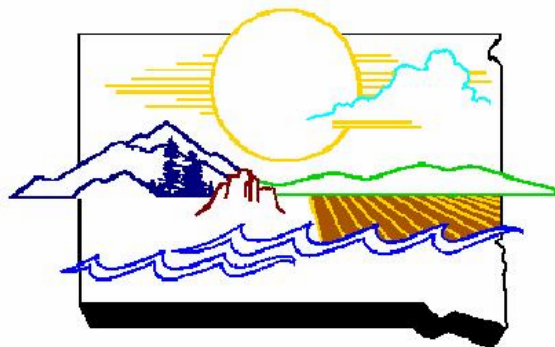


South Dakota
Nonpoint Source Pollution Program Annual Report
Federal Fiscal Year 2010

Prepared By The
Water Resources Assistance Program
South Dakota
Department of Environment and Natural Resources



Protecting South Dakota's Tomorrow ... Today

Joe Foss Building
Pierre, South Dakota 57501

December 2010

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South Dakota NPS Program Structure and Management

The South Dakota Nonpoint Source (NPS) Pollution Program is administered by the South Dakota Department of Environment and Natural Resources' (DENR) Water Resources Assistance Program (WRAP). NPS pollution activities completed by program staff are selected to improve, restore and maintain the water quality of the state's lakes, streams, wetlands, and ground water in partnership with other organizations, agencies and citizens. For more information about DENR's NPS activities visit:

<http://denr.sd.gov/dfta/wp/wp.aspx>

The South Dakota Nonpoint Source Task Force is DENR's primary partner for implementation of the South Dakota NPS Program. The task force is a citizen's advisory group with a membership of approximately twenty-nine agencies, organizations and tribal representatives. For additional information about the task force visit:

<http://denr.sd.gov/dfta/wp/npstf.aspx>

319 Grant

The South Dakota Department of Environment and Natural Resources' FFY 2010 Section 319 grant award from the Environmental Protection Agency (EPA) consisted of \$1,521,500 in base funds and \$1,638,600 in incremental funds. The \$3,160,100 total award was allocated as follows; Staff & Support - \$680,100 and 319 Projects - \$2,480,000.

Projects awarded funding from the Department's FFY 2010 Grant are listed in Table 1.

Table 1. FFY 2010 Section 319 Project Awards

Project	Project Grant (\$)			
	Staff & Support	Base	Incremental	Total
DENR Staffing and Technical Support		\$ 680,100		\$ 680,100

Implementation			
Belle Fourche River – Segment 4 (Amendment)	\$ 641,150		\$ 641,150
Grassland Management Project – Segment 3	\$ 200,250	\$ 109,750	\$ 310,000
Lower Big Sioux River Project – Segment 2		\$ 325,000	\$ 325,000
NPS Information & Education Project – Segment 3		\$ 300,000	\$ 300,000
Spring Creek Watershed Mgt & Imp Project – Segment 1		\$ 324,000	\$ 324,000
Upper Big Sioux River – Segment 5 (Amendment)		\$ 420,000	\$ 420,000
Special Projects / Project Revisions		\$ 159,850	\$ 159,850
Total	\$ 1,521,500	\$1,638,600	\$3,160,100

Projects (Table 2) awarded 319 funding during FFY 2010 using prior year funds reverted from projects that were completed but did not expend the total amount awarded.

Table 2. Projects Awarded Section 319 Grants from Prior Year Funds

Project	Project Grant (\$)	319 Grant Year
Assessment		
Black Hills Stream Temperature	\$ 67,400	2009
Sioux Falls TMDL Big Sioux River	\$ 30,000	2006
Implementation		
303(d) Watershed Planning and Assistance Segment 2	\$ 68,561	2003
Impacts of Winter Manure Spreading	\$ 4,600	2006
Impacts of Winter Manure Spreading	\$ 4,905	2009
Impacts of Winter Manure Spreading	\$ 40,495	2007
Lower James River Watershed Segment 2	\$ 29,278	2007
Lower James River Watershed Segment 2	\$ 40,500	2003
Lower James River Watershed Segment 2	\$ 150,000	2008
Lower Big Sioux River Project Segment 2	\$ 75,000	2008
Lewis and Clark Watershed Project Segment 2	\$ 47,935	2008
Lewis and Clark Watershed Project Segment 2	\$ 52,065	2009
Total	\$ 610,739	

Active 319 Projects

A list of Section 319 projects funded by previous grant awards that were open during the FFY 2010 reporting period is provided in Appendix A. The list is arranged by river basin.

Completed 319 Projects

Table 3 contains a list of 319 projects closed during FFY 2010. The status of the final report is listed for each project.

