Exhibit A

NPS PROJECT SUMMARY SHEET

AWARD FISCAL YEAR: 2017

PROJECT TITLE: Northeast Glacial Lakes Watershed Improvement and Protection Project – Segment 4

NAME, ADDRESS, PHONE AND E-MAIL OF LEAD PROJECT SPONSOR:
Day County Conservation District
600 East Hwy 12, Suite 1
Webster, South Dakota 57239

Phone: 605-345-4661 ext. 118 Fax: 605-345-3048 e-mail: dennis.skadsen@sd.nacdnet.net

PROJECT TYPE: Watershed

PROJECT LOCATION: Latitude 45° 20'25"N Longitude 97° 30'40"W

WATERSHED NAME: Upper Big Sioux River, Upper James River, Red River, Minnesota River Basin

HYDROLOGIC UNIT CODE (HUC): 10160010, 10160005, 09020105, 07020001

HIGH PRIORITY WATERSHED: Yes **POLLUTANT TYPE:** Nutrients, Sediment, and Bacteria

UWA CATEGORY:

TMDL DEVELOPMENT: No **TMDL IMPLEMENTATION:** Yes

TMDL PRIORITY (High, Medium, Low): High

WATERBODY TYPES: Lakes, Streams, and Wetlands **ECOREGION:** Northern Glaciated Plains

PROJECT CATEGORY: Agricultural/Animal Feeding Operations

PROJECT FUNCTIONAL CATEGORY: BMP Implementation/Design

GROUNDWATER PROTECTION: No

Funds

Total 319 Funds: $309,800.00 **Local and State Match:** $266,210.00

Other Federal Funds: $100,250.00 **Total Project Cost:** $676,260.00

319 Funded Full Time Personnel: 2

GOAL:
The goal of this project is to protect and improve the water quality of northeast South Dakota glacial lakes, streams and rivers by implementing best management practices that reduce the amount of fecal coliform bacteria, nutrients, and sediment loads entering project water bodies, maintaining their assigned beneficial uses.

PROJECT DESCRIPTION:
This is the fourth segment of a multi-year locally led effort to implement best management practices recommended by completed watershed assessments, and to build on previous efforts and protect water quality improvements realized from previous implementation projects.

2.0 STATEMENT OF NEED

2.1

The Northeast Glacial Lakes Watershed Improvement and Protection Project is a multi-year project located in Day, Grant, Marshall, and Roberts's counties of northeast South Dakota. This proposal is the fourth of several-planned implementation segments designed to restore and protect the water quality of lakes, streams and rivers in northeast South Dakota and to maintain the beneficial uses assigned to each (Tables 1 and 1A).

The best management practices (BMPs) planned will maintain healthy watersheds by protecting waterbodies from nutrient, sediment, and fecal coliform bacteria loading and thereby;

- protect and support the designated beneficial uses,
- address water quality impairments identified during watershed assessments,
- and support TMDLs resulting from these studies.

Tables 2 and 2A shows the current 2014 303 (d) listing for each project waterbody, and any impaired beneficial uses and the reasons for the impairment.

Table 1: Beneficial Uses Designated for Targeted Project Waterbodies

Beneficial Use:	**Amsden Dam**	**Blue Dog Lake**	**No. Buffalo Lake**	**So. Buffalo Lake**	**Clear Lake**	**Enemy Swim Lake**	**Minnewasta Lake**	**Nine Mile Lake**	**Pickerel Lake**	**Pierpont Lake**	**Roy Lake**	**So. Red Iron Lake**	**Lake Traverse**	**White Lake Dam**
(4) Warmwater permanent fish life propagation	X	X	X		X	X			X	X	X	X	X	X
(5) Warmwater semipermanent fish life propagation				X			X	X						
(7) Immersion recreation	X	X	X	X	X	X	X	X	X	X	X	X	X	X
(8) Limited contact recreation	X	X	X	X	X	X	X	X	X	X	X	X	X	X
(9) Fish & wildlife propagation, Recreation and stock watering	X	X	X	X	X	X	X	X	X	X	X	X	X	X
(10) Irrigation Waters													X	

Table 1A: Beneficial Uses Designated for Targeted Project Streams and Rivers

Beneficial Use:	Lt Minnesota River	Big Coulee Creek	Whetstone River	Whetstone River South Fork	Yellowbank River North Fork	Yellowbank River South Fork
(3) Coldwater marginal fish life propagation						X
(4) Warmwater permanent fish life propagation					X	
(5) Warmwater semipermanent fish life propagation	X		X			
(6) Warmwater marginal fish life propagation				X		
(8) Limited contact recreation	X		X	X	X	X
(9) Fish & wildlife propagation, Recreation and stock watering	X	X	X	X	X	X
(10) Irrigation waters	X	X	X	X	X	X

Table 2: Water Quality Data and Impaired Beneficial Uses for Priority and Targeted Lakes and Reservoirs

		Impaired Beneficial Use and Cause*					
Waterbody	303 (d) Listed (2014**)	4	5	7	8	9	10
Amsden Dam	No	Full	NA	Full	Full	Full	NA
Blue Dog Lake	Yes	Non (pH)	NA	Full	Full	Full	NA
Clear Lake	No	Full	NA	Full	Full	Full	NA
Enemy Swim Lake	No	Full	NA	Full	Full	Full	NA
Lake Traverse	No	Full	NA	Full	Full	Full	Full
Minnewasta Lake	Yes	NA	Non (chlor-a)	Non (chlor-a)	Non (chlor-a)	Full	NA
Nine Mile Lake	Yes	NA	Non (pH)	Full	Non (pH)	Full	NA
No. Buffalo Lake	No	Full	NA	Full	Full	Full	NA
Pierpont Lake	Yes	Non (temp)	NA	Ins	Ins	Full	NA
Pickerel Lake	No	Full	NA	Full	Full	Full	NA
Roy Lake	No	Full	NA	Full	Full	Full	NA
So. Buffalo Lake	Yes	NA	Non (DO)	Full	Full	Full	NA
So. Red Iron Lake	Yes	Non (temp)	NA	Full	Full	Full	NA
White Lake Dam	No	Non (chlor-a)	NA	Non (chlor-a)	Non (chlor-a)	Full	NA

* Number corresponds to beneficial uses listed in Table 1

** Source: *The 2014 South Dakota Integrated Report for Surface Water Quality Assessment – SD Dept. of Environment and Natural Resources*

Ins – insufficient data, NA – not applicable

Table 2A: Water Quality Data and Impaired Beneficial Uses for Priority and Targeted Streams and Rivers

		Impaired Beneficial Use and Cause*						
Waterbody	**303 (d) Listed (2014**)**	**3**	**4**	**5**	**6**	**8**	**9**	**10**
Little Minnesota River	Yes	NA	NA	Non (DO)	NA	Non (DO)	Full	Full
Big Coulee Creek	No	NA	NA	NA	NA	NA	Ins	Ins
Whetstone River	No	NA	NA	Full	NA	Full	Full	Full
South Fork Whetstone River	Yes	NA	NA	NA	Full	Non (Bacteria)	Full	Full
North Fork Yellowbank River	Yes	NA	Full	NA	NA	Non (Bacteria)	Full	Full
South Fork Yellowbank River	Yes	Full	NA	NA	NA	Non (Bacteria)	Full	Full
Mud Creek	Yes	NA	NA	NA	Non (DO)	Non (DO)	Full	Full

* Number corresponds to beneficial uses listed in Table 1
** Source: *The 2014 South Dakota Integrated Report for Surface Water Quality Assessment – SD Dept. of Environment and Natural Resources*
Ins – insufficient data, NA – not applicable

2.2

The Northeast Glacial Lakes Watershed Protection and Improvement Project encompass four northeast South Dakota counties: Day, Grant, Marshall, and Roberts, and portions of four major river basins; Big Sioux, James, Minnesota, and Red Rivers. Table 3 lists targeted streams and rivers and their attributes for this segment of the project. Table 3A lists targeted lakes and reservoirs, and their attributes for this segment of the project. Locations of project lakes and reservoirs are shown in Figure 1. The locations of project streams and rivers are shown in Figure 2.

