

PROJECT SUMMARY SHEET

AWARD FISCAL YEAR: 2014, 2016

PROJECT TITLE: South Dakota Non-point Source Information and Education Project Segment 4

NAME: South Dakota Discovery Center

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PROJECT TYPES: (See List): Information and Education

LATITUDE – DEGREE: n/a

LATITUDE – MINUTES: n/a

WATERSHED NAME: This is a statewide project.

HYRDOLOGIC UNIT CODE (HUC): 07, 09, 10

HIGH PRIORITY WATERSHED? All watersheds

POLLUTANT TYPE: All non-point sources

UWA CATEGORY: n/a

TMDL DEVELOPMENT (Y/N) No, support only

TMDL IMPLEMENTATION: (Y/N) No, support only

TMDL PRIORITY (High, Medium, Low): All

WATERBODY TYPES: Lakes, rivers, streams, wetlands

ECOREGION: all

PROJECT CATEGORY: Information and Education

PROJECT FUNCTIONAL CATEGORY: Local (Specific Target) Education/ Information Programs

GROUNDWATER PROJECT? n/a, will include groundwater but not be limited to groundwater

FY 2014-2017

319 FUNDS REQUESTED: \$250,000+\$86,700=\$336,700

MATCH: \$173,382+\$58,042=\$231,424

\$319 Funded Full Time Personnel: .75

TOTAL PROJECT COST: \$423,382+\$144,742=\$568,124

GOALS: The goal of the South Dakota Non-Point Source Information and Education project is to promote and facilitate public understanding of watersheds and related management issues through the continued implementation of the comprehensive, coordinated statewide effort begun in 2004.

PROJECT DESCRIPTION: The 2014 South Dakota Non-point Source Information and Education Project (the Project) is designed to continue providing South Dakota’s citizens information and education opportunities about non point source pollution to in order to gain their support for and participation in non-point source pollution prevention and reduction practices. To achieve the goal, this project will focus on:

1. Outreach to South Dakota’s adults using a combination of traditional and innovative methods.
2. Support of local and regional activities through a competitive minigrants program.
3. Increased teacher, student and adult awareness of and proficiency in watersheds and watershed protection.

The Project will continue many of the program activities begun during 2004 and continued in 2007 and again in 2010 with program improvements being made by incorporating lessons learned. The South Dakota Discovery Center will coordinate work plan activities and administrate the grant. The South Dakota No-Point Source (NPS) Task Force will provide oversight through its Information and Education Subcommittee. Activities contained within this project are consistent with the SD Non-point Source Information and Education Strategy, adopted by the SD NPS Task Force during July 2000.

STATEMENT OF NEED

2.1 Rationale for the Information and Education Project

Non-point source pollution is pollution that is carried into water by run off (rain, snow melt, lawn watering, etc.). Non-point source pollution has been described as the pollution that comes from everywhere and nowhere as it does not have one identifiable source. Almost everyone contributes directly or indirectly to non-point source pollution making it difficult to allocate responsibility for its prevention and mitigation.

Control of non-point source pollution is critical to improving and protecting water quality especially in South Dakota where non-point source pollution is a significant source of water pollution (South Dakota Department of Environment and Natural Resources, *2012 South Dakota Integrated Report*). Unlike point source pollution that can be monitored and controlled with technological applications, non-point source pollution mitigation and prevention often depend upon the voluntary participation of citizens.

Information and education play an important role in facilitating this citizen participation. The information and education project informs citizens about non-point source pollution causes, impacts and prevention as well equips them to take steps to mitigate it. Citizen interest, engagement and participation around nonpoint source will not happen unless there is an intentional and coordinated effort to develop it.

Furthermore, a coordinated information and education project is important for efficiency reasons. Such a project allows for targeted objectives, specific audiences, and measurable outcomes. It also minimizes duplication, leverages resources and partnerships, and streamlines delivery.

2.2 History of the I&E Project

During 2003, the South Dakota Department of Environment and Natural Resources (DENR) identified the need to re-establish a comprehensive, statewide delivery of watershed information and education (I&E) opportunities. Up till then, information and education activities were coordinated by DENR. However, staff changes made continuation of the project in-house unfeasible.

