

PROJECT SUMMARY SHEETPROJECT TITLE NAME: **303(d) Watershed Planning and Assistance Project – Segment 4**

NAME, ADDRESS, PHONE AND E-MAIL OF LEAD PROJECT SPONSOR

South Dakota Association of Conservation Districts

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WATERSHED: Statewide

HYDROLOGIC UNIT CODE: HIGH PRIORITY WATERSHED (yes/no): YES

TMDL Development () and/or Implementation (X) (check any that apply)

PROJECT TYPES	_____WATER BODY TYPES	_____NPS CATEGORY
<input type="checkbox"/> STAFFING & SUPPORT	<input type="checkbox"/> GROUNDWATER	<input checked="" type="checkbox"/> AGRICULTURE
<input checked="" type="checkbox"/> WATERSHED	<input checked="" type="checkbox"/> LAKES/RESERVOIRS	<input type="checkbox"/> URBAN RUNOFF
<input type="checkbox"/> GROUNDWATER	<input checked="" type="checkbox"/> RIVERS	<input type="checkbox"/> SILVICULTURE
<input type="checkbox"/> I & E	<input checked="" type="checkbox"/> STREAMS	<input type="checkbox"/> CONSTRUCTION
<input type="checkbox"/> WETLANDS	<input type="checkbox"/> RESOURCE EXTRACTION	<input type="checkbox"/> STOWAGE LAND DISPOSAL

PROJECT LOCATION: State of South Dakota START DATE THIS SEGMENT: 7/1/2016

SUMMARIZATION OF MAJOR GOALS:

The goal of this project is to provide accelerated planning and implementation of agricultural Best Management Practices (BMPs) in selected 303(d) listed water bodies in South Dakota. The project will also provide information and education to local landowners and the general public to provide a better understanding of BMPs and their relationship to water quality benefits.

PROJECT SUMMARY:

The project will provide the following conservation specialists: a project manager and 2 planners. The South Dakota Association of Conservation Districts (SDACD) will enter into contracts with the manager and conservation planners. Local conservation districts will provide them office space as needed. The Natural Resources Conservation Service (NRCS) will provide them training in NRCS standardized planning practices and Farm Bill related documentation. NRCS will also allow them access to their office files so they can locate maps, soils data, and check existing planning with producer permission. The South Dakota Department of Environment and Natural Resources (DENR)

will provide them with watershed targeting information. The conservation planners will work with targeted 12 digit Hydrologic Units (HUs) within selected 303(d) listed waterbodies to develop and implement conservation plans and BMPs.

Section 319: \$623,316	USDA: \$1,768,640	Watershed Projects: \$249,600
Local: \$1,175,000	Total project cost: \$3,816,556	

2.0 STATEMENT OF NEED

Previous experience in South Dakota indicates one-on-one technical assistance is a critical factor in improving landowner participation in conservation programs that improve watershed water quality. Landowners residing in watersheds with impaired water bodies are often willing to install agricultural BMPs which improve water quality, but they cannot access timely technical assistance needed to plan BMPs and then apply for financial assistance for installation.

To address the need, the initial five-year project segment provided a staff of eight project coordinators or agronomists and a supervisor. The coordinators and agronomist provided BMP planning, design and installation technical assistance to improve water quality in those 303(d) listed watersheds with active implementation projects. Project staff was trained in the use of NRCS conservation planning and related documentation. NRCS also allowed project staff access to NRCS training courses, and agency materials such as maps, soils information, and existing conservation plans with the producer's approval. DENR provided watershed assessment information and training in the use of water quality assessment techniques. Certified Technical Service Providers (TSPs) were used to provide engineering design and installation when needed.

Activities completed to date during project Segments One, Two and Three include 11,380 landowner contacts that resulted in 1,917 plans with 1,405 of the plans being implemented, 172 plans for animal feeding operations, and 90 systems constructed. Required match for the Segments One, Two and Three is \$2,723,505. As of September, 2015 match of \$3,458,789 has been documented for the project.

2.1 Project Need and Problems

The South Dakota FY 2014 303(d) list of impaired water bodies includes 72 lakes and 94 river/stream segments that are impaired by nonpoint source pollution. The 303(d) list also indicates the parameter(s) causing the impairment. In most cases, implementation of agricultural BMPs in the watersheds will totally or substantially reduce the listed source of water quality impairment(s).

South Dakota uses a seamless approach to address water quality impairment. The approach includes integration of the TMDL assessment and implementation process. The process begins with water quality monitoring, modeling, and TMDL development and ends with watershed project planning and TMDL implementation. The assessment and TMDL segments of the process are three or more years in duration with implementation taking six to ten years or longer depending on the scope of the effort required.