Table 3. 319 Projects Closed During FFY 2010

Project	Final Report Status				
	In Preparation	In Review		Approved	
		DENR	EPA	DENR	EPA
Belle Fourche River Watershed – Segment 3				X	X
303(d) Watershed Planning & Assistance Segment 1				X	X
Central Big Sioux River Segment 1			X	X	
Deuel County Lakes				X	X
Firesteel Creek/Lake Mitchell Segment 2		X			
Lewis & Clark Segment 1				X	X
Lower Big Sioux River Segment 1		X			
Lower James River Segment 1				X	X
Medicine Creek Watershed Project				X	X
SD Nonpoint Source I&E Project	X				
Spring Creek (Campbell Co.) Segment 1				X	X
Upper Snake Creek Project				X	X

A historical list of Section 319 projects completed by DENR and its project partners is provided in Appendix B. The projects are listed alphabetically by river basin. Unless otherwise indicated, a final report for each project has been filed with EPA, entered in Grant Reporting and Tracking System (GRTS), and is available from the SD State Library. Several of the reports are also available by visiting:

<http://denr.sd.gov/dfta/wp/wqinfo.aspx#Project>

During 2010 DENR continued activities to close out all 319 grants awarded to the department by their current expiration dates. The 2003 and 2006 grants are on target for being completed on time in 2011.

604(b) Grant

Activity related to three 604(b) grants is noted for the FFY 2010 reporting period:

1. Grant C6 99813108-01 was open and \$243,403.94 out of \$286,156 has been spent for administrative activities or disbursed to pass-through grant recipients and contractors. The work plan was changed to move funds among existing projects plus the addition of a new project.

Projects funded with the amended grant C6 99813108-01 are listed in Table 4.

2. Grant C6 99813110 was approved for \$101,000. One project was funded using the \$101,000; the Northern Great Plains Reference Site Validation and Bio-monitoring Toolkit Project.

3. The American Recovery & Reinvestment Act (ARRA) allocation Grant 2P 97879101-0 was approved for \$194,300 and \$90,193 has been spent to date. The work plan was amended to move funds among projects.

Projects funded with the ARRA Allocation are listed in Table 5.

Table 4. 604(b) Projects Funded Under C6 99813108-01

Project	Grant (\$)
Black Hills & Eastern SD Reference Sites Taxonomic Analysis (2008 Samples)	\$ 27,270
DENR Staff & Support	\$ 43,009
French Creek Assessment	\$ 50,000
Lake Campbell (Brookings Co.) Post Project Assessment	\$ 6,877
Northern Great Plains Ref. Site Validation & Bio. Toolkit	\$ 24,000
Sioux Falls – Big Sioux River TMDL	\$ 135,000
Total	\$ 286,156

Table 5. 604(b) Projects Funded Under 2P 97879101-0

Project	Grant (\$)
Black Hills & Eastern SD Ref. Sites Taxonomic Analysis	\$ 33,768
DENR 2009-2010 Statewide Lakes Survey	\$ 21,918
Statewide Mercury TMDL	\$ 35,614
Upper James River TMDL Assessment	\$ 64,000
Whetstone River Watershed Assessment	\$ 39,000
Total	\$ 194,300

604(b) Projects Completed, Changed, and Closed

No projects were completed during the FFY 2010 reporting period. A historical listing of completed 604(b) funded projects is located in Appendix C.

Section 106 Categorical Grant

South Dakota had four 106 Supplemental Categorical grants open during the FFY 2010 reporting period, and an additional 106 grant was approved in 2010. The Section 106 project activities are detailed in Table 6.

Table 6. Section 106 Categorical Grant Activities

Grant/Project	Amount
Grant #I-97845501-0 1-Oct-06 through 31-Dec-09	
National Lakes Survey -- EPA Lab Services	\$ 70,000
National Lakes Survey & 2007-2008 Statewide Survey	\$ 93,000
Phytoplankton Analysis	\$ 43,224
Sediment Study -- EPA/Ag Research Service	\$ 45,000
Stage Gauges (Discharge Relationship Development)	\$ 80,776
Statewide Mercury TMDL	\$ 117,000
Total	\$ 449,000
Grant #I-97852801 1-Jun-07 through 31-May-10	
Lower Cheyenne River TMDL Assessment Phase II	\$1,093,566
Total	\$1,093,566

Grant #I-97845508-1	18-May-08 through 30-Sep-11	
Beneficial use assessments		\$ 124,150
Methodologies to determine stream sediment sources / Upper James River Assessment		\$ 11,000
National Streams Survey -- EPA In-Kind Reference Site Development		\$ 400,000
Stage/Discharge Relationship Development		\$ 17,500
Statewide Mercury TMDL		\$ 187,250
		\$ 34,000
Total		\$ 773,900
Grant I-97884801-1	21-Jun-10 through 30-Sep-12	
DENR Stream Reference Site Development		\$17,500
NGP Reference Site Validation & Biomonitoring		\$140,050
Monitoring Supplies and Equipment		\$16,595
Total		\$174,145
Grant I-97886501-1	1-Oct-10 through 30-Sep-13	
NGP Reference Site Validation Project		\$86,000
Reference Site Development		\$18,000
Stage/Discharge Relationship Development		\$70,000
National Wetlands Survey -- EPA In-Kind for Lab Services		\$26,000
National Wetlands Survey -- EPA In-Kind for Field Work		\$78,000
Total		\$278,000

A historical listing of completed Section 106 funded projects is located in Appendix D.

