projects that reduce nonpoint sources of pollution. Through

June 30, 2006, over \$201 million in local assistance and cost-share grants have been spent for original priority watershed and lake projects. The program remains authorized under s. 281.65 of the statutes and administrative rule NR 120.

The 1997-99 and 1999-01 budgets (1997 Act 27 and 1999 Act 9) retailored the nonpoint pollution control program, including the procedures by which new nonpoint pollution abatement projects are designated and splitting the urban and rural portions of the program. The original program is being phased out as priority watershed projects end. In its place, the Legislature created the competitive TRM grant program and emphasized providing staff funding to all counties through DATCP. Since previously designated nonpoint projects were implemented in the original structure and are planned to continue through 2009, this section describes the process of implementing those original grants.

### **Original Priority Watershed Projects**

Prior to 1998, the nonpoint source grant program was implemented solely through a priority watershed strategy. A watershed is generally defined as all land that contributes runoff water to a stream or lake. In the past, DNR identified those watersheds and lakes where the need for nonpoint source pollution abatement was viewed as most critical through area-wide water quality plans that were originally developed under the requirements of the Federal Water Pollution Control Act. Only nonpoint abatement projects located within watersheds designated as a high or medium priority under the area-wide water quality plan 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 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 the location of the impaired water bodies as identified by DNR in a list of impaired state waters, which is federally required to be submitted to EPA (the 303 (d) list). 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 categorized large-scale, small scale and priority lakes projects watersheds into high, medium or low priority watershed status. Using this list, the LWCB was directed to identify priority watersheds and lakes with DNR and DATCP recommendations, regardless of past priority watershed designations (except for those watersheds in the Milwaukee River basin and the South Fork of the Hay River that are statutorily designated). The LWCB ultimately redesignated all 62 active priority watershed projects. Thus, each of the 62 projects remained eligible to continue receiving funding on an area-wide basis until their completion. No future designations of priority watershed projects may be made. Priority areas are grouped according to 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 that are selected to achieve local water quality objectives. Small-scale priority watershed projects implement the same best management practices as the large-scale projects. An example might be a project to reduce sedimentation of a small stream. Small-scale projects are often found in medium- or low-priority watershed areas where it can be demonstrated that significant local benefits can be derived.

**Priority Lakes Projects.** Priority lakes projects generally include watersheds draining to a selected lake or lakes. "Priority lakes" are defined as those where the need for nonpoint source water pollu-

tion abatement is most critical. The affected area of these projects has ranged from eight to 230 square miles. 2003 Act 33 eliminated the requirement that DNR allocate at least \$300,000 of nonpoint source grant funds each year to priority lakes projects.

**High-Priority Areas.** Areas with a predominance of impaired waters, threatened waters or a mix of waters impaired, threatened or partially impaired. The existence of endangered or threatened species may also result in a high ranking.

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

**Low-Priority Areas.** Areas tending to 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 are 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 priority watershed area (in Barron, Dunn, Polk and St. Croix Counties) was statutorily designated a priority watershed until June 30, 2001. This designation was subsequently extended until 2005. The South Fork watershed area was exempt from nonpoint requirements related to cost-share rates and the types of best management projects installed. Instead, cost-shares were paid based on the amount of pollution reduced. Dunn County, with assistance from DNR, established guidelines for this pilot project

related to cost-share rates and types of practices to be installed. With the completion of this project, DNR is evaluating the cost-effectiveness and the nonpoint source water pollution reduction associated with this pilot project. The watershed was originally designated priority in 1993.

### **Project Planning and Implementation**

Best Management Practices. The abatement of nonpoint pollution in priority watersheds is pursued through the adoption of best management practices. Best management practices are generally identified in area-wide water quality management plans and then refined in the nonpoint source water pollution abatement plan that is prepared for each watershed project. Landowners receive cost-share grants to install these practices.

DNR may require the adoption of local manure storage ordinances and construction site ordinances as a grant condition under the nonpoint program. DNR has developed construction erosion control technical standards and a model construction site erosion control ordinance. The technical standards replace the handbook of construction site best management practices previously develop by DNR. In addition, the Department of Commerce and the Department of Transportation (DOT) have specific authorities and duties related to one- and two-family construction sites and highway and bridge construction projects. These provisions require Commerce and DOT, in consultation with DNR, to establish standards based on best management practices.

**Designated Management Agency.** For the nonpoint source grant program, the term "designated management agency" is used to identify the primary local government participant or participants. Various local governmental units can participate in the nonpoint source grant program. In the past, these have included counties, cities, villages, towns, tribal governments, metropolitan sewerage districts, town sanitary districts, regional planning commissions, drainage districts and vari-

ous lake districts. In a given watershed area, DNR selects local designated management agencies for nonpoint source planning and implementation activities. In rural watersheds, the counties generally serve as the designated management agencies for their areas of jurisdiction. In urban areas, cities, villages and towns are typically designated.

Local Priority Watershed Advisory Committee. DNR is directed to appoint a local committee for each priority watershed and priority lake project to provide advice on all aspects of the nonpoint source pollution abatement program. The committee consists of at least two farmers, if the watershed or lake project includes agricultural land and at least two representatives of a public inland lake protection district, or if one does not exist, of riparian property owners (persons owning property abutting a lake, river or other natural body of water). If the priority area is located in the Milwaukee River basin, the committee must also include a member of the county board from each county within the Milwaukee River Basin priority watershed or priority lake area. Local priority watershed advisory committees are not required for projects selected under the competitive program.

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

and nonagricultural nonpoint source water pollution affecting surface water or groundwater.

DNR delegates some of the planning work to the designated management agency in the priority watershed areas. DATCP, other state agencies, local governmental units and persons located in the watershed also participate in this planning process. DATCP has responsibility for preparing parts of the watershed plans relating to: (a) farm-specific implementation schedules; (b) cross compliance activities (requirements that recipients of farmland preservation tax credits employ best management practices and comply with land and water conservation standards); (c) animal waste management; and (d) selection of best management practices for agricultural areas.

DNR was directed by 1991 Act 309 to complete the planning process for all designated priority watersheds by December 31, 2000. However, 1995 Act 27 extended that date to December 31, 2015. All originally designated projects have completed their plans. Further, under the current financing plan, all originally designated projects are slated for project implementation to be completed prior to 2010. However, state law provides landowners an additional 12 months to complete projects if completion was delayed due to no fault of the landowner. As a result, DNR officials expect some county cost-share agreements with landowners under the priority watershed program to be extended into calendar year 2010.

**Project Implementation Phase.** Once the LWCB, counties and DNR approve the plan, implementation by the designated management agency can begin. The designated management agency is responsible for coordination and implementation of plan activities. This includes contacting all owners or operators identified as significant nonpoint sources in the watershed plan and securing their cooperation. Since participation in the nonpoint program is voluntary except for those sites within a watershed that are designated as critical, enlisting the cooperation of those land us-

ers who have the greatest impact on nonpoint source pollution is one of the more important functions of the designated management agency. The agency enters into cost-share agreements with individual landowners, ensures the proper installation of best management practices, and provides general local program administration and coordination. In urban areas, the "landowner" is typically the municipality.