Table 3: Attributes of Targeted Project Streams and Rivers

River Basin and Waterbody **Upper Little Minnesota River Watershed = 544,000 acres**	**County**
Upper Little Minnesota River Basin HUC # 07020001	
1. Little Minnesota River	Roberts
2. Whetstone River	Roberts/Grant
3. North Fork Yellowbank River	Grant
4. South Fork Yellowbank River	Grant/Deuel

Table 3A: Attributes of Targeted Project Lakes

River Basin and Waterbody	County	Longitude Latitude	Watershed Area (acres)	Maximum Depth (feet)	Surface Area (acres)	Shoreline Length (miles)	Watershed to Lake Ratio	Waterbody Type
Upper Big Sioux River Basin HUC # 10160010								
Blue Dog Lake	Day	45° 21'06'N 97° 17'48"W	73,811	8	1,502	8.7	49/1	Natural
Enemy Swim Lake	Day	45° 26'24"N 97° 16'00"W	22,310	26	2,146	11.8	10/1	Natural
Minnewasta Lake	Day	45° 23'24"N 97° 21'42"W	2,564	14	601	5.5	4/1	Natural
Pickerel Lake	Day	45° 30'24"N 97° 16'24"W	17,165	43	931	9.7	18/1	Natural
Upper James River Basin HUC # 10160005								
Amsden Dam	Day	45° 21'30"N 97° 58'06"W	31,961	27	235	5.9	136/1	Reservoir
Buffalo Lake	Marshall	45° 37'00"N 97° 16'48"W	16,781	12	1,780	27.8	9/1	Natural
Clear Lake	Marshall	45° 41'36"N 97° 21'36"W	11,682	20	1,087	7.6	11/1	Natural
Nine Mile Lake	Marshall	45° 46'04"N 97° 29'26"W	NA	10	282	4.5	NA	Natural
Pierpont Lake	Day	45° 27'42"N 97° 49'48"W	5,885	16	77	2.2	76/1	Reservoir
Red Iron Lake	Marshall	45° 40'12"N 97° 19'06"W	9,862	15	610	7.5	16/1	Natural
Roy Lake	Marshall	45°42'06"N 97°26'06"W	9,614	21	2,054	14.5	6/1	Natural
Red River Basin HUC # 09020101								
Lake Traverse	Roberts	45° 42'12"N 97° 44'06"W	729,005	12	11,530	40.3	63/1	Natural
White Lake Dam	Marshall	45° 51'36"N 97° 36'54"W	21,184	20	187	6.3	113/1	Reservoir

2.3

Figure 1. Locations of Project Lakes and Watersheds

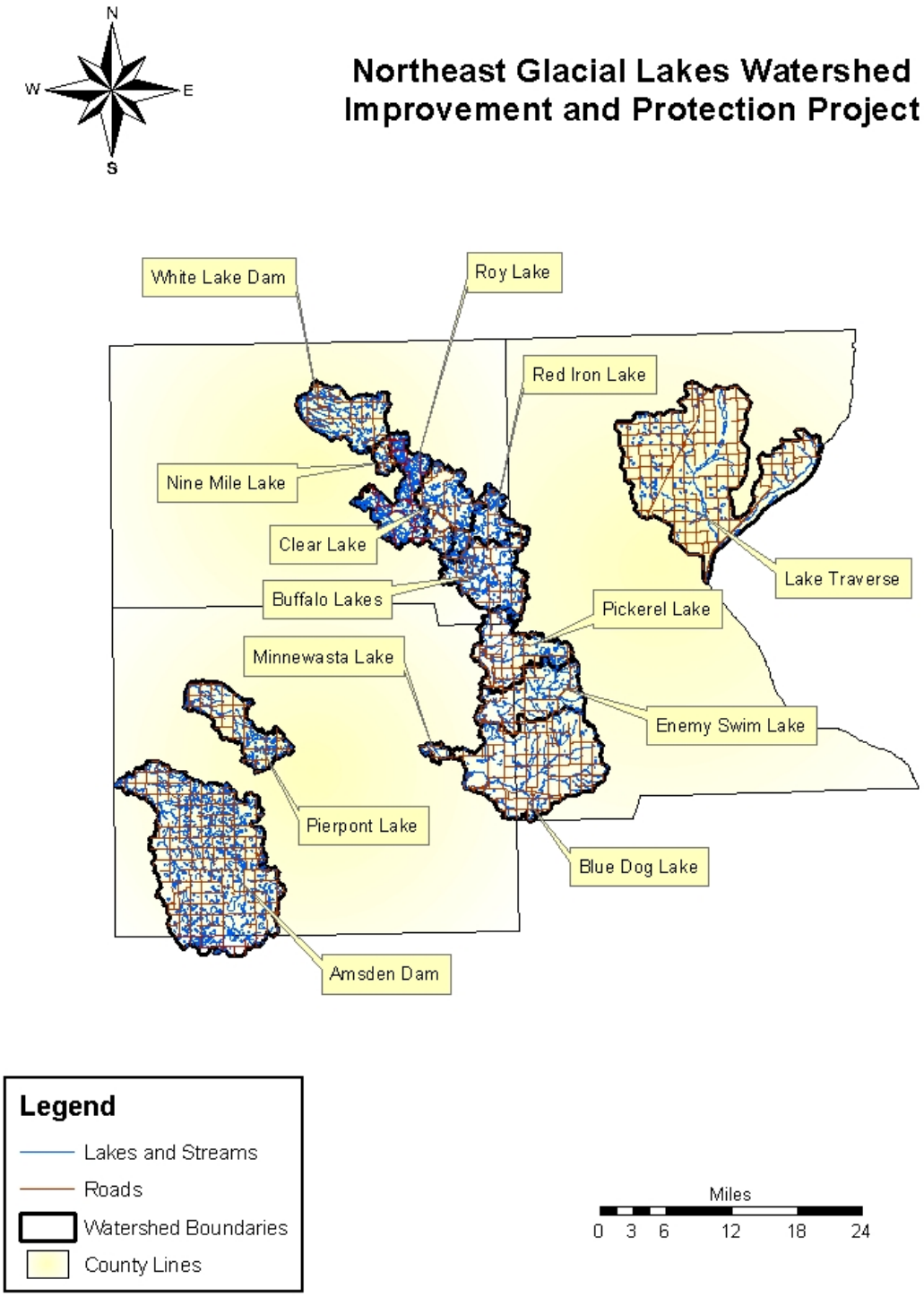
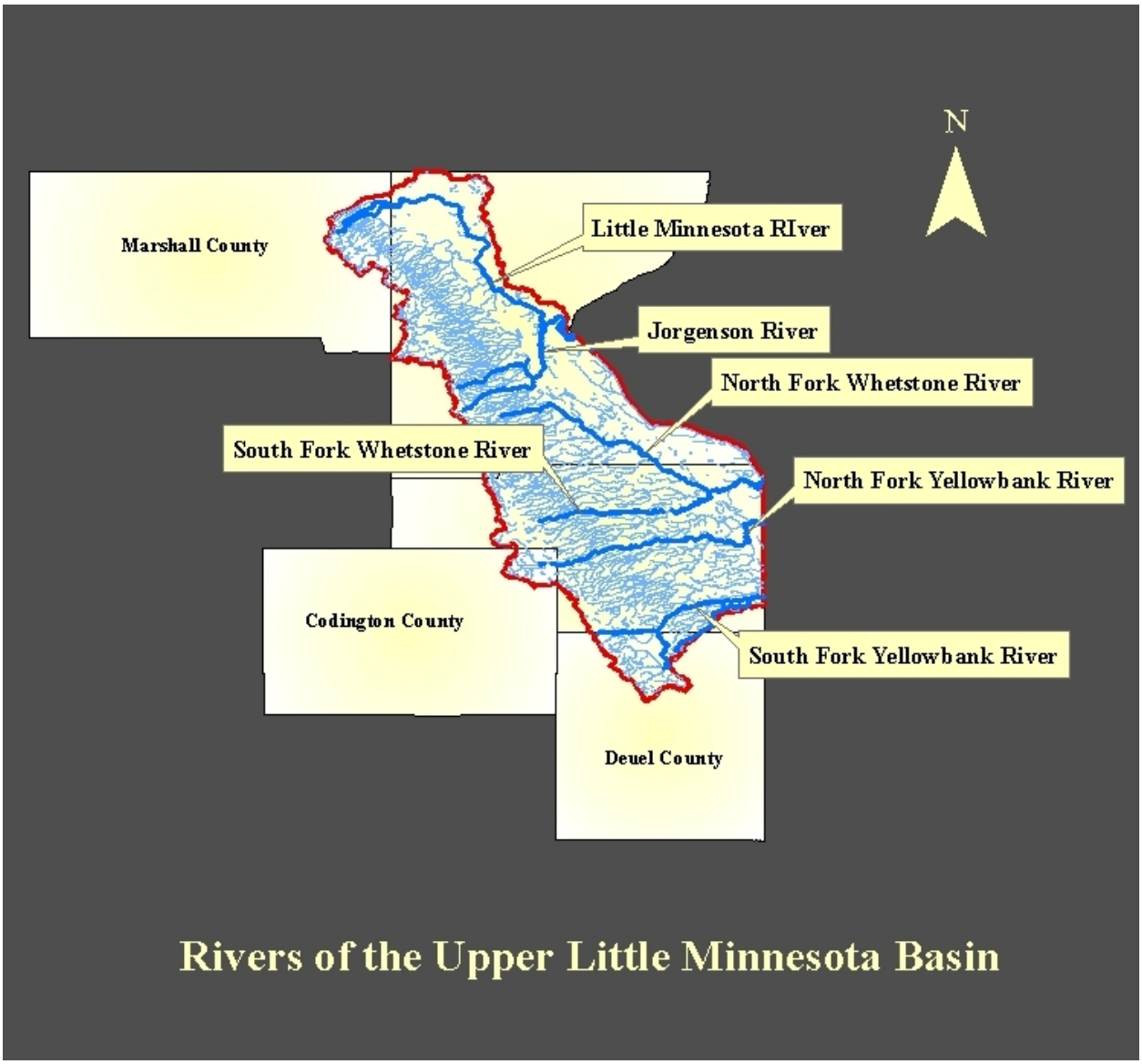