In October of 2003, DENR communicated the need to the South Dakota Discovery Center (SDDC) and other organizations that had previously requested funds for I&E projects. The Department of Environment and Natural Resource encouraged the organizations to work as a group to identify statewide non-point source pollution I&E activities that would implement the NPS strategy as a coordinated, cooperative effort.

During 2004, a project implementation plan was developed. The South Dakota Discovery Center commenced administration of the Project September 1 of that year. During 2006, the project was extended another 12 months to allow completion of the amended project milestones. The project was completed as amended by September 2007 with most of the amended milestones met or exceeded. A continuation of the Information and Education Project was authorized in autumn of 2006, allowing for a seamless transition between the first and second stages of the Project. The continuation concluded September 2010 having met 140% of its milestones. A third segment to the project was started that same year and was extended thru 2014.

The ongoing success of the project speaks to the demand for it. The need for non-point source outreach and education will never disappear as long as there is a need to engage citizens in the effort of watershed protection.

3.0 PROJECT DESCRIPTION

3.1 PROJECT GOAL

Vision

The vision statement of the Non-Point Source Strategy is cleaner water through healthier watersheds.

The mission of the Project is: **The Information and Education Project will foster citizen support for and participation in activities which maintain, protect and restore water quality and watersheds.**

Outcomes

Goals are by their very nature broad and lofty. As necessary as they are for defining the overarching purpose of a program, goals are too broad to be valuable for defining the short and intermediate steps to achieve that purpose, thus the need for outcomes. Outcomes are merely statements of what is expected to happen as a result of the program.

A common acronym to describe good outcomes is SMART: specific, measurable, attainable, realistic and time sensitive. The Subcommittee used SMART criteria when developing outcomes for the Information and Education Project. The Subcommittee determined that achieving the following outcomes would contribute to reaching the goal stated above.

- Outcome 1. Increased awareness and/or knowledge of watershed ecology.
- Outcome 2. Increased awareness of NPS pollution causes, effects and remedies.
- Outcome 3. Increased awareness of and participation in NPS best management practices.
- Outcome 4. Increased capacity to deliver NPS I&E.

Audience

Initial audience of the SD NPS I&E program targeted the agricultural sector and children. After 1996, focus changed to reach a more balanced cross-section of the state's population with an increased emphasis directed toward urban adults. Previous I&E segments have continued to seek this cross-section of audiences, with a particular interest in reaching adult audiences. This segment of the project will also seek to reach a cross section of population with an emphasis on adults.

3.2 OBJECTIVES AND TASKS

Objective 1: Facilitate understanding and action to protect watersheds.

Task 1: Develop and coordinate outreach.

Task Total: \$93,066 + \$13,684=\$106,750

319 Funds: \$42,000 + \$22,000=\$64,000

Project Partners: \$37,066 + \$5,684 = \$42,750

Product 1: Media Campaign. Design and implement a media campaign in collaboration with other partners to address one or more aspects of watershed protection such as pet waste management.

Lead Partners:

- City of Sioux Falls

Milestones:

- Media campaign developed.

Product 2: Volunteer Monitoring Program. Continue to support the volunteer monitoring program started under previous I&E Projects. The project will support volunteer monitoring of fecal coliform in addition to other parameters at 45 sites in both East Dakota and West Dakota Water Development Districts. The East Dakota Water Development District will be responsible for administration of the statewide database and training

Lead Partners:

- East Dakota Water Development District

Milestones:

- Program continuation
 - Support monitoring at 45 sites through recruiting, training and equipping volunteers annually.
 - Maintain database.
 - Produce reports of data collected.

Product 3: Conference support Support the conferences that are providing outreach and information regarding watershed ecology and watershed protection. This Product seeks to leverage existing in state conferences such as the Mayors' Summit on the Big Sioux and collaborate with them to expand coverage of watershed issues such as urban watersheds, green building design and smart growth or to attract new and underserved audiences to them.