Critical Sites. 1993 Act 166 directed DNR, in preparing priority watershed plans, to designate critical sites within the watershed as part of the planning and selection process of the priority watershed project (see later section on animal waste regulatory authority). The DNR, in consultation with DATCP, is required to submit to the LWCB, as part of the priority watershed and lake planning process, any sites within that watershed that are critical to achieving the water quality goals established in the plan. The LWCB, as part of its priority watershed and lake plan approval authority, must approve those sites before they are designated as critical. DNR, in consultation with DATCP, can also make modifications to a priority watershed or lake plan for the purposes of designating additional sites as critical to the attainment of water quality goals in the plan. However, the LWCB also must approve any modifications to these plans. Since no new priority watersheds will be identified, DNR may not designate critical sites under the competitive nonpoint program

### **Designated Watershed Projects**

Under the original nonpoint program, 86 large, small and lake projects were selected for funding. Of these, 63 projects have been completed and closed. DNR has prepared final reports or water quality evaluations for 17 closed projects. Additional information on the amount of funding expended, cost-share participation rates and water quality information for remaining watershed is available from, or reported annually by, DNR and DATCP.

Table 10 lists small-scale, priority lakes and other uses of grant funds. Table 11 lists large-scale nonpoint source pollution control projects. The tables portray the grant amounts that have been expended for each project including funding for costshare and local assistance grants. The tables also note which projects are closed, or the year of completion for open projects. The amounts listed reflect final project costs only through June 30, 2006, for completed projects. The tables reflect state and federal expenditure figures.

### **Continuing Nonpoint Project Funding**

In 1998, the LWCB approved revised nonpoint source grant totals for original nonpoint projects, decreasing most grant awards, but still fully funding all signed cost-share agreements. Since 1997, the DNR has provided counties with active priority watershed projects with an anticipated cost-share reimbursement amount (ACRA), to be used to reimburse landowners for best management practices installed during that calendar year. The ACRA should equal the state cost-share amount for practices installed in each watershed project for that calendar year. If a county exceeds its ACRA, the county is responsible for funding the amount of the overage.

Unspent ACRAs may be transferred between projects within the same county, between grantees in the same priority watershed, or between counties in different priority watersheds. In the past, DNR has chosen to reallocate unspent ACRA allowances for grants in the competitive targeted runoff management (TRM) grant program.

ACRA funds provided by the DNR to counties and the Oneida Tribe, come with two restrictions in how they may be used. First, bond revenue may not be used to pay for cropping practices, such as nutrient management and conservation tillage. Second, for the priority watershed program, cropping practices will only be reimbursed using the combination of federal 319 funds (which is restricted to certain areas of Wisconsin) and state GPR.

For 2007, DNR has allocated \$5,452,700 for anticipated cost-share reimbursement amounts. This includes \$4.1 million in bonding for rural cost-shares, \$1.3 million for rural cropping practices, and \$30,000 for cost sharing to the Oneida Tribe.

# **DATCP Participation in the Original Nonpoint Source Grant Program**

Under the original nonpoint program, DATCP has authority to: (1) prepare the parts of the watershed plans relating to farm-specific implementation schedules, cross compliance activities, animal

waste management and agriculturally-related best management practices selection; (2) identify areas within a watershed project which are subject to activities required under the cross compliance provisions of the farmland preservation program; (3) identify recommendations for implementation of these activities; (4) develop a grant disbursement and project management schedule for agricultural best management practices; (5) provide input on critical site selection within a watershed when pollution is animal waste related; and (6) provide engineering assistance.

Table 10: Original Nonpoint Source Pollution Abatement Grant Program Expenditure Through June 30, 2006 -- Small-Scale Priority Watersheds, Priority Lake Projects, and Other Grants♠

Year Started	l Project Name (end date)	Location	Watershed Size (Sq. Miles)	Local Assistance	Cost-Share
Startet	1 Toject Ivaine (cha date)	Location	(5q. Willes)	7 ISSISTANCE	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	136,908
	Spring Creek*	Rock	6	234,741	9,999
1994	Osceola Creek (2007)	Polk	<u>9</u>	<u>198,646</u>	<u>144,826</u>
	Subtotal		62	\$1,347,675	\$800,788
Priorit	y 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	1,558,231
	Lake Ripley*	Jefferson	8	646,918	205,610
1993	Camp/Center Lakes (2007)	Kenosha	8	585,045	144,146
	Hillsboro Lake*	Vernon	35	551,334	550,021
	Lake Mendota (2008)	Dane, Columbia	230	1,740,591	362,356
1994	St. Croix Lakes Cluster (2008)	St. Croix	3	282,465	204,213
	St. Croix Flowage				
	& Upper St. Croix Lake (2008)	Douglas	45	313,583	53,097
1995	Big Wood Lake (2009)	Burnett	20	280,753	60,148
	Horse Creek (2009)	Polk	15	306,247	246,780
	Rock Lake*	Jefferson	<u>10</u>	163,288	139,582
	Subtotal		612	\$7,276,729	\$4,633,428
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				\$11,772,990	\$5,434,216

<sup>\*</sup> Completed Projects

<sup>♠</sup> Amounts for FY 01 through FY 06 include Priority Watershed grants only. The most recent urban nonpoint source and storm water management grant and targeted runoff management grant awards are included in a separate table.

Table 11: Original Nonpoint Source Pollution Abatement Grant Program Expenditures Through June 30, 2006 -- Large-Scale Priority Watershed Projects♠

Year Started	Project Name (and data)	Location	Size Sq. Miles	Local Assistance**	Cost-Share
Started	Project Name (end date)	Location	sq. miles	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
1002	Turtle Creek*	Walworth, Rock	288	586,582	1,482,020
	Turtle creek	Walwordi, Isoch	200	000,002	1,102,020
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
		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
1000	Sheboygan River*	Sheboygan, Fond du Lac, Manitowoc,	100	010,011	1,000,012
	Sheboygan laver	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
1300	Yahara River-Lake Monona*	Dane	93	2,070,735	1,856,528
	Lower Grant River*				1,425,192
	Lower Grafit River	Grant	129	1,061,056	1,423,192
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 11: Original Nonpoint Source Pollution Abatement Grant Program Expenditures Through June 30, 2006 -- Large-Scale Priority Watershed Projects (continued)

Year Started	Project Name (end date)	Location	Size Sq. Miles	Local Assistance**	Cost-Share
1990	Arrowhead River /Daggets Creek* Kinnickinnic River*	Outagamie, Winnebago Milwaukee	142	\$1,473,852	\$1,585,313
			33	175,094	0
	Beaver Dam River*	Dodge, Columbia, Green Lake	290	2,104,624	2,301,442
	Duncan Creek*	Chippewa, Eau Claire	191	2,283,577	2,122,045
	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	3,702,012
	Neenah Creek*	Adams, Marquette, Columbia	173	1,078,588	655,483
1992	Balsam Branch Creek*	Polk	104	896,430	771,479
1992		Door, Kewaunee, Brown	104	· · · · · · · · · · · · · · · · · · ·	5,748,565
	Red River/Little Sturgeon Bay (2007)	Door, Kewaunee, Brown	199	1,944,648	5,746,505
1993	Branch River (2007)	Brown, Manitowoc	108	2,056,800	3,168,663
	Soft Maple/Hay Creek (2007)	Rusk	176	567,997	380,790
	South Fork Hay River*	St. Croix, Dunn, Polk, Barron	181	1,170,004	1,472,625
	Tomorrow/Waupaca River (2007)	Waupaca, Portage	290	1,331,289	1,736,529
1994	Duck/Apple/				
1334	Ashwaubenon Creeks (2009)	Brown, Outagamie, Oneida Nation	264	2,126,536	3,646,013
	Dell Creek (2009)	Juneau, Sauk	133	708,940	487,683
	Pensaukee River (2008)	Oconto, Shawano	163	685,373	1,875,627
	Spring Brook (2008)	Langlade, Marathon	69	305,913	286,523
	Sugar & Honey Creeks (2008)	Racine, Walworth	166	749,964	764,131
	Sugar & Honey Creeks (2000)	Machie, Walworth	100	740,004	704,151
1995	Fond du Lac River (2009)	Fond du Lac, Winnebago	244	616,281	1,621,103
	Kinnickinnic River (2009)	Pierce, St. Croix	206	639,213	1,043,100
	Lower Little Wolf River (2008)	Waupaca	152	380,529	1,885,551
	Lower Rib River (2009)	Marathon	129	503,692	1,093,360
	Middle Peshtigo	Marinatta Occurs	193	999 010	500.005
	& Thunder Rivers (2009)	Marinette, Oconto	193 78	238,916	569,905
	Pigeon River (2009)	Manitowoc, Sheboygan		544,838	477,716
	Pine & Willow Rivers (2009)	Waushara, Winnebago	<u>303</u>	576,741	1,925,372
	TOTAL		11,511	\$70,743,751	\$113,428,687