Figure 2. Upper Little Minnesota River Watershed (HUC #07020001)



2.4

The majority of the water bodies located in Day and Marshall County portions of the project area lie atop high tableland early French explorers named the Coteau Des Prairie or Hill of the Prairies. The topography of the Coteau was formed by the stagnation of glacial ice during the Late Wisconsin Glaciations that occurred approximately 12,000 years ago. As the glacier stagnated and began to fragment and melt, large blocks of ice were buried in melt water outwash. Melting of the ice blocks left depressions in the outwash of various size and depth. These depressions are the thousands of potholes, sloughs, and lakes characteristic of the modern day topography of the Coteau Des Prairie.

Melt water flowing from the top of the Coteau cut several deep channels along the eastern and western slopes. Along the eastern slope of the Coteau, these channels, called coulees are deep enough to expose groundwater that lies above the Pierre shale bedrock. The groundwater flowing above the bedrock forms dozens of small perennial streams that are the headwaters of the Red River that flows north and the Minnesota River that flows east. East facing coulees provide cool-wet conditions that support remnants of the eastern deciduous forest community. The much drier western slope of the Coteau supports fewer perennial streams. The few wooded coulees that exist are dominated by bur oak. Many of the perennial streams that flow from the western slope have been dammed to form reservoirs. Among these are Amsden Dam and Pierpont Lake. These two reservoirs discharge to the James River basin.

Many of the lakes perched atop the Couteau are situated in closed basins. The largest closed basin is called the Eastern Lakes Subsystem, or more recently the Waubay Lakes Chain. The Eastern Lakes Subsystem is comprised of eleven major lakes that include Blue Dog, Enemy Swim, and Pickerel Lakes; and several minor lakes including Minnewasta. A group of aquifers and several surface drainages surround and connect these lakes. While the Eastern Lakes Subsystem is closed, the potential exists for these lakes to eventually drain to the Big Sioux River Basin. This potential was realized in the 1990's when greater than normal precipitation, and less than normal evaporation caused many of the lower lakes in the subsystem to rise twenty feet above normal lake level elevations.

Buffalo Lakes, Clear Lake, and Red Iron Lakes lie in the Coteau lakes outwash deposit. Like the Eastern Lakes Subsystem, aquifers and surface drainages connect these Marshall County lakes.

The watershed of White Lake is located at the northwest base of the Coteau. This reservoir is located on the Wild Rice River that drains to the Red River Basin system.

Lake Traverse lies in the main channel of what remains of the River Warren, the major outflow channel of pro-glacial Lake Agassiz formed approximately 10,000 years ago. The South Dakota watershed of Lake Traverse is relatively small with one tributary, Jim Creek. The majority of Lake Traverse's watershed (90%) lies in Minnesota. Lake Traverse drains into the Bois De Sioux River, a tributary of the Red River that drains north to Lake Winnipeg.

The South Dakota portion of the Minnesota River Basin (Figure 2) includes three major stream systems; the Little Minnesota River, Whetstone River (North and South Forks), and Yellowbank River (North and South Forks). These three rivers are the headwaters for the Minnesota River which begins near the South Dakota Minnesota Border below Big Stone City, SD.

The Little Minnesota River drains the majority of Roberts County and a portion of east central Marshall County beginning near Veblen, SD and flowing into Big Stone Lake south of Browns Valley, MN. The drainage includes hundreds of small named and unnamed tributaries that begin as small coldwater spring fed streams in the forested coulees located along the east escarpment of the Coteau des Prairie and flow into bottomlands known as the Whetstone Valley. One of the larger headwater tributaries Big Coulee Creek flows from the escarpment into the Jorgenson River the largest tributary of the Little Minnesota River in Roberts County. Pasture and range make up the major land use along the escarpment where these small headwater tributaries begin. As these headwaters enter the Whetstone Valley the major land use changes to cropland. Tile drainage of cropland is becoming a common practice in the Little Minnesota River watershed.

The Whetstone River starts at the confluence of its major tributaries named the North and South forks northeast of Milbank, South Dakota; and flows a short distance east where it joins the Minnesota River near the South Dakota/Minnesota border. The North Fork of the Whetstone River drains the southern third of Roberts County. The South Fork of the Whetstone River drains the north half of Grant County and begins as several small spring fed streams located along the east escarpment of the Prairie Coteau. Lake Farley located in Milbank South Dakota is a small dammed reservoir located on the South Fork of the Whetstone River.

The North Fork of the Yellowbank River drains central Grant County and is the confluence of several small springs located along the east escarpment of the Prairie Coteau. The South Fork of the Yellowbank River begins in Deuel County and flows through the southeast corner of Grant County. The North and South Forks of the Yellowbank River join to form the Yellowbank River northwest of Bellingham, Minnesota.

Soil associations found in the project area vary greatly.