Lead Partners:

- South Dakota Discovery Center
- City of Sioux Falls

Milestones:

- 4 conferences supported

Product 4: Climate Outreach Partner with the State Climatologist's office to support outreach focusing on climate, climate-water, and climate change. This will support the position of the assistant state climatologist to support work with teachers and schools and the co-coordination of the CoCoRaHS citizen monitoring program.

Lead Partner:

- SD Discovery Center
- South Dakota State University Office of State Climatologist

Milestones:

- Year 1 – Needs assessment, planning
- Year 2 – Outreach disseminated and evaluated.
- Year 3 – Outreach to teachers (2) and support of CoCoRaHS.

Task 2: Provide support for local, regional and statewide projects through a competitive mini-grants program.

Task Total: \$50,000 + \$33,333 = \$83,333 **319 Funds:** \$30,000 + \$6,000 = \$36,000

Project Partners: \$20,000 + \$13,333 = \$33,333

Product 5: Section 319 funds will be used to support a NPS I &E mini-grants program for projects that inform or educate a significant number of South Dakotans or that provide I & E opportunities to a high-priority segment of the population (example: communities with identified water quality concerns). Grantees must provide 40 percent match for their projects. The NPS I&E Sub-committee will serve as the selection committee for these mini-grants.

SD Discovery Center will administer the mini-grant programs. Requests for proposals will be announced electronically through the SD Discovery Center and the South Dakota Department of Environment and Natural Resources websites and appropriate venues and publications.

Mini-grant applications must meet the following guidelines.

- Must support the NPS I&E strategy's goals and objectives.
- Does not duplicate existing programs.
- Sponsor has the ability to complete the project.
- Target audiences are consistent with NPS I&E strategy.
- Costs are reasonable for the project scope.
- Evaluation tools are identified.

All projects also must achieve one or more of the I&E Project's outcomes.

- Increased awareness and/or knowledge of watershed ecology.
- Increased awareness of NPS pollution causes, effects and remedies.
- Increased awareness of and participation in NPS best management practices.
- Increased capacity to deliver NPS I&E.
- Increased ability to deliver watershed education.

The subcommittee will select the projects to be awarded grant funds. All projects must submit a final report and evaluation of the project.

Lead Partners:

- SD Discovery Center
- 319 Non-Point Source Task Force Information and Education Subcommittee
- Grantees to be determined

Milestones:

- 12 projects funded

Objective 2: Educate students and educators about watershed and non-point source pollution issues.

Task 3: Coordinate and support water education

Task Total: \$152,000 + \$40,000 = \$192,000

319 Funds: \$86,200 + \$23,300 = \$109,500

Project Partners: \$65,800 + \$16,700 = \$82,500

Product 6: Water Festivals. Water Festivals annually provide over 4,000 elementary students (mainly third through fifth grade) at seven different sites hands-on learning about all aspects of water. These one day events introduce students to the full depth and breadth of how water impacts the environment, their communities, and their personal life. Project funds will be used to

fund resources, non-consumable supplies, and educational opportunities or start up costs for new festivals. In kind and cash match will be provided by local water festivals.

Lead Partners:

- SD Discovery Center
- East Dakota Water Development District
- Minnehaha Conservation District
- Sand Lake National Wildlife Refuge
- Vermillion Area Water Festival

Milestones:

- Year 1 - 6 Festivals
- Year 2 – 6 Festivals
- Year 3 – 6 Festivals

Product 7: Coordinate Envirothon. Envirothon is the largest environmental education event for high school students in North America. Teams of five (5) high school students compete in knowledge and skills pertaining to aquatic ecology, soils, wildlife, forestry and a current issue. The winning team from each state then goes on to compete in the North American Envirothon.

The I&E Project will provide funds to support a contracted position to help support the SD Envirothon up to \$7,500.

The Conservation Commission will be a financial partner in this endeavor. Day County Conservation Commission will help provide professional development to teachers to equip them to instruct about Envirothon.