 $<sup>^*\</sup> Completed\ Projects$ 

<sup>\*\*</sup> 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.

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

<sup>♠</sup> Amounts for FY 01 through FY 06 include Priority Watershed grants only. The most recent urban nonpoint source and storm water management grants and targeted runoff management grant awards are included in a separate table.

# Animal Waste, Nonpoint Regulatory Authority and Performance Standards

## Animal Waste Management Regulatory Authority (NR 243)

DNR administrative rule NR 243 regulates all large animal feeding operations in the state and those smaller animal feeding operations that have been identified as causing a significant discharge of pollutants into state waters. DNR promulgated rules that updated NR 243 in September, 2002, by adding the agricultural performance standards and prohibitions in NR 151 to the existing requirements for animal-feeding operations. In 2003, DNR began the process of revising NR 243 to comply with revised federal animal feeding operation regulations and address manure runoff issues associated with land application activities. As of December, 2006, in response to a Senate Agriculture Committee request made in August, 2006, DNR was in the process of considering modifications to the rule.

Discharge Permits. Under NR 243, all concentrated animal feeding operations are required to obtain a Wisconsin pollutant discharge elimination system (WPDES) permit from DNR. This is the same permit system used to regulate "point source" water pollution discharges, such as municipal sewage treatment plants. A concentrated animal feeding operation is defined by rule as having 1,000 standard animal units or more. ("Animal units" are used in NR 243 to measure the total number of animals that are present in an animal feeding operation in a way that adjusts for the potential impacts of their wastes. One animal unit is defined as the equivalent of one head of beef or slaughter cattle weighing 1,000 pounds. Under this measure, a dairy cow is valued at 1.4 animal units and a laying chicken is valued at .01 animal units.) Concentrated animal feeding operations are required to maintain acceptable management practices and facility design standards to prevent ground or surface water pollution. The construction of new or altered storage or pollutant runoff control structures may be required due to NR 243 regulations.

In addition, NR 243 regulates all other animal feeding operations, if DNR determines that the animal feeding operation has unacceptable practices. An animal feeding operation is defined as "a feedlot or facility, other than a pasture, where animals have been, are or will be fed, confined or maintained for a total of 45 days or more over any 12 month period." The Department has the authority to issue a "notice of discharge" directing the operator to take corrective action. Any operation that has 300 or more animal units and meets the federal definition of a point source discharge must apply for a WPDES permit.

#### **Enforcement**

In the past, DNR identified potential violations based upon citizen complaints. However, DNR has changed its complaint-only investigation policy. As suggested in a 1994 audit by the Legislative Audit Bureau, DNR now also investigates animal waste sites on the basis of information received from state and county staff, in addition to citizen complaints.

From the original adoption of NR 243 in 1984, the DNR estimates that it has received between 90 and 100 citizen complaints annually. The complaints and subsequent investigations resulted in the issuance of 590 notices of discharge to livestock operators through June 30, 2006.

Prior to 2002, grants were available from DATCP's animal waste regulatory cost-share program and grant amounts received by livestock owners averaged around \$20,000. From 2002 through 2006, the TRM grant program in DNR has been the sole source of available grant funding to assist these livestock operators in paying for the cost of facilities needed to correct the pollution discharge, with county LCD staff and DATCP engineering staff able to provide technical assistance

for cost-shared projects. In 2007, DATCP has designated \$100,000 as available to make grants to livestock owners for regulatory animal waste best management practice grants. Further, DNR may continue to provide grants for animal waste management purposes through the TRM program. In addition to the possible funding sources discussed above, if the property on which an NOD is issued is located within an existing priority watershed project, the county could elect to offer cost sharing to the landowner from the county's ACRA amount.

Approximately 56% (or 332) of the livestock operations receiving DNR notices of discharge have received, or are in the process of receiving, cost sharing. Of these 332 operations, 319 have received grants from DATCP's animal waste regulatory cost-share program, seven from the priority watershed program, five from TRM and one as a part of the federal Environmental Quality Incentives Program (EQIP).

As of June 30, 2006, 541 NOD projects have been completed, eight were in construction, four were in the planning stage, and four projects had completed design of corrective actions but had not begun construction. Some 37% of the operators have resolved the pollutant discharge without the use of a state grant. Fewer than two percent of the operators failed to take required actions under the notice of discharge and have been issued WPDES permits or have DNR action pending. Another approximately six percent have recently received a notice, and have yet to take action.

As of June 30, 2006, 23 livestock operations had been referred to the Department of Justice for prosecution (this includes 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.

### Nonpoint Pollution Regulatory Authority

DNR may order the abatement of pollution that the Department, in consultation with DATCP, has determined to be a significant nonpoint pollution source. This includes nonpoint pollution which causes the violation of a water quality standard, significantly impairs aquatic habitat or organisms, restricts navigation, is deleterious to human health or otherwise significantly impairs water quality. This authority generally applies to agricultural and other sources, but does not apply to pollution caused primarily by animal waste or an agricultural source that is located in a priority watershed or lake as regulated by NR 243, unless the source is designated as a critical site in a priority watershed or lake plan.

If DNR identifies a significant source of agricultural-related nonpoint pollution, it may send a notice of intent to issue an order to abate the pollution to the affected landowner and to DATCP. The notice identifies the pollution problem and establishes a date by which the pollution must be abated. Landowners must be given at least one year to abate the pollution unless a shorter period is required because DNR believes that the pollution is causing severe water quality degradation.

If the pollution is agriculture-related, DATCP is responsible, in cooperation with the land conservation committees, for providing the landowner with: (1) a list of management practices which could be adopted to abate the pollution; and (2) an explanation of the financial aids and technical assistance which may be available for the abatement of pollution or the implementation of the best management practices. In addition, DATCP is required to file a report with DNR describing the actions taken by the landowner and recommend whether DNR should issue an order to abate the pollution after the one-year period allowed the landowner has expired. If an order is issued, DNR may begin enforcement proceedings.

#### **Nonpoint Source Performance Standards**

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

With the promulgation of the new nonpoint source water pollution abatement rules, there are enforceable state standards to control farm runoff. DNR administrative rule NR 151 defines the procedures to enforce these standards. In most cases, farmers are entitled to receive a cost-share offer before they can be required to change an existing operation to meet the new state standards. Under both DATCP and DNR's rules, counties will play a lead role in securing compliance with the new standards. Under these rules, counties will use their land and water resource management (LWRM) plans to develop implementation strategies. To this end, DATCP cannot approve LWRM plans unless counties include work plans describing how the county will achieve compliance with the new standards. Counties may use voluntary and other methods to secure compliance. The standards and procedures established by the new rules are the predominant approach taken by the Departments to control nonpoint source water pollution in the future.