Many of the sources of Nonpoint Source Pollution (NPS) are known during the later stages of the assessment portion of the process. Segment Four of this project will continue planning and

installation of BMPs in the critical areas identified in a manner that ensures the seamless process continues and TMDLs are implemented in an efficient manner in South Dakota.

2.2 Active 319 Project Areas

Section 319 projects are currently underway in the Lewis & Clark Lake watersheds, Northeast Glacial Lakes Watersheds, Little Minnesota River Basin, Lower James River Watershed, Belle Fourche River, Spring Creek in Pennington County, and all of the Big Sioux River Basin. Segment Four assistance to these watersheds will consist of conservation planners providing conservation planning in 12 digit targeted HUs within an implementation projects.

The Belle Fourche River and Spring Creek projects will remain as a low priority for Segment Four as the local watershed project sponsors have developed a highly successful process to address their watershed resource concerns.

Programs that will be used to fund BMP installation are anticipated to be Conservation Reserve Program (CRP), Continuous Sign-up Conservation Reserve Program (CCRP), Environmental Quality Incentives Program (EQIP), Regional Conservation Partnership Program (RCPP), Agricultural Conservation Easement Program (ACEP), Conservation Stewardship Program (CSP), Coordinated Conservation Grants, Partners for Fish & Wildlife, Ducks Unlimited, and Pheasants Forever.

2.3 Maps

DENR will provide the following maps:

- Watersheds that will be serviced by the project,
- Annualized Agricultural Nonpoint Source Model (AnnAGNPS) or similar model targeting critical cells, and
- Animal feeding areas with associated ranking based on DENR's feedlot model.

2.4 General Watershed Information

Watershed information is provided in the individual assessment project implementation plans for the named watersheds. These are all agricultural watersheds and have a combination of row crops, small grains, grazing and animal feeding operations. Early assessment results suggest that animal waste is a considerable contributor to the nonpoint source problems. All of the lake watersheds listed are impaired by excessive phosphorous. The Big Sioux River is impaired by suspended solids and fecal coliform bacteria concentrations.

3.0 PROJECT DESCRIPTION

During the initial five year project segment SDACD placed a Resource Management Specialists in six of its seven resource management areas to provide one-on-one technical assistance to landowners in watersheds of selected 303(d) listed water bodies. Two additional Resource Specialists were assigned to the Big Sioux River Basin to work specifically with animal feeding operations.

Those specialists contacted land managers identified as having a high probability of contributing pollutants to the impaired water bodies and provided them information about the impairment and how

BMPs could improve their operation. The specialists assisted landowners in planning BMPs and preparing the applications for financial assistance to install the BMPs. Engineering design services for animal waste management systems were provided using NRCS Engineers or contractual services with certified TSPs. Project staff as well as that of other SDACD technical assistance teams (buffer sales, grasslands management, and animal nutrient design) were supervised by a program manager funded by the project.

The project specialists use information from AnnAGNPS and animal feeding operations (AFO) rankings to target assistance to those properties where the BMPs would have the greatest effect on improving water quality. Landowners outside critical cells were a lower priority for receiving assistance.

NRCS provided training that lead to level one certification of project specialists in conservation planning and TOOLKIT, as well as additional training offered to the agency's staff. Project specialists were provided computers and software compatible with NRCS computer systems so that information could be readily shared. Landowner confidentiality has been and will be maintained to NRCS standards.

During Segment Four SDACD will enter into contracts with 2 certified conservation planners and 1 project manager. Funding for the contract positions will be a combination of 319 funds, state funds, and USDA funds. All contractors will be skilled in developing conservation plans.

3.1 Project Goal

The project goal is: **“Continue to provide planning agricultural best management practice installation assistance in selected 303(d) watersheds in South Dakota.”**

The project will also provide information and education to local landowners, youth, communities, other agency personnel, consultants and the general public to provide a better understanding of use, function and technical design of agricultural BMPs and related water quality benefits.

3.2 Project Objectives and Tasks

OBJECTIVE 1. SDACD will contract and hire conservation consultants, one who will manage day to day activity of the project and 2 others to assist landowners with conservation planning and installation of agricultural BMPs that reduce nonpoint source pollutants in selected 303(d) watershed areas and select areas outside of active projects.

Task 1. Project Management

The managing consultant will manage the day to day operation of the project including assigning temporary work activities, reports, accomplishments, watershed planning, and setting up and maintaining the project in the DENR Tracker System. Work with project sponsors to concentrate efforts in priority watersheds where increased effort is likely to pay off.