Lead Partners:

- South Dakota Discovery Center
- Conservation Commission

Milestones:

- Year 1 – 1 Envirothon, 6-8 teams competing
- Year 2 – 1 Envirothon, 8-10 teams competing
- Year 3 – 1 Envirothon, 8-10 teams competing

Product 8: Professional Development. Train and equip educators to deliver water education. Section 319 funds will be used to provide standards-compliant, inquiry-based professional development that supports state education initiatives using evaluated curriculum resources such as Project WET (Water Education for Teachers) and the Leopold Education Project.

Professional development opportunities for classroom teachers, youth organization staff (both paid and volunteer) will be delivered via DDN, local workshops and intensive field classes. Match will be provided by in-kind educator contributions and support from local groups.

A small education minigrant program will be developed to provide teachers with supplies to engage their students in watershed protection service learning projects.

Lead Partner:

- SD Discovery Center

Milestones:

- Year 1 – 9 workshops
- Year 2 – 9 workshops
- Year 3 – 9 workshop
- Ongoing – 3-4 teacher minigrants

Product 9: Family, Youth and Student. Students and youth need repeated exposure to water education throughout the course of their academic careers. Section 319 funds will be used to provide learning opportunities for middle and high school students in a variety of formats and venues both in the classroom and in the community. Examples include classroom presentations and field trips, youth organization activities and community service learning opportunities. World Water Monitoring Day and Earth Day will focus much of the youth and student funding while Lessons in a Land Ethic, a project of the Aldo Leopold Foundation, will be targeted to families and adults.

Lead Partner:

- SD Discovery Center
- South Dakota Game, Fish and Park

Milestones:

- Year 1 - 7 family/student/youth events
- Year 2 – 7 family/student/youth events
- Year 3 – 7 family/student/youth events

4.0 COORDINATION PLAN

4.2 LEAD PROJECT SPONSOR:

The South Dakota Discovery Center is the lead project sponsor. The NPS Task Force 319 I & E Subcommittee will act in an advisory capacity and establish the guidelines and applications procedures and serve as the selection committee member for the mini-grant process. Project partner organizations and agencies are listed in section 4.2.

4.2 COOPERATING ORGANIZATIONS

Organization	Commitment to Partnership
SD Dept. of Environment & Natural Resources	Program oversight and technical assistance.
East Dakota Water Development District	Citizen’s monitoring coordinators and water festival sponsor
SD Association of Conservation Districts	Member of I&E subcommittee
South Dakota State University	Member of I&E subcommittee, partner in climate outreach (state climatologist’s office)
South Dakota Department of Agriculture	Member of I&E subcommittee
Day County Conservation District	Partner in educator trainings
Sand Lake Wildlife Refuge	Water Festival sponsor
Minnehaha Conservation District	Water Festival sponsor
Vermillion Water Festival Network	Water Festival sponsor

Conservation Commission	Envirothon Sponsor
City of Sioux Falls	Conference partner
South Dakota Game Fish and Park	Family, youth and student partner

4.3 LOCAL SUPPORT FOR THE PROJECT

The SD Non-point Source Information & Education Partnership includes participation and support from state, regional and local organizations (see Section 4.2). Within the coordinated project work plan, each partner organization has agreed to offer assistance according to its mission and areas of expertise.

4.4 COORDINATION WITH PERTINENT PROJECTS

The SD Non-point Source Information and Education Partnership is the continuation of coordinated watershed information and education services throughout South Dakota. Within this project, existing programs will continue and, in many cases, expand to areas of the state not currently receiving such opportunities. The NPS Task Force I&E subcommittee and the SD Watershed I & E Partnership will work to cooperatively:

- Prioritize activities and geographical regions,
- Link I&E programs with current and future 319 projects, and
- Disseminate I&E programming and activities.

4.5 OTHER SIMILAR ACTIVITIES

The project sponsor is aware of no other organized effort in South Dakota to implement a designed coordinated, comprehensive system for providing watershed information and education to South Dakota citizens. This project will coordinate with and use materials prepared by partners and other groups to avoid duplication of effort and leverage program materials already available.