The major soil associations found in Day County include:

- Great Bend-Beotia, Ludden, and Harmony-Aberdeen-Nahon - level to moderately sloping, silty and clayey soils on glacial lake plains and flood plains
- Nutley-Sinai - level to gently sloping, clayey soils on ice-walled lake plains
- Forman-Buse-Parnell, Buse-Barnes, and Forman-Aastad-Cavour - level to steep, loamy and silty soils on till plains and moraines
- Kranzberg-Brookings, Poinsett-Waubay-Forman, and Vienna - level to gently rolling, silty and loamy soils on till plains and moraines
- Divide-Colvin, Renshaw-Fordville, and Sioux-Renshaw - level to steep, silty and loamy soils on outwash plains and channels

The major soil associations found in Grant County include:

- Formand-Aastad-Buse – deep, well drained and moderately well drained, nearly level to steep, loamy soils on uplands
- Peever – deep, well drained, nearly level to moderately sloping loamy soils on upland

- Forman-Aastad- deep, well drained and moderately well drained, nearly level to strongly sloped loamy soils on uplands
- Heimdal-Svea-Sisseton – deep well drained and moderately well drained, nearly level to steep loamy soils on uplands
- Vienna-Lismore – deep well drained and moderately well drained, nearly level to strongly sloped silty soils on uplands
- Renshaw-Fordville-Divide- somewhat excessively drained to somewhat poorly drained, nearly level to moderately steep loamy soils that are shallow or moderately deep over sand and gravel, on uplands and terraces.
- LaDelle-Dovray-Playmoor – deep, moderately well drained and poorly drained, level and nearly level, silty and clayey soils on flood plains, low terraces, and upland flats

The major soil associations found in Marshall County include:

- Maddock-Serden, Embden-Hecla-Ulen, Beotia-Great Bend, and Harmony-Aberdeen-Exline - excessively drained to somewhat poorly drained soils formed in lacustrine materials on glacial lake plains
- Kranzburg, Forman-Poinsett, and Sinai-Poinsett - well-drained soils formed in loess on upland
- Forman-Aastad Buse, and Peever-Forman-Tonka - well-drained to poorly drained soils formed in glacial till on uplands
- Renshaw-Fordville-Sioux - well-drained to excessively drained soils formed in glacial outwash on uplands
- Dovray-Ludden-Lamoure - somewhat poorly drained to poorly drained soils formed in alluvium on bottom lands

The major soil associations found in Roberts County include:

- Heimdal-Svea-Sisseton, and Poinsett-Eckman-Heimdal - well drained and moderately well drained soils formed in glacial drift and lacustrine silts on uplands
- Peever, Forman-Aastad, Peever-Tonka, Forman-Aastad-Buse, and Hamerly-Vallers - well-drained to poorly drained soils formed in glacial till on uplands
- Renshaw-Fordville - somewhat excessively drained and well drained soils formed in outwash sediment on uplands and terraces
- Vienna - well-drained soils formed in loess and glacial till on uplands
- Marsh-Antler-Hamerly, Towner-Hecla-Hamar, Doran, and Glyndon-Gardena - moderately well drained to poorly drained soils formed in lacustrine sediment, glacial melt-water deposits, and glacial till on uplands
- Ladelle-Playmoor-Lamoure, and Dovray-Ludden-Lamoure - moderately well drained and poorly drained soils formed in alluvium on bottom lands, low terraces, and upland flats

Agriculture is the major land-use. Ownership and agricultural data for the each county in the project area are given in Table 4.

Table 4. Land Ownership and Agricultural Data

		County		
*Data from South Dakota Agricultural 2012 Bulletin No. 72	**Day**	**Grant**	**Marshall**	**Roberts**
Population (2010 census)*	5,710	7,356	4,656	10,149
Land Area* (Acres)	658,329	436,818	536,888	704,856
Land Ownership				
Private (Acres)	626,319		483,944	627,087
Tribal (Acres)	10,033 acres		26,363	66,448
Federal (Acres)	10,679 acres		11,180	5,117
State (Acres)	11,298 acres		15,401	6,204
Agricultural Data				
Number of Farms* (2007)	675	555	523	887
Total Cropland Acres* (2007)	386,994	263,680	328,243	412,361
Corn/Soybeans Acres* (2011)	230,000	193,000	167,500	297,500
Small Grain Acres* (2011)	52,500	30,900	1,000	39,000
CRP (Acres)	38,720	12,233	50,386	34,488
Hay Acres* (2011)	18,000	20,000	34,000	52,000
Range/Pasture (Acres)	155,900	173,138	101,661	139,000
Livestock Numbers* (2007 census)				
Cattle	46,488	60,000	76,918	54,487
Swine	1,581	3,117	2,725	21,460
Sheep	732	2,659	1,177	5,377

The climate of the project area is classified as Sub-humid Continental. Mean climatic conditions of the area are:

- Winter Average Daily Minimum Temperature - 4 degrees F
- Summer Average Daily Maximum Temperature - 82 degrees F
- Total Annual Precipitation - 21 inches
- Average Seasonal Snowfall - 31 inches

Approximately 75 percent (=16 inches) of the annual precipitation falls between the months of April to September. Tornadoes and severe thunderstorms occasionally strike. These storms, usually local and of short duration, occasionally produce heavy rainfall. (Data from Webster, SD reporting station)

2.5

Land use in the project area is predominately agricultural. The main non-point pollutants are fecal coliform bacteria, nutrients, and sediments carried by watershed runoff. Numerous lake assessments have been completed and include Amsden Dam, Blue Dog Lake, Buffalo Lakes, Enemy Swim Lake, Lake Traverse, Minnewasta Lake, Nine Mile Lake, Roy Lake, South Red Iron Lake, and White Lake Dam. Watershed implementation projects were completed for Pickerel Lake in 1996, Enemy Swim Lake in 2005, Blue Dog Lake in 2006, and the Little Minnesota River/Big Stone Lake in 2007. This project will build on these previous efforts and protect water quality improvements realized from previous projects and maintain these lakes designated beneficial uses.

In addition to the completed assessment and implementation projects listed above, two five year strategic plans have been written, the "Upper Minnesota River Watershed Five Year Strategic Plan" at;

http://www.neglwatersheds.org/uppermn.html

and the "Northeast Glacial Lakes Five Year Strategic Plan" at;

http://neglwatersheds.org/waterqualityreports.html

Completed implementation, assessment and TMDL reports can be found at:

http://www.state.sd.us/denr/DFTA/WatershedProtection/tmdlpage.htm

3.0 PROJECT DESCRIPTION

3.1 Goals

This project is the fourth segment of an area wide water quality improvement/protection strategy. The project goal is:

"Restore and protect the water quality of northeast South Dakota glacial lakes."

To attain the goal, the following actions will be completed:

- Implement strategic plans developed during subsequent segments.
- Implement BMPs that reduce nutrient, fecal coliform bacteria, and sediment loads to targeted waterbodies.
- Implement a public outreach program to inform project area stakeholders about the opportunities for involvement in and progress of the project.
- Track project milestones and progress toward reducing nutrient, fecal coliform bacteria and sediment loadings to targeted waterbodies.

3.2 Objectives and Tasks

Objective 1: Plan project activities that will lead to the successful protection and restoration of beneficial uses of lakes, reservoirs, and streams in northeast South Dakota.

Task 1: Institute the project management structure developed during Segment 1 to guide successful protection and restoration of lakes, reservoirs, and streams in northeast South Dakota.

An advisory council made-up of local, state, tribal, and federal partners will continue to manage the Northeast Glacial Lakes Watershed Improvement and Protection Project (See Section 4.1). The council was formed during the first segment of the project and will oversee the implementation of the strategic plan completed during Segment 1, annually review the practice manual that establishes priorities for BMP implementation, and develop the work plan for subsequent project segments. Revised memoranda of understanding that define the responsibilities and obligations of each district in the support and execution of Segment 4 will be entered into between the Day, Grant, Marshall, and Roberts Conservation Districts. A Project Coordinator and Conservation Technician employed by the project sponsor will aid in the implementation of project activities within the four county project area.

Product:

1. Project management structure.

Milestones for activities included in the management structure are listed below.

Milestones:

Advisory council	1
Memoranda's of Understanding	3

Responsibility:

Implementation:	Project Coordinator Day Conservation District Advisory Council
Technical Assistance:	S.D. Dept. Environment and Natural Resources Advisory Council
Financial Assistance:	EPA 319 Funds Conservation Commission Day Conservation District

Cost:

Wages and Benefits included in personnel

Total Cost: $0.00 ***319 Cost: $0.00***

Objective 2: Install best management practices (BMPs) in critical areas to protect and restore the beneficial uses of lakes and reservoirs in northeast South Dakota.

The BMPs planned are based on those recommended in the assessments and TMDLs, and identified during implementation of the project work plan(s). It is anticipated that as additional studies and TMDLs are completed for water bodies in the project area, the suite of BMPs offered will change accordingly.

Task 1: Install BMPs that reduce nutrient, sediment, and fecal coliform bacteria originating from livestock operations.

Technical and financial assistance will be provided to livestock producers to reduce nonpoint source pollution associated with livestock grazing operations.