**DNR Authority.** DNR is required to prescribe performance standards to achieve water quality standards by limiting water pollution from non-point sources that are not agriculturally related. The Department is also required to specify a process for the development and dissemination of technical standards to implement these performance requirements.

In addition, DNR has statutory authority relating to nonpoint sources that are agricultural. After consulting with DATCP, DNR must promulgate rules prescribing performance standards and prohibitions for agricultural facilities and agricultural practices that are nonpoint sources. The performance standards and prohibitions must be designed to achieve water quality standards by limiting nonpoint source water 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," defined as follows: (a) the area within 1,000 feet from the ordinary highwater 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; and (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.
- 4. Unlimited access by livestock to waters of the state where high concentrations of animals prevent adequate sod cover.

NR 151. In order to administer its nonpoint and soil erosion performance standard responsibilities, DNR promulgated administrative rule NR 151, which establishes runoff management performance standards under the nonpoint source water pollution abatement program. The rule proscribes performance standards for three general areas: (1) agricultural land; (2) non-agricultural land; and (3) transportation facilities.

Agricultural Standards. Under NR 151, DNR mostly relies on county governments to implement agricultural performance standards. NR 151 specifies that all new cropland after October 1, 2002, meet any agricultural performance standards for the given land. If cropland was in use prior to October 1, 2002, DNR may not force the farmer to modify the practices or operations that led to the

violation unless cost sharing is offered to the farmer for the implementation of best management practices (found in Table 4). Existing cropland as of October 1, 2002, that meets a performance standard must continue to meet the standard. NR 151 requires all crop producers who apply manure or other nutrients to their cropland to apply these nutrients in compliance with a nutrient management plan.

Regarding livestock facilities, NR 151 requires all facilities built after the creation of a performance standard to meet the given standard. NR 151 requires that a livestock facility owner must be offered cost-share funding for BMP implementation before a facility that was in existence prior to the creation of a performance standard can be required to change its practices and operations. NR 151 forbids local livestock facility ordinances from exceeding state standards unless the ordinance does not directly target livestock operations, the ordinance was created before October 1, 2002, or the governmental unit receives DATCP and DNR approval. In the event a livestock facility that violates performance standards holds a WPDES permit, DNR may instead follow NR 243 procedures.

NR 151 also specifies that all land where crops or feed are grown be cropped in a manner that achieves a soil erosion rate less than or equal to the "tolerable" ("T") rate established for that soil. Administrative rule ATCP 50 specifies that this "T-value," based on a group of mathematical formulas devised by scientists and soil conservationists, includes erosion caused by wind and water. For most soils, the "T-value" is between three and five tons of soil loss per acre per year.

Construction Standards. Starting on March 10, 2003, most construction sites of greater than one acre are generally required to develop a plan that utilizes best management practices with the design of reducing sediment runoff by 80% as compared

to a situation with no controls. In addition, most post-construction sites are required to develop a storm water management plan that utilizes best management practices to reduce that amount of total suspended solids, peak discharge, infiltrate runoff where environmentally practical, protect areas around lakes, rivers and wetlands, and control runoff from fueling and maintenance areas.

Municipal Storm Water Standards. By March 10, 2008, local governments in developed urban areas will be responsible for implementing storm water management plans that include public education, yard waste management, proper nutrient application to turf areas, and detection and elimination of illicit discharges. Municipalities covered by a municipal storm water discharge permit (NR 216) will also be required to reduce total suspended solids by 20% by March 10, 2008, and by 40% by March 10, 2013.

*Turf Standards.* Non-municipal owners of turf areas of 5 acres or more will need to meet nutrient management requirements by March 10, 2008.

Transportation Facilities. Under NR 151, most transportation facilities are required to be constructed according to a development plan that utilizes best management practices in order to meet all performance standards, including a goal of reducing runoff sediment load by 80% as compared to a situation in which no sediment or erosion control was in use. In addition, most transportation facilities are also required to have a post-construction plan to meet performance standards related to total suspended solids, peak discharge amounts and infiltration of water from runoff. Moreover, the rule specifies that impervious surfaces not be constructed within a protective area of a body of water and that runoff from fueling and maintenance areas be controlled.

**DATCP Role.** DATCP is directed to establish best management practices and technical standards

for nonpoint source agricultural practices and facilities to implement the performance standards and prohibitions promulgated by DNR. DATCP must also promulgate rules relating to conservation practices and a process for the development and dissemination of technical standards for nonpoint source agricultural sites. Alternative technical standards also must be included when more than one implementation method exists. These practices and standards must include animal waste management, nutrients applied to the soil, and cropland sediment delivery components. Further, DATCP is required to develop statewide agricultural nutrient management strategies that include technical standards, incentives, educational and outreach provisions and compliance requirements.

ATCP 50. To administer its nonpoint and soil erosion responsibilities, DATCP promulgated administrative rule ATCP 50, which includes nonpoint source BMPs and technical standards. This rule generally took effect October 1, 2002. ATCP 50 governs DATCP's soil and water resource management (SWRM) program, including soil and water conservation on farms, county soil and water programs, grants to counties, cost-share grants to landowners and local regulation of soil and water. In addition, ATCP 50 defines standard cost-share practices, and establishes DATCP's cost-share rates for landowners who install these practices. The list and definitions of these practices can be found in Appendix I, and the respective cost-share rate of each practice can be found in Table 4.

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

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

**Cost-Share** Requirement. Under section 281.16(3) of the statues, compliance with, or enforcement of, the performance standards, prohibitions, conservation practices and technical standards for agricultural facilities and practices for the abatement of nonpoint source water pollution caused or threatened to be caused by agricultural facilities and practices existing prior to October 14, 1997, is not required unless cost sharing is available. This requirement took effect October 1, 2002, for most farmland. In addition, the performance standards and prohibitions for agricultural facilities and practices set by DNR and the conservation practices and technical standards set by DATCP apply to (a) DNR's priority watershed program; (b) the farmland preservation cross-compliance requirements; (c) animal feeding operations and DNR's animal waste regulatory program (NR 243); (d) the county land and water resource management planning program and remedies under the right to farm statute only if cost sharing is available.

Further, local regulations exceeding state performance standards only apply to agricultural facilities that were a lawful use or legal nonconforming use on October 14, 1997, if cost sharing is available; local nonpoint source performance standards that require the installation or implementation of a water pollution abatement practice must contain a minimum cost-share rate of 70% and up to 90% in cases of hardship. Both DNR and DATCP revised their cost-share rates in administrative rules (NR 120, NR 154 and ATCP 50) that became effective on October 1, 2002. These rates can be found in Table 4.

#### **Erosion Control Programs**

DATCP implements programs to achieve the state's statutory soil erosion control goals. To achieve these statutory goals, DATCP uses a combination of voluntary land and water conservation grant programs and regulatory actions to address problem areas. Chapter 92 of the statutes and ATCP 50 of the administrative code provide the basis for DATCP's erosion control programs. The following sections provide detail on the state's statutory goals and the attainment of these statutory goals.

#### **Erosion Control Goals**

The statutory land and water conservation goals for the state focus on the reduction of soil erosion rates on a statewide basis, a countywide basis and individual cropland fields.

The statutes define a tolerable soil erosion rate (or "T") as the maximum average annual rate of soil erosion allowable, which will 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 one 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 which exceeds the tolerable soil erosion rate.