5.0 EVALUATION & MONITORING PLAN

Project monitoring and evaluation will be a continuous process. Evaluation and monitoring procedures will include the tools listed below. The final evaluation reports will be used to guide future activity selection and goal-setting by the SD Non-point Source Information and Education Subcommittee.

1. Pre- and post-surveys and follow up surveys of participants in I&E funded activities will be used, where appropriate, to assess changes in knowledge and understanding as well as implementation of practices.
2. Numbers in attendance at programs, users of resources, participants in volunteer activities, requests for additional programs and tasks accomplished will be collected.
3. Anecdotal notes from partnership members, teachers, and participants will be gathered to aid in evaluation.
4. Annual reports will be submitted to DENR for entry in GRTS by April 15 and October 15 respectively of each year. A final report using a format provided by DENR will be submitted at the end of the project period.

The following results will serve as indicators that the project goal was attained:

- Programs funded by 319 funds are maintained or expanded, reaching their milestones.
- Existing and new programs utilize the mini-grant opportunities to increase the number of South Dakotans who receive watershed education or to expand the information and education provided to current audiences.
- A citizens monitoring project has 45 sites monitored and communicates the data to the public.
- Conferences include watershed protection in their strands and attract college students, citizens, women and Indian participants.
- A partnership with the state climatologist's office is developed and tools are disseminated.
- Educators and students were instructed about water and non-point source issues using materials and methods that support state educational initiatives. Indicators that this occurred include:
 - A minimum of twenty one (21) professional development opportunities occurred.
 - Current water festivals continue.
 - An Envirothon competition is maintained.
 - The number of South Dakota participants in World Water Monitoring Day increases as do the number of students participating in Earth Day events. Twelve non-water festival student events occur.

6.0 BUDGET See attached.

7.0 PUBLIC INVOLVEMENT

The public will be involved in this effort through Non-Point Task Force I&E Subcommittee and the oversight provided by the SD Discovery Center board. Input will also be received through social media.

Permits: None required. Activities included in the project implementation plan are educational or non-invasive or non-ground disturbing monitoring. Project activities are also not anticipated to have an impact on cultural resources for the same reasons.

8.0 THREATENED AND ENDANGERED SPECIES

The activities outlined in the project are non-construction in nature. These activities will not cause habit disturbances nor will they affect any threatened or endangered species. The water quality and general environmental awareness that results from the successful completion of the project work plan is anticipated to have a positive effect on threatened and endangered species and biodiversity.

Attachment 2: Budget

Funding Sources

Funding Sources	Year			Total
	1	2	3	
EPA Section 319	\$125,000.00	\$125,000.00	\$86,700.00	\$336,700.00
Local Cash & InKind				
City of Sioux Falls	\$6,500	\$6,500	\$700	\$13,700.00
East Dakota Water Development District	\$7,000	\$7,000	\$8,000	\$22,000.00
SDSU State Climate office	\$700.00	\$700.00	\$3,350.00	\$4,750.00
Mini-Grant Recipients	\$10,000.00	\$10,000.00	\$13,333.00	\$33,333.00
Volunteer Trainers & Facilitators (~1501 volunteer hours at \$15.99/hour)	\$12,000.00	\$12,000.00	\$8,000.00	\$32,000.00
Local Water Festivals	\$8,500.00	\$8,500.00	\$8,000.00	\$25,000.00
Conservation Commission	\$10,000.00	\$10,000.00		\$20,000.00
Youth and Student Organizations	\$2,400.00	\$2,400.00	\$3,000.00	\$7,800.00
SD Discovery Center	\$25,258.00	\$25,258.00	\$22,325.00	\$72,841.00
Subtotal	\$86,691	\$86,691	\$66,708	\$231,424
State/Local Total	\$86,691.00	\$86,691.00	\$66,708.00	\$231,424.00