Grants Reporting and Tracking System

South Dakota enters information about 319 funded projects into the EPA Grants Reporting and Tracking System (GRTS) database. The GRTS database contains information about project funding, goals, and tasks. During FFY 2010, DENR entered annual evaluations for all existing projects. The reports detail project activities and progress for the period October 1, 2009 – September 30, 2010. The program can be accessed at:

<http://denr.sd.gov/dfta/wp/grts.aspx>

Staff

During the reporting period, the Watershed Protection Section was authorized 15.5 full time equivalents. Included in the number were twelve environmental scientists, two natural resources engineers, a secretary, and a half time program administrator. Visit the Watershed Protection website for contact information, areas of program responsibility, and information about staff and support program goals.

<http://denr.sd.gov/dfta/wp/staff.aspx>

Watershed staff has access to the services of other Division of Financial and Technical Assistance and department media program staff as needed to carry out the mission of the Watershed Protection section.

Watershed staff provided funded projects with technical assistance and project oversight through onsite and electronic means during FFY 2010. They also assisted prospective project partners with the preparation of project proposals and implementation plans. In FFY 2010 staff initiated 14 contracts obligating \$2,797,223 in federal funds and processed 177 payment requests for federal funds totaling \$4,133,741 from all sources; and initiated 3 contracts obligating \$230,260 in state and other funds and processed 23 payment requests totaling \$1,430,574 (total includes Clean Water State Revolving Fund NPS loans).

Training & Support

Training was provided for department program staff, local watershed implementation and assessment project staff, and stakeholder groups. This training consisted of onsite project assistance, specialized training for monitoring and assessment, and coordinator workshops. An example of this training was the Annualized Agricultural Non-point Source (AnnAGNPS) watershed model workshop. The training covered model capabilities; introduction to model processes; calibration and validation techniques; and methods for analyzing output.

In addition to the training opportunities provided with direct involvement by the department, training is provided by 319 implementation project sponsors. Examples of training opportunities would be Volunteer Water Quality Monitoring, Managed Grazing tours and workshops, and Nutrient Management workshops.

Project Guidance & Oversight

Watershed staff provides project management assistance to project sponsors during all phases of project development, implementation, and evaluation. The project guidance information and other documents are available at:

<http://denr.sd.gov/dfta/wp/319.aspx>

Program project officers are encouraged to complete at least two onsite visits to each assigned project each year. During FFY 2010, the review resulted in the revision of several project implementation plans and budgets, and development of exit strategies for several projects prior to their expiration dates.

Information and Education

The NPS Information and Education (I & E) Program is implemented through DENR's Water Resources Assistance Program. In FFY 2003, the decision was made to outsource the primary responsibility for the implementation of the statewide NPS I & E workplan to the South Dakota Discovery Center and Aquarium. The Discovery Center was awarded a \$200,000 grant in FFY 2004 for that purpose. In FFY 2007, the Center was awarded \$200,000 in additional 319 funds to continue the project. In FFY 2010, it received \$300,000 for Segment 3.

DENR maintains a close working relationship with the Discovery Center to ensure program milestones are met and to ensure that the program is widely advertised. Information about the mini-grants program is provided at NPS Task Force meetings, at training sessions, through the Discovery Center's outreach activities, and the information is provided to the local and state media outlets.

The NPS priority areas addressed by the strategy are wetland and watershed ecology, TMDLs, nutrient and manure management (no demonstration projects), "Smart Growth" and low impact development, phosphorous and nutrient criteria, and healthy watershed protection. No mini-grant projects were funded in FFY 2010.

Additional outreach activities with which the department was involved during FFY 2010 are outlined below.

Volunteer Water Quality Network

Dakota Water Watch is a system of trained citizen volunteers who take time each year to gather water quality information on lakes, streams, and wetlands in their area. This helps fill existing data gaps and helps to improve or maintain the water quality in eastern South Dakota and throughout the state.

Since 1992, South Dakota Water Festivals have delivered a strong water conservation message to an increasing number of fourth graders. Our goal is to provide a multi-topic, interdisciplinary, one-day water "science fair" where kids apply water education knowledge learned in the classroom to "real life" problem solving situations.

Adopt-A-Stream is where groups or individuals adopt lakes and streams by cleaning shorelines of litter. Signs are posted to advertise the group's activity and encourage others to not litter or pollute.

Project WET is an environmental teaching module for elementary teachers. The module emphasizes water related issues. Project WET is coordinated through Anne Lewis with the South Dakota Discovery Center.