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

Individual Cropland Field Goal. By July 1, 1990, no individual cropland field in the state was to have had a soil erosion rate which exceeded three times the tolerable soil erosion rate. By July 1, 1995, no individual cropland field in the state was to have had a soil erosion rate which exceeded two times the tolerable soil erosion rate.

State-Run Farms Goal. By July 1, 1990, no individual cropland field of a farm owned by the University of Wisconsin system, the Department of Corrections, or any other agency of state government was to have had a soil erosion rate which exceeded the tolerable soil erosion rate, excluding research plots.

#### **Attainment of Erosion Control Goals**

The Department depends on counties to identify their most severe soil erosion problem areas. For 55 of the southern-most counties in the state, this was done between 1984 and 1988 through county soil erosion control plans. The typical plan includes an analysis of land uses, calculations of soil erosion rates and a strategy for addressing areas with soil erosion greater than "T". These plans were approved by the Land Conservation Board, predecessor of the LWCB.

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

Beginning with calendar year 1995, there was a significant change in the way data was reported to and analyzed by DATCP staff to determine progress toward meeting the "T-by-2000" goals. County LCD staff used to submit data indicating the number of acres of cropland in their county that fell into the various erosion categories. In many cases, the county estimated this data. In response to concerns expressed by the Legislative Audit Bureau in 1994 about unequal estimations and sometimes erroneous data supplied by counties, DATCP began relying exclusively on data entered into a unified county database to track progress toward meeting "T-by-2000" However, it became difficult to maintain everchanging data from fields not participating in state or federal programs, and by 1998 only half of Wisconsin's cropland was entered into the county database.

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

The most recent transect survey was completed for 2005, with 25 counties participating. The results are shown in Table 12. DATCP concluded that of the counties that participated in the survey, 77% of the cropland was below the "T" rate, including in excess of 90% of cropland in Kewaunee (92%), Washington (91%), and Wood (96%) Counties.

Table 12: 2005 Transect Survey Soil Erosion Rates\*

Percent of Cropland at or Below "T"	Number of Counties
No Data	47
Less than 60%	1
60% to 69%	4
70% to 79%	8
80% to 89%	9
90% to 100%	_3
	72

<sup>\*</sup> The transect survey included 25 of the state's 72 counties.

More complete information is available from the transect survey performed by counties (and compiled by DATCP) in 2002. As shown in Table 13, in 2002 80% of the acres reported by counties through the survey had a soil erosion rate of "T" (tolerable) or less. A rating of "2T" would indicate a soil erosion rate that is twice the tolerable rate estimated to maintain high crop productivity.

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

The 77% statewide "T" Rate from the 2005 transect survey is a decrease to the 80% or better level

Table 13: 2002 Transect Survey Soil Erosion Rates\*

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

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

reported in the 2002 and 2003 surveys. However, comparisons are complicated by the declining participation of counties. Further, DATCP staff attribute a potential decline in acres meeting the standard to an increase in row crops that may increase soil erosion.

# **Cross Compliance Enforcement - Farmland Preservation and Federal Programs**

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

According to the Department of Revenue (DOR), aggregate income tax data in 2006, for tax 2005 property taxes, the farmland vear preservation program provided approximately \$12.2 million in formula-based state income tax credits to non-corporate agricultural landowners who meet specified criteria. The tax credit is based on the property taxes levied on the eligible land, the income of the farm household and whether the eligible land is subject to exclusive agricultural zoning or a preservation agreement. Based on DOR aggregate income tax data, the average credit received by the 18,773 non-corporate claimants in 2006, for tax year 2005 was \$652.

Through the farmland preservation program, and water conservation activities participating landowners are regulated under a "cross compliance" provision. This provision requires all claimants of farmland preservation credits to conduct farming activities in compliance with land and water conservation standards. As a requirement of the farmland preservation program, all cropland must be eroding at "T" or less. To assure enforcement of this provision, the LWCB has developed: (1) guidelines for land and water conservation standards; (2) procedures for the submission of these standards for review by county

LCCs; (3) standardized forms; and (4) notices of noncompliance. Using these guidelines, county LCCs are required to establish applicable local standards and monitor compliance with the standards. If a farmer receiving tax credits does not meet conservation standards, the county LCC may issue a notice of noncompliance, which withholds the tax credits for an individual landowner. In 2004, DATCP received notification of 19 notices of noncompliance issued by counties and six cancellations of notices issued by counties in prior years. In 2005, DATCP received seven notices of noncompliance issued by counties and one cancellation of a notice issued by a county in a prior year. However, with the implementation of the revised nonpoint program in 2004, counties are no longer required to send a copy of a notice of noncompliance or the cancellation of the notice of noncompliance to DATCP (instead only to the Department of Revenue and the local zoning authority). As a result, the total number of notices of noncompliance that have been issued may be greater than the number that has been reported to DATCP by counties.

The Department of Revenue reports for the 2005 tax year that approximately 25% of Wisconsin's 16.2 million eligible acres are protected through the program. The DOR number does not include acreage in the program reported by corporate filers. DATCP believes that the cross compliance provisions of the program have a significant effect on the amount of land and water conservation activities occurring on Wisconsin farms. Implementing the conservation provision of the farmland preservation program has been identified by the Department as a cost-effective method of achieving erosion control. In the 2001-03 biennium, through landowner participation in the farmland preservation program, Department staff concluded that of farms of at least 35 acres, 37 percent of Wisconsin's cropland has a conservation plan. Through the soil erosion transect survey, DATCP estimates that about 80% of the state's cropland meets tolerable soil loss standards. The Department anticipates that most farmland preservation tax credit claimants will choose to abide by erosion control standards rather than lose the tax credits. To achieve implementation, a substantial amount of county staff work is required in order to assist affected farmers in adopting appropriate practices and monitoring those practices for noncompliance.

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

#### **Construction Site Erosion Control Program**

One- and Two-Family Dwellings. The Department of Commerce (Commerce) is responsible for administering the state one- and two-family uniform dwelling code, including standards for erosion control for such dwellings. A total of 1,213 municipalities have chosen to adopt the state code and administer it at the local level. In addition, eight counties (Adams, Chippewa, Eau Claire, Florence, Langlade, Marquette, Trempealeau, and Waushara) administer the program for 134 municipalities. Commerce enforces the code in other municipalities. On January 1, 2005, Commerce began to contract with 24 private inspection agencies to perform one- and two-family dwelling erosion control inspections in 84 inspection bid districts across the state.

The erosion control standards specify that best management practices be used to prevent or reduce erosion during construction. These practices are generally those specified in guidelines published by DNR. In 2005 and 2006, Commerce audited the oneand two-family dwelling soil erosion control programs administered by 20 of the 24 contracted inspection agencies. In 2005, the Department also followed up on complaints by reviewing the programs administered by three municipalities. In 2006, as of October, 2006, Commerce had also audited the programs of three municipalities. The audits reviewed the soil erosion control plans submitted with building plans, the conditions of the plan review, and the plan implementation and maintenance at the site.

Commercial Buildings. The Safety and Buildings Division in the Department of Commerce is responsible for developing and administering statewide standards for erosion control at construction sites for public buildings and buildings that are places of employment. The erosion control authority includes sites such as multi-family dwellings, commercial shopping malls, industrial buildings and schools. Commerce is required to approve erosion control plans for commercial construction sites and inspect erosion control activities and structures at such construction sites. Commerce has the authority to issue a special stop-work order for a construction site until required erosion control plan approval is obtained or until the site complies with state erosion control standards.