Product:

1. **Grazing Management Improvements**

   Through conservation planning, pasture health and rangeland condition will be improved on 4,000 acres. Resource technicians will work with landowners to promote and implement basic grazing management principles such as rotation, rest, grass banking, and other BMPs that sustain quality grasslands. If needed, financial assistance for implementing conservation practices like cross fence and water development (ponds, pipelines, tanks, wells, solar systems, nose pumps) will come from the Natural Resources Conservation Service's (NRCS) Environmental Quality Incentive Program (EQIP) general and special initiative funds. Additional funding may be available from the US Fish &Wildlife Service's "Partners for Wildlife" and S.D. Game, Fish, and Parks "Private Lands Programs.

Milestones:

Grazing Systems	4,000 acres

Responsibility:

Implementation:	Project Conservation Technician U.S. Fish and Wildlife Service S.D Dept. Game, Fish, and Parks Natural Resources Conservation Service Landowners
Technical Assistance:	Natural Resources Conservation Service U.S. Fish and Wildlife Service SD Grasslands Coalition
Financial Assistance:	NRCS (EQIP General and Initiatives)

$20 per acre x 4,000 = $80,000.00

Total Cost: $80,000.00 ***319 Cost: $0.00***

Task 2: Install BMPs that reduce sediment loads entering project water bodies by reducing wind and water erosion from upland and riparian areas, shorelines and streambanks.

Technical and financial assistance will be provided to producers to reduce nonpoint source pollution associated with riparian areas.

Product:

2. Riparian buffers

To reduce nutrient, fecal coliform bacteria, and sediment loads entering project water bodies from lakeshore and stream bank segments degraded by livestock, or riparian areas currently being cropped, vegetative buffers will be established. Establishment of riparian buffers may require the installation of fence and the development of alternative watering sources. The Continuous Conservation Reserve Program (CCRP) CP21 Filter Strips, CP23 and CP30 Marginal Pastureland-Wetland Buffer administered by USDA will be the preferred options for providing financial assistance for this product. If a site does not qualify for CCRP, riparian BMPs will be funded using EPA 319 funds. The financial assistance from EPA 319 will follow the docket established by USDA for CCRP and requirements listed in the project's practice manual.

Milestones:

Continuous Conservation Reserve Program	350 acres
EPA 319 Riparian Area Mgt. Program (RAM)	200 acres

Responsibility:

Implementation:	Project Coordinator Project Conservation Technician Natural Resources Conservation Service Landowners
Technical Assistance:	Natural Resources Conservation Service S.D. Dept. Environment and Natural Resources
Financial Assistance:	Farm Service Agency (CCRP) EPA 319 Funds

Cost:

$900/acre RAM ($60 acre x 15 years) x 200 = $180,000.00

Total Cost: $180,000.00 ***319 Cost: $135,000.00***

Product:

3. Forage/Biomass Planting

To reduce runoff from cropland adjacent to riparian areas where CRP and RAM are not applicable or established, plantings of tame grass and legumes or native grass and forbs will be established for haying or grazing purposes.

Milestones:

Forage/Biomass Plantings	400 acres

Responsibility:

Implementation:	Project Coordinator Project Conservation Technician Local Conservation Districts Natural Resources Conservation Service Landowners
Technical Assistance:	Natural Resources Conservation Service
Financial Assistance:	EPA 319 Funds

Cost:

Forage/Biomass Plantings
$100/acre x 400 acres = $40,000.00

Total Cost: $40,000.00 ***319 Cost: $24,000.00***

Product:

4. Grassed Waterway

To reduce erosion from cropland where runoff has formed gullies, grassed waterways will be established. Where applicable grassed waterways will be funded with Continuous Conservation Reserve Program CP8A Grassed Waterway practice. Additional funds will be available through the EPA 319 Clean Water funds.

Milestones:

Grassed Waterways	5 acres (EPA 319 Funds) 5 acres (EQIP)

Responsibility:

Implementation:	Project Coordinator Project Conservation Technician Local Conservation Districts Natural Resources Conservation Service Landowners
Technical Assistance:	Natural Resources Conservation Service

Financial Assistance:	EPA 319 Funds NRCS EQIP (general and initiative funding)

Cost:

Grassed Waterways
$1,500/acre x 10 acres = $15,000.00

Total Cost: $15,000.00 ***319 Cost: $4,500.00***

Product:

5. Shoreline and Streambank Stabilization

Eroding shorelines and streambanks will be stabilized using hard (rip-rap) and soft (vegetative) practices, and livestock stream crossings to provide a stabilized trail for livestock.

Milestones:

<u>EPA 319 Funds</u>	
Shoreline/Streambank Stabilized	500 LF
Stream Crossings	5
<u>NRCS EQIP</u>	
Shoreline/Streambank Stabilized	1,000 LF
Stream Crossings	10

Responsibility:

Implementation:	Project Coordinator Project Conservation Technician Natural Resources Conservation Service Landowners
Technical Assistance:	Technical Service Provider S.D. Dept. Environment and Natural Resources Natural Resources Conservation Service
Financial Assistance:	EPA 319 Funds EQIP (general and initiative funds)

Shoreline/streambank Stabilization – 1,500 LF x $73 LF = $109,500
Stream Crossings - $4,000 each x 15 = $60,000

Total Cost: $169,500.00 ***319 Cost: $33,900.00***

Objective 3: Implement a public outreach program to inform project area stakeholders about the opportunities for involvement in, and progress of the project.

Task 1: Develop and implement a multimedia outreach program to promote the project, offer opportunities for involvement, and inform the public of project progress.

Product:

1. Project web site

A project web site developed during Segment 1 will be maintained and updated to inform and educate the public on project opportunities and activities. The web site will contain information on each water body, downloadable fact sheets, calendar of events, workshops and meetings, information on BMPs available to landowners, photo gallery, project articles and news releases, and direct links to other websites useful to agricultural producers (weather, USDA, extension).

Milestones:

Number time's site accessed	6,000 (3,000 hits per year)

Responsibility:

Implementation:	Project Coordinator
Technical Assistance:	S.D. Dept. Environment and Natural Resources Day Conservation District
Financial Assistance:	EPA 319 Funds

Cost:

Included in personnel.

Total Cost: $0.00 ***319 Cost: $0.00***

Product:

2. News Releases

Local radio, television, and print media will be used to inform the public about project opportunities and activities.

Milestones:

New Articles	8 (4 per year)

(Participating partner newsletters; Sisseton, Webster, and Britton newspapers)

Radio/Television Interviews	4 (2 per year)

Responsibility:

Implementation:	Project Coordinator Conservation Districts

Technical Assistance:	SD DENR Conservation Districts
Financial Assistance:	319 Funds Local Partners

Cost:

Included in personnel

Total Cost: $0.00 ***319 Cost: $0.00***

Product:

3. Direct personal contact with and involvement in project opportunities

Information and educational displays, programs, public meetings, and workshops will provide project area residents a direct personal contact with the project and project involvement opportunities, and students of all ages an opportunity to learn about natural resources and resource conservation in the project area. Print material will be developed and distributed at these public events.

Milestones:

Farm, Home and Sports Show	8
Big Sioux and Northern Prairie Water Festivals	4
123 to the Refuge	2
Step Outside Programs	4
EcoEd Day Program	2
Northeast Range and Land Contest	2
South Dakota Envirothon	2
Lake and Stream Ecology Workshops	2

Responsibility:

Implementation:	Project Coordinator Project Conservation Technician Advisory Council Conservation Districts
Technical Assistance:	SD DENR Water Resources Institute NRCS
Financial Assistance:	Conservation Districts

Cost:

Included in personnel

Total Cost: $0.00 ***319 Cost: $0.00***

Objective 4: Monitor, Evaluate, and Report Project Progress

Task 1: Evaluate the effectiveness of selected past watershed efforts to determine if any BMP implementation needs to be made in future segments of this project to protect or improve water quality of selected lakes and reservoirs.