Product 1: (1) consultant

Cost: \$173,876

EPA: \$173,876

Responsible Agencies

South Dakota Association of Conservation Districts
 South Dakota Department of Environment and Natural Resources

Task 2. Conservation Planning

Enter into contracts with (2) conservation planning consultants to work in targeted 12 digit HU watersheds to develop conservation plans with willing producers. Producers will be provided with one-on-one conservation planning assistance. The producer will be educated in the benefits of the conservation practices and the environmental improvements gained. Once plans are developed the producer can apply for conservation programs that would provide financial assistance for implementation of practices if needed. Monitoring will be completed by the planner to identify conservation practices that were applied with or without financial assistance and the environmental benefits produced.

Product 2: (2) conservation planners

Cost: \$246,000

EPA: \$171,000

NRCS: \$75,000

Responsible Agencies

South Dakota Association of Conservation Districts
 South Dakota Department of Environment and Natural Resources
 Natural Resources Conservation Service

Task 3. Employ and train project coordinators and assistant coordinators to assist landowners with conservation planning and installing agricultural BMPs that reduce nonpoint source loading in selected 303(d) water bodies.

Project staff will be employed and provided training for use of NRCS planning and documentation protocols so that plans prepared will be certifiable by NRCS for USDA funding. Training will include the NRCS conservation planning course as well as training in Section 319 program strategies for TMDLs and grant documentation. Employees will attend NRCS refresher courses as needed, but at least every three years. Project staff will also be required to attend DENR sponsored project coordinator workshops and receive training by DENR in assessment techniques as needed to complete workplan and other associated activities.

Product 3: One trained project coordinator, two trained project assistant coordinators, and one clerical assistant

Milestone: .25 FTE project coordinator, .50 FTE assistant coordinators, and 1.0 FTE clerical assistant.

Cost: \$493,680

EPA: \$175,440

USDA: \$68,640

Watershed Projects: \$249,600

Responsible Agencies

South Dakota Association of Conservation Districts
 Natural Resources Conservation Service
 South Dakota Department of Environment and Natural Resources

OBJECTIVE 2. Develop BMP plans/designs in target areas inside and outside active projects.**Task 4. Develop BMP Plans**

Target cells/areas for BMP installation will be based on information from DENR assessments, priority rankings from AnnAGNPS, local conservation districts and USDA staff knowledge of sources and funding availability. Owners and operators of targeted lands will be contacted to explain the project mission, services available, and available funding opportunities as well as the potential of their operation to contribute pollutants to the impaired water body. Project staff will also assist with development of a funding package.

Product 4: BMP/plans and designs

Milestones:

Landowner Conservation contacts – 800
 BMP designs/plans – 60 each year

The cost to complete the BMP plans will primarily be salary costs of project staff and Consultants in Objective 1.

Responsible Agencies

South Dakota Association of Conservation Districts
 South Dakota Department of Environment and Natural Resources
 Watershed Projects
 Natural Resources Conservation Service

OBJECTIVE 3. BMP implementation outside active 319 projects.**Task 5. Cropland and Grassland BMP implementation**

Product 5: 500 acres of cropland BMPs (filter strips, grassed waterways, seeding, wetland restoration, etc.)

Cost: \$150,000 EPA: \$0 USDA: \$75,000 Local: \$75,000

Product 6: 500 acres of riparian grassland management BMPs (riparian buffers, water development, stream bank stabilization, fence, etc.)

Cost: \$600,000 EPA: \$0 USDA: \$300,000 Local: \$300,000

Responsible Agencies

South Dakota Association of Conservation Districts
 South Dakota Department of Environment and Natural Resources
 Watershed Projects
 Natural Resources Conservation Service

Task 6. Animal waste management system BMP implementation

Product 7: Animal waste system designs, nutrient management plans, and system construction

Milestones: 5 designs, 5 nutrient management plans, and 5 systems constructed

Cost: \$2,125,000 EPA: \$75,000 USDA: \$1,250,000 Local: \$750,000

Responsible Agencies

South Dakota Association of Conservation Districts
 South Dakota Department of Environment and Natural Resources
 Watershed Projects
 Natural Resources Conservation Service

Objective 4. Revise riparian area priority zones for all active projects.

Task 7. Revise riparian buffer zone overlays from stream beneficial uses defined in South Dakota Administrative Rule 74:51:03:02.