Program Website

The Water Resources Assistance Program has maintained a website since 1998. The website provides access to water resources information, reports, and opportunities for involvement such as: EPA national and Region VIII and state NPS program guidance; and project management programs including GRTS, Spreadsheet Tool for the Estimation of Pollutant Load (STEPL), and the SD NPS Project Management System (The Tracker Program). The site may be accessed at:

<http://denr.sd.gov/dfta/wp/wp.aspx>

Displays/Conferences

The program assisted other department programs and project partners with the development of displays for water related conferences and workshops

Financial and Technical Assistance Provided by Project Partners

While financial and technical assistance received from the Environmental Protection Agency provides the base for the South Dakota NPS Program, the resources available from public and private program partners are integral components of many program activities. Selected partnerships active during the past year are summarized below. For additional information about these and other program partnerships, consult the *South Dakota Watershed Project Funding and Technical Assistance Guide*. An electronic copy of the guide is available by visiting:

<http://denr.sd.gov/dfta/wp/documents/NPSFundingTechnicalAssistanceGuide.pdf>

USDA Natural Resources Conservation Service and Farm Service Agency

The USDA Natural Resources Conservation Service (NRCS) and Farm Service Agency (FSA) are active project partners in nearly all phases of the NPS Program. Financial assistance for NPS related activities provided by USDA administered programs during FFY 2010 is shown in Table 7.

Table 7. SD NPS Related Activities Funded during FFY 2010 by USDA Programs

Program	# Applications Funded	Acres	Funding (\$)
Conservation Reserve Program (CRP)	1,965	89,367	\$770,000
Environmental Quality Incentives (EQIP)	655		\$14,356,366
Grasslands Reserve Program (GRP)	22	12,612	\$1,823,761
Conservation Stewardship Program (CSP)	504	1,294,090	\$14,873,702
Wetland Reserve Program (WRP)	95	11,181	\$16,770,171

Wildlife Habitat Incentives Program (WHIP)	38	\$563,015
Conservation Reserve Enhancement Program (CREP) *	11,424	\$2,707,080

* The Conservation Reserve Enhancement Program (CREP) is administered by the USDA's Farm Service Agency, CREP is simply a "state-sponsored" Conservation Reserve Program designed for a specific geographic area that will address resource concerns identified by state partners.

The South Dakota CREP program was established in October 2009 and is managed by the South Dakota Game, Fish and Parks Department (GFP). The focus is on improving water quality, reducing soil erosion, and providing flood control all while creating additional pheasant nesting habitat in the James River Watershed. CREP participants will receive 40% higher rental rates than if they were to just enroll their land in CRP. Every acre enrolled in CREP will be open to public hunting and fishing.

US Geologic Survey

The Geologic Survey provides technical assistance and water quality data to several South Dakota nonpoint source assessment and implementation projects, especially those that include large tracts of federal and tribal lands. The survey is also an active participant in planning and conducting the Eastern South Dakota Water Conference and the Black Hills South Dakota Hydrology Conference.

US Fish and Wildlife Service

The US Fish and Wildlife Service (USFWS) provide technical and financial assistance to watershed projects for Best Management Practices (BMP) installation. This assistance centers primarily on cost share for practices related to managed grazing systems and wetland habitat development. The main USFWS programs providing funds for BMPs are Partners for Fish and Wildlife Program and North American Waterfowl Conservation Act. Commonly cost shared BMPs include grass seeding, cross fencing, multiple purpose ponds, and riparian exclusion fencing. They work with local project sponsors, DENR and EPA Region VIII staff to complete threatened and endangered species clearance and related implementation issues.

South Dakota BWNR/DENR Grant Assistance

The South Dakota Board of Water and Natural Resources (BWNR) administers the Consolidated Water Facilities Construction Program (CWFCP). The program provides state grants and low interest loans for projects on the State Water Facilities Plan. NPS structural and construction BMPs such as animal waste management systems (AWMS) and shoreline stabilization are eligible for cost share funds through the program.

The BWNR has also provided additional grant assistance to watershed projects from the Clean Water State Revolving Fund (CWSRF) Administrative Surcharge Fees.

The Water Resources Assistance Program administers special appropriations from the department's Environment and Natural Resources (ENR) Fee Fund. These funds provide state assistance for the completion of TMDL assessments.

Projects awarded Consolidated and fee fund grants during the reporting period are listed in Table 8.