Product:

1. Water quality data

Comprehensive in-lake water quality sampling will continue during this segment on Enemy Swim Lake, and Pickerel Lake. Composite surface and bottom water samples will be taken during May, June, July, August, and September from two to three sites each water body. Laboratory analysis will be conducted by RMB Laboratories Detroit Lakes, MN., and the South Dakota Dept. of Health, Pierre, SD. The Dakota WaterWatch volunteer monitoring program will be utilized to gather water quality data from Blue Dog Lake, Clear Lake, South Buffalo Lake, South Red Iron Lake, and Roy Lake. Data from these monitoring programs will be used to evaluate the effectiveness of past watershed efforts and determine if any BMP implementation needs to be made in this and future segments of the project to protect or improve water quality of these lakes. Sections 5.1 and 5.2, details operating standards, and field and laboratory parameters to be tested.

Milestones:

Enemy Swim Lake	12 (6 sample sets per year June – August)
Pickerel Lake	20 (10 sample sets per year May – September)
Blue Dog Lake	2 (1 sample set per year July)
Clear Lake	2 (1 sample set per year July)
South Buffalo Lake	2 (1 sample set per year July)
South Red Iron Lake	2 (1 sample set per year July)
Roy Lake	2 (1 sample set per year July)

Responsibility:

Implementation:	Project Coordinator Resource Conservation Technician
Technical Assistance:	S.D. Dept. Environment and Natural Resources
Financial Assistance:	Enemy Swim Sanitary Sewer District Pickerel Lake Conservancy Day Conservation District

Cost:

Comprehensive In-Lake Sampling 32 samples @ $80 per sample:	$2,560.00
In-kind boat/storage/equipment:	$1,200.00

Total Cost: $3,760.00 ***319 Cost: $0.00***

Task 6: Reports detailing project activities as required by the U.S. Environmental Protection Agency, South Dakota Department of Environment and Natural Resources; and participating agencies and associations will be prepared and submitted

Product:

2. Project reports

The reports and milestones for each include;

- GRTS reports submitted electronically to SD DENR to meet reporting requirements for 319 funds. Reports will include information on project milestones completed and planned; load reductions for BMPs installed as estimated by the Step-L model; and locations where BMPs have been installed and/or in use utilizing ArcMap.

Milestones:

Annual Reports (GRTS)	2 (1 per year)

- Written monthly and semi-monthly progress and financial reports will be submitted to the project sponsor and co-sponsors. These will be submitted electronically or by attendance of the Project Coordinator.

Milestones:

Monthly Progress/Financial Reports	
Grant, Marshall, Roberts Conservation Districts	12 semi-monthly
Day Co. Conservation District	24 monthly

- Final Report

The final project report will follow EPA format requirements and include the final status of all project milestones, final project budgets, pictures of project activities, and maps showing the locations of completed BMPs.

Milestones:

Final Project Report (Segment 4)	1

Responsibility:

Implementation:	Project Coordinator Advisory Council
Technical Assistance:	S.D. Dept. Environment and Natural Resources
Financial Assistance:	319 Funds Conservation Districts

Cost:

Included in personnel

Total Cost: $0.00 ***319 Cost: $0.00***

3.3 Milestones (See Milestone Table, page 28)

3.4 Permits

The sponsor will secure all necessary permits including storm water construction permits, and Section 404 and 401- certification prior to implementation of any grant funded activity that may fall under applicable laws (federal, state or local). Cultural resource searches will be conducted on required undertakings by the State Historical Preservation Officer (SHPO).

3.5 Lead Project Sponsor

The Day County Conservation District is the project sponsor. The Day County Conservation District has sponsored several 319-funded assessment and implementation projects. The project will be completed in cooperation with the Grant, Marshall and Roberts Conservation Districts. These districts have completed and or participated in previous successful Section 319 projects.

3.6 Operation and Maintenance Responsibilities

Operation and maintenance responsibilities for conservation practices installed will be detailed in contracts between the respective Conservation District and landowner installing the practice. The contracts for conservation practices will specify operation and maintenance needs, procedures for practice failure or abandonment, and the life-span practices will be maintained for the terms agreed upon in the contract. Respective County Conservation Districts will be responsible for completing operation and maintenance scheduling, on-site visits, and follow-up with landowners and producers when actions need to be taken to ensure the practice is maintained throughout its intended lifespan.

4.0 COORDINATION PLAN

4.1 Participating Groups and Agencies

The lead sponsor for this project is the Day County Conservation District. The district will administer and coordinate day-to-day work plan activities. An advisory council with representatives from the resource agencies and organizations listed below will advise the project sponsor, and develop priorities, practice manuals, work plans and strategies for this and future project segments.

- **U.S. Environmental Protection Agency (EPA)** – Primary funding source for project (EPA Section 319 Grant). Region 8 EPA Officials will be invited to participate in project reviews, be provided access to project reports through GRTS, and grant final approval of the project implementation plan and final report as submitted through SD DENR.

- **South Dakota Department of Environment and Natural Resources (SD DENR) –** Administer EPA Section 319 grant funds and provide oversight of all project activities. Project administration will include on-site office visits, watershed tours, review/initial approval of reports, and approval of payment requests for 319 funds.

- **Grant County Conservation District –** Project partner/co-sponsor by MOU, local support and funding.

- **Marshall County Conservation District –** Project partner/co-sponsor by MOU, local support and funding.

- **Roberts County Conservation District –** Project partner/co-sponsor by MOU, local support and funding, sponsor of the Mississippi River Basin Healthy Watersheds Initiative.

- **Natural Resources Conservation Service (NRCS) –** Provide technical assistance for BMPs through District Conservationists, Soil and Range Conservationists, and Tribal Liaison. Provide program funds for Environmental Quality Incentive Program (EQIP).

- **Farm Service Agency (FSA) –** Provide program funds for Conservation Reserve Program (CRP) and Continuous Conservation Reserve Program (CCRP).

- **U.S. Fish and Wildlife Service (FWS) –** Technical advice and cost-share funds through the "Partners for Fish and Wildlife" program for grazing improvements, small dams, wetland restoration, and grass seeding.

- **South Dakota Game, Fish, and Parks (GFP) –** Technical advice and cost-share funds through the Department's "Private Lands Programs" for grazing improvements, wetland restoration, and grass seeding.

- **South Dakota Department of Agriculture –** Funding through the South Dakota Coordinated Soil and Water Conservation Commission Grant for technical assistance and conservation practice implementation.

- **South Dakota Association of Conservation Districts (SDACD) –** Technical advice and website hosting.

- **James River Water Development District (JRWDD) –** Local support and funding for Marshall County activities.

- **East Dakota Water Development District (EDWDD) –** Local support and funding for Grant County activities.

- **Enemy Swim Lake Sanitary Sewer District –** Local support and funding for water quality testing.

- **Pickerel Lake Conservancy –** Local support and funding for water quality testing.

- **Ne-So-Dak Environmental Learning Center –** Local support, campus and staff for workshops and programs.

4.2 Local Support

Development of the project was supported by several local entities. The Day, Marshall, and Roberts Conservation District's Board of Supervisors, composed of local landowners and agricultural producers, have passed resolutions supporting a multi-county implementation project to address water quality issues identified by assessment projects and strategic plans. The Pierpont Town Board, Clear Lake Association, Greater Pickerel Lake Association, Pickerel Lake Sanitary Sewer District, and Enemy Swim Sanitary Sewer District have all supported previous segments of the project and will continue their support as activities warrant. Segment 4 will continue to protect the investments and infrastructures these organizations have supported in past segments. Conservation District Board minutes and letters of commitment showing local support for the project have been forwarded to the SD DENR.

4.3 Coordination with Other Programs

Through the Advisory Council other programs that will enhance and further the goals of the project will be identified and coordinated with Section 319 funded activities. These include but not limited to:

- Mississippi River Basin Healthy Watershed Initiative (USDA NRCS)
- Rapid Watershed Assessment Program (USDA NRCS)
- Conservation Reserve Program (USDA FSA)
- Conservation Reserve Enhancement Program (SD GFP & Pheasants Forever)
- Partners for Fish and Wildlife (USF&WS)
- Project Coordinator training workshops (SD DENR)
- Technical training (USDA NRCS)
- South Dakota Nonpoint Source Information and Education Project
- Dakota Water Watch volunteer lake monitoring program

4.4 Similar Actvities in Watersheds

This project will coincide with other EPA funded projects.