Attachment 3: Budget for 319 Watershed Information and Education Project

Item	Year 1	Year 2	Year 3	Total	319 EPA	319 amended	Local/InKind
Personnel/Administrative							
Project Coordinator Salary	\$37,700.00	\$37,700.00	\$37,700.00	\$113,100.00	\$62,800.00	\$31,400.00	\$18,900.00
Administrative Assistant	\$4,500.00	\$4,500.00	\$4,500.00	\$13,500.00	\$8,000.00	\$4,000.00	\$1,500.00
SD Discovery Center Staff support	\$7,725.00	\$7,725.00	\$7,725.00	\$23,175.00	\$0.00		\$23,175.00
Office Space @ \$650 per month	\$7,800.00	\$7,800.00	\$7,800.00	\$23,400.00	\$0.00		\$23,400.00
Travel	\$4,833.00	\$4,833.00	\$0.00	\$9,666.00	\$5,000.00		\$4,666.00
Supplies	\$1,600.00	\$1,600.00	\$0.00	\$3,200.00	\$2,000.00		\$1,200.00
Personnel/Administrative Totals	\$64,158.00	\$64,158.00	\$57,725.00	\$186,041.00	\$77,800.00	\$35,400.00	\$72,841.00
Objective 1: Facilitate understanding and action to protect watersheds.							
<i>Task 1: Develop and coordinate outreach campaign</i>	<i>\$35,033.00</i>	<i>\$35,033.00</i>	<i>\$36,684.00</i>	<i>\$106,750.00</i>	<i>\$42,000.00</i>	<i>\$22,000.00</i>	<i>\$42,750.00</i>
Product 1: Media Campaign	\$5,000.00	\$5,000.00	\$0.00	\$10,000.00	\$6,000.00		\$4,000.00
Product 2: Volunteer Monitoring	\$18,333.00	\$18,333.00	\$18,334.00	\$55,000.00	\$22,000.00	\$11,000.00	\$22,000.00
Product 3: Conference	\$10,000.00	\$10,000.00	\$10,000.00	\$30,000.00	\$12,000.00	\$6,000.00	\$12,000.00
Product 4: Climate Outreach	\$1,700.00	\$1,700.00	\$8,350.00	\$11,750.00	\$2,000.00	\$5,000.00	\$4,750.00
<i>Task 2: Competitive mini-grants</i>	<i>\$25,000.00</i>	<i>\$25,000.00</i>	<i>\$33,333.00</i>	<i>\$83,333.00</i>	<i>\$30,000.00</i>	<i>\$6,000</i>	<i>\$33,333.00</i>
Product 5: Local or regional watershed I&E projects	\$25,000.00	\$25,000.00	\$33,333.00	\$83,333.00	\$44,000.00	\$6,000.00	\$33,333.00
Objective 1 Totals	\$60,033.00	\$60,033.00	\$70,017.00	\$190,083.00	\$86,000.00	\$28,000.00	\$76,083.00
Objective 2: Educate youth and students about watersheds and non-point source pollution							
<i>Task 3: Water Education</i>	<i>\$69,000.00</i>	<i>\$69,000.00</i>	<i>\$54,000.00</i>	<i>\$192,000.00</i>	<i>\$86,200.00</i>	<i>\$23,300.00</i>	<i>\$82,500.00</i>
Product 6: Water Festivals	\$18,000.00	\$18,000.00	\$14,000.00	\$50,000.00	\$19,000.00	\$6,000.00	\$25,000.00
Product 7: Envirothon	\$15,000.00	\$15,000.00	\$15,000.00	\$45,000.00	\$24,000.00	\$2,500.00	\$18,500.00
Product 8: Professional Development	\$30,000.00	\$30,000.00	\$20,000.00	\$80,000.00	\$36,000.00	\$12,000.00	\$32,000.00
Product 9: Family, Youth and Student	\$6,000.00	\$6,000.00	\$5,000.00	\$17,000.00	\$7,200.00	\$2,800.00	\$7,000.00
Objective 2 Totals	\$69,000.00	\$69,000.00	\$54,000.00	\$192,000.00	\$86,200.00	\$23,300.00	\$82,500.00
Totals	\$193,191.00	\$193,191.00	\$181,742.00	\$568,124.00	\$250,000.00	\$86,700.00	\$231,424.00
Percent of Grant					59%		41%