Commerce may delegate authority for approval of erosion control plans and inspection of erosion control at construction sites to a county, city, village or town that follows the statewide standards. A local erosion control ordinance supersedes Commerce's statewide standards if it was adopted before January 1, 1994, and if standards in the local ordinance are more stringent than the statewide standards. Commerce estimates that approximately 165 local soil erosion control ordinances were adopted prior to 1994, but it does not know whether any of the local ordinances are more restrictive than the administrative rules developed by Commerce. Three counties (Eau Claire, Marquette, and Waushara) have adopted the Commercial Building Code and are administering a commercial site erosion control program in 55 municipalities.

The owner of a construction project of a public building or a building that is a place of employment disturbing one or more acres of land (five acres prior to January 1, 2005) must file a notice of intent with Commerce for coverage under a Wisconsin Pollutant Discharge Elimination System general permit for soil erosion associated with construction activities. Erosion control plans must be prepared and implemented for such sites.

Commerce administrative rule changes that create Chapter Comm 60, completed the legislative review process in October, 2006, and will go into effect April 1, 2007. Chapter Comm 60 establishes uniform standards for the design, installation and maintenance of erosion and sediment control at building construction sites for public buildings, buildings that are places of employment, and oneand two-family dwellings. The rules also establish minimum performance standards for post construction storm water management on building sites where one or more acres of land disturbance occurs. Effective April 1, 2007, the owner will have to submit an erosion and sediment control plan summary for a commercial building site to Commerce with the notice of intent when land disturbing construction activity involves one or more acres. When Commerce receives a notice of intent, it records the notice in a central database and notifies the building inspector responsible for the municipality of the notice and construction activities. The owner is required to submit a notice of termination when the land disturbing construction activities have ceased, all disturbed areas have been stabilized, and all temporary erosion and sediment control practices have been removed.

Commerce building inspectors may request the property owner to provide the soil erosion control plan when the inspector visits the site, the Department receives a complaint, or when a person requests expedited approval of a commercial building permit. Over the two-year period of 2005 and 2006, Commerce indicates it conducted five to ten reviews of commercial soil erosion plans as a result of complaints, and conducted site visits related to most of the reviews.

**Commerce Funding for Construction Site** Erosion Control. Commerce is allocating \$228,100 PR and 2.17 PR positions in 2006-07 to administer the construction site erosion control program. This includes \$147,200 and 1.40 positions commercial building site erosion control and \$80,900 and 0.77 position for one- and two-family building site erosion control. The amount of time is provided through a small portion of the time of several commercial building inspectors and uniform dwelling code staff. The program revenue funds are derived from commercial building plan review fees, notice of intent fees under the erosion control rules, and uniform dwelling permit fees for one- and two-family dwellings.

Commerce is performing 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 and commercial buildings) or where complaints have been received; (b) providing consultation and advice to persons who may be performing soil erosion control activities; (c) training contract agent inspectors and local inspectors who inspect erosion control at building sites; (d) developing an implementation plan for the administrative code changes related to construction site erosion control and post construction storm water management that will be effective April 1, 2007; (e) developing a plan for the coordination between erosion and sediment control and long-term storm water management for both when the storm water management measures include plumbing systems (such as drains and pipes) to disburse storm water, and when the storm water management measures do not include plumbing systems; (f) participating in interagency coordination efforts; and (g) auditing agent inspection municipalities and contracted

#### **Program Evaluations**

#### **Joint Evaluation System**

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

Annual Reports. DATCP and DNR are required to annually submit a report to the Land and Water Conservation Board on the status of all nonpoint source pollution abatement and soil and water resource management projects. DATCP annually collects data from counties and other grantees on cropland soil erosion rates (based on the transect survey), local technical assistance for animal waste violations under NR 243, acres under nutrient management, conservation planning status, farmland preservation program status, overall progress toward soil erosion control goals and progress toward LWRM plan implementation. DNR annually collects data from counties with priority watershed projects on pollutant load reduction, progress toward other plan goals, acres under conservation plans, landowner contacts and participation levels, major information and education activities, overall project progress, critical sites updates and land and/or water conservation ordinances (which is optional). In November, 2006, DATCP and DNR submitted the annual report for 2005.

Comprehensive Program Evaluation Reports. In each even-numbered year, DNR and DATCP are directed to prepare a comprehensive program evaluation report that contains project status re-

ports, program accomplishments, expenditures, an evaluation of program policies and recommendations for future changes. Joint evaluation reports were last published in 1990, 1993 and 1994, however, DATCP and DNR have included evaluation components in their annual report on the status of the nonpoint program. In addition, DATCP conducted an evaluation to improve county land and water resource management planning at the direction of the Land and Water Conservation Board (LWCB).

After delaying new reports until the revision of the nonpoint rules was completed, over the past several years DATCP and DNR have been developing a new evaluation system based on local implementation of the state performance standards and increased emphasis on county land and water resource management (LWRM) plans. Preliminary evaluation plans include establishing baseline data for both agricultural and non-agricultural performance standards and measuring compliance, tracking and evaluating for two competitive grant programs (TRM and UNPS), and continued evaluation of the remaining priority watershed projects. DATCP and DNR now produce one report intended to meet both the annual and biennial reporting requirements.

Monitoring of Land and Water Resources Using a Unified Data Collection System. In the past, water quality improvements resulting from the nonpoint source program have been difficult to quantify. In part, this has been due to lack of baseline information to use as evaluation criteria. Particularly during the early years of the program, little initial water quality data was collected.

Beginning in 1989, DATCP and DNR began to collect data from all funded projects, including: (a) accomplishment data, such as the number and type of conservation practices installed by project; (b) resource data, such as fish surveys, bacteria sampling, and chemical monitoring to determine water quality; (c) financial data, including the number and cost of landowner cost-share agreements

signed; and (d) time data, including how statefunded local government staff time has been allocated. Individual watershed project evaluations included administrative review, modeling review and water resources evaluation. The administrative review focused on the progress of the local unit of government in implementing the project. The modeling review evaluated pollutant loads before and after best management practices are installed. The water resource monitoring is used to evaluate how well a priority watershed project achieves the water resource objectives identified in the watershed plan. Reports were to be published for each watershed project within 18 months following the completion of the project. However, this evaluation process was never fully implemented and has largely been replaced by other monitoring strategies.

For example, DNR conducts single source monitoring. The purpose of single source monitoring is to isolate and measure the effectiveness of best management practice implementation at a single site. The goal is to measure how each practice reduces the pollutant loading.

#### **Whole Stream Monitoring**

As part of a joint agreement, DNR and the U.S. Geological Survey started "whole stream monitoring" of 10 designated streams located in seven priority watershed projects. Monitoring for most of the streams began between 1990 and 1993. The purpose of the monitoring is to determine if the implementation of the recommended nonpoint source practices improves the quality of a whole stream. Nine of the streams are impacted by runoff from agricultural activities, while one stream is in an urban drainage area. The size of the drainage areas for the ten streams varies from five to 40 square miles.