South Dakota Nonpoint Source Information and Education Project
Resources from this project, funded by a Section 319 grant to the South Dakota Discovery Center, will be used to enhance information and education efforts for this project. Anticipated uses of the projects assistance activities include training for volunteer lake monitors and water quality workshops for lake residents.

5.0 EVALUATION AND MONITORING PLAN

5.1 Quality Control and Assurance

Water quality sampling will be conducted in accordance with the EPA-approved "SOUTH DAKOTA NONPOINT SOURCE PROGRAM QUALITY ASSURANCE PROJECT PLAN" (QAPP), and the "STANDARD OPERATING PROCEDURES FOR FIELD SAMPLERS" (SOP), SD DENR, June, 2003. Water quality analysis will be completed RMB Laboratories of Detroit Lakes, MN, and the South Dakota State Health Laboratory located in Pierre, South Dakota.

5.2 Monitoring Strategy

Progress towards attaining the project goals by reaching the objectives through task completion will be monitored based on milestones. Progress will be reported in annual GRTS Reports; and semi-monthly and monthly reports to project sponsors and Advisory Council members. Local support and partner contributions will be tracked through records of landowner time and financial contributions, and through attendance records at annual tours, informational meetings, and Project Coordinator presentations and contacts.

In-lake sampling of several project water bodies will be undertaken to monitor water quality changes due to project implementation and to better understand how project lakes react to changes in watershed land-use. Lakes to be monitored include Blue Dog Lake, Clear Lake, Enemy Swim Lake, South Buffalo Lake, Pickerel Lake, South Red Iron Lake, and Roy Lake.

Water quality parameters, that will be monitored include:

Total Suspended Solids
Alkalinity
Ammonia - N
Total Kjeldahl - N
Total Phosphorus
Total Dissolved Phosphorus

Analysis will be completed at the State Health Lab located in Pierre, SD and/or RMB Laboratories Detroit Lakes, MN.

Water quality parameters, which will be monitored by the local sampler, include:

Dissolved Oxygen	Field pH	Water Temperature
Air Temperature	Field Observations	Seechi Depth

5.3 Data

The Project Sponsor will be responsible for collecting, storing, and managing data collected during implementation of this project. Data collected through in-lake water sampling will be forwarded to SD DENR in the appropriate format for entry into the STORET database.

5.4 Models

The effectiveness of BMPs installed and load reductions achieved relative to improvement in water quality will be evaluated using tools available from SD DENR and NRCS. The following reductions will be reported;

- Assessment of AFOs for loading (before and after). AnnAGNPS will be used.
- Sheet, rill, and gully erosion formulas for soil loss and transport. RUSLE 2 will be used.
- Step-L model for changes in loadings resulting from BMP installation.

The Project Sponsor will consult with SD DENR and NRCS for technical assistance and training on which models to use and how to properly use them.

6.0 BUDGET

Part 1 Funding page 29
Part 2 Funding page 30

7.0 PUBLIC INVOLVEMENT

The Advisory Council will meet yearly to provide guidance in the development of a project work plan, practice manual, and strategic plan for future project segments. Landowners and the public at-large will be informed through the projects web site, articles in existing agency newsletters, fact sheets, watershed tours, news releases to radio, television, and print media outlets, and local events like Farm, Home, and Sports Shows.

8.0 THREATENED AND ENDANGERED SPECIES

The U.S. Fish and Wildlife Service list the western prairie fringed orchid, whooping crane, piping plover, Dakota skipper, and Poweshiek skipperling as species that could potentially be found in the project area.

The procedures that will be followed to ensure the project will not adversely affect threatened and endangered species are based on the following premises:

The best management practices planned will promote the improvement of water quality which will benefit threatened and endangered species that depend on water. The occurrence of migratory endangered species is expected to be transitory, and if they are present project

activities will cease until they have left the area.

The precautions that will be taken with respect to threatened and endangered species that could potentially be found in the area are as follows.

8.1 Western Prairie Fringed Orchid

At this time, there are no documented populations of the western prairie fringed orchid in South Dakota. *Platanthera praeclara* grows up to four feet tall and has two dozen or more white to creamy colored, one-inch long flowers on a stalk. This species is distinguished from eastern prairie fringed orchids by larger flowers, differing petal shape, and longer nectar spur. The flowers emerge in May, bloom from June to July, and are pollinated by sphinx moths. Fringed orchids are found in tall grass prairies, most often in moist habitats or sedge meadows, and require direct sunlight for growth. They persist in areas disturbed by light grazing, burning, or mowing. Western prairie fringed orchids are known to have occurred historically from northeastern Oklahoma, north through Kansas, Missouri, Nebraska, Iowa, Minnesota, North and South Dakota. The greatest threat to the species is conversion of tall grass prairie to other land uses. If an orchid is observed at any project work site, all mechanical activities at the site will be suspended. Work will be altered or the plant(s) protected so no harm will come to it.

8.2 Whooping Crane

Whooping cranes are known to migrate through South Dakota. If a whooping crane(s) is observed at any project work site, all mechanical activities at the site will be suspended until the bird(s) leaves the site under its own volition. Spring and fall migrations of the species through the state occur during mid to late April and mid to late October.

8.3 Piping Plover

The piping plover is a small shorebird approximately seven inches long. It can be recognized by a single black neck band, a short, stout bill, pale breast and orange legs. The piping plover is listed as threatened on both the federal and South Dakota State threatened or endangered species lists. Piping plovers nest primarily on un-vegetated sandy islands on the Missouri River, however, the species has nested along lakeshores in northeast South Dakota. Project activities that disturb possible nesting sites or reduce food sources are not planned. If Piping plover(s) are observed near any project work site, all mechanical activities at the site will be suspended until the bird(s) leave the site under their own volition. If they remain a new site will be chosen. If any actions become necessary during the project that might impact piping plovers, the sponsor will contact SD DENR for approval to complete the action before proceeding.

8.4 Dakota Skipper

The Dakota skipper is a small non-descript butterfly found only on native tallgrass prairie remnants with a diverse mixture of native forbs and grasses. The Dakota skipper is listed as

threatened by the U.S. Fish and Wildlife Service. If any actions become necessary during the project that might impact Dakota skipper habitat, the sponsor will contact SD DENR for approval to complete the action before proceeding.

8.5 Poweshiek Skipperling

The Poweshiek Skipperling is a small non-descript butterfly found only on native tallgrass prairie remnants with a diverse mixture of native forbs and grasses. The Poweshiek Skipperling is listed as endangered by the U.S. Fish and Wildlife Service. If any actions become necessary during the project that might impact Dakota skipper habitat, the sponsor will contact SD DENR for approval to complete the action before proceeding

3.3 Milestone Table (Segment 4)	Quantity	Year 1-Segment 4				Year 2-Segment 4			
Objective 1. Plan and Implement Project Activities		**July-Sept**	**Oct-Dec**	**Jan-Mar**	**Apr-June**	**July-Sept**	**Oct-Dec**	**Jan-Mar**	**Apr-June**
Task 1: Develop Project Management Structure									
Product 1. Project Management Structure									
Advisory Council	2	**1**						**1**	
Memoranda of Understanding	3	**3**							
Objective 2: Protect and Restore Water Quality									
Task 1: Grazing Land Management									
Product 1. Grazing Management Improvements	4,000 ac.		**500**		**500**	**1000**	**2000**		
Task 2: Riparian Areas, Shorelines & Streambanks									
Product 2. Riparian Buffers									
Conservation Reserve Program	350 ac.		**25**	**50**	**50**	**50**	**75**	**100**	
EPA 319 RAM Program	200 ac.		**25**	**25**	**25**	**25**	**50**	**50**	
Product 3. Forage/Biomass Planting	400 ac.		**75**		**100**		**75**	**150**	
Product 4. Grassed Waterways									
EQIP - 5 acres	5 ac.		**2**				**3**		
EPA 319 - 5 acres	5 ac.		**2**				**3**		
Product 5. Shoreline/Streambank Stabilization									
Shoreline/Streambank Stabilization - EQIP	1,000 lf		**300**				**700**		
Shoreline/Streambank Stabilization - EPA 319	500 lf		**150**				**350**		
Stream Crossings - EQIP	10		**3**				**7**		
Stream Crossings - EPA 319	5		**2**				**3**		
Objective 3: Public Outreach									
Task 1: Develop Multimedia Program									
Product 1. Project Web Site	6,000	**750**	**750**	**750**	**750**	**750**	**750**	**750**	**750**
Product 2. News Releases									
News Articles	8	**4**		**2**		**2**			
Radio/Television Interviews	4	**2**		**1**		**1**			
Product 3. Direct Personal Contact									
Programs, Meetings, and Workshops	26	**6**		**5**	**2**	**6**		**5**	**2**
Objective 4: Monitor, Evaluate, & Report Progress									
Task 1: Water Quality Monitoring									
Product 1. Water Quality Data									
Comprehensive In-LakeWater Quality Samples	32	**10**			**6**	**10**			**6**
Dakota WaterWatch	10	**5**				**5**			
Task 2: Project Reports									
Product 2. Project Reports									
Annual GRTS	2			**1**				**1**	
Monthly/Semi-Monthly Progress/Financial Reports	36	**4**	**5**	**4**	**5**	**4**	**5**	**4**	**5**
Final Project Report	1								**1**