Zone A includes domestic water supply, warm water semi-permanent fish life propagation, and limited-contact recreation waters. Zone B includes warm water marginal fish life propagation and limited-contact recreation waters. Zone C includes fish and wildlife propagation, recreation, and stock watering waters, and irrigation waters. The buffer widths are related to Water Quality Standards defined Chapter 74:51:01 of the South Dakota Administrative rules. Depending on Pollutants of concern such as sediment, nitrates, and bacteria waters with higher standards for these pollutants should be assigned wider riparian buffers. The Zone A buffer is 120-feet, the Zone B Buffer is 60-feet, and the Zone C buffer is 30 feet

Product 8: Revise the riparian area priorities for all active Section 319 watershed projects and produce maps.

Cost: The cost to complete the riparian overlays is part of the costs for the Watershed Protection Program in DENR.

Responsible Agencies

South Dakota Association of Conservation Districts
 Local Conservation Districts
 Local Stakeholders

Department of Environment and Natural Resources

Objective 5. Implement public outreach program.**Task 8. Create an awareness of project goals and objectives**

Create an awareness of project goals and objectives through media presentations in local news sources, mailings, and web-based information. Staff will also attend and make presentations at meetings of local work groups, USDA State Technical Committee, NPS Task Force, Conservation Commission, etc.

Product 9: 10 work group meetings, 5 media/news articles,

Cost: \$ 6,000 plus staff time

EPA: \$6,000

Responsible Agencies

South Dakota Association of Conservation Districts

Local Conservation Districts

Objective 6. Document and report project progress and success in attaining the project goals.**Task 9. Monitor project progress and evaluate project**

Project progress will be monitored to determine the water quality impact of the project and to provide information to DENR to plan future watershed loading reductions. The location of BMPs designed and installed will be mapped and provided to DENR using ARC View and TOOLKIT. NPS load reductions expected from the BMPs will be calculated and provided to DENR. The programs used to determine the load reduction will be those approved by DENR for this purpose which include DENR project tracker, AnnAGNPS, STEPL and RUSLE2. When tracking BMPs installed in the watershed, a unique identifier will be used.

Progress in building partnerships and developing nonpoint source abatement plans will be gauged by the milestones achieved and the number of contacts or partnerships developed.

Product 10: BMP location Maps

Load reductions

Responsible Agencies

South Dakota Association of Conservation Districts

South Dakota Department of Environment and Natural Resources

Annual project status reports will be prepared and submitted to DENR for entry into GRTS

Product 11: Mid-year and annual GRTS reports

Milestones: prior to April 15 and October 15 of each year.

Responsible Agencies

South Dakota Association of Conservation Districts

Task 10. Prepare a final report using guidance provided by DENR.

Product 12: Final Report

Milestone: July 31, 2018

Responsible Agencies

South Dakota Association of Conservation Districts

3.3 Milestone Table (attached Appendix B)

- 3.4 Permits are not required for planning activities. When a BMP is ready for installation, project staff will assist the producer with securing any required water rights, building permits, 401, 404 and storm water construction permits. They will also ensure compliance with all local, state or federal requirements such as the threatened and endangered species act and historic/cultural resources requirements.
- 3.5 The SDACD is the project sponsor. The Association has been awarded and successfully completed several Section 319 Grants. Among these are the Bootstraps Project, animal nutrient management and buffer teams. The Association has also provided management services and or staff for several other Section 319 grants which includes the Grassland Management and Planning, Upper Snake Creek, Lewis & Clark, Turkey Ridge Creek, Vermillion River, Central Big Sioux, and Medicine Creek projects.
- 3.6 The project or other entity that contracts with the landowner/operator will be responsible for ensuring compliance with BMP operation and maintenance requirements for the life of the practice in accordance with NRCS technical standards.
- 3.7 This project will not implement management practices. Responsibilities for protection of endangered and threatened species, other environmental reviews and cultural resources compliance goes to the entity funding the management practices.

4.0 COORDINATION PLAN**4.1 Agencies and their responsibilities:**

South Dakota Association of Conservation Districts – Project sponsor, will enter into contracts with conservation specialists to carry out the planning activities. SDACD staff includes the executive director supervised by Board of Directors. SDACD and conservation specialists will coordinate project activities, report on project activities and progress, voucher for grant funds, and provide record keeping. SDACD and conservation specialists will make presentations at meetings of local work groups, State Technical Committee, NPS Task Force, Conservation Commission, etc. SDACD will solicit local conservation district staff and other local interest groups in targeting the delivery of technical assistance to landowners.

Conservation Districts – Provide technical assistance for BMP installation, assist with BMP prioritization, public information assistance, host local meetings, and coordinate with local work groups for USDA funding.