Table 8. NPS Projects Awarded CWFCP and Fee Fund Grants during FFY 2010

Project	Funding Source	Grant Award (\$)
Upper Minnesota River Watershed Assessment	ENR Fee Funds	\$ 14,260
Lewis & Clark Watershed Imp. Seg 2	Consolidated	\$ 130,000
Lower Big Sioux River Imp. Seg. 2	CWSRF Admin Fees	\$ 86,000
Total		\$230,260

South Dakota Clean Water State Revolving Fund (NPS Incentive Loan Program)

The South Dakota Board of Water and Natural Resources administers the state's Clean Water State Revolving Fund (CWSRF) Loan program. In 2004, the board established a nonpoint source incentive rate for nonpoint source projects. Projects for traditional wastewater or storm water that include a nonpoint source component are eligible for the nonpoint source interest rate. The annual principal and interest payment is calculated for a loan at the current base SRF interest rates of 2.25 percent for loans with a term of 10 years or less, 3 percent for loans with a term of 11 to 20 years, and 3.25 percent for loans with a term greater than 20 years. Using the lower incentive interest rates of 1.25 percent, 2 percent, and 2.25 percent respectively, a loan is sized using the annual payment previously calculated. The difference in the two loan principal amounts is the amount of funding available for the NPS component of the project.

Since its inception, four NPS project sponsors have used the NPS incentive program rate in partnership with municipalities. The projects and NPS loan amounts are shown in Table 9.

Table 9. SRF NPS Incentive Loans

Project	Municipality	SRF Loan (\$)
FFY 2005		
Brown County Water Quality Improvement Project	City of Aberdeen	\$ 1,156,259
Central Big Sioux Watershed Project - Segment I	City of Sioux Falls	\$ 4,374,985
FFY 2006		
Upper Big Sioux River Watershed Project –Segment IV	City of Watertown	\$ 113,985
FFY 2007		
Upper Big Sioux River Watershed Project – Segment V	City of Watertown	\$ 139,952
FFY 2009		
Firesteel Creek / Lake Mitchell Watershed Project	City of Mitchell	\$ 148,523
Total		\$5,933,704

Aberdeen initially accessed the funding source to reduce sediment and nutrient loadings to several waterbodies located between the city and Elm Lake. The city has recently expanded the area to include the entire Elm Lake Watershed, and the Foote Creek and

Moccasin Creek watersheds to the confluence of the James River. The Elm River is the primary source of the city's drinking water supply. BMPs planned include animal waste management systems, managed grazing, and shoreline stabilization.

Sioux Falls obtained the funds to install animal waste management systems, riparian buffers, and shoreline stabilization along the Big Sioux River and major tributaries within the city and north to the Moody County line. The buffers and animal waste systems will protect the city's water supply by reducing fecal coliform and sediment loadings.

The city of Watertown used the loan funds to reduce sediment and nutrient loadings to the Upper Big Sioux River, Lake Kampeska, and Pelican Lake.

The city of Mitchell used the funds to reduce fecal coliform in Firesteel Creek and Lake Mitchell by cost sharing animal waste management systems.

In FFY 2010 no new CWSRF NPS Incentive Loans were requested.

South Dakota Department of Agriculture

The South Dakota Department of Agriculture (SDDA) provides state funds to conservation districts for the installation of conservation BMPs through the South Dakota Resource Conservation Grants Program.

During this reporting period, SDDA awarded \$809,404 in grants. NPS projects and project related activities included in the total are listed in Table 10.

Table 10. NPS Activities Funded using Conservation Grants during FFY 2010

Project	Grant (\$)
Northeast Glacial Lakes Implementation Project	\$ 28,253
Lake Pocasse/Campbell Implementation Project	\$ 5,000
Total	\$ 33,253

South Dakota Department of Game, Fish, and Parks (GFP)

The GFP assistance programs accessed by projects are similar to those offered by the USFWS and center mainly on managed grazing and wetlands. For a description of the programs and practices cost shared, visit:

<http://gfp.sd.gov/wildlife/private-land/default.aspx>

Other Partnerships

DENR maintains partnerships with several other agencies and organization in addition to those discussed previously. A comprehensive list of partners is included in the 2007 revision of the South Dakota NPS Management Plan.

319 Grant Match

Nonfederal match of 40 percent of project expenditures is required for Section 319 grants. South Dakota takes a conservative approach to approving nonfederal match submitted by its project partners. As much of the match comes from the construction and implementation of BMPs, a large proportion of the match requirement for many projects is documented during the later phases of a project. See Appendix E for a summary of nonfederal match documented for each of the department's 319 grants.

Water Quality Improvements

The South Dakota NPS Program considers quantification of load reductions and resultant water quality improvements essential to evaluating project goal attainment and reaching the TMDLs established for priority waterbodies. The quantification process uses a combination of modeling and water quality sample results. Commonly used models include Revised Universal Soil Loss Equation (RUSLE 2), Annualized Agricultural Nonpoint Source (AnnAGNPS), and Spreadsheet Tool for the Estimation of Pollutant Load (STEPL).

DENR adopted STEPL as the primary load reduction estimation model for reporting annual and cumulative load reductions in GRTS in FFY 2007.

Annual load reductions/water quality improvements documented are entered in GRTS. Load reductions for waterbodies located in project areas during FFY 2010 were 339,922 pounds of nitrogen, 96,089 pounds of phosphorous, and 54,406 tons of sediment.