Whole stream monitoring involves the collection of chemical, physical, and biological data

before and after the implementation of nonpoint source practices. Monitoring prior to practice implementation has been completed, and to date, final reports are available for Brewery Creek, Garfoot Creek and Otter Creek. In addition, one more year of monitoring is required for Joos Valley Creek and Eagle Creek in Buffalo County. In addition, post-implementation monitoring began for Bower Creek in Brown County in 2006. So far, whole stream monitoring projects have found that best management practices implemented in the Spring Creek (Rock County), Sheboygan River and Waumandee Creek (which included Joos Valley Creek and Eagle Creek in Buffalo County) watersheds significantly reduced bank erosion and improved overall habitat quality. The number of and coldwater fishes also showed a significant increase in Spring Creek after best management practice implementation. While no significant fish community changes were observed in the Joos Valley Creek, Eagle Creek has shown a significant improvements in the abundance of trout during the monitoring process. During the monitoring done on Otter Creek in the Sheboygan River watershed (where most practices were installed during 1995-1997), some fish community change was observed.

#### **Single Source and Multi-Stream Comparisons**

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

Single source monitoring attempts to evaluate the benefits of a single practice. A stream that is adjacent to the source of pollutants, such as a barnyard, is monitored before and after practices are installed. For example, using this data, staff found that pollutant loads were reduced as much as 90% after complete barnyard systems were installed at two dairy farms. Also, initial monitoring of a small stream in Fond du Lac County where rip-rap was installed on eroded stream banks seems to indicate improvements in the stream.

Related to multi-stream comparison monitoring, DNR began collecting information on differ-

ences in water quality, and the level of management in each watershed, for 45 streams. Unlike the other types of monitoring, data collection is only done once. This snap-shot of water quality is intended to be used to compare streams with high, medium and low levels of practice implementation. However, Department staff indicate they were unable to collect complete implementation data from counties and thus, did not produce a final report.

#### **APPENDIX I**

#### **Definitions of Cost-Shared Best Management Practices**

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

**Animal Feeding Operation Relocation or Abandonment.** Relocation of an animal lot from a site such as a floodway to a suitable site to minimize the amount of pollutants from the animal lot to surface or ground waters.

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

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

**Contour Farming.\*** Plowing, preparing, planting and cultivating sloping land on the contour and along established grades of terraces or diversions.

**Cover and Green Manure Cropping.\*** Closegrowing grasses, legumes or small grain grown for seasonal protection and soil improvement.

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

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

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

*Filter Strips.* An area of herbaceous vegetation that separates an environmentally sensitive area from cropland, grazing land or disturbed land.

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

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

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

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

Manure Storage Facilities. A structure for the

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

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

Milking Center Waste Control. A piece of equipment, practice or combination of practices installed in a milking center for the purposes of reducing the quantity or pollution potential of wastes. For example, a waste storage system that captures milking equipment cleaning agent waste, discarded milk and other potential milking center wastes.

**Nutrient Management.\*** The management of the application of manure, legumes and commercial fertilizers including the rate, method and timing of application to minimize the amount of nutrients entering surface or ground waters.

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

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

**Residue Management.\*** The preparation or planting of land that results in a rough surface in

order to maintain residue cover and avoid disturbing the entire soil surface.

**Riparian Buffers.** An area in which vegetation is enhanced or established to reduce or eliminate the movement of sediment, nutrients and other nonpoint source pollutants to an adjacent surface water resource.

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

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

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

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

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

*Strip-cropping.\** Growing crops in a systematic arrangement of strips or bands, usually on the contour, in alternated strips of close growing crops, such as grasses or legumes, and tilled row crops.

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

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

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

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

**Waterway System.** A natural or constructed waterway or outlet that is shaped, graded and covered with a vegetation or another suitable surface material to prevent erosion by runoff

waters.

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

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

<sup>\*</sup> Practices where 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
2007 Rural Nonpoint Source Water Pollution Abatement Grants

		I	Landowner		Targeted	Priority Watershed		
	Staffing	Landowner	Cost	Total	Runoff	Cost		2007
	and	Cost Sharing	Sharing	DATCP	Mgmt. (TRM)	Sharing	Total DNR	Allocation
<u>County</u>	<u>Support</u>	<u>Bonding</u>	<u>SEG</u>	Allocation	Cost Sharing	(ACRAs)	Allocation	<u>Total</u>
Adams	\$99,259	\$55,942	\$0	\$155,201	\$0	\$0	\$0	\$145,000
Ashland	85,000	46,957	0	131,957	0	0	0	115,000
Barron	103,941	20,000	17,333	141,274	0	0	0	145,000
Bayfield	85,000	20,000	0	105,000	0	0	0	172,173
Brown	221,564	55,942	28,000	295,506	300,000	262,515	562,515	894,066
Oneida Tribe	89,549	0	0	89,549	0	30,451	30,451	120,000
Buffalo	109,977	55,942	0	165,919	0	0	0	145,000
Burnett	91,459	20,000	0	111,459	0	53,287	53,287	168,287
Calumet	118,235	55,942	17,333	191,510	0	0	0	300,448
Chippewa	181,795	55,942	0	237,737	170,957	0	170,957	637,737
Clark	131,542	55,942	0	187,484	0	0	0	170,248
Columbia	135,808	55,942	35,000	226,750	0	24,256	24,256	298,046
Crawford	90,932	44,710	0	135,642	0	0	0	132,500
Dane	213,178	55,942	30,000	299,120	102,935	299,449	402,384	818,935
Dodge	143,979	20,000	0	163,979	0	0	0	611,713
Door	234,411	55,942	28,000	318,353	498,013	530,573	1,028,586	850,231
Douglas	85,000	20,000	0	105,000	0	16,442	16,442	131,442
Dunn	147,369	20,000	0	167,369	0	0	0	322,145
Eau Claire	138,019	55,942	35,000	228,961	0	0	0	170,248
Florence	85,000	20,000	0	105,000	0	0	0	115,000
Fond du Lac	151,232	20,000	28,000	199,232	0	587,799	587,799	758,376
Forest	88,601	20,000	0	108,601	0	0	0	115,000
Grant	103,681	55,942	0	159,623	0	0	0	295,000
Green	113,337	55,942	28,000	197,279	0	0	0	170,248
Green Lake	111,185	55,942	35,000	202,127	0	0	0	170,248
Iowa	111,703	55,942	15,000	182,645	0	0	0	191,907
Iron	85,000	20,000	0	105,000	0	0	0	115,000
Jackson	124,605	55,942	0	180,547	0	0	0	585,347
Jefferson	147,486	20,000	28,000	195,486	0	0	0	135,000
Juneau	95,656	46,957	0	142,613	0	0	0	135,000
Kenosha	116,596	28,986	0	145,582	0	0	0	115,000
Kewaunee	114,804	20,000	17,335	152,139	0	117,479	117,479	247,139
LaCrosse	140,677	20,000	0	160,677	149,800	0	149,800	265,000
Lafayette	98,865	55,942	0	154,807	0	0	0	145,000
Langlade	85,000	20,000	0	105,000	0	72,064	72,064	217,064
Lincoln	106,802	55,942	0	162,744	0	0	0	170,248