South Dakota Department of Game, Fish & Parks – Provide technical and financial assistance through several private lands wildlife habitat programs they administer; these programs also provide nonpoint source pollution control benefits. Coordinate with the Pheasants Forever technical assistance project.

Natural Resources Conservation Service - Technical assistance and training. Provide technical assistance and access to records and maps. Provide cost share assistance for BMP installation through those USDA programs authorized in the Farm Bill.

Farm Service Agency - Financial assistance. Provide financial assistance through those USDA cost-share or land retirement programs authorized in the Farm Bill.

US Fish and Wildlife Service - technical and financial assistance through programs they administer such as Partners for Fish and Wildlife and the North American Wetlands Conservation Act.

US Environmental Protection Agency – Provide Section 319 grant to South Dakota DENR,

SD DENR - Administer EPA Section 319 grant funds; provide technical assistance for project planning and management and training.

4.2 **Project Support**

Segment One, Two, and Three of this project received the support from the South Dakota Department of Environment and Natural Resources; South Dakota Board of Water and Natural Resources; SD Nonpoint Source Task Force; the SD Department of Game, Fish and Parks; SD Department of Agriculture; the conservation districts; SDACD; East Dakota Water Development District; USDA-Natural Resources Conservation Service; USDA-Farm Services Agency and USDI-Fish and Wildlife Service.

The Segment Four application to continue this project is supported by the USDA-Natural Resources Conservation Service, USDA-Farm Services Agency, USDI-Fish and Wildlife Service, South Dakota Department of Agriculture, East Dakota Water Development District, SD Game Fish and Parks, South Dakota Department of Environment and Natural Resources, SDACD and all involved conservation districts and water development districts.

4.3 **Coordination with Other Programs**

Pheasants Forever and Ducks Unlimited, in partnership with the Natural Resources Conservation Service and the South Dakota Department of Game, Fish and Parks, has placed wildlife habitat specialists in seven areas of South Dakota to assist in wildlife habitat planning. Program activities will be coordinated with this project to avoid overlap and duplication. Those in this partnership indicate they expect the project to continue.

The South Dakota Association of Conservation Districts will provide information to and coordinate with the State Technical Committee and subcommittees to coordinate the funding through those USDA programs authorized in the Farm Bill. The Association will also work with other Section 319 projects to coordinate and augment their efforts.

4.4 **Non-duplication of Effort**

This project is a continuation of a local, state, and federal agencies partnership that provides technical and financial assistance for the implementation of NPS TMDLs in South Dakota. The project is managed to maximize the delivery of assistance that minimizes duplication of effort. For example, Pheasants Forever working in partnership with NRCS and the South Dakota Department of Game, Fish and Parks has placed wildlife habitat specialists in some areas of South Dakota to assist in wildlife habitat planning. Their activities are coordinated with the project to avoid duplication of effort.

5.0 **EVALUATIONS AND MONITORING PLAN**

5.1 The evaluation and monitoring plan includes documentation of project activities and BMPs installed. Load reductions and BMP implementation information will be provided to DENR as part of the GRTS report and provided to Section 319 projects in the areas serviced.

5.2 Water quality sampling is not included in the project work plan. Therefore, a sampling and analysis plan will not be developed.

5.3 The conservation consultants will document all project activities and report these activities to the SDACD executive director who will submit the semi-annual report. The annual report will be prepared and released by October 31 of each year during the proposed project. The semi-annual and annual report will be available to all local, tribal, state, and federal agencies and organizations in the project area. This report will also be posted on the SDACD web site.

Project activities that will be documented include:

- On-farm visits and landowner/operator contacts and follow-ups, plans developed as result of visits/contacts, and BMPs implemented
- Partnership building contacts/presentations and report of results
- Workshop and tour attendance and activities generated through workshops or tours
- News releases and other media contacts (TV/Radio) and indications of activities generated as result of releases or contacts
- Presentations/attendance at meetings where project activities are discussed (conservation boards, local governments, tribal governments, lake associations) and reports of activities generated as result of presentations
- Implementation of best management practices
- Project expenditures
- Local cash match and in-kind contributions

Data collected during this project, and documentation of project activities and expenditures will be compiled and used to draft a final report prepared following guidance provided by DENR.

The report will focus on this project segment, include the cumulative accomplishments of this and the previous project segment, contain a comparison of planned versus completed activities, estimate of load reductions achieved, and an evaluation of success in relation to the project goal. Copies of the report will be provided to the Association's project partners.

6.0 BUDGET (attached Appendix A)

7.0 PUBLIC INVOLVEMENT (see objective 5)