Table 11. Load Reductions for Projects during FFY 2010

Project Name	<u>Nitrogen</u> (lbs)	<u>Phosphorous</u> (lbs)	<u>Sediment</u> (Tons)
303(d) Watershed Planning and Assistance Project	143065	28803	4164
Belle Fourche River Watershed Imp Pro Seg 4	0	0	9880
Brown County Water Quality Improvement Project	116	15	6
Central Big Sioux River Watershed Project - Seg 1	18366	4104	52
Firesteel/Lk Mitchell Watershed Project-Segment 2	17699	4013	65
Grassland Management & Planning Project	11135	2227	1403
Lake Poinsett Watershed Imp Project - Seg 2	2130	1321	460
Lewis and Clark Watershed Implementation Seg 2	133862	44951	35007

<u>Project Name</u>	<u>Nitrogen</u> (lbs)	<u>Phosphorous</u> (lbs)	<u>Sediment</u> (Tons)
Lower Big Sioux Implementation Project - Seg 1	1530	2066	11
Lower James River Watershed Implementation Seg. 2	3,550	2017	193
Medicine Creek Watershed Project	847	236	173
NE Glacial Lakes Watershed Proj. Seg. 2	1530	539	390
NE Glacial Lakes Watershed Project - Seg 1	692	163	107
Turkey Ridge Creek Watershed Project-Segment 1& 2	97	15	8
Upper Big Sioux River Watershed Project Seg. 5	0	3254	18
Vermilion Basin Watershed Project	5303	2365	2469
Totals	339922	96089	54406

Appendix A

Open NPS Projects Funded by Previous Section 319 Grants by River Basin

River Basin	Project
Bad River	None
Belle Fourche River	Belle Fourche River Watershed Management - Segment 3 & 4
Big Sioux River	Central Big Sioux Watershed Implementation - Segment 1 Deuel County Lakes Watershed Improvement NE Glacial Lakes Watershed Improvement - Segment 1 & 2 Sioux Falls Big Sioux River TMDL Lower Big Sioux River Implementation – Segment 1 Lake Poinsett Watershed Project - Segment 2 Upper Big Sioux River Implementation - Segment 5
Cheyenne River	Lower Cheyenne TMDL Assessment - Segment 2
Grand River	None
James River	Brown County Water Quality Improvement Firesteel Creek/Lake Mitchell Implementation – Segment 2 Lower James River Implementation – Segment 1 & 2 Upper Snake Creek Watershed - Segment 1 Upper James River Assessment
Minnesota River	None
Missouri River	Medicine Creek Watershed Implementation Spring Creek Implementation (Campbell Co.) – Segment 1 Lewis and Clark Watershed Implementation Project -Segment 1 & 2
Red River	None
Vermillion River	Vermillion River Basin Implementation – Segment 1
White River	None
Statewide / Regional Projects	Grassland Management & Planning - Segment 2 SD NPS Information & Education Partnership – Segment 2 303(d) Watershed Planning and Assistance – Segment 1 & 2 Black Hills Stream Temperature Assessment Impacts of Winter Manure Spreading

Appendix B

Completed Section 319 Projects by River Basin

River Basin	Project
Bad River	Bad River Water Quality Project (Phase II) Bad River Water Quality Project (Phase III) Hayes and Waggoner Lakes TMDL Upper Bad River Demonstration
Belle Fourche River	Bear Butte Creek Riparian Demonstration Belle Fouché River Assessment Belle Fourche River Watershed Management Plan (Segments 1, 2, & 3)
Big Sioux River	Bachelor Creek Assessment Bachelor Creek Hydrologic Unit Big Sioux Bank Stability Big Sioux Well Head Protection Blue Dog Lake Assessment Blue dog Lake Watershed Improvement Central Big Sioux River Implementation Segment 1 Deuel County Lakes Implementation Enemy Swim Lake Implementation Lake Campbell Watershed Restoration Lakes Cochrane/Oliver Watershed Improvement Lakes Herman/Madison/Brant Implementation Lake Kampeska Watershed Lake Norden/Lake Albert/Lake St. John Assessment Lake Poinsett Watershed Lower Big Sioux River Implementation Segment 1 Pickerel Lake Protection Roy Lake Assessment Upper Big Sioux River Watershed Segments I, II, III & IV Wall Lake Watershed Project Wall Lake Post Project Assessment
Cheyenne River	Cheyenne River Phase I TMDL Assessment Foster Creek Riparian Demonstration - Stanley Co. Lower Cheyenne River TMDL Assessment – Phase I Piedmont Valley Assessment Rapid City Storm Water
Grand River	Shadehill Lake Protection Staffing & Support
James River	Clear Lake Assessment - Marshall Co. Cottonwood & Louise TMDL Elm Lake Implementation Project Firesteel Creek/Lake Mitchell Watershed Project – Segment 1 & 2 Foster Creek Riparian Demonstration - Beadle Co. Jones Lake/ Rose Hill Lake TMDL Jones Lake/Rose Hill Lake Watershed Implementation Lake Byron Watershed Lakes Cottonwood and Louis Implementation Lake Faulkton Watershed Implementation Lake Hanson / Pierre Creek Implementation Lake Mitchell Watershed Assessment Lake Redfield Restoration Lower James River Assessment Lower James River Implementation Segment 1 Loyalton and Cresbard Lakes TMDL Mina Lake Water Quality Assessment