# APPENDIX II (continued)

### Rural Nonpoint Source Water Pollution Abatement Grants

	Staffing and	Landowner Cost Sharing	Landowner Cost Sharing	Total DATCP	Targeted Runoff Mgmt. (TRM)	Priority Watershed Cost Sharing	Total DNF	2007 Allocation
County	<u>Support</u>	<u>Bonding</u>	<u>SEG</u>	Allocation	Cost Sharing	(ACRAs)	Allocation	<u>Total</u>
Manitowoc	\$231,488	\$28,986	\$17,335	\$277,807	\$0	\$425,034	\$425,034	\$738,615
Marathon	154,879	55,942	35,000	245,821	220,500	224,083	444,583	539,322
Marinette	133,961	55,942	0	189,903	0	48,471	48,471	754,497
Marquette	106,821	45,164	0	151,985	0	0	0	158,173
Menominee	85,000	20,000	0	105,000	0	0	0	115,000
Milwaukee	91,221	20,000	0	111,221	0	0	0	115,000
Monroe	130,107	55,942	0	186,049	0	0	0	157,626
Oconto	118,497	55,942	0	174,439	0	87,028	87,028	268,548
Oneida	105,470	55,942	0	161,412	0	0	0	170,248
Outagamie	156,472	55,942	0	212,414	0	322,728	322,728	498,191
Ozaukee	161,511	55,942	0	217,453	0	0	0	215,702
Pepin	101,138	55,942	0	157,080	0	0	0	170,248
Pierce	134,956	55,942	0	190,898	0	80,128	80,128	256,500
Polk	126,381	20,000	0	146,381	0	143,837	143,837	575,184
Portage	127,305	55,942	0	183,247	0	169,816	169,816	371,874
Price	85,132	55,942	0	141,074	0	0	0	170,248
Racine	153,212	46,957	0	200,169	0	0	0	151,893
Richland	99,260	55,942	0	155,202	0	0	0	170,248
Rock	143,779	55,942	0	199,721	0	0	0	160,781
Rusk	113,322	20,000	0	133,322	13,300	71,987	85,287	213,768
Saint Croix	168,274	20,000	0	188,274	0	243,014	243,014	580,546
Sauk	168,760	55,942	28,000	252,702	0	163,140	163,140	403,835
Sawyer	90,593	55,942	0	146,535	0	0	0	145,000
Shawano	119,019	55,942	17,333	192,294	0	235,907	235,907	350,910
Sheboygan	161,737	55,942	0	217,679	0	95,893	95,893	296,208
Taylor	134,280	55,942	0	190,222	0	0	0	170,248
Trempealeau	135,176	55,942	0	191,118	0	0	0	274,342
Vernon	118,023	55,942	17,333	191,298	0	0	0	253,523
Vilas	118,280	55,942	0	174,222	0	0	0	115,000
Walworth	156,923	20,000	0	176,923	0	329,937	329,937	535,499
Washburn	120,625	55,942	0	176,567	0	0	0	145,000
Washington	135,869	55,942	0	191,811	149,940	0	149,940	160,781
Waukesha	157,298	20,000	0	177,298	0	0	0	213,211
Waupaca	126,387	55,942	0	182,329	128,219	262,290	390,509	590,349
Waushara	121,906	28,991	28,000	178,897	0	367,299	367,299	541,866
Winnebago	142,814	20,000	35,000	197,814	0	187,785	187,785	627,353
Wood	128,669	55,942	0	184,611	0	0	0	170,248
County Subtotals	\$9,240,792	\$3,107,272	\$520,000	\$12,868,064	\$1,733,664	\$5,452,692	\$7,186,356	\$20,054,400
Lake Districts						0	0	0
Non-counties	90,402	0	0	90,402	0	0	0	90,402
Total	\$9,331,194	\$3,107,272	\$520,000	\$12,958,466	\$1,630,000	\$5,452,692	\$7,186,356	\$20,144,822

APPENDIX III

Targeted Runoff Management Project Grants for Calendar Year 2006

Grantee Name	Funding Designated
Adams County	\$32,760
Calumet County	93,100
Columbia County	35,700
Dane County [A]	142,646
Dane County [B]	37,122
Dodge County [A]	148,545
Dodge County [B]	147,980
Door County [A]	111,894
Door County [B]	150,000
Door County [C]	150,000
Jackson County	77,888
Kewaunee County [A]	112,781
Kewaunee County [B]	70,000
Marathon County	87,850
Monroe County	31,500
Portage County	150,000
Trempealeau County [A]	150,000
Trempealeau County [B]	58,030
Wind Lake Management District	115,325
Total TRM	\$1,903,121

Letters listed after the grantee denote separate grant awards to the governmental unit.

APPENDIX IV

Urban Nonpoint Source and Storm Water Project Grants for Calendar Year 2006

		Funding	Funding
Grantee Name	Grant Type	Source	Designated
Appleton, City [A]	Construction	BOND	\$140,000
Appleton, City [B]	Construction	BOND	25,500
Appleton, City [C]	Construction	BOND	43,000
Baraboo, City	Planning	SEG	32,305
Brown Deer, Village	Construction	BOND	150,000
Caledonia, Town [A]	Construction	BOND	130,875
Caledonia, Town [B]	Planning	SEG	58,870
Chetek, City	Planning	SEG	40,250
Combined Locks, Village	Planning	SEG	39,060
Dane County	Planning	SEG	65,000
Dodgeville, City	Planning	SEG	21,600
Fontana, Village	Planning	SEG	16,860
Freedom, Town	Planning	SEG	78,400
Grafton, Town	Planning	SEG	67,485
Grafton, Village [A]	Construction	BOND	38,400
Grafton, Village [B]	Planning	SEG	39,300
Grand Chute, Town [A]	Construction	BOND	85,000
Grand Chute, Town [B]	Construction	BOND	90,000
Grand Chute, Town [C]	Construction	BOND	60,000
Harrison, Town	Planning	SEG	85,000
Hartland, Village	Construction	BOND	150,000
Hartland, Village	Planning	SEG	42,000
Jefferson, City	Planning	SEG	75,000
Lake Mills, City	Planning	SEG	55,860
Little Chute, Village [A]	Construction	BOND	150,000
Little Chute, Village [B]	Construction	BOND	150,000
Maple Bluff, Village	Planning	SEG	12,600
Marshfield, City	Planning	SEG	23,800
McFarland, Village	Planning	SEG	81,500
Menasha, City	Planning	SEG	71,232
Menasha, Town	Planning	SEG	85,000
Milwaukee, City	Construction	BOND	27,350
Mukwonago, Village	Planning	SEG	60,500
New Glarus, Village	Planning	SEG	18,900
Omro, Town	Planning	SEG	12,250
Pewaukee, Village	Construction	BOND	43,875
Portage, City	Planning	SEG	50,000

### **APPENDIX IV (continued)**

## **Urban Nonpoint Source and Storm Water Project Grants for Calendar Year 2006**

Grantee Name	Grant Type	Funding Source	Funding Designated
Port Washington, City	Construction	BOND	32,500
Prairie du Chien, City	Planning	SEG	35,750
Racine, City	Construction	BOND	30,000
Rib Mountain, Town	Planning	SEG	43,050
Sheboygan County	Planning	SEG	82,635
Shorewood Hills, Village	Planning	SEG	63,982
Sister Bay, Village	Planning	SEG	43,439
UW-Ext. Milwaukee County	Construction	BOND	88,975
UW-Madison	Construction	BOND	150,000
Waunakee, Village	Planning	SEG	43,610
Wauwatosa, City [A]	Construction	BOND	149,650
Wauwatosa, City [B]	Construction	BOND	149,975
Whitewater, City	Planning	SEG	57,500
Wisconsin Rapids, City	Planning	SEG	76,733
Total Grant Amount			\$3,464,571
Total SEG			\$1,579,471
Total Bonding			\$1,885,100

<sup>\*</sup>Letters listed after the grantee denote separate grant awards to governmental unit.

## APPENDIX V

## **Municipal Flood Control Grant Awards for Calendar Year 2006**

Applicant	Grant Award
Beloit, City of	\$800,000
Jamestown, Town of	62,930
New Berlin, City of	147,070
Paris, Town of	45,780
Prescott, City of	222,233
Wauwatosa, City of	800,000
Wheatland, Town of	147,094
Total Grant Amount	\$2,225,107