Part 1 – Funding Sources
Northeast Glacial Lakes Watershed Improvement and Protection Project – Segment 4

	Year 1	Year 2	TOTAL
EPA Section 319 Funds	$130,495.00	$179,305.00	**$309,800.00**
Other Federal Funds *	$28,450.00	$71,800.00	$100,250.00
Subtotal	**$158,945.00**	**$251,105.00**	***$410,050.00***
State and Local Match			
Cons. Commission	$34,800.00	$34,800.00	$69,600.00
Cons. Districts	$3,600.00	$3,600.00	$7,200.00
Local	$62,385.00	$127,025.00	$189,410.00
Subtotal	**$100,785.00**	**$165,425.00**	***$266,210.00***
Total Budget	**$259,730.00**	**$416,530.00**	***$676,260.00***

* Other Federal Funds may be utilized where possible, however no local match generated by these programs match project state and federal grant funds;

US Fish & Wildlife Service – Partners for Wildlife (non-matching local funds)

US Dept. of Agriculture
Natural Resources Conservation Service:
Environmental Quality Incentive Program (EQIP)
Wildlife Habitat Incentive Program (WHIP)
Wetland Reserve Program (WRP)
Wetland Reserve Enhancement Program (WREP)
Farm Service Agency:
Conservation Reserve Program (CRP/CCRP)

Part 2 Funding
Northeast Glacial Lake Watershed Improvement and Protection Project - Segment 4

Item	Year 1	Year 2	Total	319-EPA	Cons. Comm	NRCS	Local
Personnel Support							
Project Coordinator (1.0 FTE)							
Salary and Benefits	$ 42,000.00	$ 42,000.00	$ 84,000.00	$ 50,400.00	$ 33,600.00	$ -	$ -
Project Conservation Technician (1.0 FTE)							
Salary and Benefits	$ 41,000.00	$ 41,000.00	$ 82,000.00	$ 49,200.00	$ 32,800.00	$ -	$ -
Administrative Support	$ 7,000.00	$ 7,000.00	$ 14,000.00	$ 4,800.00	$ 3,200.00	$ -	$ 6,000.00
Travel	$ 4,000.00	$ 4,000.00	$ 8,000.00	$ 8,000.00	$ -	$ -	$ -
Subtotal	**$ 94,000.00**	**$ 94,000.00**	**$ 188,000.00**	**$ 112,400.00**	**$ 69,600.00**	**$ -**	**$ 6,000.00**
Objective 1. Project							
Task 1: Develop Project Management Structure							
Product 1. Project Management Structure							
(below product costs included in personnel and travel)	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Advisory Council	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Memoranda of Understanding - 3	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Subtotal	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
Objective 2: Implement BMPS to Reduce NonPoint Sources							
Task 1: Livestock Grazing BMPs							
Product 1. Grazing Management improvements							
4,000 acres improved (50%)	$ 20,000.00	$ 60,000.00	$ 80,000.00	$ -	$ -	$ 40,000.00	$ 40,000.00
Subtotal	**$ 20,000.00**	**$ 60,000.00**	**$ 80,000.00**	**$ -**	**$ -**	**$ 40,000.00**	**$ 40,000.00**
Task 2: Riparian Area BMPs							
Product 2. Riparian Buffers							
200 Acres RAM (75%)	$ 67,500.00	$ 112,500.00	$ 180,000.00	$ 135,000.00	$ -	$ -	$ 45,000.00
Subtotal	**$ 67,500.00**	**$ 112,500.00**	**$ 180,000.00**	**$ 135,000.00**	$ -	$ -	**$ 45,000.00**
Product 3. Forage/Biomass Plantings							
400 acres (60%)	$ 17,500.00	$ 22,500.00	$ 40,000.00	$ 24,000.00			$ 16,000.00
Subtotal	**$ 17,500.00**	**$ 22,500.00**	**$ 40,000.00**	**$ 24,000.00**	**$ -**	**$ -**	**$ 16,000.00**
Product 4. Grassed Waterways							
5 acres EPA 319 (60%)	$ 3,000.00	$ 4,500.00	$ 7,500.00	$ 4,500.00	$ -	$ -	$ 3,000.00
5 acres EQIP (50%)	$ 3,000.00	$ 4,500.00	$ 7,500.00	$ -	$ -	$ 3,750.00	$ 3,750.00
Subtotal	**$ 6,000.00**	**$ 9,000.00**	**$ 15,000.00**	**$ 4,500.00**	$ -	**$ 3,750.00**	**$ 6,750.00**
Product 5. Shoreline/Streambank Stabilization							
Streambank/Shoreline Stabilization - 500 LF (60%)	$ 10,950.00	$ 25,550.00	$ 36,500.00	$ 21,900.00	$ -	$ -	$ 14,600.00
Stream Crossings - 5 (60%)	$ 8,000.00	$ 12,000.00	$ 20,000.00	$ 12,000.00	$ -	$ -	$ 8,000.00
Streambank/Shoreline Stabilization - 1,000 LF (50%)	$ 21,900.00	$ 51,100.00	$ 73,000.00	$ -	$ -	$ 36,500.00	$ 36,500.00
Stream Crossings - 10 (50%)	$ 12,000.00	$ 28,000.00	$ 40,000.00	$ -	$ -	$ 20,000.00	$ 20,000.00
Subtotal	**$ 52,850.00**	**$ 116,650.00**	**$ 169,500.00**	**$ 33,900.00**	**$ -**	**$ 56,500.00**	**$ 79,100.00**

Item	Year 1	Year 2	Total	319-EPA	Cons. Comm	NRCS	Local
Objective 3: Public Outeach							
Task 1: Develop Multimedia Program							
Product 1. Project Web Site							
Web Site 6,000 Hits (cost included in personnel)	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Product 2. News Releases							
News Articles (cost included in personnel)	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Radio/Television Interviews (cost included in personnel)	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Product 3. Direct Personal Contact							
Workshops, Booths, and Programs	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Subtotal	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
Objective 4: Monitor, Evaluate,and Report Progress							
Task 1: Water Quality Monitoring							
Product 1. Water Quality Data							
In-Lake Water Quality Sample Sets - 32 sample sets	$ 1,280.00	$ 1,280.00	$ 2,560.00	$ -	$ -	$ -	$ 2,560.00
Boat/Storage/Sampling Equipment	$ 600.00	$ 600.00	$ 1,200.00	$ -	$ -	$ -	$ 1,200.00
Subtotal	**$ 1,880.00**	**$ 1,880.00**	**$ 3,760.00**	**$ -**	**$ -**	**$ -**	**$ 3,760.00**
Task 2: Report Progess							
Product 1. Project Reports							
Annual GRTS (cost included in personnel)	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Semi-monthly/monthly (cost included in personnel)	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Final Project Report (cost included in personnel)	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Project Cost	**$ 259,730.00**	**$ 416,530.00**	**$ 676,260.00**	**$ 309,800.00**	**$ 69,600.00**	**$ 100,250.00**	**$ 196,610.00**