	<p>Moccasin Creek TMDL Ravine Lake Watershed Richmond Lake Watershed Richmond Lake Assessment Twin Lakes/Wilmarth Lake Assessment Upper Snake Creek Implementation – Segment 1 White Lake Dam TMDL</p>
Missouri River	<p>Burke Lake Assessment Burke Lake Restoration Lewis and Clark Implementation Segment 1 Medicine Creek Assessment Medicine Creek Watershed Project – Segment 1 Okobojo Creek Watershed Assessment Pocasse / Campbell Watershed Assessment South Central Lakes Watershed Assessment Spring Creek Implementation (Campbell Co.) Segment 1</p>
Red River	<p>Lake Traverse Watershed Assessment</p>
Vermillion River	<p>Kingsbury County Lakes Assessment Kingsbury Lakes Implementation Swan Lake Restoration Turkey Ridge Creek Implementation – Segment 1 Vermillion River Basin Assessment</p>
White River	<p>White River Phase I Assessment Little White River TMDL Assessment</p>
Statewide/Regional Projects	<p>Abandoned Well Sealing Animal Waste Management I & II Animal Nutrient Management Team III & IV Animal Waste Team (Buffer salesmen) Bootstraps Buffer Planning and Assistance Coordinated Resource Management I & II East River Area Riparian Demonstration I & II East River Riparian Grazing I Evaluating Phosphorus Loss on a Watershed Grassland Management and Planning Segment 1 Evaluating Vegetative Treatment Areas Ground Water Monitoring Network Manure Management Based on Soil Phosphorus Manure Management Based on Soil Phosphorus – Additional Soils Nitrogen & Pesticides in Ground Water Nonpoint Source Information & Education 1989 Nonpoint Source Information & Education 1994 Nonpoint Source Information & Education 1996 Nonpoint Source Information & Education 1998 Nonpoint Source Information & Education 2004 Segment 1 Nonpoint Source Information & Education 2007 Segment 2 Precision Manure Management to Improve WQ Rainfall Simulator Riparian Grazing Workshop South Dakota Association of Conservation Districts 303(d) Watershed Planning & Assistance Segment 1 South Dakota Lake Protection Statewide Lake Assessment Wetlands Education Project</p>

Appendix C

Completed 604(b) Projects by River Basin

Bad River Basin	Bad River Phase IA Bad River Phase IB
Belle Fourche River Basin	Belle Fourche River TMDL Project Streambank Erosion Assessment-Upper Whitewood Creek Whitewood Creek Streambank Assessment Project Whitewood Creek Watershed Project Planning Whitewood Creek Bacterial Source Tracking
Big Sioux River Basin	Bacterial Source Tracking and Lower Big Sioux TMDL Big Sioux Aquifer Protection Project Big Sioux Aquifer Study Big Sioux River Bank Stabilization Demonstration Project Big Sioux River Riparian Assessment (Moody/Minnehaha) Covell Lake TMDL (Combined with Sioux Falls Big Sioux River TMDL Project) Pelican Lake Control Structure Feasibility Lake Alvin/Nine Mile Creek TMDL Lake Campbell (Brookings County Post Implementation Assessment Lakes Herman, Madison, Brandt Project Planning Lake Poinsett Project Planning and Design North Central Big Sioux /Oakwood Lake TMDL Upper Big Sioux Watershed AGNPS
Cheyenne River Basin	Develop NPS BMPs Western Pennington Co. Drainage District Galena Fire Project Rapid Creek and Aquifer Assessment Project Rapid Creek NPS Assessment Project Rapid Creek Stormwater Impact Prioritization Custer State Parks Lakes Assess. Report Preparation Spring Creek Bacterial Source Tracking
Grand River Basin	Grand River Watershed TMDL
James River Basin	Broadland Creek Watershed Study Firesteel Creek/Lake Mitchell WQ Needs Assessment James River TMDL Project Landowner Survey Lake Faulkton Assessment Project Lake Louise Water Quality Monitoring Mina Lake Water Quality Project Ravine Lake Diagnostic/Feasibility Study Turtle Creek/Lake Redfield Landowner Survey Wylie Pond/ Moccasin Creek Watershed TMDL
Minnesota River Basin	Blue Dog Lake/Enemy Swim Septic Leachate Survey Fish Lake Water Level and Quality Study Lake Cochrane/Oliver TMDL Lake Hendricks Restoration Assessment Lake Traverse/Little Minnesota River Land Inventory
Missouri River Basin	Burke Lake Diagnostic/Feasibility Study Lake Andes Watershed Treatment Project Lake Pocasse/Lake Campbell/Spring Creek TMDL Lewis and Clark TMDL Project Platte Lake Planning Randall RC&D Implementation Planning
Vermillion River Basin	Turkey Ridge Creek Watershed Assessment Project Vermillion River Basin Watershed Planning

	West Yankton Sanitary Sewer Survey
White River Basin	White River Preservation Project White River Watershed Data Collection Project
Statewide	Bacterial Source Typing: Sample Preparation and Analysis Assessment Project Black Hills Biological Sampling – 2006 samples Black Hills Biological Sampling – 2007 samples Black Hills Biological Sampling – 2008 samples Chemical Containment Demonstrate Slash Pile Use Control Erosion on Fragile Soils Detention Cell Demonstration Project Digitize Soils Maps for South Dakota East River Riparian Demonstration Project Forestry BMP Pamphlet Groundwater Protection Project Livestock Waste Management Handbook Local WQ Planning Through Hydrologic Unit Planning North Central RC&D HU Implementation Pesticide and Fertilizer Groundwater Study Pesticide and Nitrogen Program Riparian Area Forestry Project Stockgrowers Speaker Taxonomic Identification & Enumeration of Biological Samples Terry Redlin Institute Wetlands Education Project Water Quality Study of SD Glacial Lakes and Wetlands Wetland Assessment for the Nonpoint Source Program

Appendix D

Closed Projects Supported Using 106 Grant Financial Assistance

Project
Center Lake Report Writing
Cottonwood Creek Watershed TMDL Assessment
Digital Line Graphs
Digitized SD Soil Survey
Equipment for Lower Big Sioux and Spring Creek Assessment
Fish Lake/Lake Alice Assessment
Gauging Equipment
Gauging Stations
Lake Hanson Assessment Project
Lewis and Clark Watershed Assessment
Lower Cheyenne River TMDL Assessment – Phase I
Lower James River TMDL Assessment
Mercury Sampling
Missouri River Monitoring
Remote Sensing – AGNPS Crop Layers
School – Bullhead Watershed Assessment - TMDL
Spring Creek/Sheridan Lake Assessment
Statewide Lakes Assessment (2002 – 2006)
Statistics Training Course
Upper Cheyenne River TMDL
Upper Rapid Creek Assessment

Appendix E

319 Matching Funds Accrued Through 9/30/10

Grant	Grant Award (\$)	Total Match Required (\$)	Expenditures thru 9/30/10(\$)	Match Required Against Expenditures(\$)	Match Documented (\$)
319 Implementation 89	1,594,000	1,062,667	1,594,000	1,062,667	1,315,016
319 Implementation 90	800,137	885,994	800,137	885,994	885,994
319 Implementation 91	655,851	437,234	655,797	437,198	437,199
319 Implementation 92	795,000	530,000	794,836	529,891	535,421
319 Implementation 93	1,090,839	727,227	1,090,839	727,227	779,175
319 Implementation 94	1,415,142	943,508	1,415,142	943,508	1,188,561
319 Implementation 95	1,699,669	1,133,119	1,699,669	1,133,119	1,154,183
319 Implementation 96	1,126,685	751,123	1,126,685	751,123	787,159
319 Implementation 97	1,253,790	835,902	1,253,790	835,902	1,484,877
319 Implementation 98	1,296,790	864,531	1,296,790	864,531	860,355
319 Implementation 99	2,791,400	1,860,933	2,791,400	1,860,933	1,861,025
319 Implementation 00	3,008,897	2,005,931	3,008,897	2,005,931	2,005,931
319 Implementation 01	3,267,900	2,178,600	3,267,900	2,178,600	2,356,825
319 Implementation 02	3,142,900	2,095,268	3,142,900	2,095,268	2,095,268
319 Implementation 03	3,215,964	2,143,976	3,078,961	2,052,641	2,143,976
319 Implementation 04	3,090,200	2,060,133	3,090,200	2,060,133	2,060,769
319 Implementation 05	2,651,624	1,767,750	2,651,624	1,767,750	1,767,750
319 Implementation 06	2,583,000	1,722,000	2,145,420	1,430,280	1,722,000
319 Implementation 07	2,470,700	1,647,133	1,906,004	1,270,669	2,009,549
319 Imp / Admin 08	3,160,100	2,106,733	1,875,644	1,250,430	336,000
319 Imp / Admin 09	3,160,100	2,106,733	1,561,083	1,040,722	2,055,264
319 Imp / Admin 10	3,160,100	2,106,733	29,250	19,500	0
Total	47,430,788	31,973,228	40,276,968	27,204,017	29,842,297